Section F Contents

F

Staticide™

General Purpose Staticide® Outperforms! For Non-Porous Surfaces

Staticide is non-toxic, nonflammable, non-staining, completely biodegradable and safe to use. It's the key component in any total environmental static control program.

When properly applied, Staticide complies with or exceeds all electrostatic decay criteria established for antistatic performance as set forth by NFPA and MIL B-81705B, when tested in accordance with Federal Test Standard 101B Method 4046.

Solves static-related problems such as:

- The attraction of dirt, dust and bacteria to all environmental surfaces, products and product packaging
- Charge generation on surfaces of tote boxes and carriers used to process and store electronic components
- Damage or destruction of sensitive electronic components and subassemblies during their manufacture, shipping or receiving
- Data processing "glitches"... memory loss, data errors, paper jams

General Purpose Staticide is packaged in ready-to-use quart bottles with trigger sprayers or in easy-to-pour gallon containers.

Please call DME for available in bulk quantities.

Staticide®
Specialists in Static Control

General Purpose Staticide Quarts w/ Sprayer
Part Number
ACL2003
General Purpose Staticide Gallons
Part Number
ACL2001

STATICIDE

Static Charge Measuring Device

Measures Static Charge Instantly, Reliably and Economically!

- Measures static charges from zero to 30,000 volts
- Convenient pocket size
- Designed for close-in repetitive readings
- Uses standard 9 volt battery
- Battery test feature
- Low drift
- Repeatability ± 1%, accuracy ± 10%
- One-year warranty on parts and labor

Features a unique "quick zero" function which instantly rezeroes the instrument and provides ground compensation for the user. Size: 4–3⁄8" × 2–5⁄8" × I–5⁄16".

Static Charge Measuring Device - Part Number ACL300B
Protective Carrying Case - Part Number ACLCS13

STATIC CHARGE MEASURING DEVICE

Digital Static Charge Meter

ESD Digital Static Meter

Industrial Digital Electrostatic Meter

Accurate, sensitive and responsive, the Model 7905 Digital Static Charge Meter allows easy one-hand static measurements. It indicates the surface voltage and polarity on objects up to ±20 kV at a spacing of one inch (25mm). The Digital Static Meter features a push button "hold" for readings and automatic "power off."

Designed for use by industrial, maintenance, electrical and other field personnel, the 7905 has a rugged, hard shell plastic case and a compact design. With low drift and trouble-free operation, maintenance consists of periodic replacement of its 9 volt battery.

The 7905's digital readout instantly indicates the magnitude and polarity of any static charge. It's easy to locate and monitor potential trouble spots, position static elimination equipment, and evaluate the effectiveness of existing systems.

Part Number #7905 (unit includes rugged hard shell carrying case and battery)

Specifications

Range: 0 to ± 20 kV at 1"

Distance: The meter reads true at 1" from thick the test surface

Accuracy: ± 10% of full scale (113 grams)

Power: (1) 9 volt battery (Eveready 216)

Size: 4.14" (10.6cm) long, 2.4" (6.1cm) wide, 1" (2.5cm)

Color: black

Weight: Approximately 1/4 pound

DIGITAL STATIC CHARGE METER

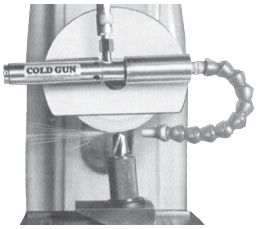
Cold Air Gun

F

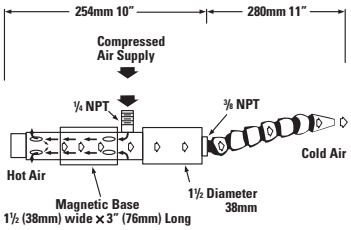
Replace messy mist systems - improve dry machining with clean, cold air! Clean, cold air at 50°F below supply air temperature, with no moving parts!

Features
- Low cost
- Compact
- No moving parts
- Maintenance-free
- Quiet
- Magnetic base

Use For
- Cooling parts
- Cooling core pins
- Setting hot melts
- Minimize heat sinks
- Stop drooling or freeze-off a nozzle



COLD AIR GUN



How the Cold Gun Works:

The Cold Gun Air Coolant System incorporates a vortex tube to convert an ordinary supply of compressed air into two low pressure streams: one hot and one cold. The hot air stream is muffled and discharged through the hot air exhaust. The cold air is muffled and discharged through the flexible hose, which directs it to the point of use. The magnetic base provide easy mounting and portability.

Ordering Information

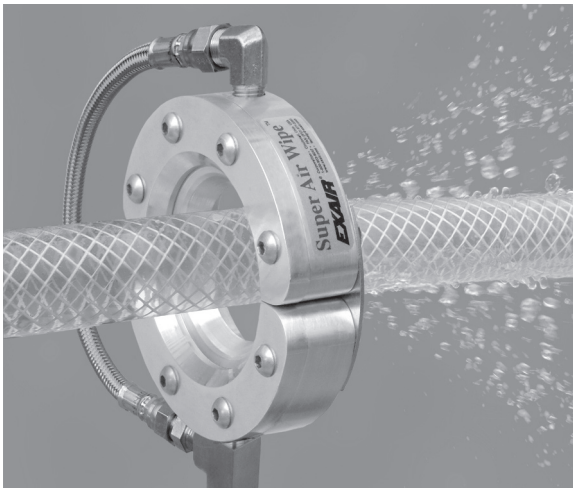
Cold Gun Kits include: Cold Gun with magnetic base, pneumatic filter with manual drain, single or double point flexible hose kit.

CG5215 Single Point Cold Gun Kit

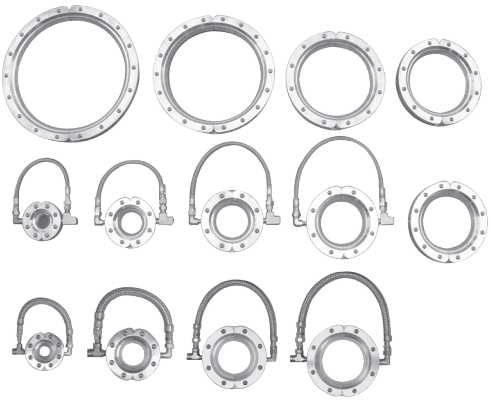
Super Air Wipes

Blow off, dry, clean and cool pipe, cable, extruded shapes and hose!
Split design requires no threading!

EXAIR's Super Air Wipe provides a uniform 360° airstream that is ideal for blowoff, drying, cleaning and cooling of pipe, cable, extruded shapes, hose and more. The split design offers easy clamping around the surface of the material moving through it, eliminating the need for threading. All models include stainless steel screws and shims. Stainless steel wire braided hose is also included on sizes up to 4" (102mm) for added corrosion and heat resistance. Aluminum models are rated for temperatures up to 400°F (204°C) and stainless steel models for temperatures up to 800°F (427°C).



SUPER AIR WIPES



Air Wipe Performance

80 PSIG (5.5 BAR)	Air Consumption		Sound Level @ 3' (.91m)
Model	SCFM	SLPM	dBA
2401, 2401SS	19.1	541	76
2402, 2402SS	29.5	835	77
2403, 2403SS	39.8	1127	79
2404, 2404SS	50.2	1422	81
2405	60.6	1716	82
2406	71.0	2010	84
2407	81.3	2302	85
2409	102.1	2891	87
2411	122.8	3477	89

Advantages

- Quiet
- Low air consumption
- Uniform airflow across the entire diameter
- Stainless steel hardware resists corrosion
- Aluminum models for temperatures up to 400°F (204°C); stainless steel models for temperatures to 800°F (427°C)
- Stainless steel hose supplied on sizes up to 4" (102mm)
- No electricity, no moving parts
- Non-contact - no wiper blade
- Split design - compact, rugged, easy to install
- Lightweight, low profile
- Tapped holes for mounting
- Variable force and flow
- Meets OSHA maximum dead-end pressure and noise requirements

The Aluminum Super Air Wipe is available in 9 sizes from stock. The Stainless Steel Super Air Wipe is available in 4 sizes from stock. Other sizes are available by special order.

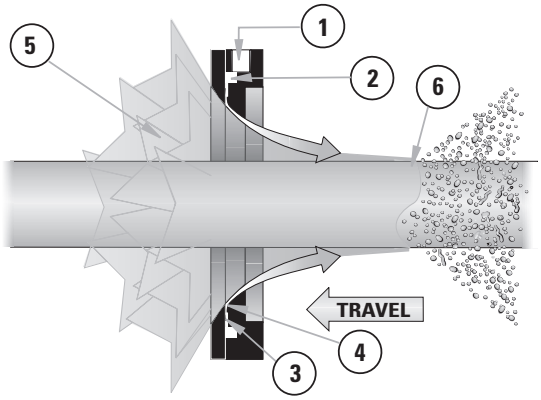
Applications

- Drying after wash, cleaning, plating or coating
- Blow off dust and contaminants
- Cool hot extruded shapes
- Uniformly wipe surfaces
- Eliminate solution carryover - no cross contamination
- Remove excess coatings, water and oil
- Minimize solution loss due to drag-out
- Dry screen printed and ink jet surfaces
- Ideal for pipe, cable, extrusions, wire, rod and hose

SUPER AIR WIPES

How The Air Wipe Works

Compressed air flows through an inlet (1) of the Air Wipe into an annular chamber (2). It is then throttled through a small ring nozzle (3) at high velocity. This primary airstream adheres to the Coanda effect (4), which directs it down the angled surface of the Air Wipe. A low pressure area is created at the center (5) inducing a high volume flow of surrounding air into the primary airstream. As the airflow leaves the Air Wipe, it creates a conical 360° ring of air that attaches itself to the surface of the material running through it (6), uniformly wiping the entire surface with the high velocity airflow.



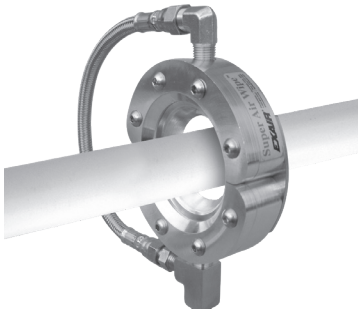
Super Air Wipe Systems

Super Air Wipe	
Model Number	**Description**
2401	1″ (25mm)
2402	2″ (51mm)
2403	3″ (76mm)
2404	4″ (102mm)
2405	5″ (127mm)
2406	6″ (152mm)
2407	7″ (178mm)
2409	9″ (229mm)
2411	11″ (279mm)

Super Air Wipe Kit	
Kit includes Super Air Wipe, filter separator, pressure regulator and shim set	
Model Number	**Description**
2451	1″ (25mm)
2452	2″ (51mm)
2453	3″ (76mm)
2454	4″ (102mm)
2455	5″ (127mm)
2456	6″ (152mm)
2457	7″ (178mm)
2459	9″ (229mm)
2461	11″ (279mm)

Super Air Wipe Is Easy To Use

There is a ¼" NPT female inlet on each half of the Super Air Wipe on sizes up to 7″ (178mm). Larger sizes include two ¼" NPT female inlets on each half in order to maintain proper air volume and performance. Aluminum Super Air Wipes up to 4″ (102mm) include a brass tee that supplies one half directly and a stainless steel wire braided coupling hose rated at 400°F (204°C) to supply the other half. Stainless steel Super Air Wipes up to 4″ (102mm) include a stainless steel tee and a stainless steel wire braided coupling hose rated at 800°F (427°C). Larger sizes should be piped directly.



The Model 2402 2″ (51mm) Super Air Wipe cools PVC pipe as it is ejected from an extruder.

Stainless Steel Super Air Wipe	
Model Number	**Description**
2401SS	1″ (25mm)
2402SS	2″ (51mm)
2403SS	3″ (76mm)
2404SS	4″ (102mm)

Stainless Steel Super Air Wipe Kit	
Kit includes Super Air Wipe, filter separator, pressure regulator and shim set	
Model Number	**Description**
2451SS	1″ (25mm)
2452SS	2″ (51mm)
2453SS	3″ (76mm)
2454SS	4″ (102mm)

Super Air Wipe Shim Set	
Shim Sets include (2) .002″ (.05mm) thick stainless steel shim	
Model Number	**Description**
2351SS	1″ (25mm)
2352SS	2″ (51mm)
2353SS	3″ (76mm)
2354SS	4″ (102mm)
2355SS	5″ (127mm)
2356SS	6″ (152mm)
2357SS	7″ (178mm)
2359SS	9″ (229mm)
2361SS	11″ (279mm)

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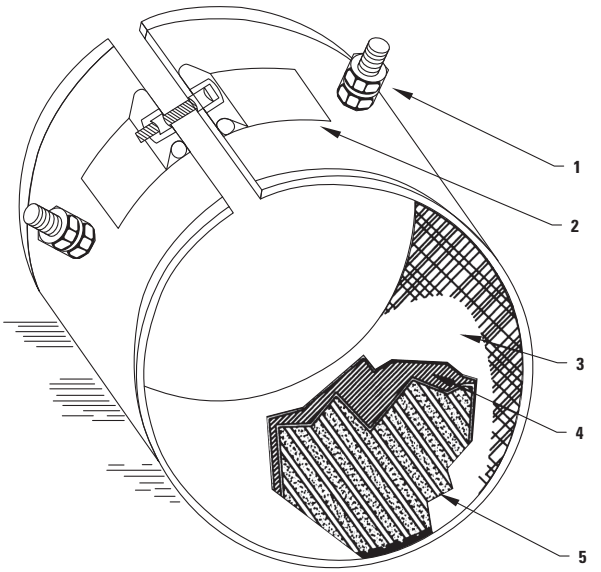
Mica Insulated Heater Band

Time-tested materials & manufacturing techniques make this heater a proven, economical, reliable performer.
In applications where a flat surface requires uniform heating, this heater has no equal.



MICA HEATER BAND

Material List

1) Stainless steel post terminals are supplied with nuts and washers. Connections are attached to the oversized terminal head for superior electrical contact. Many other terminations and leads available.
2) Stainless steel welded on clamps have precision drilled and tapped barrel nuts and are supplied with high torque 10–32 socket head cap screws. These are used for firm clamping and excellent heat transfer.
3) The two-piece sheath is composed of a rust-resistant, matte finish, zinc-coated bottom plate and galvanized top plate. This construction provides excellent heat emissivity and corrosion resistance.
4) Mica provides complete electrical insulation of the heater case from the steel case, while providing maximum heat transfer.
5) Flat nickel-alloy ribbon wire provides the highest heating area possible. Each heater is engineered for wire size and pitch to provide the highest efficiency, while minimizing winding temperature.

Maximum Recommended Watts

When heating objects to higher temperatures, lower watt density heater bands should be used. This will help to prevent overheating and provide a longer heater band life.

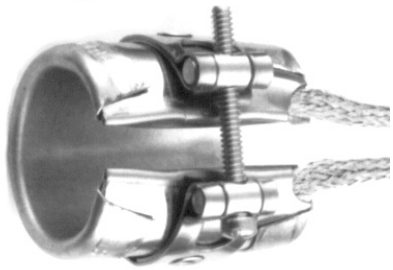
Watt density is the total wattage of the heater band divided by the heated surface area of the heater band. Use this table below to help determine the recommended watt density for the application. Lower watt densities can be achieved by operating a 240 volt heater band on 120 volts. In doing this the wattage and watt density are derated by a factor of 4.

- One piece and 2-piece bands
- Fiberglass leads, stainless leads and post terminals
- 120 and 240 volt styles
- Uniform heat, high watt density
- Many wattage options
- High-quality sheet mica construction
- Many sizes in stock ready to ship
- Custom bands available in rush and standard delivery option

Operating Temp.	Maximum Recommended Watts Per Sq. In.
300°F (149°C)	40
400°F (204°C)	30
500°F (260°C)	21
600°F (316°C)	12
700°F (371°C)	10
800°F (427°C)	10
900°F (482°C)	10

Metric Heater Bands

- Low cost, quality bands
- For other sizes, please see Standard Mica Heater Band pages that follow
- 12" stainless steel leads



METRIC HEATER BAND

Metric (mm)		U.S. (in)		Volts	Watts	Part Number
Dia.	Width	Dia.	Width			
25	25	.984	.984	240	85	**MHB2525-85**
25	35	.984	1.378	240	125	**MHB2535-125**
30	30	1.181	1.181	240	135	**MHB3030-135**
30	38	1.181	1.496	240	185	**MHB3038-185**
32	25	1.260	.984	240	115	**MHB3225-115**
32	30	1.260	1.181	240	145	**MHB3230-145**
32	38	1.260	1.496	240	195	**MHB3238-195**
32	50	1.260	1.969	240	250	**MHB3250-250**
35	20	1.378	.787	240	95	**MHB3520-95**
35	25	1.378	.984	240	125	**MHB3525-125**
35	30	1.378	1.181	240	155	**MHB3530-155**
35	35	1.378	1.378	240	180	**MHB3535-180**
35	38	1.378	1.496	240	210	**MHB3538-210**
35	50	1.378	1.969	240	265	**MHB3550-265**
38	30	1.496	1.181	240	170	**MHB3830-170**
38	35	1.496	1.378	240	200	**MHB3835-200**
38	50	1.496	1.969	240	300	**MHB3850-300**
40	25	1.575	.984	240	160	**MHB4025-160**
40	30	1.575	1.181	240	200	**MHB4030-200**
40	38	1.575	1.496	240	270	**MHB4038-270**
40	50	1.575	1.969	240	345	**MHB4050-345**

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Heat Transfer Compound

HEAT TRANSFER COMPOUND

- Transfers heat away from electronic devices
- High thermal conductivity
- Temperature range to 400°F

Highly effective when used with rectifiers, ignition control modules, voltage regulators and other heat generating electronic devices.

Part Number 49643 - 5 oz. tube

Nozzle Bands

- Low cost, quality bands
- For other sizes, please see Standard Mica Heater Band pages that follow

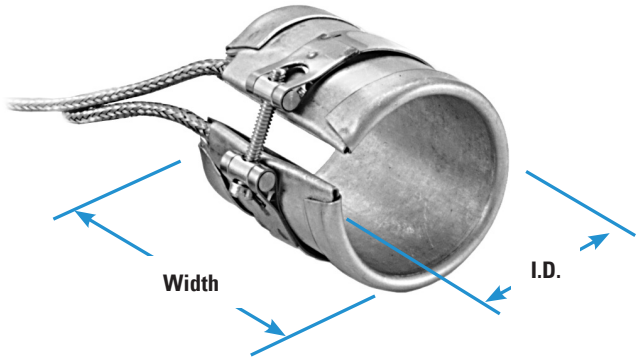
Inside Diameter	Width	Volts	Watts	Part Number	Reference Number	Lead Type*
1″ Diameter	1"	120	100	**HB1-101012-100**	BN1010A1	FG
	1"	240	100	**HB1-101024-100**	BN1010A2	FG
	1"	120	125	**HB1-101012-125S**	–	SS
	1"	240	125	**HB1-101024-125S**	–	SS
	1"	120	125	**HB1-101012-125**	–	FG
	1"	240	125	**HB1-101024-125**	–	FG
	1½"	120	150	**HB1-101512-150**	–	FG
	1½"	240	150	**HB1-101524-150**	BN1015A2	FG
	2"	120	200	**HB1-102012-200**	BN1020A1	FG
	2"	240	200	**HB1-102024-200**	BN1020A2	FG
	3"	120	300	**HB1-103012-300**	BN1030A1	FG
	3"	240	300	**HB1-103024-300**	BN1030A2	FG
1½″ Diameter	1"	120	150	**HB1-151012-150**	BN1510A1	FG
	1"	240	150	**HB1-151024-150**	BN1510A2	FG
	1½"	120	275	**HB1-151512-275**	–	FG
	1½"	240	275	**HB1-151524-275**	–	FG
	1½"	120	275	**HB1-151512-275S**	–	SS
	1½"	240	275	**HB1-151524-275S**	–	SS
	2"	120	300	**HB1-152012-300**	BN1520A1	FG
	2"	240	300	**HB1-152024-300**	BN1520A2	FG
	2"	120	300	**HB1-152012-300S**	BN1520B1	SS
	2"	240	300	**HB1-152024-300S**	BN1520B2	SS
	3"	120	450	**HB1-153012-450**	BN1530A1	FG
	3"	240	450	**HB1-153024-450**	BN1530A2	FG
	4"	120	550	**HB1-154012-550**	–	FG
	4"	240	550	**HB1-154024-550**	–	FG
	5"	120	700	**HB1-155012-700**	–	FG
	5"	240	700	**HB1-155024-700**	–	FG
1¾″ Dia.	1½"	120	250	**HB1-1751512-250**	BN1715A1	FG
	1½"	240	250	**HB1-1751524-250**	BN1715A2	FG
2″ Dia.	1"	120	200	**HB1-201012-200**	BN2010A1	FG
	1"	240	200	**HB1-201024-200**	BN2010A2	FG

NOZZLE BANDS

***12″ lead lengths standard**
FG = fiberglass
SS = stainless steel

All Nozzle Bands Include 12" Stainless Steel Braided Leads!!!

Inside Diameter	Width	Watts	Volts	Part Number
¾"	1"	100	240	**B029586**
1"	1½"	150	240	**B016886**
	1½"	200	240	**B028956**
	2"	200	240	**B020010**
	2"	150	120	**B031793**
	3"	300	240	**B029537**
1¼"	1"	150	240	**B028271**
	1½"	200	240	**B028272**
	2"	250	240	**B029837**
1½"	1"	150	240	**B017022**
	1¼"	250	240	**B034406**
	2"	350	240	**B011941**
	2"	350	120	**B030459**
	2"	400	240	**B033555**
	2½"	300	240	**B029521**
	4"	500	240	**B012933**
1⅝"	1½"	300	240	**B034363**
1¾"	1"	200	240	**B013847**
	1½"	250	240	**B029274**
	1½"	300	240	**B034459**
	2"	300	240	**B029541**
	2"	300	120	**B033605**
	3"	450	240	**B031023**
1⅞"	2"	350	240	**B030666**
2"	1"	200	240	**B029542**
	1½"	325	240	**B029050**
	1½"	325	120	**B018274**
	2"	350	240	**B030113**
	2"	350	120	**B030885**
	2"	400	240	**B035725**
2½"	1"	150	240	**B037454**
	1½"	300	240	**B035329**
	1½"	420	120	**B042475**



NOZZLE BANDS

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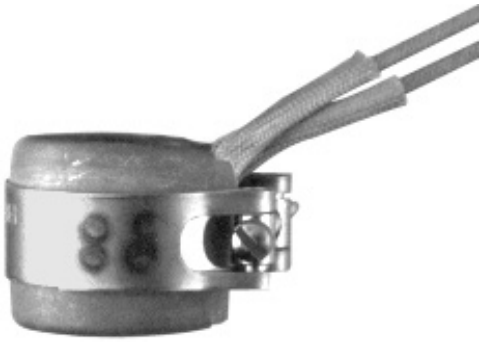
Standard Mica Heater Bands

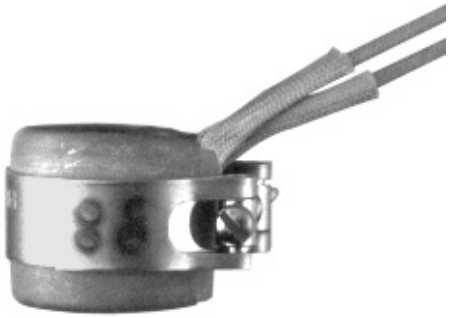
- High-quality sheet mica construction
- Uniform heat, high watt density
- 12″ high temperature leads with protective sleeves are standard



STANDARD MICA HEATER BANDS

I.D. × Width	Volts	Watts	12″ Flexible Leads Unless Noted	Part Number
¾ × 1	120	75		**SHB121612-75**
	240	75		**SHB121624-75**
¾ × 1½	240	100		**SHB122424-100**
⅞ × 1	120	80		**SHB141612-80**
	240	80		**SHB141624-80**
⅞ × 1¼	120	90		**SHB142012-90**
	240	90		**SHB142024-90**
⅞ × 1½	120	100		**SHB142412-100**
	240	100		**SHB142424-100**
1 × 1	120	100		**HB1-101012-100**
	240	100		**HB1-101024-100**
	120	100	10″ Stainless	**SHB161612-100S**
	240	100	10″ Stainless	**SHB161624-100S**
	120	125	10″ Stainless	**HB1-101012-125S**
	240	125	10″ Stainless	**HB1-101024-125S**
	120	125		**HB1-101012-125**
	240	125		**HB1-101024-125**
1 × 1½	120	150		**HB1-101512-150**
	240	150		**HB1-101524-150**
1 × 2	120	200		**HB1-102012-200**
	240	200		**HB1-102024-200**
1 × 2½	120	250		**SHB164012-250**
	240	250		**SHB164024-250**
	240	250	34″ Stainless	**SHB164024-250S**
1 × 3	120	300		**HB1-103012-300**
	240	300		**HB1-103024-300**
1 × 4	120	400		**SHB166412-400**
	240	400		**SHB166424-400**
1 × 5	120	500		**SHB168012-500**
	240	500		**SHB168024-500**

I.D. × Width	Volts	Watts	12″ Flexible Leads Unless Noted	Part Number
1¼ × ⅝	120	100	10″ Stainless	**SHB201012-100S**
1¼ × 1	120	125		**SHB201612-125**
	240	125		**SHB201624-125**
1¼ × 1½	120	200		**SHB202412-200**
	240	200		**SHB202424-200**
1¼ × 1¾	240	275		**SHB202824-275**
1¼ × 2	120	250		**SHB203212-250**
	240	250		**SHB203224-250**
1¼ × 3	120	400		**SHB204812-400**
	240	400		**SHB204824-400**
1¼ × 3½	240	300		**SHB205624-300**
1⅜ × 1	120	150		**SHB221612-150**
	240	150		**SHB221624-150**
1⅜ × 1½	120	200		**SHB222012-200**
	240	200		**SHB222024-200**
1⅜ × 2	120	275		**SHB223212-275**
	240	275		**SHB223224-275**
1⅜ × 3½	240	250		**SHB225624-250**
1½ × ½	120	100		**SHB240812-100**
	240	100		**SHB240824-100**
1½ × ⅝	120	100		**SHB241012-100**
	240	100		**SHB241024-100**
1½ × ¾	120	100		**SHB241212-100**
	240	100		**SHB241224-150**
1½ × 1	120	150		**HB1-151012-150**
	240	150		**HB1-151024-150**
	120/240	150		**SHB24161224-150**
1½ × 1½	230	200		**SHB242423-200**
	240	200	24″ SS Braid	**B041830**
	240	250	24″ Leads	**B021993**
	240	250		**SHB242424-250**
	120	275		**HB1-151512-275**
	240	275		**HB1-151524-275**
	240	275	24″ SS Braid	**B017026**
	240	275	34″ Leads	**SHB242424-275-34**
	480	275	12″ SS Braid	**B038203**
	120/240	275		**SHB24241224275**
	120	275	34″ Leads	**SHB242412275-34**
	240	275	34″ Leads	**SHB242424-275-34**

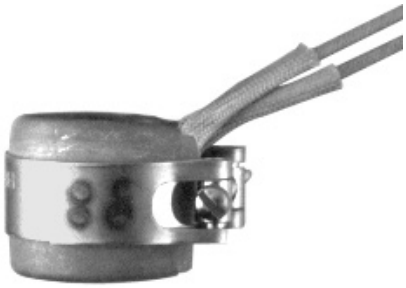


STANDARD MICA HEATER BANDS

F

Standard Mica Heater Bands

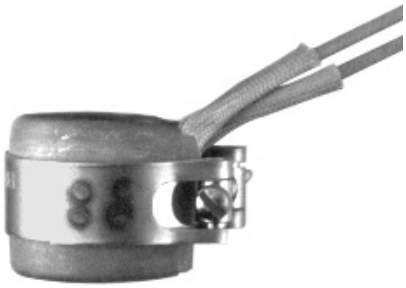
I.D. × Width	Volts	Watts	12″ Flexible Leads Unless Noted	Part Number
1½ × 1½	120	275	10″ Stainless	**HB1-151512-275S**
	240	275	10″ Stainless	**HB1-151524-275S**
	120	275	Post	**SHB242412-275P**
	240	275	Post	**SHB242424-275P**
	120	275	With TC Hole	**SHB242412275TC**
	240	275	With TC Hole	**SHB242424275TC**
	230	275	Type A 54″	**50387B**
	240	300	10″ Stainless	**SHB242424-300S**
1½ × 1¾	120	285		**SHB242812-285**
	240	285		**SHB242824-285**
1½ × 2	120	300		**HB1-152012-300**
	240	300		**HB1-152024-300**
	120	300	10″ Stainless	**HB1-152012-300S**
	240	300	10″ Stainless	**HB1-152024-300S**
1½ × 2½	120	400		**SHB244012-400**
	240	400		**SHB244024-400**
	240	400	34″ Stainless	**SHB244024-400S**
1½ × 3	120	450	10″ Stainless	**SHB244812-450S**
	240	450	10″ Stainless	**SHB244824-450S**
	120	450		**HB1-153012-450**
	240	450		**HB1-153024-450**
	120/240	450	12″ Stainless	**SHB244824-450S**
1½ × 3½	120	525		**SHB245612-525**
	240	525		**SHB245624-525**
1½ × 4	120	550		**HB1-154012-550**
	240	550		**HB1-154024-550**
	120/240	550		**SHB24641224550**
1½ × 5	120	700		**HB1-155012-700**
	240	700		**HB1-155024-700**
	240	700	12″ SS Braid	**B044624**
1½ × 6	240	700	24″ SS Braid	**B027067**
	240	850		**SHB249624-850**
1½ × 7	240	800	24″ SS Braid	**B027068**
1⅝ × 3	240	300	12″ SS Braid	**B036062**
1¾ × 1	120	175		**SHB281612-175**
	240	175		**SHB281624-175**



STANDARD MICA HEATER BANDS

Standard Mica Heater Bands

I.D. × Width	Volts	Watts	12″ Flexible Leads Unless Noted	Part Number
1¾ × 1½	120	250		**HB1-1751512-250**
	240	250		**HB1-1751524-250**
1¾ × 1¾	240	350	24″ SS Braid	**B038843**
1¾ × 2	120	350		**SHB283212-350**
	240	350		**SHB283224-350**
1¾ × 2½	120	450		**SHB284012-450**
	240	450		**SHB284024-450**
1¾ × 3	120	500		**SHB284812-500**
	240	500		**SHB284824-500**
1¾ × 3½	120	500		**SHB285612-500**
	240	500		**SHB285624-500**
1¾ × 4	120	700		**SHB286412-700**
	240	700		**SHB286424-700**
1¾ × 5	240	900	34″ Stainless	**SHB288024-750S**
	120	900		**SHB288012-900**
	240	900		**SHB288024-900**
1¾ × 6	120	1000		**SHB289612-1000**
	240	1000		**SHB289624-1000**
1⅞ × 1	120	300	Post	**SHB301612-300P**
	240	300	Post	**SHB301624-300P**
2 × 1	120	200		**HB1-201012-200**
	240	200		**HB1-201024-200**
2 × 1⅜	240	300		**SHB322224-300**
2 × 1½	120	300		**SHB322412-300**
	240	300		**SHB322424-300**
	120/240	300		**SHB32241224300**
2 × 2	120	400		**SHB323212-400**
	240	400		**SHB323224-400**
2 × 2½	120	500		**SHB324012-500**
	240	500		**SHB324024-500**
2 × 3	120	600		**SHB324812-600**
	240	600		**SHB324824-600**
	240	675	12″ SS Braid	**B039887**
2 × 4	120	800		**SHB326412-800**
	240	800		**SHB326424-800**
2 × 5	120	900		**SHB328012-900**
	240	900		**SHB328024-900**
2 × 6	120	1200		**SHB329612-1200**
	240	1200		**SHB329624-1200**
2⅛ × 1	120	225		**SHB341612-225**
	240	225		**SHB341624-225**
2⅛ × 1½	120	300		**SHB342412-300**
	240	300		**SHB342424-300**
2⅛ × 2	120	400		**SHB343212-400**
	240	400		**SHB343224-400**



STANDARD MICA HEATER BANDS

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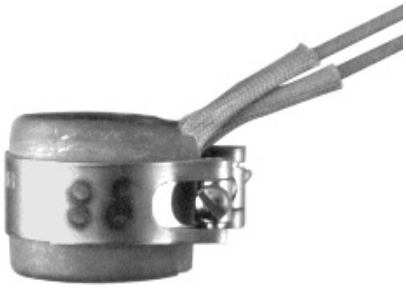
Standard Mica Heater Bands

I.D. × Width	Volts	Watts	12″ Flexible Leads Unless Noted	Part Number
2⅛ × 3	120	600		**SHB344812-600**
	240	600		**SHB344824-600**
2¼ × 1	120	225		**SHB361612-225**
	240	225		**SHB361624-225**
2¼ × 1½	120	350		**SHB362412-350**
	240	350		**SHB362424-350**
	240	500	24″ SS Braid	**B019091**
2¼ × 2	120	450		**SHB363212-450**
	240	450		**SHB363224-450**
2¼ × 2½	240	600	Post	**SHB364024-600P**
	120	600		**SHB364012-600**
	240	600		**SHB364024-600**
2¼ × 3	120	700		**SHB364812-700**
	240	700		**SHB364824-700**
2⅜ × 1	120	150		**SHB381612-250**
	240	250	Post	**SHB381624-250**
	240	250	Post	**36210B***
	460	250	Post	**47937B***
2⅜ × 1½	120	400		**SHB382412-400**
	240	400		**SHB382424-400**
2⁷⁄₁₆ × 1	230	250	72″ Leads	**66270B***
2½ × 1	120	300		**SHB401612-300**
	240	300		**SHB401624-300**
	120	300	Post	**SHB401612-300P**
	240	300	Post	**SHB401624-300P**
2½ × 1½	120	350		**SHB402412-350**
	240	350		**SHB402424-350**
2½ × 1¾	240	500		**SHB402824-500**
2½ × 2	240	350	24″ SS Braid	**B017045**
	120	500		**SHB403212-500**
	240	500		**SHB403224-500**
2½ × 2⅜	120	550	Post	**SHB403812-550P**
	240	550	Post	**SHB403824-550P**
	120	650	Post	**SHB403812-650P**
	240	650	Post	**SHB403824-650P**
3 × 1	240	300	24″ SS Braid	**B022530**
2½ × 3	120	700		**SHB404812-700**
	240	700		**SHB404824-700**
2½ × 4	240	850	Post	**SHB406424-850P**
2½ × 5	240	1150	Post	**SHB408024-1150P**
	230	900	Post	**45982B***
2¾ × 1½	120	400		**SHB442412-400**
	240	400		**SHB442424-400**

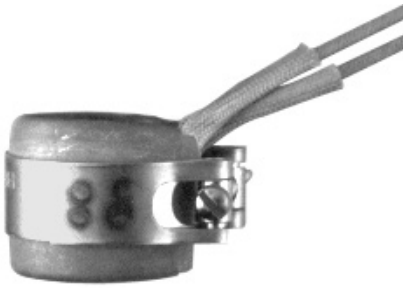


STANDARD MICA HEATER BANDS

*Equal to Van Dorn O.E.M. heater band. Full listing by Van Dorn part number follows these bands.
**270° coverage, post terminals, padded strap, stainless sheath, high temp. construction. For 2 piece bands, total wattage & voltage are shown.

Standard Mica Heater Bands

I.D. × Width	Volts	Watts	12″ Flexible Leads Unless Noted	Part Number
3 × 1	120	300		**SHB481612-300**
	240	300		**SHB481624-300**
	230	400	Post	**12393B***
	460	400	2 pc/Post Terms	**51191B***
	460	400		**66301B***
	230	400		**66302B***
3 × 1½	120	500		**SHB482412-500**
	220	400	Post	**36211B***
	240	500		**SHB482424-500**
	240	500	12″ SS Braid	**B030030**
3 × 2	120	600		**SHB483212-600**
	240	600		**SHB483224-600**
	240	600	12″ SS Braid	**B030114**
3 × 3	120	900		**SHB484812-900**
	240	900		**SHB484824-900**
3⅛ × 1	240	400		**SHB501624-400**
3⅛ × 1½	240	500		**SHB502424-500**
3¼ × 1	120	350		**SHB521612-350**
3½ × 1	120	350		**SHB561612-350**
	240	400	24″ SS Braid	**B014594**
3½ × 1½	240	500	12″ SS Braid	**B027889**
	240	500	Post	**SHB562424-500P**
3½ × 2	240	650	Post	**SHB563224-650P**
3⅝ × 1½	230	625	Post	**64890B*- Ceramic**
	240	625	Post	**40978B***
	240	650	Post	**SHB602424-650P**
4 × 1	240	400	12″ SS Braid	**B039990**
	240	400	24″ SS Braid	**B018999**
	240	625	Post	**SHB641624-625P**
	240	625	Post	**32138B***
4 × 1½	240	625	Post	**SHB642424-625P**
	220	625	Post	**25148B***
	230	400	Post	**41989B***
	230	625	18″ Leads	**303137B***
	460	625	18″ Leads	**66258B***
	230	625	Post	**66952B*-**
	230	725	Post	**307225B***
4 × 2	240	650	12″ SS Braid	**B038061**
	240	800	12″ SS Braid	**B037691**
	240	800	Post	**SHB643224-800P**
	460	460	2 pc/**see below	**78540B***
	460	1100	Post	**307660B***
	230	1250		**67736B*- (Ceramic)**



STANDARD MICA HEATER BANDS

*Equal to Van Dorn O.E.M. heater band. Full listing by Van Dorn part number follows these bands.
**270° coverage, post terminals, padded strap, stainless sheath, high temp. construction. For 2-piece bands, total wattage & voltage are shown.

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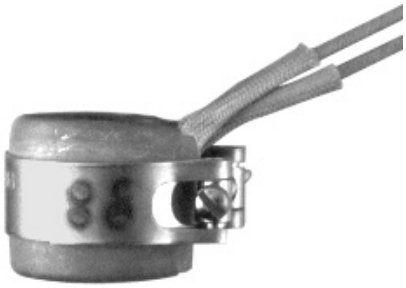
Standard Mica Heater Bands

I.D. × Width	Volts	Watts	12″ Flexible Leads Unless Noted	Part Number
4 × 2¼	120	800		**SHB643612-800**
4½ × 1½	240	750	Post	**SHB722424-750P**
4½ × 4	240	1400	24″ SS Braid	**B036704**
5 × 1½	240	800	12″ SS Braid	**B021068**
5 × 2	240	1000	Term Posts	**B021396**
	240	1000	12″ SS Braid	**B046757**
5⅛ × 1½	230	700	Post	**29339B***
5¼ × 1	230	600	Post	**65982B***
	460	600	34″ Leads	**301659B***
5¼ × 1½	230	300	Post	**74842B***
	230	600	Post	**16526B***
	230	600		**64584B*- Ceramic**
	230	500	Post	**74840B***
	230	1000	Post	**12391B***
	230	1000		**77685B*- Ceramic**
	480	600	2 Pc Post	**74842B***
5¼ × 2	460	666	2 pc/**see below	**77123B***
5¼ × 3	230	1700	Post	**302454B***
5¼ × 4½	230	2400	Post	**302456B***
	230	2700	Post	**307865B***
5¼ × 5	230	2400	Post	**307866B***
5½ × 1½	240	700	24″ SS Braid	**B041264**
5¾ × 1	460	600	34″ Leads	**307260B***
5¾ × 1½	230	600	Post	**28784B***
	230	600	Post	**68105B*- Ceramic**
	460	1000	Post	**302514B***
6 × 1	240	500	48″ SS Braid	**B014595**
6 × 1½	230	600	Post	**37587B***
	230	1000	2 pc Post	**41987B***
	230	1000	2 pc Post	**66821B*- Ceramic**
	240	1000	Term Posts	**B012799**
	460	1000	Post	**307863B***
6¾ × 1½	230	815	Post	**25147B***
	240	1000	Post	**51137B***
	230	600	Post	**41988B***
	460	1000	Post	**307861B***
6¾ × 2½	460	1150	2 pc/**see below	**76928B***
6¾ × 4	230	2600	Post	**307864B***
6¾ × 6	230	3750	Post	**307859B***
	460	3750	Post	**307860B***
7½ × 1½	230	815	Post	**28786B***
7⅝ × 3	230	2000	Post	**27213B***
	230	1800	Post	**27214B***



STANDARD MICA HEATER BANDS

Standard Mica Heater Bands

I.D. × Width	Volts	Watts	12″ Flexible Leads Unless Noted	Part Number
8¼ × 2	220	1800	2 pc/Post Terms	**29347B***
	440	1800	2 pc/Post Terms	**31805B***
8¼ × 3	230	1800	Post	**37186B***
	230	2000	Post	**30465B***
8½ × 4	230	1800	Post	**38948B***
9½ × 3	240	2000	Post	**29341B***
	460	1930	2 pc/**see below	**78541B***
9½ × 6	460	4000	2 pc/Post Terms	**38947B***
11 × 3	230	1000	Post	**71922B***
11¼ × 3	460	2400	2 pc/Post Terms	**45985B***

*Equal to Van Dorn O.E.M. heater band. Full listing by Van Dorn part number follows these bands.
**270° coverage, post terminals, padded strap, stainless sheath, high temp. construction. For 2-piece bands, total wattage & voltage are shown.

High Quality & Low, Low Prices!

STANDARD MICA HEATER BANDS

Replacement Heater Band Straps

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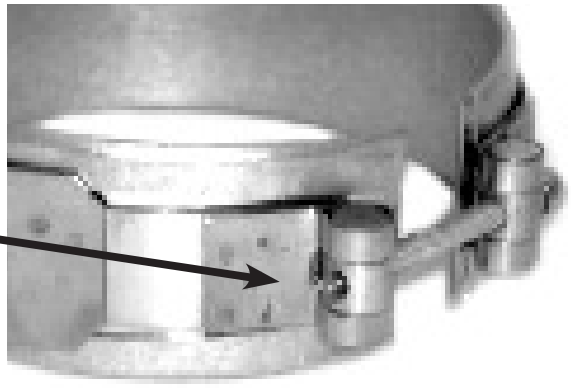
Item	Part Number
Replacement bands for : 1″ × 1″ Band Strap	**HB1STRAP**
Replacement bands for: 1½″ × 1½″ Band Strap	**HB112STRAP**

REPLACEMENT BAND STRAPS



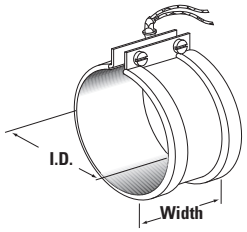
Mica Heater Bands

With Flange Lock-up

Heavy-Duty Nozzle Bands with Flange Lock-up

Far superior to low cost alternatives, these bands provide the most economical option for the long term.

- Premium quality natural mica insulation
- Reinforced lead exit for long life
- High watt density
- Ultra-smooth I.D. bore - reduces hot spots



Dual voltage bands (120/240V) can be configured for either voltage

- For 240V, use two red wires as power leads; white wire is not used (insulate with tape)
- For 120V, connect 2 red wires and use as on power lead; use red wire as second lead

Mix and match sizes for maximum discount.

MICA HEATER BANDS

I. D.	Width	Watts	Volts	Lead Length & Configuration	Part Number
⅞″	1″	75W	240	36″ Flexible Glass Covered	**NB0810A2**
1″	1″	100W	120	14″ Flexible Glass Covered	**NB1010A1**
			240		**NB1010A2**
			120/240		**NB1010AD**
1″	1½″	150W	120	14″ Flexible Glass Covered	**NB1015A1**
			240		**NB1015A2**
			120/240		**NB1015AD**
1″	2″	200W	120	14″ Flexible Glass Covered	**NB1020A1**
			240		**NB1020A2**
			120/240		**NB1020AD**
1″	2½″	250W	120	14″ Flexible Glass Covered	**NB1025A1**
			240		**NB1025A2**
1″	3″	300W	120	14″ Flexible Glass Covered	**NB1030A1**
			240		**NB1030A2**
1¼″	1″	125W	240	14″ Flexible Glass Covered	**NB1210A2**
1¼″	1½″	200W	240	14″ Flexible Glass Covered	**NB1215A2**
1¼″	2″	250W	240	14″ Flexible Glass Covered	**SHB203224-250**
1¼″	3″	400W	240	14″ Flexible Glass Covered	**SHB204824-400**
1⅜″	1″	150W	240	14″ Flexible Glass Covered	**NB1310A2**
1⅜″	1½″	200W	240	14″ Flexible Glass Covered	**SHB222024-200**
1⅜″	2″	300W	240	14″ Flexible Glass Covered	**SHB223224-275**
			120/240		**NB1320AD**
1½″	⅝″	100W	120	14″ Flexible Glass Covered	**NB1506A1**
			240		**NB1506A2**
1½″	1″	150W	120	14″ Flexible Glass Covered	**NB1510A1**
			240		**NB1510A2**
			120/240		**NB1510AD**
1½″	1½″	250W	120	14″ Flexible Glass Covered	**NB1515A1**
			240		**NB1515A2**
			120/240		**NB1515AD**
1½″	2″	300W	120	14″ Flexible Glass Covered	**NB1520A1**
			240		**NB1520A2**
			120/240		**NB1520AD**
			240	36″ Flexible S. Steel Armor	**NB1520C2**

Heavy-Duty Nozzle Bands with Flange Lock-up

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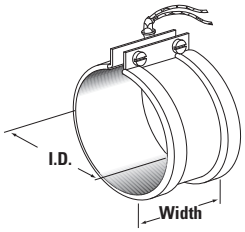

Dual voltage bands (120/240V) can be configured for either voltage

- For 240V, use two red wires as power leads; white wire is not used (insulate with tape)
- For 120V, connect 2 red wires and use as on power lead; use red wire as second lead

Mix and match sizes for maximum discount.

MICA HEATER BANDS

I. D.	Width	Watts	Volts	Lead Length & Configuration	Part Number
1½″	2½″	350W	120	14″ Flexible Glass Covered	**NB1525A1**
			240		**NB1525A2**
			120/240		**NB1525AD**
1½″	3″	450W	120	14″ Flexible Glass Covered	**NB1530A1**
			240		**NB1530A2**
			120/240		**NB1530AD**
			240	14″ Flexible S. Steel Armor	**SHB244824-450S**
1½″	4″	600W	120	14″ Flexible Glass Covered	**NB1540A1**
			240		**NB1540A2**
			120/240		**NB1540AD**
1½″	5″	750W	120	14″ Flexible Glass Covered	**NB1550A1**
			240		**NB1550A2**
			120/240		**NB1550AD**
1½″	6″	850W	120	14″ Flexible Glass Covered	**NB1560A1**
			240		**NB1560A2**
			120/240		**NB1560AD**
1 9/16″	1½″	250W	240	14″ Flexible Glass Covered	**NB1615A2**
1 9/16″	2″	325W	120	14″ Flexible Glass Covered	**NB1620A1**
			240		**NB1620A2**
1¾″	1″	175W	120	14″ Flexible Glass Covered	**SHB281612-175**
			240		**NB1710A2**
1¾″	1½″	250W	120	14″ Flexible Glass Covered	**NB1715A1**
			240		**NB1715A2**
			120/240		**NB1715AD**
1¾″	2″	350W	240	14″ Flexible Glass Covered	**NB1720A2**
			120/240		**NB1720AD**
1¾″	3″	500W	240	14″ Flexible Glass Covered	**NB1730A2**
			120/240		**NB1730AD**
1¾″	4″	700W	120	14″ Flexible Glass Covered	**NB1740A1**
			240		**NB1740A2**
1¾″	5″	900W	240	14″ Flexible Glass Covered	**NB1750A2**
1¾″	6″	1000W	120	14″ Flexible Glass Covered	**NB1760A1**
2″	1″	200W	120	14″ Flexible Glass Covered	**NB2010A1**
			240		**NB2010A2**

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Mica Heater Bands

With Flange Lock-up

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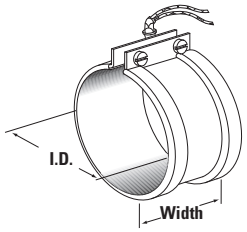
- High watt density
- Ultra-smooth I.D. bore - reduces hot spots



Dual voltage bands (120/240V) can be configured for either voltage

- For 240V, use two red wires as power leads; white wire is not used (insulate with tape)
- For 120V, connect 2 red wires and use as on power lead; use red wire as second lead

Mix and match sizes for maximum discount.

MICA HEATER BANDS

I. D.	Width	Watts	Volts	Lead Length & Configuration	Part Number
2″	1½″	300W	240	14″ Flexible Glass Covered	**NB2015A2**
2″	2″	400W	240	14″ Flexible Glass Covered	**NB2020A2**
2″	2½″	500W	240	14″ Flexible Glass Covered	**NB2025A2**
2″	3″	600W	240	14″ Flexible Glass Covered	**NB2030A2**
2″	4″	800W	120	14″ Flexible Glass Covered	**NB2040A1**
2⅛″	1″	200W	240	14″ Flexible Glass Covered	**NB2110A2**
2⅛″	1½″	300W	240	14″ Flexible Glass Covered	**NB2115A2**
2¼″	1″	225W	240	14″ Flexible Glass Covered	**NB2210A2**
			120/240		**NB2210AD**
2¼″	3″	700W	120	14″ Flexible Glass Covered	**NB2230A1**
2⅜″	1″	250W	240	14″ Flexible Glass Covered	**NB2310A2**
2⅜″	1½″	400W	120	14″ Flexible Glass Covered	**NB2315A1**
			240		**NB2315A2**
2½″	1″	250W	240	14″ Flexible Glass Covered	**NB2510A2**
			120/240		**NB2510AD**
2½″	1½″	375W	120	14″ Flexible Glass Covered	**NB2515A1**
			240		**NB2515A2**
			120/240		**NB2515AD**
2½″	2″	500W	240	14″ Flexible Glass Covered	**NB2520A2**
2½″	3″	750W	240	14″ Flexible Glass Covered	**NB2530A2**
			240	36″ Flexible S. Steel Armor	**NB2530C2**
2¾″	1½″	400W	120	14″ Flexible Glass Covered	**NB2715A1**
			240		**NB2715A2**
3″	1″	300W	120	14″ Flexible Glass Covered	**NB3010A1**
			240		**NB3010A2**
3″	1½″	450W	240	14″ Flexible Glass Covered	**NB3015A2**
			120/240		**NB3015AD**
3″	2″	600W	240	14″ Flexible Glass Covered	**NB3020A2**
3″	3″	900W	240	14″ Flexible Glass Covered	**NB3030A2**
3½″	1″	350W	240	14″ Flexible Glass Covered	**NB3510A2**
3½″	1½″	525W	120	14″ Flexible Glass Covered	**NB3515A1**
			240		**NB3515A2**
3½″	2″	700W	240	14″ Flexible Glass Covered	**NB3520A2**
3½″	2½″	875W	240	14″ Flexible Glass Covered	**NB3525A2**

Where Heater Band Clearance is Problematic! Ideal for Recessed Sprues.

Applications: Use where recessed sprue bushings and similar obstructions create limited space for nozzle heater bands. These bands require only 3⁄8″ to 1⁄2″ diameter clearance. (3⁄16″ to 1⁄4″ on a side.)

Example: Using nozzle with 1 1⁄2″ body diameter plus Wedge-Lock band, the clearance required is only 2″ or less.

This band is frequently used in place of regular nozzle bands due to ease of installation and removal.
14″ Flexible Fiberglass

Covered Leads
To install, simply slide band over nozzle, then tap tapered key. Band will automatically tighten to snug fit.

To remove, simply tap tapered key in opposite direction, then pull off band.

Wedge type tapered key locking device requires only 3⁄8″ to 1⁄2″ clearance on diameter.

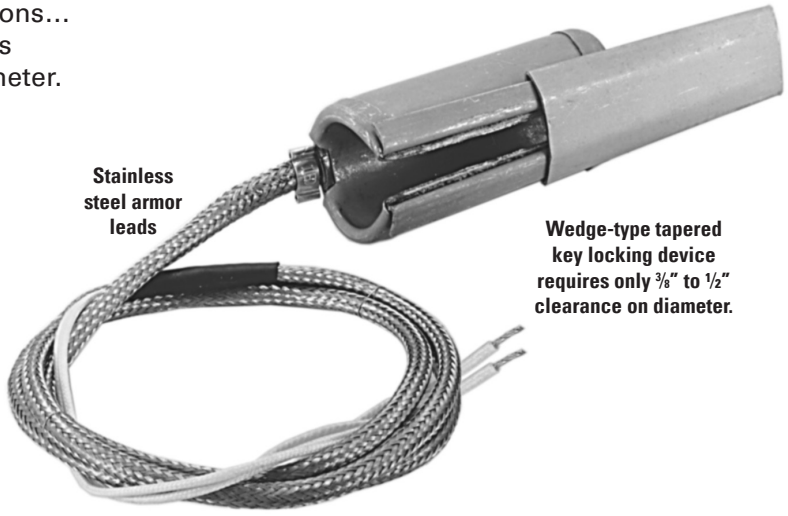
Dia.	Width	Watts	Part Number	
			120V	240V
1″	1″	100	F1011	F1012
	1½″	150	F1015	F1016
	2″	200	F1021	F1022
	2½″	250	F1025	F1026
	3″	300	F1031	F1032
	4″	400	F1041	F1042
1¼″	1″	125	F1211	F1212
	1½″	200	F1215	F1216
	2″	250	F1221	F1222
	3″	400	F1231	F1232
1⅜″	2″	300	F1321	F1322
1½″	1″	150	F1511	F1512
	1½″	250	F1515	F1516
	2″	300	F1521	F1522
	2½″	350	F1525	F1526
	3″	450	F1531	F1532
	4″	600	F1541	F1542
	5″	750	F1551	F1552
1¾″	1″	175	F1711	F1712
	1½″	250	F1715	F1716
	2″	350	F1721	F1722
	3″	500	F1731	F1732
	4″	700	F1741	F1742
	6″	1000	F1761	F1762
2″	1″	200	F2011	F2012
	1½″	300	F2015	F2016
	2″	400	F2021	F2022
	3″	600	F2031	F2032
	4″	800	F2041	F2042
2½″	1½″	375	F2515	F2516
	2″	500	F2521	F2522
	3″	750	F2531	F2532
3″	1½″	450	F3015	F3016
	2″	600	F3021	F3022
	3″	900	F3031	F3032

Wedge-Lock Heater Bands

Use for Recessed Sprue Bushing Applications... Wedge-Type Tapered Locking Heater Bands require only 3⁄8″ to 1⁄2″ clearance on diameter.

Standard 14″ or 36″ Stainless Steel Armor Leads

14″ or 36″ flex leads exit 180° from heater band opening. Also available with longer length stainless steel flexible armored lead.



WEDGE LOCK HEATERS

Dia.	Width	Watts	Volts	14″ Stainless Steel Leads Part Number	36″ Stainless Steel Leads Part Number
1″	1″	100	120	F1011B	F1011C
			240	F1012B	F1012C
	1½″	150	120		F1015C
			240	F1016B	F1016C
	2″	200	120	F1021B	F1021C
			240	F1022B	F1022C
	2½″	250	120	F1025B	F1025C
			240	F1026B	F1026C
	3″	300	120		F1031C
			240	F1032B	F1032C
	4″	400	240	F1042B	F1042C
	3″	400	240		F1232C
1⅜″	2″	300	120	F1321B	F1321C
1½″	1″	150	120	F1511B	F1511C
			240		F1512C
	1½″	250	120		F1515C
	1½″	300	120	F1516B	F1516C
	2″	300	240	F1522B	F1522C
	2½″	350	120	F1525B	F1525C
			240	F1526B	F1526C
	3″	450	120		F1531C
			240	F1532B	
	4″	600	120		F1541C
			240	F1542B	
	5″	750	120	F1551B	F1551C
			240	F1552B	F1552C
1¾″	1″	175	240	F1712B	F1712C
	2″	350	240	F1722B	F1722C
	3″	500	120	F1731B	F1731C
	4″	700	120		F1741C
	6″	1000	240	F1762B	

Cincinnati Milacron

OEM REPLACEMENT BANDS

OEM Number	Part Number	Type	I.D.	Width	Watts	Volts
326330	**CMN00033**	Mineral	5	1½	580	240/480
326331	**CMN00034**	Mineral	6½	1½	1000	240/480
326332	**CMN00035**	Mineral	7½	1½	900	240/480
326333	**CMN00036**	Mineral	8	1½	1000	240/480
326334	**CMN00037**	Mineral	9	1½	1400	240/480
326335	**CMN00038**	Mineral	10	1½	1200	240/480
326336	**CMN00039**	Mineral	11	1½	1480	240/480
326337	**CMN00040**	Mineral	7	1½	580	240/480
326338	**CMN00041**	Mineral	8	1½	800	240/480
326340	**CMN00043**	Mineral	9	1½	1100	240/480
326341	**CMN00045**	Mineral	9½	1½	1000	240/480
326342	**CMN00047**	Mineral	13	1½	1400	240/480
326344	**CMN00049**	Mineral	14½	1½	1480	240/480
326346	**CMN00051**	Mineral	5	1½	770	240/480
326347	**CMN00053**	Mineral	7	1½	1000	240/480
3901991	**CMN00055**	Mica	1½	1½	275	120
3901993	**CMN00056**	Mica	1½	4	500	120
3904526	**CMN00057**	Mica	1½	1½	300	120
3994402	**CMN00058**	Mica	5⅞	5¼	2350	240/480
3994523	**CMN00059**	Mica	7½	7¼	5000	240/480
5021019	**CMN00060**	Mica	9⁷⁄₁₆	2	1700	240/480
5021020	**CMN00061**	Mica	9⁷⁄₁₆	3½	3000	240/480
5021021	**CMN00062**	Mica	8¹⁄₁₆	4	2100	240/480
5021022	**CMN00063**	Mica	8¹⁄₁₆	9¼	4900	240/480
5021232	**CMN00065**	Mica	11¹³⁄₁₆	2	2200	240/480
5021233	**CMN00066**	Mica	11¹³⁄₁₆	3½	3900	240/480
5021234	**CMN00067**	Mica	8⁷⁄₁₆	3½	2800	240/480
5021235	**CMN00068**	Mica	8⁷⁄₁₆	8½	6800	240/480
5021402	**CMN00069**	Mica	4¹⁵⁄₁₆	2⅜	1000	240/480
5021428	**CMN00070**	Mica	4¹⁵⁄₁₆	2⅜	1200	240/480
5022010	**CMN00071**	Mica	6½	5½	3000	240/480
5022013	**CMN00072**	Mica	4¹⁵⁄₁₆	4	1000	240/480
5022015	**CMN00073**	Mica	5½	4½	1700	240/480

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OEM Replacement Bands

Cincinnati Milacron

OEM REPLACEMENT BANDS

OEM Number	Part Number	Type	I.D.	Width	Watts	Volts
5024377	**CMN00074**	Mica	10 7/16	2	2000	240/480
5024378	**CMN00076**	Mica	10 7/16	3 1/2	3300	240/480
5024379	**CMN00078**	Mica	8 1/2	5 1/2	3800	240/480
5024380	**CMN00079**	Mica	8 1/2	10	7000	240/480
5025037	**CMN00080**	Mica	8 1/2	7 7/8	7000	240/480
5025306	**CMN00081**	Mica	8 1/2	2	1900	240/480
5027465	**CMN00082**	Mica	13	2 1/2	3000	240/480
5027466	**CMN00083**	Mica	13	4 3/4	5000	240/480
5027467	**CMN00084**	Mica	9 7/16	3	2300	240/480
5032143	**CMN00086**	Mica	7 1/2	3 1/2	2325	240
5032147	**CMN00087**	Mica	8 7/16	4 1/2	2275	240
5032153	**CMN00088**	Mica	9 7/16	4 5/8	3425	240
5033192	**CMN00089**	Mineral	13	2	3000	240/480
5033194	**CMN00090**	Mineral	9 7/16	4	4000	240/480
5034485	**CMN00091**	Mineral	9 7/16	3	2400	240/480
5034486	**CMN00092**	Mineral	9 7/16	2	1600	240/480
5034487	**CMN00093**	Mineral	8 1/16	3	2000	240/480
5035117	**CMN00094**	Mineral	8 1/16	4	2650	240/480
5035761	**CMN00095**	Mineral	11	4	3500	240/480
5038858	**CMN00096**	Mineral	5 7/8	5	2350	240/480
5038989	**CMN00097**	Mineral	4 15/16	4	1200	240/480
5039028	**CMN00098**	Mineral	8 7/16	5	3250	240/480
5039197	**CMN00099**	Mineral	6 1/2	5	3000	240/480
5039239	**CMN00100**	Mineral	7 1/2	3	2325	240/480
5039247	**CMN00101**	Mineral	9 7/16	3	2300	240/480
3988972-3	**CMN00102**	Mica	5 7/8	1 1/2	675	240/480
3989010-3	**CMN00103**	Mica	6 1/2	1 1/2	900	240/480
3989120-4	**CMN00104**	Mica	7 1/2	1 1/2	1500	240/480
3990305-3	**CMN00105**	Mica	5 1/2	2 1/2	950	240/480
3991263-3	**CMN00106**	Mica	4 7/8	2 1/2	720	240/480

OEM REPLACEMENT BANDS

Part Number	I.D.	Width	Volts	Watts	Leads or One Piece	Terminals
12391B	5¼	1½	230	1000	Yes	Post
12393B	3	1	230	400	Yes	Post
12473B	5¾	1½	230	1000	Yes	Post
16526B	5¼	1½	230	600	Yes	Post
25147B	6¾	1½	220	815	Yes	Post
25148B	4	1½	220	625	Yes	Post
27213B	7⅝	3	230	2000	Yes	Post
27214B	7⅝	3	230	1800	Yes	Post
28784B	5¾	1½	230	600	Yes	Post
28786B	7½	1½	230	815	Yes	Post
29339B	5⅛	1½	230	700	Yes	Post
29341B	9½	3	240	2000	Yes	Post
29347B	8¼	2	220	1800	2 pc.	Post
301659B	5¼	1	460	600	Yes	34″Leads
302454B	5¼	3	230	1700	Yes	Post
302455B	5¼	4½	230	3300	Yes	Post
302456B	5¼	4½	230	2400	Yes	Post
302457B	5¼	2¼	230	1300	Yes	Post
302458B	5¼	2¼	460	1300	Yes	Post
302459B	3	1	230	400	Yes	100″Leads
302511B	6¾	1½	230	1300	Yes	Post
302512B	5¾	1	460	600	Yes	Post
302514B	5¾	1½	460	1000	Yes	Post
302517B	5¼	1	460	600	Yes	Post
302748B	3	1½	240	500	Yes	Post
302971B	5¼	3	460	1700	Yes	Post
302972B	5¼	4½	460	2400	Yes	Post
303137B	4	1½	230	625	Yes	118″Leads
303142B	6¾	1½	460	1100	Yes	Post
303147B	6¾	5	230	4700	Yes	Post
303150B	6¾	4¼	230	3100	Yes	Post
303152B	7½	1½	230	1100	Yes	Post
303508B	5	2½	230	1300	Yes	172″Leads
304265B	6¾	5	230	3700	Yes	Post
304266B	6¾	4¼	460	3100	Yes	Post
304624B	6	1½	460	1100	2 pc.	Post
30465B	8¼	3	230	2000	Yes	Post
305562B	4	2¼	230	1100	Yes	Post
305748B	5¼	1½	460	800	Yes	Post
305916B	2½	4	115	1200	Mineral	154″Leads
307223B	3⅝	1½	230	525	Yes	Post
307224B	3⅝	1½	230	650	Yes	Post
307225B	4	1½	230	725	Yes	Post
307228B	6	1½	230	1000	Yes	Post
307232B	6¾	3½	230	2400	Yes	Post

F

OEM Replacement Bands

Van Dorn

OEM REPLACEMENT BANDS

Part Number	I.D.	Width	Volts	Watts	Leads or One Piece	Terminals
307235B	7⅝	4½	460	3150	Yes	Post
307236B	7⅝	3½	460	2250	Yes	Post
307283B	8¼	2	460	1600	Yes	Post
307240B	8¼	4	460	3350	2 pc.	Post
307242B	9½	5	460	4500	2 pc.	Post
307245B	11	3	460	2950	2 pc.	Post
307247B	13	3	460	3500	2 pc.	Post
307249B	13	6	460	7000	2 pc.	Post
307260B	5¾	1	460	600	Yes	34″Leads
307293B	8¼	2½	460	2000	2 pc.	Post
307356B	7⅝	3	460	2200	Yes	Post
307357B	9½	5½	460	4900	2 pc.	Post
307358B	9½	6	460	5300	2 pc.	Post
307359B	9½	6	460	5400	2 pc.	Post
307360B	11¼	5	460	5100	2 pc.	Post
307659B	5¼	7	460	600	Yes	Post
307660B	4	2	460	1100	Yes	Post
307695B	5¼	1	460	600	Yes	36″Leads
307857B	9½	2	460	1800	2 pc.	Post
307859B	6¾	6	230	3750	Yes	Post
307860B	6¾	6	460	3750	Yes	Post
307861B	6¾	1½	460	1000	Yes	Post
307862B	6¾	3½	460	2400	Yes	Post
307863B	6	1½	460	1000	Yes	Post
307864B	6¾	4	230	2600	Yes	Post
307865B	5¼	4½	230	2700	Yes	Post
307866B	5¼	5	230	2400	Yes	Post
307867B	6¾	1½	460	1200	Yes	Post
307868B	5¾	1	230	600	Yes	36″Leads
31805B	8¼	2	440	1800	2 pc.	Post
32138B	4	1	240	625	Yes	Post
36210B	2⅜	1	240	250	Yes	Post
36211B	3	1½	220	450	Yes	Post
37186B	8¼	3	230	1800	Yes	Post
37587B	6	1½	230	600	Yes	Post
38947B	9½	6	460	4000	2 pc.	Post
38948B	8½	4	230	1800	2 pc.	Post
40978B	3⅝	1½	240	625	Yes	Post
41987B	6	1½	230	1000	2 pc.	Post
41988B	6¾	1½	230	600	Yes	Post
41989B	4	1½	230	400	Yes	Post
45982B	2½	5	230	900	Yes	Post
45983B	5½	3	230	1000	Yes	Post
45985B	11¼	3	460	2400	2 pc.	Post
47937B	2⅜	1	460	250	Yes	Post

OEM REPLACEMENT BANDS

Part Number	I.D.	Width	Volts	Watts	Leads or One Piece	Terminals
50070B	4	1	460	626	2 pc.	Post
50071B	4	1½	460	625	Yes	Post
50387B	1½	1½	230	275	Yes	Stainless. 54″
51137B	6¾	1½	240	1000	Yes	Post
51191B	3	1	460	400	2 pc.	Post
51796B	3⅝	1½	460	625	Yes	Post
61367B	7⅝	2	460	1300	2 pc.	Post
64584B	5¼	1½	230	600		Ceramic Bands
64890B	3⅝	1½	230	625		Ceramic Bands
65982B	5¼	1	230	600	Yes	Post
66258B	4	1½	460	625	Yes	18″Leads
66270B	2⁷⁄₁₆	1	230	250	Yes	70″Leads
66301B	3	1	460	400	Yes	10″Leads
66302B	3	1	230	400	Yes	10″Leads
66821B	6	1½	230	1000		Ceramic Bands
66822B	6¾	1½	230	1000		Ceramic Bands
66952B	4	1½	230	625		Ceramic Bands
67082B	4	1½	460	400	Yes	12″Leads
67729B	8¼	2	230	1800	Yes	Post
67736B	4	2	230	1250		Ceramic Bands
67769B	5⅛	1½	230	700	Yes	168″Leads
67945B	3	1	240	400	Yes	36″Leads
68103B	6¾	1½	230	815		Ceramic Bands
68105B	5¾	1½	230	600		Ceramic Bands
71922B	11	3	230	1000	2 pc.	Post
74840B	5¼	1½	230	500	2 pc.	Post
74842B	5¼	1½	480	600	2 pc.	Post
76928B	6¾	2½	460	1150	2 pc.	See below
77123B	5¼	2	460	666	2 pc.	See below
77529B	7⅝	3	460	1800	2 pc.	Post
77685B	5¼	1½	230	1000		Ceramic Bands
78498B	6¾	1½	460	816	2 pc.	Post
78540B	4	2	460	460	2 pc.	See below
78541B	9½	3	460	1930	2 pc.	See below
99533B	1½	1½	230	275	Yes	144″Leads

F

Custom Mica Heater Bands

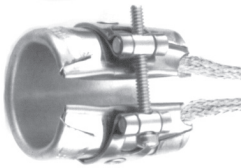
CUSTOM MICA HEATER BANDS

Heater Designs & Construction

PC
Partial Coverage

TYPE W3-A
Post Terminals
Both posts on one side of gap
Minimum I.D. - 3″
Minimum width - ¾″

TYPE W3-LE
Fiberglass Covered Leads
Leads exit each side of gap
Minimum I.D. - ¾″
Minimum width - 1″



TYPE W3-KS
Stainless Covered Leads
Leads exit each side of gap
Minimum I.D. - ¾″
Minimum width - 1″

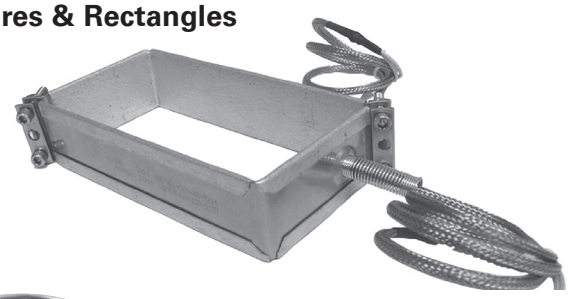
HINGED T7
Separate Straps
Minimum I.D. - 1½″
Minimum width - 1″

TYPE W3-B
Post Terminals
Both posts on one side of gap
Minimum I.D. - 1½"
Minimum width - ¾″

TYPE W3-L
Fiberglass Covered Leads
Minimum I.D. - 1″
Minimum width - ¾″

TYPE W3-K
Stainless Covered Leads
Minimum I.D. - 1″
Minimum width - ¾″

Squares & Rectangles



TYPE W3-C
Post Terminals
Both posts on one side of gap
Minimum I.D. - 1½″
Minimum width - ¾″

TYPE W3-KB
Stainless Steel Covered Leads
Lead exit opposite gap from edge
Min. I.D. - ½″ Min. width - 1″

European Plugs

W3-EP
Min. I.D. - 1½″

W3-EP90
Min. width - 1″

Terminal Boxes W3-Q

XB Type
Min. I.D. - 2½″
Min. width - ¾″

XB Type
Min. I.D. - 2½″
Min. width - 1¾″

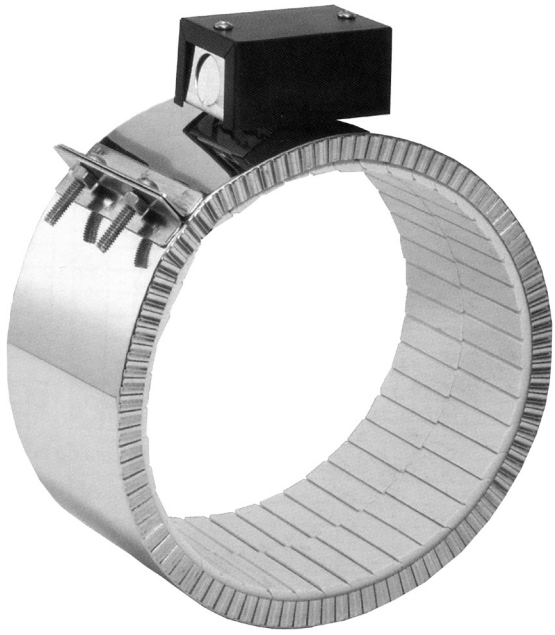
TYPE W3-G
Armor Covered Leads
Minimum I.D. - 1″
Minimum width - ¾″

Order Your Custom Bands Today!
Standard delivery for non-stock items is 2 - 3 weeks
Rush delivery in 2 - 3 days add 25%

Expandable

Design Features

- Energy-efficient, less power consumption
- High sheath temperature capability up to 1600°F
- Thermally insulated
- Uniform temperature
- Flexible, easy to install and remove



CERAMIC HEATER BANDS

Terminal Box Cover

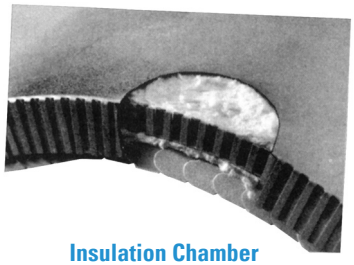
Heavy gauge, rust-resistant material has knockouts for ½" conduit connections.

Ceramic Fiber Insulation

The standard insulation is ¼" thick to improve energy conservation 25% or more than non-insulated bands (½" thick insulation optional). In the Maxi-Insulated design, an additional ½" non-compressed layer of insulation is contained in a separate, flexible chamber for even greater energy savings.

Serrated Sheath

Sheath material is resistant to heat and corrosion. Unique serrations maximize flexibility, increase surface contact and provide easy opening and installation of the heater, eliminating the necessity of two-piece band heaters up to 18" in diameter.



Insulation Chamber

Simplified Installation, Additional Energy Conservation

Ceramic Band Heaters can be manufactured in widths much greater than what is practical in Mica Band Heaters, eliminating heat losses between gaps in narrow band heaters and simplifying installation.

Mounting Flange Included Standard

Quick-release latch is optional for ease of installation. Spring-loaded screw on flange is available to compensate for thermal expansion and contraction (over 18" diameter).

Termination

Located at gap or 180° from the gap.

Thermocouple

Should be located through gap or through hole in overlap flange where possible. Contact DME about holes and cut-outs through sheath.

F

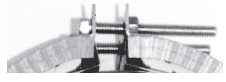
Ceramic Heater Bands

Expandable

Expandable Ceramic 1½" Heater Bands

- 240 volt
- 1½" wide
- One size fits many
- Stainless steel sheath
- Terminal boxes — add BX to part number

Call DME for Any and All of Your Custom Ceramic Heater Band

Part Number	Fits Diameter (mm)	Total Watts	1–½" Wide
CEB-1000-1	4"– 4½" (102–114)	650	
CEB-1002-1	4½"– 5" (114–127)	750	
CEB-1003-1	5"– 5½" (127–140)	825	
CEB-1004-1	5½"– 6" (140–152)	900	
CEB-1005-1	6"– 6½" (152–166)	1000	
CEB-1006-1	6½"– 7" (165–178)	1100	
CEB-1007-1	7"– 7½" (178–190)	1150	
CEB-1008-1	7½"– 8" (190–203)	1250	
CEB-1009-1	8"– 8½" (203–216)	1300	
CEB-1010-1	8½"– 9" (229–241)	1400	
CEB-1011-1	9"– 9½" (229–241)	1500	
CEB-1012-1	9½"– 10" (241–254)	1575	
CEB-1013-1	10"– 10½" (254–267)	1650	
CEB-1014-1	10½"– 11" (267–279)	1725	
CEB-1015-1	11"– 11½" (279–292)	1800	
CEB-1016-1	11½"– 12" (292–305)	1900	

Each band expands over ½"!

CERAMIC HEATER BANDS

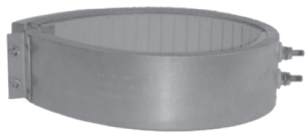
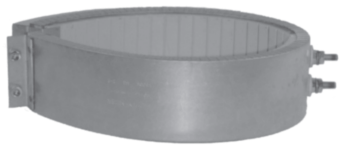
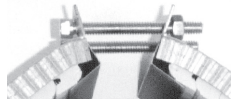
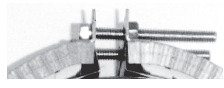
A very versatile band - keep them in stock!

Expandable Ceramic 2 1/2" Heater Bands

- 240 volt
- 1 1/2" wide
- One size fits many
- Stainless steel sheath
- Terminal boxes — add BX to part number

Call DME for Any and All of Your Custom Ceramic Heater Band

Each band expands over ½"!

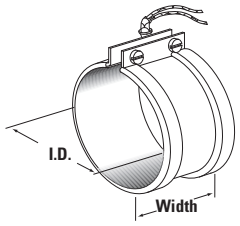
Part Number	Fits Diameter (mm)	Total Watts	2–½" Wide
CEB-1000-2	4"– 4½" (102–114)	1100	
CEB-1002-2	4½"– 5" (114–127)	1200	
CEB-1003-2	5"– 5½" (127–140)	1300	
CEB-1004-2	5½"– 6" (140–152)	1500	
CEB-1005-2	6"– 6½" (152–166)	1650	
CEB-1006-2	6½"– 7" (165–178)	1750	
CEB-1007-2	7"– 7½" (178–190)	1900	
CEB-1008-2	7½"– 8" (190–203)	2000	
CEB-1009-2	8"– 8½" (203–216)	2200	
CEB-1010-2	8½"– 9" (229–241)	2300	
CEB-1011-2	9"– 9½" (229–241)	2475	
CEB-1012-2	9½"– 10" (241–254)	2600	
CEB-1013-2	10"– 10½" (254–267)	2750	
CEB-1014-2	10–½"– 11" (267–279)	2875	
CEB-1015-2	11"– 11½" (279–292)	3000	
CEB-1016-2	11½"– 12" (292–305)	3100	

A very versatile band - keep them in stock!

Mineral Insulated Heater Bands

Designed for Modern High-Temperature Molding Operations

Two fiberglass-insulated lead wires exit in a single metal braid for good abrasion protection, lead flexibility and wiring convenience. Leads are 2″ longer than braid. Standard length is 12″. Specify if longer leads are required.



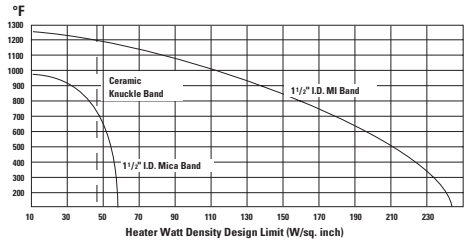
Dia.	Width	Watts	Watts/Sq. In.	Volts	Part Number
1″	1″	100	47	120	**MI1010B1X**
		150	70	120	**MI1010B1**
					MI101012-150F
	1½″	200	58	120	**MI1015B1X**
		200	58	240	**MI1015B2X**
		300	87	120	**MI1015B1**
		300	87	240	**MI1015B2**
1¼″	1″	250	86	120	**MI1210B1**
		250	86	240	**MI1210B2**
	1½″	350	75	120	**MI1215B1**
		350	75	240	**MI1215B2**
1½″	1″	200	54	120	**MI1510B1X**
		200	54	240	**MI1510B2X**
		300	81	120	**MI1510B1**
		300	81	240	**MI1510B2**
	1½″	300	52	120	**MI1515B1**
		300	52	240	**MI1515B2X**
		450	77	240	**MI1515B2A**
	2″	300	38	240	**MI1520B2X**
		450	57	240	**MI1520B2**
	3″	350	29	240	**MI1530B2X**
		500	41	240	**MI1530B2**
1¾″	1½″	300	43	120	**MI1715B1**
		300	43	240	**MI1715B2**
2″	1″	350	66	120	**MI2010B1**
		350	66	240	**MI2010B2**
	1½″	400	49	240	**MI2015B2**
	2″	750	73	240	**MI2020B2**
2¼″	2½″	1000	72	240	**MI2225B2**
2½″	1″	400	58	240	**MI2510B2**
	1½″	500	48	240	**MI2515B2**

MINERAL INSULATED HEATER BAND

When ordering, specify lead length and terminal location. 12″ length leads are standard. For special wattages, voltages or other requirements, please contact DME.

Up to 1400°F and 230 Watts/in. sq.

For today's high melt-temperature engineering materials. Mica bands cannot operate safely above 900°F which makes them inadequate for high-heat engineering materials such as PTFE Ultem, Zytel & Peak. Mineral insulated bands are the solution, capable of continued operating temperatures as high as 1400°F. Also, high thermal conductivity mineral insulation and uniform element construction provide extended life. Optional Ceramic Terminal Covers CTC0124 ordered separately. Includes post terminals, welded on barrel nut hinge, plus clamp.



Operating Temperatures up to 1400°F

Very high-watt density for use in high-heat applications.

MINERAL INSULATED HEATER BAND

Dia.	Width	Type	Volts	Watts	Watts/ sq. in.	Part Number
3″	1″	1pc.	240	400	51	**MI3010P2**
	1½″	1pc.	240	500	40	**MI3015P2**
		2pc.	230/460	525	53	**MI3015P4**
3½″	2″	1pc.	240	800	42	**MI3520P2**
3⅝″	1½″	2pc.	230/460	650	51	**MI3615P2**
4″	1″	1pc.	240	700	62	**MI4010P2**
	1½″	1pc.	240	800	48	**MI4015P2**
		2pc.	230/460	625	43	**MI4015P4**
		2pc.	230/460	725	50	**MI4015P5**
4½″	2½″	1pc.	240	1250	40	**MI4525P2**
5″	1½″	2pc.	240/480	1000	52	**MI5015P2**
5¼″	1½″	2pc.	240/480	1000	48	**MI5215P2**
		2pc.	230/460	600	29	**MI5215P4**
	3″	2pc.	230/460	1700	40	**MI5230P2**
	4½″	2pc.	230/460	2400	38	**MI5245P2**
		2pc.	230/460	2700	43	**MI5245P4**
5½″	1½″	2pc.	240/480	1000	45	**MI5515P2**
6″	1½″	2pc.	240/480	1000	41	**MI6015P2**
6½″	1½″	2pc.	240/480	1250	47	**MI6515P2**
6¾″	1½″	2pc.	230/460	815	29	**MI6715P2**
		2pc.	230/460	1000	36	**MI6715P4**
	4″	2pc.	230/460	2600	35	**MI6740P2**
	5″	2pc.	230/460	3700	40	**MI6750P2**
	6″	2pc.	230/460	3750	33	**MI6760P2**
7″	1½″	2pc.	240/480	1250	43	**MI7015P2**
7½″	1½″	2pc.	240/480	1500	47	**MI7515P2**
7⅝″	3″	2pc.	230/460	1800	28	**MI7630P2**
	4½″	2pc.	230/460	3150	33	**MI7645P2**
8″	1½″	2pc.	240/480	1250	37	**MI8015P2**
9″	1½″	2pc.	240/480	1500	39	**MI9015P2**
9½″	3″	2pc.	230/460	3000	37	**MI9530P2**
11¼″	3″	2pc.	230/460	2400	24	**MI11230P2**
	5″	2pc.	230/460	5100	31	**MI11250P2**

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Custom Strip Heaters

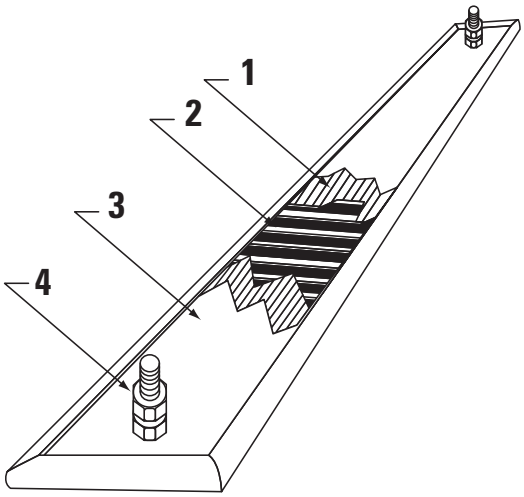
Time-tested materials & manufacturing techniques make the Custom Strip Heater a proven, economical, reliable performer. In applications where a flat surface requires uniform heating, the strip heater has no equal.

Material List

1) Mica provides complete electrical insulation of the heater case from the steel case, while providing maximum heat transfer.

2) Flat nickel-alloy ribbon wire provides the highest heating area possible. Each heater is engineered for wire size and pitch to provide the highest efficiency, while minimizing winding temperature.

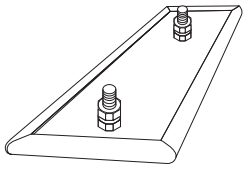
3) The two-piece sheath is composed of a rust-resistant, matte finish, zinc-coated bottom plate and a polished stainless steel top plate. The highly reflective properties of the stainless steel send maximum heat to the working surface. This construction provides excellent heat emissivity and corrosion resistance.



4) Stainless steel post terminals are supplied with nuts and washers. Other terminations are available; see below.

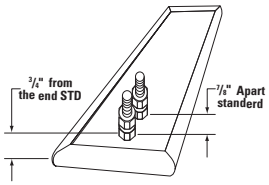
Standard Post Terminal Options

FO-A



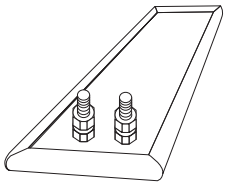
Post Terminals - one on each end; minimum width 3⁄4″

FO-C



Post Terminals - tandem (inline); minimum width 3⁄4″

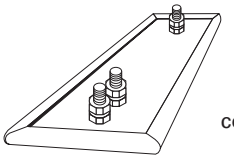
FO-B



Post Terminals - parallel (side by side); minimum width 3⁄4″

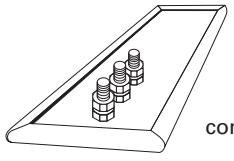
Optional Terminations

Dual-A-Dual Volt 3PH-A-3 Phase



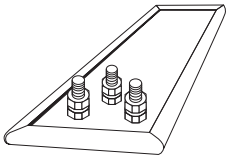
common

Dual-C-Dual Volt 3PH-C-3 Phase



common

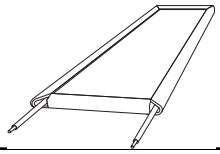
Dual-B-Dual Volt 3PH-B-3 Phase



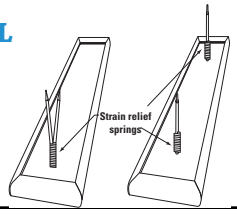
common

LD

Minimum width 1″; 5⁄8″ to 1″ wide available but leads will be one on each end

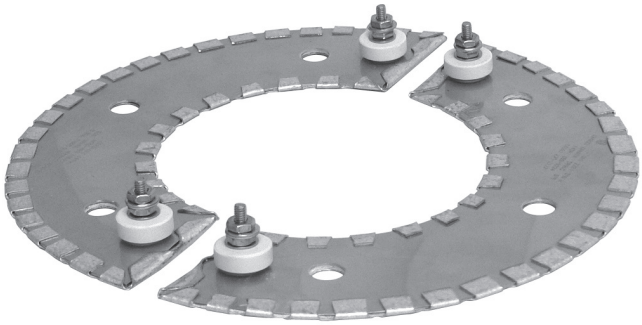


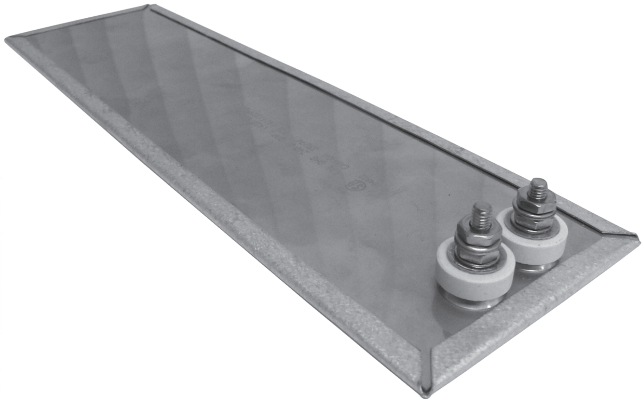
L

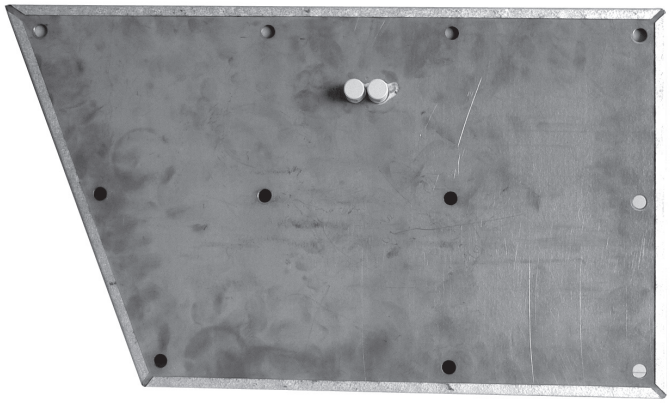


LT

Minimum width 3⁄4







Electric Plugs

Plugs and receptacles for connecting heater bands. Available in basic styles commonly used in European machines. Straight or angled 2-pin plugs with steel or brass prongs in ceramic or rubber insulation with metal case.

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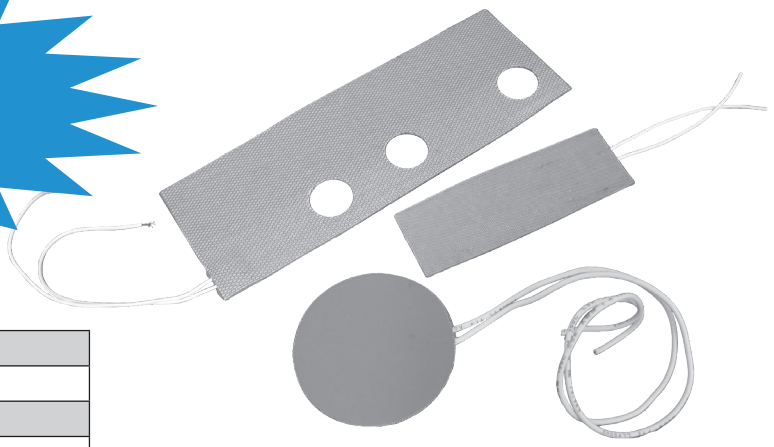
Part Number	Type	AMPS	Configuration
B2M	Silicone Rubber Case	16	Straight Stem
A92M	Silicone Rubber Case	16	90° Angle Stem
B3M	Aluminum Case	25	Straight Stem
A93M	Aluminum Case	25	90° Angle Stem

Silicone Rubber Heaters

Fiberglass reinforced Silicone Rubber Heaters are moisture and chemical resistant. Although thin and flexible, Silicone Rubber Heaters have a rugged construction and can be made to adhere to practically any surface. These heaters can accommodate holes and cutouts, and can come with a PSA back or a thermostat. Silicone Rubber Heaters are suitable for temperatures below 500°F.

C.S.A. Certified!

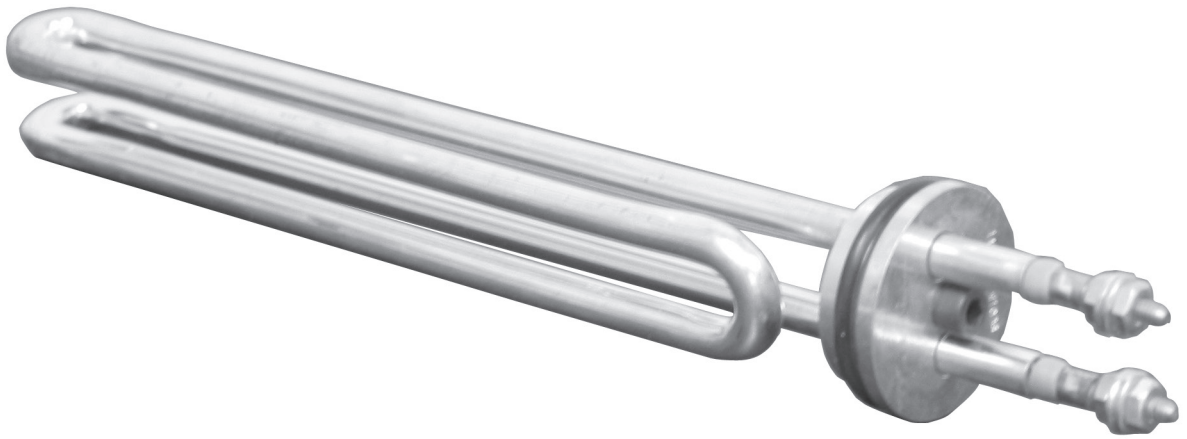
Call DME for Your Custom Silicone Heater!



Specifications

Max. Size	38″ × 98″
Thickness	0.060″
Max. Temp.	450°F
Max. Voltage	480 VAC
Wattage	+5/–10%
Std. Lead Wire	12″ PTFE Insulated
Dielectric Strength	1000 VAC

Immersion Heaters

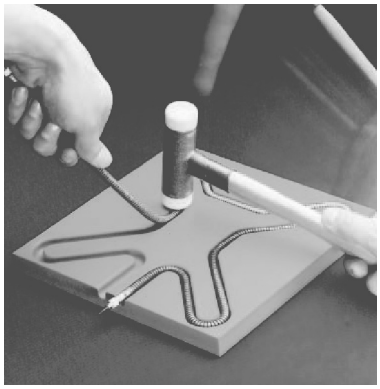


Part Number	Description
30700	Immersion Heater #09–019A, 115V, 650W
30701	Immersion Heater #09–019B, 115V, 1000W
30702	Immersion Heater #09–019C, 115V, 2160W

IMMERSION HEATERS

Important/Caution: Heated section MUST be inside of the groove. A small portion of the unheated section may be inside of the groove.
Any heated section outside and exposed to open air will fail. Also the 30mm cold section on each end MUST NOT be bent.

hotset



Disappointed by downtime and waiting for your tubular heater?

- Reduce costly, unnecessary downtime
- Reduce your stocking requirements
- Eliminate tooling or setup costs
- Tap in place with a rubber mallet
- Order today, resume manufacturing tomorrow!

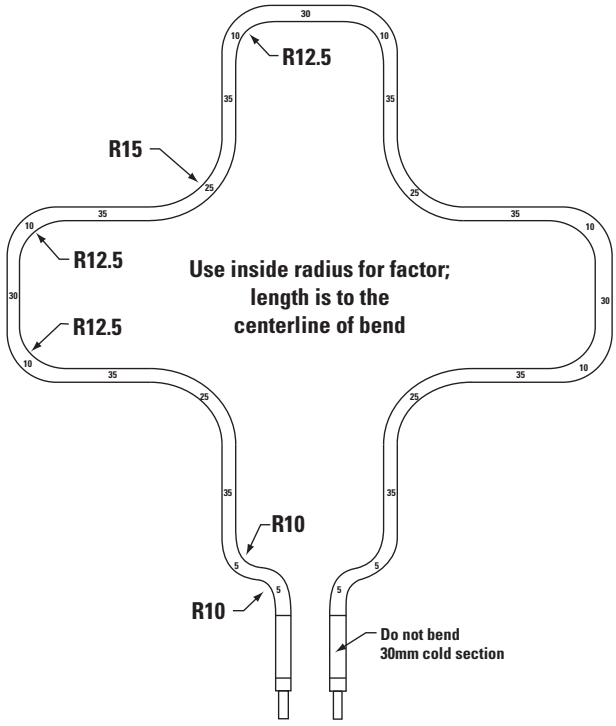
Easily select the correct 8.0mm Hotflex® flexible tubular heater

1. Measure and add total lengths in each category for the diameter that applies to your application.

8.0mm groove ø

	Totals		
2. Length of each straight section		× 1 =	a
3. Length of each 10mm radius		× .92=	b
4. Length of each 12.5mm radius		× .93=	c
5. Length of each 15mm radius		× .94=	d
6. Length of each>15mm radius		× .96=	e
7. Add lines a,b,c,d and e	+		
8. Add 60mm for the cold section (30mm + 30mm)	+ 60		
9. Round this number down to the nearest 50mm increment			

This is your Hotflex® part number **HTFLX** ____ **MM**



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Specifications

Heated flexible stainless steel sheath
Max. operating temp. = 1292°F
Min. bending radius = 10mm
Max. voltage = 250V
Max. current = 25A
High-voltage resistance (cold) = 1000 VAC
Current leakage (cold) ≤ 0.5mA at 253 VAC
Insulation resistance (cold) ≥ 5Mohm at 500 VDC
Ø tolerance = ± 0.1mm
Length tolerance = ± 1.5%
Wattage tolerance = ± 10%
Surface loading up to 15W/cm²

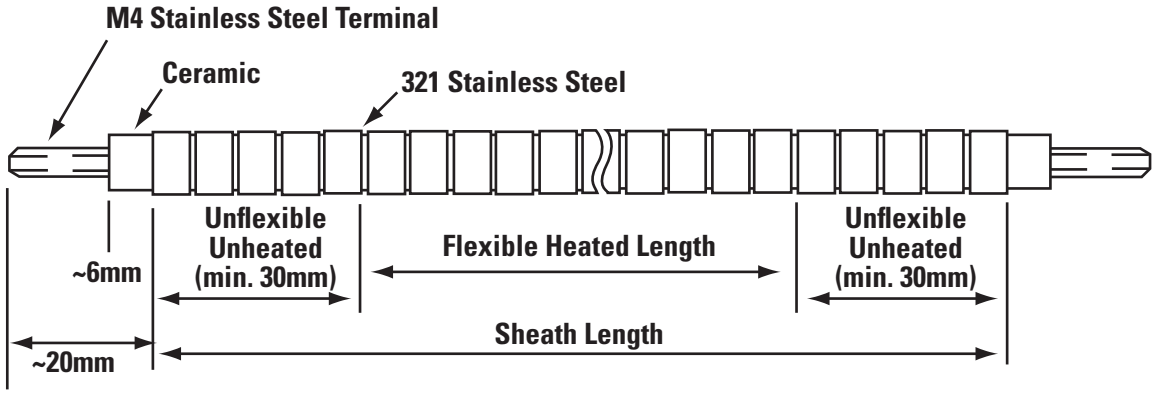
Flexible Tubular Heaters

Diameter: 8.0mm (0.315″)
Voltage: 240 VAC
Unheated: 30.0mm (1.18″) each end
Connection: M4 thread w/ hardware (type B)

Part Number	Sheath Length	Heated Length	Sheath Length	Heated Length	Wattage
HTFLX300MM	300mm	240mm	11.81″	9.45″	660
HTFLX350MM	350mm	290mm	13.78″	11.42″	675
HTFLX400MM	400mm	340mm	15.75″	13.39″	795
HTFLX450MM	450mm	390mm	17.72″	15.35″	910
HTFLX500MM	500mm	440mm	19.69″	17.32″	1025
HTFLX550MM	550mm	490mm	21.65″	19.29″	1145
HTFLX600MM	600mm	540mm	23.62″	21.26″	1260
HTFLX1200MM	1200mm	1140mm	47.24″	44.88″	2665
HTFLX1250MM	1250mm	1190mm	49.21″	46.85″	2780
HTFLX1300MM	1300mm	1240mm	51.18″	48.82″	2895
HTFLX1350MM	1350mm	1290mm	53.15″	50.79″	3015
HTFLX1400MM	1400mm	1340mm	55.12″	52.76″	3130
HTFLX1450MM	1450mm	1390mm	57.09″	54.72″	3245
HTFLX1500MM	1500mm	1440mm	59.06″	56.69″	3365

NOT AVAILABLE

PLEASE SEE HOTRUNNER CATALOG



Down and waiting for your tubular heater?
Place your order today, resume manufacturing tomorrow!

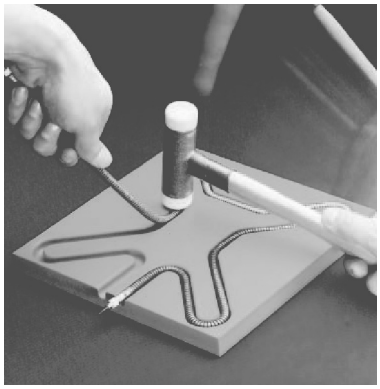
Important/Caution: Heated section MUST be inside of the groove. A small portion of the unheated section may be inside of the groove.

Any heated section outside and exposed to open air will fail. Also the 30mm cold section on each end MUST NOT be bent.

hotset

Disappointed by downtime and waiting for your tubular heater?

- Reduce costly, unnecessary downtime
- Reduce your stocking requirements
- Eliminate tooling or setup costs
- Tap in place with a rubber mallet
- Order today, resume manufacturing tomorrow!

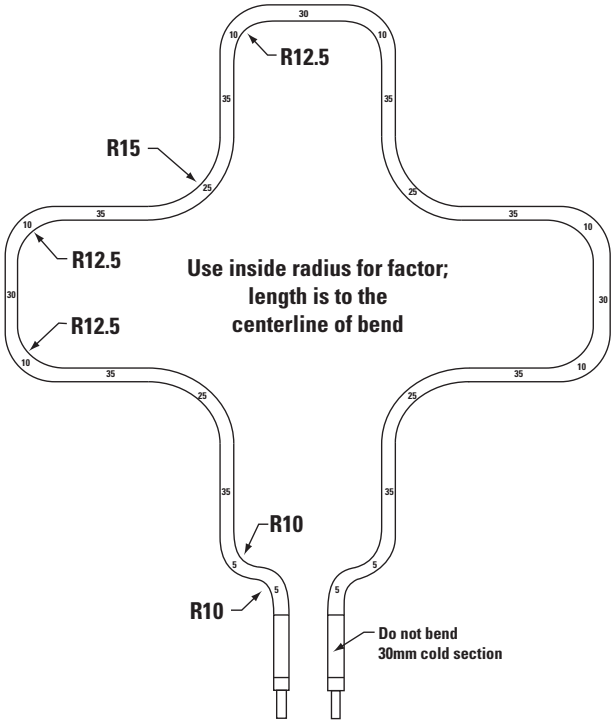


Easily select the correct 8.5mm Hotflex® flexible tubular heater

1. Measure and add total lengths in each category for the diameter that applies to your application.

8.5mm groove ø

		Totals
2. Length of each straight section	× 1 =	a
3. Length of each 10mm radius	× .94=	b
4. Length of each 12.5mm radius	× .95=	c
5. Length of each 15mm radius	× .95=	d
6. Length of each>15mm radius	× .96=	e
7. Add lines a,b,c,d and e	+	
8. Add 60mm for the cold section (30mm + 30mm)	+ 60	
9. Round this number down to the nearest 50mm increment		
This is your Hotflex® part number	**HF85**	



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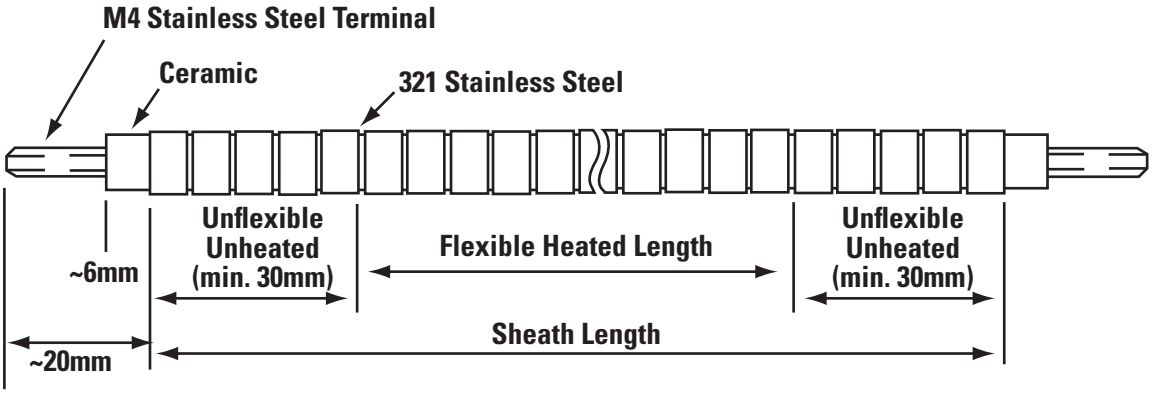
Specifications

Heated flexible stainless steel sheath
Max. operating temp. = 1292°F
Min. bending radius = 10mm
Max. voltage = 250V
Max. current = 25A
High voltage resistance (cold) = 1000 VAC

Current leakage (cold) ≤ 0.5mA at 253 VAC
Insulation resistance (cold) ≥ 5Mohm at 500 VDC
Ø tolerance = ± 0.1mm
Length tolerance = ± 1.5%
Wattage tolerance = ± 10%
Surface loading up to 15W/cm²

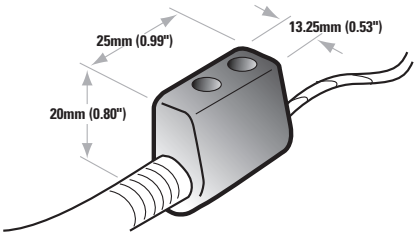
Diameter: 8.5mm (0.334")
Voltage: 230 VAC
Unheated: 30.0mm (1.18") each end
Connection: M4 thread w/ hardware (type B)

Part Number	Sheath Length	Heated Length	Sheath Length	Heated Length	Wattage
HF85350	350mm	290mm	13.78"	11.42"	750
HF85500	500mm	440mm	19.69"	17.32"	1150
HF851050	1050mm	990mm	41.34	38.98	2800
HF851100	1100mm	1040mm	43.31"	40.94"	2930
HF851150	1150mm	1090mm	45.28"	42.91"	3060
HF851200	1200mm	1140mm	47.24"	44.88"	3190



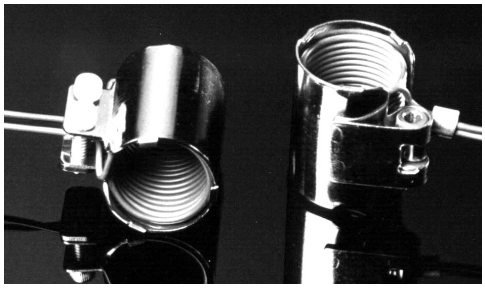
Plug 'n' Heat Ceramic Lead Adapter

- Heat resistant to 230°C (intermittent to 280°C)
- Accepts 12/14 AWG wire
- Two required to terminate both ends of Hotflex®
- Part Number PLUGNHEAT



Down and waiting for your tubular heater?
Place your order today, resume manufacturing tomorrow!

70 Series Mini Coil Heaters offer a very long life solution to precision-heating applications such as hot runner systems. The hermetically sealed construction prevents moisture from entering the heater, resulting in very long life and long-term resistance stability. A standard resistance tolerance of ± 2% produces excellent cavity-to-cavity repeatability in runnerless systems and is easier to control than more loosely toleranced heaters. The heater's nickel sheath is much more efficient for heat transfer than the stainless steel and Inconel sheaths used by other manufacturers, and makes the cold leads more flexible for ease in routing through wiring channels.



MINI COIL HEATERS

Specifications

Dielectric strength – 800 VAC
Current leakage – <0.1 mA at 240 VDC (cold)
Insulation resistance – >100 MΩ at 500 VDC (cold)
Cable diameter – 0.055″ (1.4mm)

Standard Features

Hermetic seal
72″ insulated leadwire
200 Series nickel sheath

CAM OPERATED - Mini Coil Heaters

Order Number	OEM Number	Rosemount Number	Inside Diameter	Length	Watts at 240 Volts
70A10	534234	904FE-101	¾″	1.2″	149
70A20	534233	904FE-131	¾″	1.2″	268

5″ & 7″ lead lengths

TWIN SCREW - Mini Coil Heaters

Order Number	OEM Number	Rosemount Number	Inside Diameter	Length	Watts at 240 Volts
70B10	520156	904EN/EJ101	¾″	1.2″	149
70B20	521334	904EN/EJ/FB131	¾″	1.2″	268
70B40	n/a	904EN/EJ/FB141	⅞″	1.2″	268

5″ & 7″ lead lengths

WEDGE STYLE AXIAL - Clamp Heaters

Order Number	OEM Number	Rosemount Number	Inside Diameter	Length	Watts at 240 Volts
80A10	534234	n/a	0.75	1.2″	240
80A20	534233	n/a	0.75	1.2″	240

5″ & 7″ lead lengths

Utilizing the same technology as our 70 Series, the 80 Series, larger cross-sectional area results in exceptional electrical properties. As with the 70 Series heaters, the hermetically sealed construction prevents moisture from entering the heater, resulting in very long life and long-term resistance stability. A standard resistance tolerance of ± 3% (± 2% upon request) produces excellent cavity-to-cavity repeatability in hot runner systems and is easier to control than more loosely toleranced heaters. The flattened nickel sheath is much more efficient for heat transfer than the SS and Inconel sheaths used by other manufacturers which results in faster heat-up than even our 70 Series. 80 Series mini coil heaters are offered in a variety of sizes, wattages and clamping options. Standard diameters are .750″, .875″, & 1.000″; other sizes & wattages available on request.

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Standard Features

Hermetic seal
72″ insulated leadwire
200 Series nickel sheath (cold)

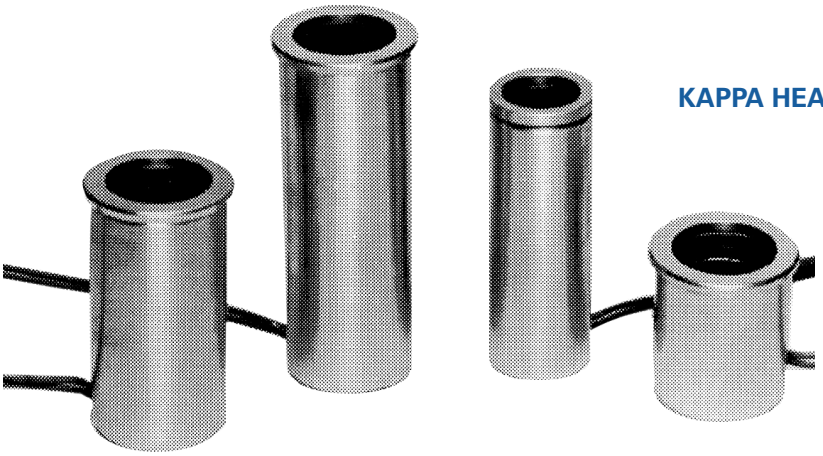
Specifications

Dielectric strength – 1000 VAC
Current leakage – <0.1 mA at 240 VDC (cold)
Insulation resistance – >100 MΩ at 500 VDC

Cable diameter – .075″ (1.9mm)

Heaters

Kappa® Heaters



KAPPA HEATERS

The Kappa Series Heaters are constructed with a nickel-plated copper inner sleeve and a stainless outer sleeve. The heater is tightly sandwiched between these sleeves eliminating the heat transfer problems associated with other dual-sleeved designs. The materials used direct the heat inward toward the nozzle, resulting in a very efficient heater with even heat distribution. The tightly-toleranced I.D. allows a slip fit with no clamping required.

Features

- Slip fit, no clamp required
- Very long life
- Efficient
- Optimum heat distribution
- Profiled heating available
- Low profile

Specifications

- Over 100 watts/in^2 possible
- 5- and 7-inch cold leads standard
- ± .0005 inch I.D. tolerance
- ± 2% resistance tolerance
- 72-inch lead wires standard
- 0.130" wall thickness

Part Number	OEM P/N	I.D.	Length	Wattage	Volts
75K75	534975	19.05mm	30mm	220W	240V
75K77	534977	19.05mm	50mm	220W	240V
75-400	535181	Cap			

- Widely used throughout the industry as a rugged dependable heat source
- High-quality materials and craftsmanship
- 5 diameters offered as standard
- 12″ standard high-temperature leads

CATRIDGE HEATERS-CH

Diameter	Sheath Length	Volts	Watts	Watt Density	Part Number
¼″ (.246″ ± .002″)	1½″	120	75	94	**CH41512-75**
		240	75	94	**CH41524-75**
		120	100	125	**CH41512-100**
	2″	120	150	118	**CH42012-150**
		240	150	125	**CH42024-150**
	2½″	120	200	126	**CH42512-200**
		240	200	126	**CH42524-200**
	3″	120	200	105	**CH43012-200**
		120	250	127	**CH43012-250**
		240	250	127	**CH43024-250**
	4″	120	300	110	**CH44012-300**
		240	300	110	**CH44024-300**
	5″	240	350	110	**CH45024-350**
	6″	240	400	95	**CH46024-400**
⅜″ (.371″ ± .002″)	1″	120	70	88	**CH61012-70**
	1½″	120	100	86	**CH61512-100**
		240	150	128	**CH61524-150**
	2″	120	100	57	**CH62012-100**
		120	150	85	**CH62012-150**
		240	150	85	**CH62024-150**
		120	200	172	**CH62012-200**
		240	200	172	**CH62024-200**
	2¼″	120	175	86	**CH622512-175**
	2½″	240	165	75	**CH62524-165**
		240	185	80	**CH62524-185**
		240	200	85	**CH62524-200**
		240	250	106	**CH62524-250**
		240	300	117	**CH62524-300**
	3″	120	365	116	**CH63012-365**
		240	200	68	**CH63024-200**
		240	250	86	**CH63024-250**
		240	375	121	**CH63024-375**
	3½″	120	425	114	**CH63512-425**
		240	300	85	**CH63524-300**
		240	425	114	**CH63524-425**
	4″	120	500	116	**CH64012-500**
		240	250	62	**CH64024-250**
		240	350	85	**CH64024-350**
		240	500	117	**CH64024-500**

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Cartridge Heaters

Standard

- Widely used throughout the industry as a rugged dependable heat source
- High-quality materials and craftsmanship
- 5 diameters offered as standard

Diameter	Sheath Length	Volts	Watts	Watt Density	Part Number
3/8″ (.371″ ± .002″)	4½″	240	450	95	**CH64524-450**
	5″	120	650	118	**CH65012-650**
	5″	240	300	57	**CH65024-300**
	5½″	240	550	93	**CH65524-550**
	6″	240	500	78	**CH66024-500**
	6″	240	600	94	**CH66024-600**
	6″	240	800	120	**CH66024-800**
	7″	240	600	80	**CH67024-600**
	7″	240	800	104	**CH67024-800**
	8″	120	1090	121	**CH68012-1090**
	8″	240	600	69	**CH68024-600**
	8″	240	900	102	**CH68024-900**
	9″	240	1000	100	**CH69024-1000**
	10″	240	600	54	**CH610024-600**
	10″	240	1000	91	**CH610024-1000**
	10″	240	1350	119	**CH610024-1350**
	12″	240	750	55	**CH612024-750**
	12″	240	1000	75	**CH612024-1000**
½″ (.496″ ± .002″)	1½″	120	190	97	**CH81512-190**
	2″	120	295	126	**CH82012-295**
	2″	240	200	86	**CH82024-200**
	2″	240	300	128	**CH82024-300**
	2¼″	120	150	55	**CH822512-150**
	2¼″	240	250	92	**CH822524-250**
	2½″	120	390	120	**CH82512-390**
	2½″	240	200	64	**CH82524-200**
	2½″	240	250	80	**CH82524-250**
	2½″	240	300	98	**CH82524-300**
	2½″	240	400	128	**CH82524-400**
	3″	240	250	64	**CH83024-250**
	3″	240	300	77	**CH83024-300**
	3″	240	500	128	**CH83024-500**
	3½″	240	500	107	**CH83524-500**
	3½″	240	580	114	**CH83524-580**
	4″	120	685	117	**CH84012-685**
	4″	240	300	55	**CH84024-300**
	4″	240	500	92	**CH84024-500**
	4″	240	685	117	**CH84024-685**
	4½″	240	650	103	**CH84524-650**
	5″	120	880	118	**CH85012-880**
	5″	240	500	72	**CH85024-500**
	5″	240	750	108	**CH85024-750**

CATRIDGE HEATERS-CH

- Widely used throughout the industry as a rugged dependable heat source
- High-quality materials and craftsmanship
- 5 diameters offered as standard

CATRIDGE HEATERS-CH

Diameter	Sheath Length	Volts	Watts	Watt Density	Part Number
½″ (.496″ ± .002″)	5″	240	880	118	**CH85024-880**
	5½″	240	750	95	**CH85524-750**
	6″	240	500	58	**CH86024-500**
	6″	240	850	98	**CH86024-850**
	6″	240	1075	119	**CH86024-1075**
	6½″	240	900	96	**CH86524-900**
	7″	240	1000	98	**CH87024-1000**
	8″	240	750	64	**CH88024-750**
		240	1000	86	**CH88024-1000**
		240	1470	121	**CH88024-1470**
	8½″	120	1000	80	**CH88512-1000**
	9″	120	1000	76	**CH89012-1000**
	9½″	240	1250	88	**CH89524-1250**
	10″	120	1000	67	**CH810012-1000**
		240	1500	100	**CH810024-1500**
		240	1860	122	**CH810024-1860**
	10½″	240	1500	96	**CH810524-1500**
	11″	240	1750	106	**CH811024-1750**
	12″	120	1000	56	**CH812012-1000**
		240	1500	84	**CH812024-1500**
		240	2000	112	**CH812024-2000**
		240	2200	122	**CH812024-2250**
⅝″ (.621″ ±.002″)	2″	240	200	68	**CH102024-200**
		240	250	73	**CH102024-250A**
		240	250	85	**CH102024-250B**
		240	365	103	**CH102024-365**
	2½″	240	400	102	**CH102524-400**
	3″	120	600	109	**CH103012-600**
		240	250	52	**CH103024-250**
		240	500	104	**CH103024-500**
	4″	120	850	114	**CH104012-850**
		240	500	73	**CH104024-500**
		240	750	110	**CH104024-750**
	4½″	240	750	96	**CH104524-750**
	5″	240	500	57	**CH105024-500**
		240	750	86	**CH105924-750**
		240	1000	114	**CH105024-1000**
	5½″	240	750	82	**CH105524-750**
	6″	120	1325	117	**CH106012-1325**
		240	850	79	**CH106024-850**
		240	1000	93	**CH106024-1000**
		240	1325	117	**CH106024-1325**

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Cartridge Heaters

Standard

- Widely used throughout the industry as a rugged dependable heat source
- High-quality materials and craftsmanship
- 5 diameters offered as standard
- 12″ standard high-temperature leads

CATRIDGE HEATERS-CH

Diameter	Sheath Length	Volts	Watts	Watt Density	Part Number
5/8″ (.621″ ± .002″)	7″	240	800	104	**CH107024-800**
		120	1590	119	**CH107012-1590**
		240	1000	78	**CH107024-1000**
		240	1590	119	**CH107024-1590**
	7½″	240	1000	73	**CH107524-1000**
	8″	120	1825	120	**CH108012-1825**
		240	1000	68	**CH108024-1000**
		240	1200	82	**CH108024-1200**
		240	1500	102	**CH108024-1500**
		240	1825	120	**CH108024-1825**
	9″	240	1250	75	**CH109024-1250**
	10″	240	1000	54	**CH1010024-1000**
	10″	240	1500	81	**CH1010024-1500**
	10″	240	2325	121	**CH1010024-2325**
	12″	240	1500	66	**CH1012024-1500**
	12″	240	2000	89	**CH1012024-2000**
	12″	240	2800	121	**CH1012024-2800**
3/4″ (.746″ ± .002″)	2″	120	200	57	**CH122012-200**
	2½″	240	350	74	**CH122524-350**
	3″	120	725	168	**CH123012-725**
	3″	240	400	68	**CH123024-400**
	3″	240	500	85	**CH123024-500**
	3″	240	600	102	**CH123024-600**
	3″	240	725	109	**CH123024-725**
	3½″	240	550	72	**CH123524-550**
	4″	240	500	61	**CH124024-500**
	4″	240	750	91	**CH124024-750**
	4″	240	1000	117	**CH124024-1000**
	4″	240	1025	114	**CH124024-1025**
	4½″	240	875	94	**CH124524-875**
	5″	240	850	80	**CH125024-850**
	5″	240	1000	95	**CH125024-1000**
	5″	240	1300	115	**CH125024-1300**
	5½″	240	900	77	**CH125524-900**
	6″	240	1000	77	**CH126024-1000**
	6″	240	1250	96	**CH126024-1250**
	6½″	240	1250	88	**CH126524-1250**

High Watt Density

- Widely used throughout the industry as a rugged dependable heat source
- High-quality materials and craftsmanship
- 5 diameters offered as standard

Diameter	Sheath Length	Volts	Watts	Watt Density	Part Number
¾″ (.746″ ± .002″)	7″	240	1000	66	**CH127024-1000**
	7″	240	1500	98	**CH127024-1500**
	8″	240	1750	100	**CH128024-1750**
	8″	240	2000	114	**CH128024-2000**
	8″	240	2200	120	**CH128024-2200**
	9″	240	1800	90	**CH129024-1800**
	9″	240	2000	100	**CH129024-2000**
	10″	240	2000	90	**CH1210024-2000**
	10″	240	2250	112	**CH1210024-2250**
	12″	240	1500	55	**CH1212024-1500**

Watlube

Cartridge Heater Release and Heat Transfer Agent

A protective lubricant for use when installing any cartridge heater. It provides a tighter fit, thus improving thermal conductance, permitting higher watt densities and extending heater life.

As a barrier to high temperature oxidation, it assures easy removal of the heater after extended service.

Simple to apply. Avoid contact with leads or end plug.

Size	Part Number
4 oz.	**WATLUBE**

WATLUBE

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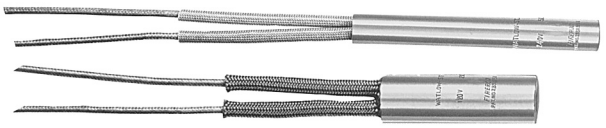
Cartridge Heaters

Premium quality Cartridge Heaters - Incalloy® sheath provides optimum heat transfer.



12″ standard glass covered leads

Delivery: Standard leads from stock. Alternative lead terminations shipped within 72 hours.

PREMIUM CARTRIDGE HEATERS

Length	Volts	Watts	Watts /Sq. In.	Part Number
1/8″ diameter (nominal) actual 0.122″± 0.002″				
1¼″	120	25	87	**C1E14**
	120	50	174	**C1E13**
	240	35	113	**C1E42**
1½″	120	30	78	**C1J5**
	120	60	156	**C1J6**
2″	120	50	87	**C2A4**
	120	100	174	**C2A5**
¼″ diameter (nominal) actual 0.246″± 0.002″				
1″	120	80	208	**E1A51**
	120	100	260	**E1A52**
	120	150	390	**E1A53**
	240	100	250	**E1A66**
1¼″	120	75	130	**E1E41**
	120	100	173	**E1E42**
	120	150	260	**E1E43**
	240	225	390	**E1E61**
1½″	120	50	65	**E1J39**
	120	100	130	**E1J40**
	120	150	195	**E1J41**
	240	175	228	**E1J49**
	120	200	260	**E1J42**
	240	200	260	**E1J52**
	240	250	325	**E1J35**
2″	120	80	68	**E2A136**
	120	100	87	**E2A55**
	240	125	108	**E2A82**
	120	150	130	**E2A56**
	240	150	130	**E2A77**
	120	200	173	**E2A57**
	240	200	173	**E2A50**
	120	250	217	**E2A72**
	240	250	215	**E2A76**
	240	300	260	**E2A83**
2½″	120	250	159	**E2J80**
	240	250	159	**E2J49**
3″	120	100	52	**E3A48**
	120	200	104	**E3A49**
	240	200	104	**E3A60**
	240	250	128	**E3A124**
	120	300	156	**E3A50**
	240	300	156	**E3A51**
4″	120	100	37	**E4A28**
	120	200	74	**E4A29**
	240	200	74	**E4A32**

Length	Volts	Watts	Watts /Sq. In.	Part Number
¼″ diameter (cont) actual 0.246″± 0.002″				
4″	120	300	111	**E4A30**
	240	300	111	**E4A6**
4½″	120	200	64	**E4J30**
5″	240	350	101	**E5A45**
	120	400	113	**E5A57**
	240	400	113	**E5A34**
6″	240	400	94	**E6A46**
3/8″ diameter (nominal) actual 0.371″± 0.002″				
1″	120	55	95	**G1A71**
	120	100	172	**G1A29**
	120	150	259	**G1A38**
	240	200	344	**G1A83**
1¼″	120	100	115	**G1E91**
	120	125	144	**G1E74**
	120	150	172	**G1E92**
	240	150	172	**G1E93**
	120	200	230	**G1E94**
	240	200	230	**G1E95**
	120	400	426	**G1E99**
1 5/16″	120	100	104	**G1F13**
	240	100	104	**G1F15**
	120	150	160	**G1F17**
1 3/8″	240	160	151	**G1G23**
1 7/16″	120	100	94	**G1H6**
1½″	120	50	43	**G1J25**
	120	75	65	**G1J70**
	120	80	68	**G1J66**
	120	100	86	**G1J59**
	240	100	86	**G1J110**
	240	125	106	**G1J182**
	120	150	129	**G1J31**
	240	150	129	**G1J39**
	120	200	173	**G1J85**
	240	200	173	**G1J73**
	120	250	216	**G1J86**
	240	250	216	**G1J54**
1¾″	120	125	86	**G1N45**
	120	175	122	**G1N46**
	120	250	172	**G1N43**
	240	250	172	**G1N32**
1 13/16″	240	150	98	**G1P14**
	120	200	129	**G1P15**
	240	250	161	**G1P11**
1⅞″	120	250	152	**G1R14**

It is recommended that Watlube Heat Transfer Agent & Release Compound be used to improve thermal conductivity, reduce hot spots and increase heater life.

PREMIUM CARTRIDGE HEATERS

Length	Volts	Watts	Watts /Sq. In.	Part Number
⅜" diameter (nominal) actual 0.371"± 0.002"				
2"	120	50	29	**G2A53**
	120	75	42	**G2A192**
	120	100	57	**G2A84**
	240	100	57	**G2A76**
	120	150	86	**G2A56**
	240	150	86	**G2A81**
	120	200	115	**G2A127**
	240	200	115	**G2A37**
	120	250	144	**G2A47**
	240	250	144	**G2A73**
	120	300	172	**G2A139**
	240	300	172	**G2A98**
	120	400	230	**G2A153**
	240	400	230	**G2A146**
	120	500	282	**G2A95**
	240	500	282	**G2A97**
2⅛"	240	200	106	**G2C13**
2¼"	120	75	37	**G2E88**
	120	125	62	**G2E89**
	240	125	62	**G2E138**
	240	150	73	**G2E68**
	120	175	86	**G2E90**
	120	250	123	**G2E2**
	240	250	123	**G2E78**
	120	300	148	**G2E108**
	240	300	148	**G2E12**
	120	350	173	**G2E91**
	240	350	173	**G2E75**
2½"	120	200	87	**G2J110**
	240	200	87	**G2J81**
	120	250	108	**G2J46**
	240	250	108	**G2J80**
	120	300	130	**G2J118**
	240	300	130	**G2J119**
	120	400	174	**G2J26**
	240	400	174	**G2J146**
	120	500	216	**G2J109**
	240	500	216	**G2J52**
2¹³⁄₁₆"	120	60	122	**G2P9**
	120	250	92	**G2P3**
	240	300	110	**G2P5**
3"	120	100	100	**G3A55**
	240	100	100	**G3A137**
	120	150	150	**G3A121**
	120	200	200	**G3A61**
	240	200	200	**G3A39**
	120	250	250	**G3A52**
	240	250	250	**G3A54**
	120	300	300	**G3A73**
	240	300	300	**G3A92**

Length	Volts	Watts	Watts /Sq. In.	Part Number
⅜" diameter (cont) actual 0.371"± 0.002				
3"	120	400	400	**G3A44**
	240	400	400	**G3A65**
	120	500	500	**G3A119**
	240	500	500	**G3A120**
	240	600	600	**G3A133**
3⁵⁄₁₆"	120	500	152	**G3F24**
3½"	120	250	72	**G3J77**
	240	250	72	**G3J65**
	120	300	87	**G3J87**
	240	300	87	**G3J68**
	120	500	144	**G3J22**
	240	500	144	**G3J63**
3⅜"	120	150	38	**G3P8**
	240	500	128	**G3P3**
4"	120	125	31	**G4A54**
	240	125	31	**G4A163**
	120	150	37	**G4A78**
	120	175	43	**G4A191**
	120	250	62	**G4A40**
	240	250	62	**G4A87**
	120	300	74	**G4A94**
	240	300	74	**G4A95**
	120	400	99	**G4A48**
	240	400	99	**G4A44**
	240	450	109	**G4A65**
	120	500	123	**G4A96**
	240	500	123	**G4A92**
	120	550	134	**G4A200**
4¼"	240	300	67	**G4E25**
	240	750	167	**G4E15**
4½"	120	300	65	**G4J54**
	240	300	65	**G4J33**
	120	500	108	**G4J55**
	240	500	108	**G4J37**
4¹³⁄₁₆"	240	300	59	**G4P11**
	240	500	98	**G4P3**
5"	120	150	29	**G5A68**
	240	150	29	**G5A56**
	120	300	58	**G5A69**
	240	300	58	**G5A70**
	120	500	96	**G5A38**
	240	500	96	**G5A71**
	240	750	144	**G5A67**
	240	1000	192	**G5A115**
5¼"	240	200	45	**G5E16**
5½"	240	600	104	**G5J36**
	240	1000	173	**G5J45**
6"	120	200	31	**G6A80**
	120	250	39	**G6A40**
	240	250	39	**G6A92**

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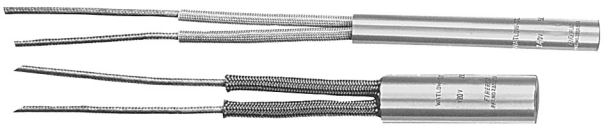
Cartridge Heaters

Premium quality Cartridge Heaters - Incalloy® sheath provides optimum heat transfer.



12″ standard glass covered leads

Delivery: Standard leads from stock. Alternative lead terminations shipped within 72 hours.

PREMIUM CARTRIDGE HEATERS

Length	Volts	Watts	Watts /Sq. In.	Part Number
⅜″ diameter (cont) actual 0.371″± 0.002″				
6″	120	400	63	**G6A81**
	240	400	63	**G6A82**
	120	500	79	**G6A125**
	240	500	79	**G6A59**
	120	600	94	**G6A56**
	240	600	94	**G6A51**
	240	750	117	**G6A46**
	240	1000	157	**G6A83**
6½″	240	600	86	**G6J23**
	240	1000	144	**G6J33**
7″	120	250	33	**G7A40**
	240	250	33	**G7A32**
	240	500	65	**G7A30**
	120	600	80	**G7A41**
	240	600	80	**G7A42**
	240	1000	133	**G7A43**
7½″	240	600	74	**G7J27**
	240	1000	124	**G7J28**
7 13/16″	240	750	87	**G7P5**
8″	120	300	34	**G8A54**
	240	300	34	**G8A47**
	120	400	45	**G8A109**
	120	500	58	**G8A81**
	240	500	58	**G8A32**
	120	600	69	**G8A53**
	240	600	69	**G8A37**
	240	700	79	**G8A98**
	240	1000	115	**G8A45**
8⅝″	240	500	52	**G8L3**
9″	240	1000	100	**G9A37**
9½″	240	600	57	**G9J20**
	240	1000	96	**G9J12**
10″	120	400	36	**G10A48**
	120	600	54	**G10A35**
	240	600	54	**G10A31**
	240	1000	91	**CH610024-1000**
10 13/16″	240	375	31	**G10P5**
12″	120	400	30	**G12A45**
	120	600	45	**G12A29**
	240	600	45	**G12A46**
	240	1000	75	**G12A47**
12 13/16″	240	1000	69	**G12P3**

Length	Volts	Watts	Watts /Sq. In.	Part Number
½″ diameter (cont) actual 0.496″± 0.002″				
1″	120	50	65	**J1A30**
	120	150	193	**J1A31**
1¼″	120	50	43	**J1E50**
	120	125	107	**J1E51**
	240	125	107	**J1E58**
	240	200	172	**J1E52**
	240	250	212	**J1E88**
1½″	120	50	32	**J1J47**
	120	150	97	**J1J48**
	240	150	97	**J1J96**
	120	200	128	**J1J59**
	240	200	128	**J1J38**
2″	120	75	32	**J2A80**
	120	200	86	**J2A49**
	240	200	86	**J2A75**
	120	250	108	**J2A85**
	240	250	108	**J2A71**
	120	300	128	**J2A95**
	240	300	128	**J2A96**
	120	400	171	**J2A81**
	240	400	171	**J2A82**
2¼″	120	75	28	**J2E86**
	120	125	46	**J2E87**
	120	250	92	**J2E56**
	240	250	92	**J2E69**
	120	400	147	**J2E114**
	240	400	147	**J2E115**
	120	500	184	**J2E6**
	240	500	184	**J2E88**
2⅜″	120	100	34	**J2G35**
	240	100	34	**J2G28**
	120	250	86	**J2G34**
	240	250	86	**J2G37**
	120	500	172	**J2G36**
	240	500	172	**J2G38**
2½″	120	100	32	**J2J67**
	240	100	32	**J2J57**
	120	250	81	**J2J68**
	240	250	81	**J2J69**
	120	300	96	**J2J109**
	240	300	96	**J2J110**
	120	400	128	**J2J81**
	240	400	128	**J2J82**

It is recommended that Watlube Heat Transfer Agent & Release Compound be used to improve thermal conductivity, reduce hot spots and increase heater life.

PREMIUM CARTRIDGE HEATERS

Length	Volts	Watts	Watts /Sq. In.	Part Number
½" diameter (cont.) actual 0.496"± 0.002"				
2½"	120	500	161	**J2J66**
	240	500	161	**J2J70**
2 9/16"	120	350	108	**J2K6**
	240	300	93	**J2K3**
2¾"	240	400	115	**J2N43**
	120	400	115	**J2N45**
3"	120	125	32	**J3A108**
	240	125	32	**J3A109**
	120	250	64	**J3A107**
	240	250	64	**J3A89**
	120	300	78	**J3A65**
	120	350	89	**J3A173**
	240	300	78	**J3A73**
	120	400	104	**J3A132**
	240	400	104	**J3A29**
	120	500	129	**J3A110**
	240	500	129	**J3A111**
	120	600	154	**J3A51**
	240	600	154	**J3A127**
	120	750	193	**J3A137**
	240	750	193	**J3A112**
	120	1000	254	**J3A79**
3½"	120	250	54	**J3J44**
	240	250	54	**J3J64**
	240	350	75	**J3J65**
	120	500	107	**J3J45**
	240	500	107	**J3J46**
	240	750	162	**J3J63**
3 13/16"	120	500	96	**J3P9**
	240	250	48	**J3P2**
4"	120	150	28	**J4A117**
	240	150	28	**J4A122**
	120	250	46	**J4A118**
	240	250	46	**J4A90**
	120	300	56	**J4A63**
	240	300	56	**J4A26**
	120	350	65	**J4A1**
	240	350	65	**J4A103**
	120	400	74	**J4A139**
	240	400	74	**J4A68**
	120	500	92	**J4A16**
	120	550	100	**J4A242**
	240	500	92	**J4A92**
	120	750	138	**J4A198**
	240	750	138	**J4A119**
	240	1000	184	**J4A73**
4 5/16"	120	550	92	**J4F5**
4½"	120	550	80	**J4J69**
	240	500	80	**J4J57**
	120	750	120	**J4J70**

Length	Volts	Watts	Watts /Sq. In.	Part Number
½" diameter (cont.) actual 0.496"± 0.002"				
4½"	240	750	120	**J4J32**
4 13/16"	240	300	44	**J4P3**
	240	1000	148	**J4P6**
5"	120	200	29	**J5A85**
	240	200	29	**J5A74**
	120	350	50	**J5A86**
	240	350	50	**J5A63**
	120	400	58	**J5A98**
	240	400	58	**J5A46**
	120	500	72	**J5A52**
	240	500	72	**J5A45**
	120	750	108	**J5A121**
	240	750	108	**J5A72**
	240	1000	143	**J5A87**
5½"	240	200	25	**J5J38**
	120	500	64	**J5J43**
	240	500	64	**J5J33**
	240	650	83	**J5J69**
	120	750	97	**J5J44**
	240	750	97	**J5J45**
5¾"	120	700	86	**J5N6**
	240	700	86	**J5N8**
5 13/16"	240	300	36	**J5P10**
6"	120	250	29	**J6A114**
	240	250	29	**J6A171**
	240	300	35	**J6A66**
	240	350	41	**J6A119**
	120	500	59	**J6A115**
	240	500	59	**J6A94**
	120	750	88	**J6A99**
	240	750	88	**J6A90**
	120	1000	117	**J6A53**
	240	1000	117	**J6A36**
6½"	240	500	54	**J6J45**
	240	1000	108	**J6J27**
7"	120	250	25	**J7A79**
	120	500	50	**J7A80**
	240	500	50	**J7A57**
	120	600	60	**J7A50**
	240	600	60	**J7A95**
	240	1000	99	**J7A81**
7½"	240	500	46	**J7J25**
	240	1000	92	**J7J26**
8"	120	300	26	**J8A71**
	240	300	26	**J8A111**
	120	500	43	**J8A64**
	240	500	43	**J8A66**
	120	1000	86	**J8A84**
	240	1000	86	**J8A60**
	240	1500	129	**J8A100**

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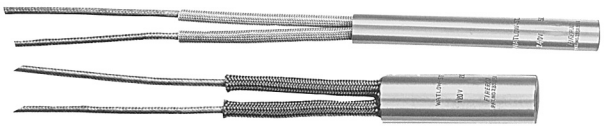
Cartridge Heaters

Premium quality Cartridge Heaters - Incalloy® sheath provides optimum heat transfer.



12″ standard glass covered leads

Delivery: Standard leads from stock. Alternative lead terminations shipped within 72 hours.

PREMIUM CARTRIDGE HEATERS

Length	Volts	Watts	Watts /Sq. In.	Part Number
½″ diameter (cont.) actual 0.496″± 0.002″				
8″	240	2000	172	**J8A101**
8½″	240	300	24	**J8J39**
	240	500	40	**J8J30**
	240	1000	80	**J8J28**
9″	240	500	38	**J9A35**
	240	1000	76	**J9A58**
9½″	240	500	36	**J9J14**
	240	1000	72	**J9J12**
10″	120	500	34	**J10A61**
	240	500	34	**J10A62**
	120	1000	68	**J10A63**
	240	1000	68	**J10A42**
	240	1500	102	**J10A33**
	240	2000	136	**J10A64**
11″	240	1000	61	**J11A60**
12″	120	500	28	**J12A63**
	240	500	28	**J12A76**
	120	1000	56	**J12A40**
	240	1000	56	**J12A49**
	240	1500	84	**J12A37**
	240	2000	112	**J12A89**
14″	240	1000	48	**J14A41**
	240	2300	110	**J14A39**
15″	240	1500	66	**J15A19**
16″	240	1000	41	**J16A12**
18″	240	1500	55	**J18A19**
	240	1700	62	**J18A23**
⅝″ diameter (nominal) actual 0.621″±0.002″				
1¼″	120	50	34	**L1E26**
	120	200	137	**L1E24**
	120	250	171	**L1E27**
1½″	120	250	128	**L1J23**
	240	250	128	**L1J24**
2″	120	100	34	**L2A48**
	120	200	68	**L2A49**
	240	500	170	**L2A54**
2¼″	120	100	29	**L2E49**
	120	250	73	**L2E50**
	240	250	73	**L2E12**
	120	350	103	**L2E40**
	240	350	103	**L2E51**
2⅜″	120	280	77	**L2G18**
	240	280	77	**L2G19**
3″	120	150	31	**L3A81**

Length	Volts	Watts	Watts /Sq. In.	Part Number
⅝″ diameter (cont.) actual 0.621″± 0.002″				
3″	120	250	51	**L3A82**
	240	250	51	**L3A9**
	120	400	81	**L3A94**
	120	500	102	**L3A113**
	240	500	102	**L3A33**
	240	750	154	**L3A71**
3¾″	120	525	82	**L3N12**
	240	525	82	**L3N1**
4″	120	250	37	**L4A99**
	240	250	37	**L4A104**
	240	400	58	**L4A47**
	240	500	73	**L4A53**
	240	600	88	**L4A44**
	240	750	110	**L4A100**
	240	1000	146	**L4A71**
5″	120	250	28	**L5A76**
	240	250	28	**L5A107**
	240	500	57	**L5A24**
	240	750	86	**L5A31**
	240	1000	114	**L5A77**
5⅜″	120	800	84	**L5G3**
	240	800	84	**L5G1**
6″	120	300	28	**L6A28**
	240	300	28	**L6A64**
	240	500	47	**L6A73**
	240	750	70	**L6A70**
	240	1000	93	**L6A71**
	120	1500	139	**L6A163**
	240	1500	139	**L6A94**
6½″	120	500	43	**L6J43**
	240	500	43	**L6J55**
7″	120	500	39	**L7A42**
	240	500	39	**L7A15**
	240	1000	79	**L7A37**
	240	1500	118	**L7A12**
8″	120	500	34	**L8A96**
	240	500	34	**L8A46**
	240	850	58	**L8A115**
	240	1000	68	**L8A10**
	240	1500	102	**L8A37**
	240	2000	137	**L8A80**
10″	120	500	27	**L10A51**
	240	500	27	**L10A40**
	240	750	40	**L10A69**

PREMIUM CARTRIDGE HEATERS

It is recommended that Watlube Heater Release and Heat Transfer Agent be used to improve thermal conductivity, reduce hot spots and increase heater life (see below)

Length	Volts	Watts	Watts /sq.in.	Part Number
⅝" diameter (cont) actual 0.621" ± 0.002"				
10"	240	1000	54	**L10A52**
	240	1500	81	**L10A8**
	240	2000	108	**L10A50**
12"	120	500	22	**L12A81**
	240	500	22	**L12A80**
	240	900	40	**L12A102**
	120	1000	45	**L12A82**
	240	1000	45	**L12A34**
	120	1500	66	**L12A147**
	240	1500	67	**L12A39**
	240	2000	89	**L12A63**
14"	240	3700	140	**L14A21**
15"	240	750	27	**L15A35**
	240	2400	84	**L15A20**
	240	4000	141	**L15A41**
16"	240	2500	82	**L16A33**
	240	4500	148	**L16A40**
18"	240	1500	44	**L18A32**
	240	3000	87	**L18A34**
	240	4700	137	**L18A36**
20"	240	1500	40	**L20A19**
	240	3500	92	**L20A13**
	240	4700	123	**L20A14**
24"	240	2000	44	**L24A19**
	240	4700	102	**L24A14**
36"	240	3000	43	**L36A8**
¾" diameter (nominal) actual 0.746" ± 0.002"				
2"	120	200	49	**N2E8**
3"	120	250	43	**N3A11**
	240	500	85	**N3A12**
4"	120	250	31	**N4A16**
	240	500	61	**N4A17**
	240	1000	122	**N4A15**
5"	120	300	28	**N5A19**
	240	500	47	**N5A12**
	240	1000	95	**N5A20**
6"	120	500	39	**N6A19**
	240	500	39	**N6A20**
	240	1000	78	**N6A21**
	240	1500	116	**N6A82**
	240	2000	155	**N6A22**
7"	120	500	33	**N7A15**
	240	500	33	**N7A1**
	240	1000	66	**N7A16**
8"	120	500	28	**N8A19**
	240	500	28	**N8A20**
	240	1000	57	**N8A21**
	240	2000	114	**N8A22**
10"	240	1000	45	**N10A15**
	240	2000	90	**N10A14**

Length	Volts	Watts	Watts /sq.in.	Part Number
¾" diameter (cont) actual 0.621" ± 0.002"				
12"	240	1000	37	**N12A15**
	240	2000	74	**N12A24**
	240	4000	148	**N12A25**
13"	240	1000	34	**N13A26**
14"	240	1250	40	**N14A22**
	240	2500	79	**N14A20**
	240	4500	142	**N14A21**
15"	240	1500	44	**N15A26**
16"	240	1800	49	**N16A26**
	240	4700	129	**N16A18**
18"	240	2000	49	**N18A13**
	240	5000	122	**N18A15**
20"	240	1150	25	**N20A21**
	240	2250	49	**N20A22**
	240	5250	115	**N20A10**
24"	240	1375	25	**N24A24**
	240	2750	50	**N24A23**
	240	5500	100	**N24A13**
36"	240	2500	30	**N36A4**

Watlube

Cartridge Heater Release and Heat Transfer Agent

A protective lubricant for use when installing any cartridge heater. It provides a tighter fit, thus improving thermal conductance, permitting higher watt densities and extending heater life.

As a barrier to high temperature oxidation, it assures easy removal of the heater after extended service.

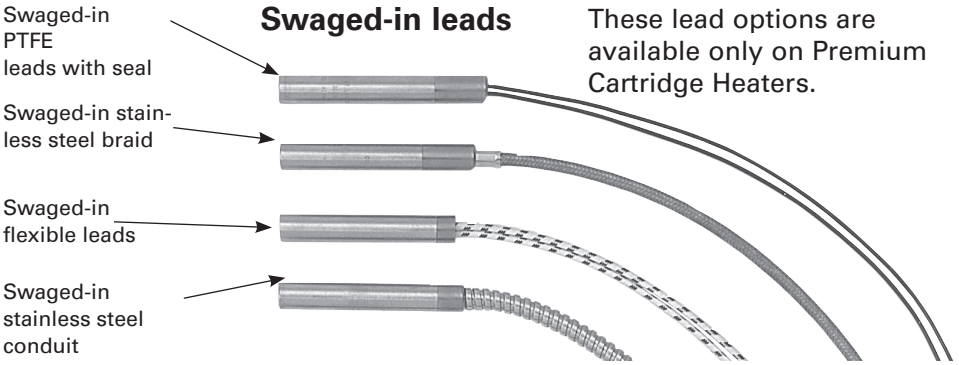
Simple to apply. Avoid contact with leads or end plug.

Size	Part Number
4 oz.	WATLUBE

F

Lead Options

Swaged-in leads



These lead options are available only on Premium Cartridge Heaters.

For customers having special requirements, DME offers the lead options shown on these pages. These swaged-in, flexible leads offer a wide choice in terms of capacity, cost, size, durability and ease of installation. Available from stock in any diameter with any lead length.

These lead adaptations are of improved construction and will stand up to extra heavy usage. Unheated sections are reduced up to one-half the area, resulting in lower watt densities and consequent longer life. Leads are flexible over their full length.

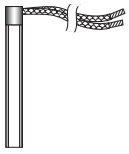
Modification Type	Length Dia.	Length Added to Heater	Std. Unheated Portion	Std. Lead Length
Swaged-in flex leads	all	3/16″	7/16″	10"
Swaged-in stainless steel braid	1/4″	3/8″	5/8″	14″
	3/8″	3/4″	1″	14″
	1/2″			
	5/8″			
	3/4″			
Swaged-in PTFE	all exc. 1/4″ dia.	3/4″	1″	10″
Swaged-in stainless steel conduit	1/4″	3/8″	5/8″	14″
	3/8″			
	1/2″			
	5/8″			
	3/4″			

Right Angle Swaged-In Leads

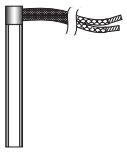
For applications where space is limited or confining, swaged-in flexible leads are also offered in right angle configuration with lead wires exiting at side of sheath.

These lead options are available only on Premium Cartridge Heaters.

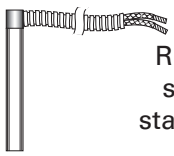
Modificaton Type	Dia.	Length added to heater	Unheated portion	Std. lead length
Rt. angle swaged-in flex leads	3/8″	3/8″	5/8″	10″
	others	7/16″	11/16″	
Rt. angle swaged-in stainless steel braid	3/8″	1/2″	3/4″	14″
	1/2″	9/16″	13/16″	
	5/8″			
	3/4″			
Rt. angle swaged-in stainless steel conduit	3/8″	1/2″	3/4″	14″
	1/2″	9/16″	13/16″	
	5/8″			



Right angle swaged-in flexible leads



Right angle swaged-in stainless steel braid



Right angle swaged-in stainless steel conduit

Thermocouple

- 36″ standard, high-temperature leads
- 48″ standard, J calibration thermocouple
- Pin leads with high-temperature sleeving

Diameter	Sheath Length	Volts	Watts	Part Number
¼″ .246″ (± .002″)	1½″	240	200	**CH41524-200T**
	1¾″	240	200	**CH417524-200T**
	2″	240	200	**CH42024-200T**
	2½″	240	200	**CH42524-200T**
	3″	240	200	**CH43024-200T**
	3½″	240	250	**CH43524-250T**
	4″	240	250	**CH44024-250T**
	5″	240	250	**CH45024-250T**
⅜″ .371″ (± .002″)	1½″	240	200	**CH61524-200T**
	1¾″	240	200	**CH617524-200T**
	1¾″	240	250	**CH617524-250T**
	2″	240	200	**CH62024-200T**
	2″	240	250	**CH62024-250T**
	2½″	240	250	**CH62524-250T**
	3″	240	260	**CH63024-260T**
	3″	240	300	**CH63024-300T**
	3½″	240	320	**CH63524-320T**
	3½″	240	350	**CH63524-350T**
	4″	240	370	**CH64024-370T**
	4½″	240	420	**CH64524-420T**
	5″	240	300	**CH65024-300T**
	5″	240	470	**CH65024-470T**
	5½″	240	525	**CH65524-525T**
	6″	240	575	**CH66024-575T**
	6½″	240	625	**CH66524-625T**
	7″	240	675	**CH67024-675T**
	7½″	240	724	**CH67524-724T**
	8″	240	775	**CH68024-775T**
	8½″	240	835	**CH68524-835T**
	9″	240	885	**CH69024-885T**
	9½″	240	940	**CH69524-940T**
	10″	240	990	**CH610024-990T**
½″ .496″ (± .002″)	1¾″	240	230	**CH817524-230T**
	2½″	240	280	**CH82524-280T**
	3″	240	500	**CH83024-500T**
	3½″	240	420	**CH83524-420T**
	4″	240	490	**CH84024-490T**
	4½″	240	550	**CH84524-550T**
	5″	240	625	**CH85024-625T**
	5½″	240	700	**CH85524-700T**
	6″	240	775	**CH86024-775T**
	6½″	240	850	**CH86524-850T**

CARTRIDGE HEATERS THERMO-COUPLE

F

Drum Heaters

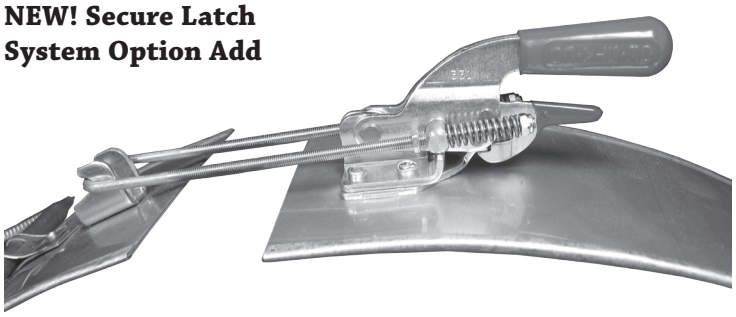
Our Drum Heater is a portable, lightweight heat source designed for standard drum sizes but versatile enough for use on any similar-sized vessel where quick, adjustable heating is required.

The watt density does not exceed 8.5, so it is suitable for most materials and solutions requiring heat for handling, dipping, coating or mixing.

Features

- Heavy-duty cord & plug on all models
- Rust-resistant stainless steel
- Lightweight, one-piece construction
- Minimum - maximum heat control
- New heavy-duty construction

NEW! Secure Latch System Option Add



Drum Capacity	Heater Model Number	Volts	Watts	I.D.	Width
45 IMP. GAL. 55 U.S. GAL.	D130120 D130240	120 240	1900 3000	22½″	5″
25 IMP. GAL. 30 U.S. GAL.	D140120 D140240	120 240	1900 2500	18″	5″
5 IMP. GAL. 6 U.S. GAL.	D135120 D135240	120 240	1500 1500	11″	5″

DRUM HEATERS

Part Number	Capacity	Volts/Watts
D130120	45 Gal. Metal Drum	120V/1900W
D130240	45 Gal. Metal Drum	240V/3000W
D135120	5 Gal. Metal Drum	120V/1500W
D135240	5 Gal. Metal Drum	240V/1500W
D140120	25 Gal. Metal Drum	120V/1900W
D140240	25 Gal. Metal Drum	240V/2500W

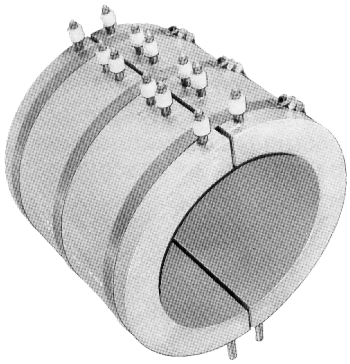
Cast Heaters are used to heat plastics injection molding and extrusion machinery, packaging machinery, sealer bars, laboratory heaters, hydraulic platens and many applications where durability and extended heater life is important.

Cast Heaters consist of high-quality tubular heaters cast into specific grades of non-ferrous alloys all chosen for excellent thermal conductivity properties.

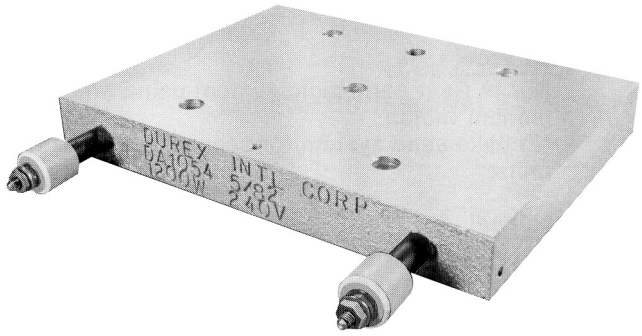
Cast Heaters can be designed as band heaters, band heaters with cooling tubes, finned band heaters and platen heaters. The Cast Heaters can be supplied with strap lockup or flange lockup, armoured cable leads, terminal posts or protective terminal boxes.

Air-Cooled Finned Heaters

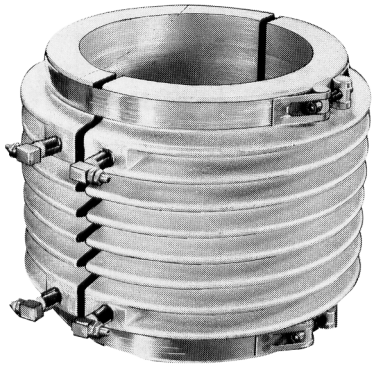
Cast aluminum finned heaters are designed to provide rapid cooling response and temperature control on air-cooled machines and are incorporated as original equipment by many extruder manufacturers.



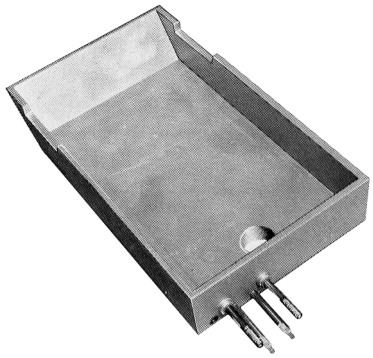
Cylindrical heat and cool heaters for extrusion machinery



Platen heaters for packaging, food warming & die heating



Cylindrical finned heaters for air-cool extrusion machinery



Glue pots and pan heaters for industrial and food warming applications

F

Power Up/Power Down All Units-Fused and Ready to Mount!

Applications

- Nozzle band heaters
- Hot runners
- Band or cartridge

Features

- Compact and durable design
- Half the price of an electro-mechanical voltage controller
- Solid state reliability
- Low price, high quality

SCR POWER CONTROLS

Model 18TBP/TB Controls

Provide infinitely variable control of single-phase AC voltage to resistive heating elements. These controls are solid-state replacements for variable transformers, saturable core reactors, and electro mechanical contactors. Power Triacs replace contacts and brushes to control electric power without moving parts, and, when operated within their stated ratings for current, voltage, and temperature, have no known life expectancy rating.

Panel- or Chassis-Mount

Model 18TBP controls are compact, lightweight packages that employ single hole mounting to panels and enclosure doors. Model 18TB controls are designed for rear or rack mounting.

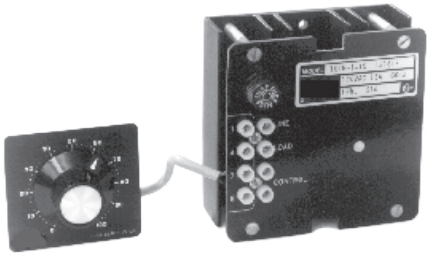
Performance Note

Triac power circuits may "slave" when multiple units are used on 240 VAC lines derived from three-phase mains. For optimum performance, use on single phase, 240 VAC derived from 3-wire, 120/240 VAC mains.

18TBP Series, single hole mounting to panels and enclosure doors

Part Number	Input Volts	Max AMPS	Output Voltage
18TBP1-15	120V	15 AMP	0–120
18TBP2-15	240V	15 AMP	0–240

Note: Use only factory-recommended fuses



Note: Use only factory-recommended fuses

Part Number	Input Volts	Max AMPS	Output Voltage
18TB1-25	120V	25 AMP	0–120
18TB2-25	240V	25 AMP	0–240

18TB Series designed for rear or rack mounting

18TP Series Features

- 5 and 10 AMP load capacity at 120 or 240 VAC
- Lighted ON/OFF switch
- Built-in "2 millisecond" fuse protection
- 6' power cord with plug
- NEMA standard 120 or 240 VAC receptacle
- Small size - only 4.7" × 3.3" × 2.5"
- Low price, high quality

Part Number	Input Volts	Max AMPS	Output Voltage
18TP1-10	120V	10 AMP	0–120
18TP2-10	240V	10 AMP	0–240

Temp/Process Controller

Fuzzy Pro™

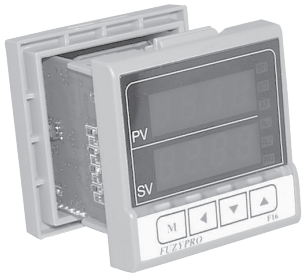
Choose 1/16, 1/8 or 1/4 DIN

These units feature a 10 AMP relay!

Features

- PID - FUZZY or On/Off control
- Heating/cooling + 2 alarms
- Field input selection TC, RTD, linear
- Outputs relay, pulsed DC, 4–20 mAMPS
- Dual display- red/green + LED% output
- Self tuning with inhibited overshoot
- Low panel depth 3⅛" (80mm)
- 16 ramp/dwell segments option
- Heater saver power limit function
- Multiple alarms on a single output
- Scalable linear input
- Rapid cycling controls faster systems
- Customized operator interface
- Setpoint range limit
- Plug in from front
- Operator lockout security setting

TEMP/PROCESS CONTROLLER



DIN Size	Part Number	Output Type	Alarm or Cooling Output
1/16	**F16101**	Relay, SPBT 3A/240 VAC	Relay 10A/240V SPST
1/16	**F16201**	SSR Pulse/20 VDC/20mA	Relay 10A/240V SPST
1/8	**F18101**	Relay, SPST 3A/240 VAC	Relay 10A/240V SPST
1/4	**F14101**	Relay, SPST 3A/240 VAC	Relay 10A/240V SPST

Gentran Transducer

Plastic Melt Pressure Transducer GT76

Precise Pressure Measurement
Gentran Models GT72 and GT76 have non-linearity specifications of ± 0.5% and ± 1.0% of full scale BFSL, respectively. Repeatability for both models is better than 0.1% of full scale.

Easily Installed
These transducers can be installed directly into the extruder, melt pump or other pressure tap. All mating cable assemblies are terminated with spade lugs for simple electrical connection.

Industry Compatible
All Gentran products are configured to industry standards for effortless replacement of parts. We offer compatible units complete with flexible armor stems so that you can replace a transducer without disturbing your existing wiring or indicator configuration.

Versatility
Gentran offers various body lengths, thread dimensions and options for thermocouples. Integral, flexible armored cable is also available. For special applications, we can custom design unique configurations to fit your needs.

Rugged and Durable
Our units last up to six times longer than other units because of our thicker 17-4 PH stainless steel diaphragms that operate from 0 to 750°F.

Ordering Info

Typical Part Number

GT72	/6	J	C	D6	Z1	–10K

Transducer

Melt Pressure Transducer Model		Barrel Length		Thermocouple Type		Diaphragm Material		Wiring Options		"Z" Options		Pressure Range	
GT72	High Accuracy Unit ±0.5%	6	6 inch "A" Length	J	"J" Type	None	17-4 PH SST	None	Standard 6-pin Cannon Connector	None	Standard Unit	5C	0-500*
				K	"K" Type	C	Hard Chrome			Z1	18" Integral Flexible Armored Cable	1K	0-1,000*
				T	"T" Type	H	Hastelloy C-276					1.5K	0-1,500
GT76	Standard Accuracy Unit ±1.0%	12	12 inch "A" Length	R	"RTD" Type			D6	Bendix 6-pin Connector			3K	0-3,000
						I	Inconel 718			Z2	24" Integral Flexible Armored Cable	5K	0-5,000
						N	Titanium Nitride-TIN	D8	Bendix 8-pin Connector			7.5K	0-7,500
												10K	0-10,000
						NN	Double Coated TIN			Z3	30" Integral Flexible Armored Cable	15K	0-15,000
												20K	0-20,000*
												350BAR	0-350 BAR
												700BAR	0-700 BAR
												1400BAR	0-1400 BAR
												500KG	0-500 kg/cm²
												700KG	0-700 kg/cm²

Typical Part Number

72	04	02	–10

Cable Assembly

Cable Type		Transducer Type		Connector Type		Cable Length*	
72	Standard	04	No Thermocouple	02	Gentran	10	10 Feet
75	Armored	64	"J" Type	11	Bendix 8-pin (D8)	20	20 Feet
		74	"K" Type	13	Bendix 6-pin (D6)	40	40 Feet
		94	"T" Type				
		84	"RTD" Type				

*Other ranges available upon request.
*Special range.

Plastic Melt Pressure Transducer GT76

Specifications: GT72 & GT76

Performance Characteristics	Electrical Characteristics	Temperature Characteristics	Mechanical Characteristics
Standard Pressure Ranges: 0-1,500 psig, 0-3,000 psig, 0-5,000 psig, 0-10,000 psig, 0-15,000 psig, 0-350 BAR, 0-700 BAR, 0-1,400 BAR, 0-500 kg/cm² 0-700 kg/cm² **Special Ranges:** 0-500 psig, 0-1,000 psig, 0-20,000 psig Other ranges available upon request **Accuracy:** GT2: ±0.5% of full scale maximum (BFSL) GT76: ±1.0% of full scale maximum (BFSL) **Repeatability:** Within ± 0.1% of full scale maximum **Resolution:** Infinite **Overload Pressure:** 150% of rated range, no damage	**Sensor Type:** Bonded strain gauge, 4 Leg Wheatstone Bridge **Bridge Resistance:** 350 ohms, ±5.0% **Sensitivity:** 3.0 mV/V nominal (open circuit) **Zero Balance:** ±10.0% **Excitation:** 5-12 VDC or AC (RMS), maximum 15 Volts **External Shunt Callbration Resistor** Standard feature, options available. **Insulation Resistance:** >1,000 Mohms @ 50 VDC **Thermocouple:** Types J, K, and RTD available as an Internal option	**Diaphragm:** 0 to 750°F (–18 to 400°C) **Electrical Connector:** 0 to 250°F (–18 to 121°C) **Zero Drift:** ± 0.01% of full scale/°F ± .002% o full scale/°C **Sensitivity Drift:** ± 0.01% of full scale/°F ± 0.02% of full scale/°C	**Diaphragm Material:** Standard 17-4 PH Stainless steel, options include Hastelloy, hard chrome plate, Inconel 718 & titanium nitride **Pressure Fitting:** ½ inch-20 UNF-2A Metric m 18 x 1.5 optional custom options available

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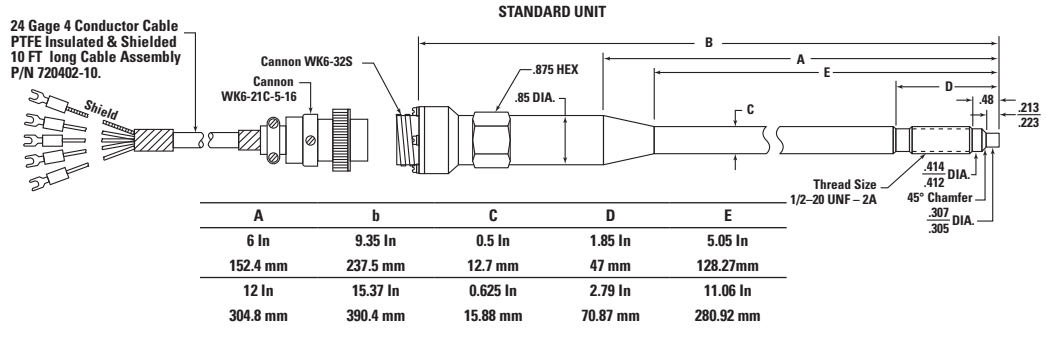
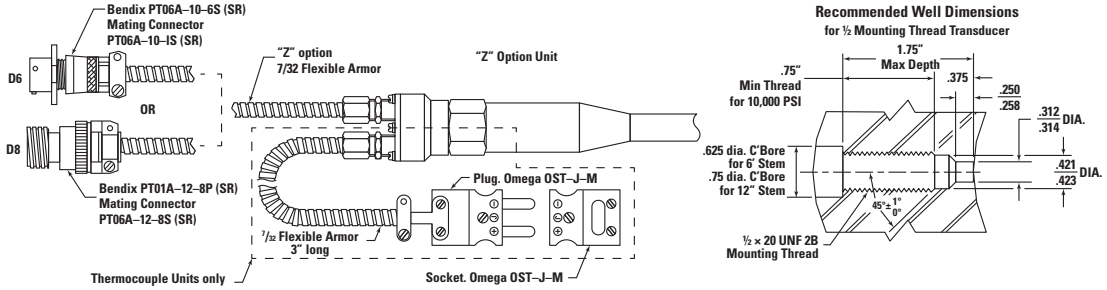
Dimensions



A	b	C	D	E
6 In	9.35 In	0.5 In	1.85 In	5.05 In
152.4 mm	237.5 mm	12.7 mm	47 mm	128.27mm
12 In	15.37 In	0.625 In	2.79 In	11.06 In
304.8 mm	390.4 mm	15.88 mm	70.87 mm	280.92 mm



Melt Pressure Gauges

Rigid Stem

Melt Pressure Gauge - Model ERTG

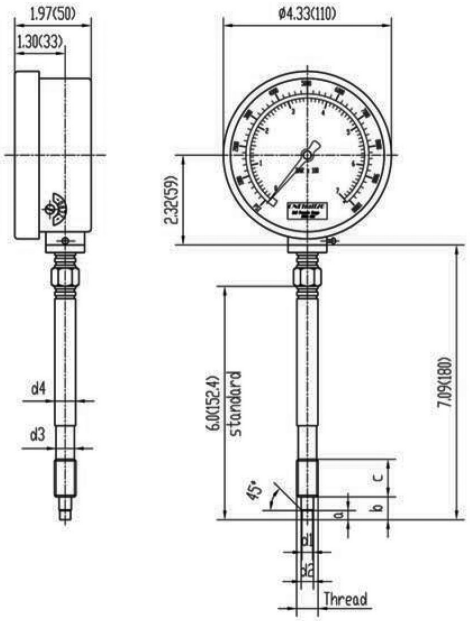
Melt Pressure Gauge Model ERTG is a totally mechanical device, requiring no power. This rugged, totally self-contained Melt Pressure Gauge is available in either 0–5,000 psi or 0–10,000 PSI ranges. This gauge allows the user to benefit from the improved efficiency and quality that goes along with melt pressure monitoring at an affordable price.

Melt Pressure Gauge Model ERTG comes standard with a 6" rigid stem, ½–20 UNF mounting thread.

Features & Benefits

- Requires no electrical power and is totally maintenance free
- All stainless steel construction
- Large 4" gauge head with safety glass can be rotated 300° for pressure reading convenience
- Accuracy +/– 2%
- Optional type J or type K thermocouple output

MELT PRESSURE GAUGE RIGID STEM



Thread	d1	d2	a	b	c	d3	d4
½" – 20	ø0.307 (7.8) ø0.303 (7.7)	ø0.413 (10.5) ø0.407 (10.35)	0.217 (5.5) 0.211 (5.35)	0.441 (11.2) 0.233 (11.0)	0.629 (16.0)	ø0.41 (10.5)	ø0.5 (12.7)
M18	ø0.394 (10.0) ø0.386 (9.8)	ø0.610 (15.5) ø0.602 (15.3)	0.236 (6.0) 0.230 (5.85)	0.551 (14.0) 0.543 (13.8)	0.787 (20.0)	ø0.63 (16.0)	ø0.709 (18.0)

Part Number	Description	Pressure Range	Thermocouple
ERTG6-5M	6" Rigid Stem Only	0–5,000 psi	None
ERTG6-5MTCJ	6" Rigid Stem Only	0–5,000 psi	Type J
ERTG6-5MTCK	6" Rigid Stem Only	0–5,000 psi	Type K
ERTG6-10M	6" Rigid Stem Only	0–10,000 psi	None
ERTG6-10MTCJ	6" Rigid Stem Only	0–10,000 psi	Type J
ERTG6-10MTCK	6" Rigid Stem Only	0–10,000 psi	Type K
ERTG12-5M	12" Rigid Stem Only	0–5,000 psi	None
ERTG12-5MTCJ	12" Rigid Stem Only	0–5,000 psi	Type J
ERTG12-5MTCK	12" Rigid Stem Only	0–5,000 psi	Type K
ERTG12-10M	12" Rigid Stem Only	0–10,000 psi	None
ERTG12-10MTCJ	12" Rigid Stem Only	0–10,000 psi	Type J
ERTG12-10MTCK	12" Rigid Stem Only	0–10,000 psi	Type K

MELT PRESSURE GAUGE FLEXIBLE STEM

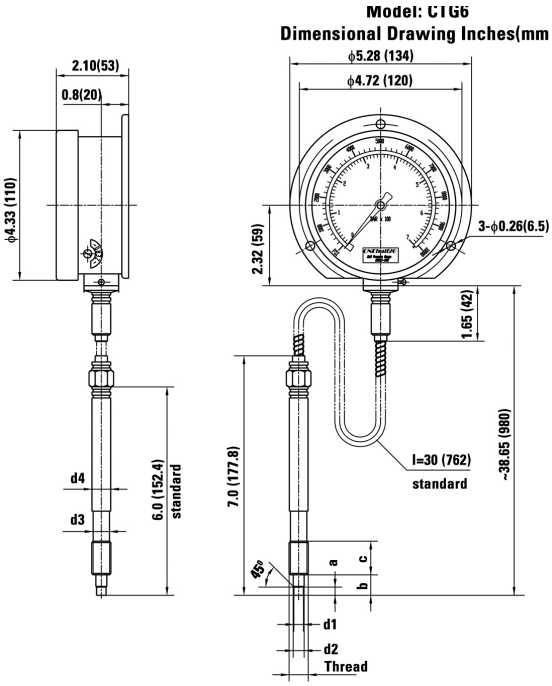
Melt Pressure Gauge - Model ECTG

Melt Pressure Gauge Model ECTG is a totally mechanical device, requiring no power. This rugged, totally
self-contained Melt Pressure Gauge is available in either 0–5,000 psi or 0–10,000 psi ranges. This gauge allows the user to benefit from the improved efficiency and quality that goes along with melt pressure monitoring at an affordable price.

Melt Pressure Gauge Model ECTG comes standard with a 6″ rigid stem and 30″ of flexible capillary, and ½–20 UNF thread.

Features & Benefits

- Requires no electrical power and is totally maintenance fre
- All stainless steel construction
- Large 4″ gauge head with safety glass can be rotated 300° for pressure reading convenience
- Accuracy +/– 2%
- Optional type J or type K thermocouple output



Thread	d1	d2	a	b	c	d3	d4
½″ – 20	ø0.307 (7.8) ø0.303 (7.7)	ø0.413 (10.5) ø0.407 (10.35)	0.217 (5.5) 0.211 (5.35)	0.441 (11.2) 0.233 (11.0)	0.629 (16.0)	ø0.41 (10.5)	ø0.5 (12.7)
M18	ø0.394 (10.0) ø0.386 (9.8)	ø0.610 (15.5) ø0.602 (15.3)	0.236 (6.0) 0.230 (5.85)	0.551 (14.0) 0.543 (13.8)	0.787 (20.0)	ø0.63 (16.0)	ø0.709 (18.0)

Part Number	Description	Pressure Range	Thermocouple
ECTG6-5M	6″ Rigid Stem w/30″ Capillary	0–5,000 psi	None
ECTG6-5MTCJ	6″ Rigid Stem w/30″ Capillary	0–5,000 psi	Type J
ECTG6-5MTCK	6″ Rigid Stem w/30″ Capillary	0–5,000 psi	Type K
ECTG6-10M	6″ Rigid Stem w/30″ Capillary	0–10,000 psi	None
ECTG6-10MTCJ	6″ Rigid Stem w/30″ Capillary	0–10,000 psi	Type J
ECTG6-10MTCK	6″ Rigid Stem w/30″ Capillary	0–10,000 psi	Type K
ECTG12-5M	12″ Rigid Stem w/30″ Capillary	0–5,000 psi	None
ECTG12-5MTCJ	12″ Rigid Stem w/30″ Capillary	0–5,000 psi	Type J
ECTG12-5MTCK	12″ Rigid Stem w/30″ Capillary	0–5,000 psi	Type K
ECTG12-10M	12″ Rigid Stem w/30″ Capillary	0–10,000 psi	None
ECTG12-10M2TCK	12″ Rigid Stem w/30″ Capillary	0–10,000 psi	Type K
ECTG12-10MTCJ	12″ Rigid Stem w/30″ Capillary	0–10,000 psi	Type J

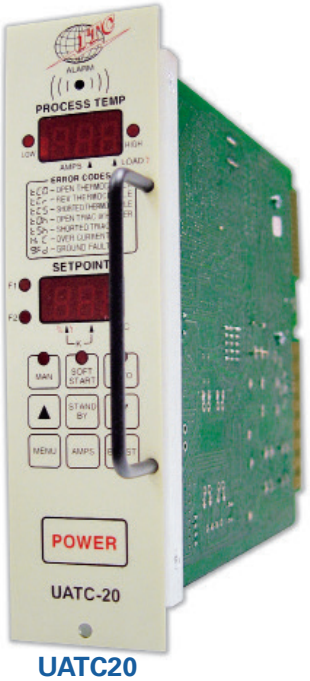
UATC20 Temperature Controllers

The UATC20 Temperature Control Module is a fully microprocessor based unit which has been intelligently designed for Hot Runner Mold Temperature Control Applications where advanced operational and diagnostic features are needed.

The well developed circuitry of the UATC20 produces a module which is simple to operate, rugged and dependable. The advanced diagnostic functions (which are operator programmable to the specific hearing zone) provide a snapshot of the operation of that specific heating zone.

Some of the exceptional Analytical functions found on the UATC20 are:

- A diagnostic snapshot of the heater operating characteristics are revealed when the current sensing feature is employed.
- Detects and alerts to the potential dangerous conditions of current leaking to ground.
- If power to the heater exceeds a selected value, the module will alarm and disable power to the heater preventing damage.
- Advanced circuitry detects, alarms and disables power to the heater in the event the triac fails in a shorted condition.
- Heater diagnostics can be performed by checking the average amperage draw of the heater.
- In the event of a thermocouple, open or shorted condition, the module will automatically go into “APO” (Average Power Output) mode, allowing operations to continue by providing the same average power to the heater as applied prior to the failure.



UATC20

- Real time diagnostics fault detection & error display.
- Audible alarm warns in the case of an error condition.
- A diagnostic snapshot of the heaters operating characteristics are revealed when the current sensing feature is employed.

The UATC20 Temperature Control Module is a fully microprocesser based instrument, which has been intelligently designed for Hot Runner Mold temperature control applications where advanced operational and diagnostic features are needed. The well developed circuitry of UATC20 produces a full featured module which is simple to operate and will stand up to rigors of harsh environments.

An interesting feature of the UATC20 is its capacity to provide a snapshot of operation of the heating zone by displaying amperage draw. The UATC20 also has the ability to adjust maximum amperage draw to a point just above maximum wattage of the heater. When the controller detects a current which is greater than that value, it will sound an alarm so the offending components can be replaced. This improvement allows for greater operating and maintenance efficiency by detecting leakage in mold wires, cables, heaters, etc. at an early stage.

The Circuitry of the UATC20 provides improved protection to the mold in the event that the triac becomes shorted. This circuitry enables the controller to turn off the power to the heater if it detects continued power draw when the temperature is well above the set point.

ITC has addressed one of the most serious and costly problems of Hot Runner Temperature Controllers by incorporating of our Anti-Arching Feature. This enhancement can greatly reduce the probability of damage to either the main frame or module if a module is accidentally changed while the main frame is under power. This feature alone can save molders lot of money for repair or replacement.

FEATURES

- All features and parameters are fully selectable from the menu feature on the keypad.
- Amperage measuring & display.

- APO (average power output) in thermocouple failure condition.
- Automatic test of "LED" segments.
- Operating voltage 240vac, 50/60 Hz, or 120vac
- Cold junction compensation.
- Zero crossing triac.
- This module operates of ITC's 15 amp main frames.
- Ground Fault Detection – detects if there is a short to ground in the heating circuit. This is selectable range.
- High Amperage Alarm – detects if the amperage draw to the heater exceeds a selectable value which can be
- Entered from the menu.
- Thermocouple – Open, Shorted & Reversed. This is indicated by both an error message and audible alarm.
- Triac – Open and Shorted condition. This is indicated by both an error message and audible alarm.
- High & Low Temperature Condition – Activates when the process temperature varies more than 30° F from set point. This is indicated by both an error message and audible alarm.
- Blown Fuse – This is indicated when the blown fuse "LED" comes on

SAFETY FEATURES:

- High Voltage Thermocouple Protection – Fused
- Module High Current Protection – Fused
- Power Disabled to Heater when:
- Traic is Shorted
- Heater is Open
- High Amperage Condition
- Triac is Open
- Over Temperature Condition
- Audible Alarm

Voltage: 208 to 240vac, single phase
Current: 15 amps
Frequency: 50/60 Hz
Wattage: 3600
On/Off Key: Auto Latching (stays on last setting if power is lost)
Physical Configuration: Plugs in for easy interchangeability
Compatibility: Compatible with "G" Series housings
Size: 2" Wide, 7" High, 7-1/2" Deep
Weight: 1-1/2 #
DC Power Supply: Internally generated regulated and compensated
Module Power Usage: Less than 5 watts, excluding load
Set point Range: 0o to 999o F (537o C)
Control Accuracy: +/- 1o F (0.5o C) dependent on total thermal system
Calibration Accuracy: Better than 0.2% of full range
Operating Temperature Range: 32 to 120 degrees F (0 to 48° C)
Thermocouple: Type J, or Type K grounded or ungrounded
External Thermocouple Resistance: High impedance potentiometer input allows long distance T/C wiring
Output Drive: Internal solid state triac, zero crossing AC pulses
Ground Fault Sensitivity: 60 to 180 mA, default 120 mv.
High/Low Temperature Alarm: Factory set @ +/- 30 degrees F (16° C)
Overload Protection: Fuses on both sides of AC line
Transient Protection: dv/dt and transient pulse suppression
Shorted Triac Heater Protection: Highly sensitive, fast acting relays cut power to load

UATC20 Temperature Controllers

Power Line Isolation: Optically and transformer isolated from AC lines. Isolation voltage greater than 2500 volts
Display: Dual LED displays, 3-digit, 7-segment
Manual Mode: Maintains constant output power to within 1% of manual set power. Adjustable from 0 to 100%
Soft Start: Variable stepped voltage, phase fired
Soft Start Duration: 5 Minutes (Adjustable – 0 to 20) up to 212° F (100° C)
Soft Start Override: Temperature 212° F (100° C)
Operational Modes:
– Soft Start precedes Auto Mode
– Thermocouple break overrides Soft Start and Auto Mode
– Reversed or shorted thermocouple overrides Soft Start and Auto Mode
– Manual Mode overrides thermocouple break, reversed, shorted thermocouple and Auto Mode.
– Output is disabled during all fault conditions.
Cold Junction Compensation: Automatic, better than 0.02°F/F° (0.01°C/C)
Open Thermocouple Protection: Automatically disables power to heater or Average Power Output (APO). Selectable
Reversed Thermocouple Protection: Automatically disables power to heater
Shorted Thermocouple Protection: Automatically disables power to heater or Average Power Output (APO). Selectable
Warranty: 2-Years

MFH1

The MFH1 Single Zone Temperature Control System delivers precise temperature control with enhanced diagnostic and control functions. This 10 amp, microprocessor based temperature control system is compact in size, enclosed within a rugged extruded frame and manufactured to standup to the rigors of industrial environments.

Employing the latest in microprocessor technology, the MFH1 offers the user many improved and unique operating features, which provide ease of use, menu selectable flexibility with advanced PID control algorithm for precise control.

Unlike others the MFH1 does not use a wimpy lightweight sheet metal enclosure, but instead the MFH1 uses a robust heavy wall extruded frame which will withstand industrial use.

SUPERIOR FEATURES:

- Compact
- Durable
- Full Featured
- Easy to use
- Enhanced Diagnostic Features

Large, Dual Digital Displays (Temperature, Setpoint, Error Codes)
Audible Alarm
Rear Mounted Fuses
Soft Start "LED" Indicator
Heater Load "LED" Indicator
Bumpless Transfer—APO (average power output)
SELECTABLE FEATURES:
Auto or Manual Operation – LED mode indicator
Type J or K Thermocouple – LED mode indicator
F° or C° Temperature Range – LED mode indicator
Amperage Monitoring & Display – LED indicates AMP mode

- Audible Alarm – Selectable on /off
- Front Panel Lockout – Selectable on/off

MFH1

MFH1 Temperature Controllers

ENHANCED DIAGNOSTICS:

- High/Low Temperature LED – Selectable Range
- tCr Error Display – Thermocouple Reverse
- tCO Error Display – Thermocouple Open
- tCS Error Display – Thermocouple Shorted
- tOh Error Display – Triac/Heater Open
- tSh Error Display – Triac Shorted
- HiC Error Display – High Amperage Alarm – Selectable Range

SAFETY FEATURES:

- High Voltage Thermocouple Protection (fused)
- Module High Current Protection (fused)
- Electrically Isolated Front Panel
- Power Disabled to Heater:
- Triac Shorted
- Triac Open
- Heater Open
- Over Temperature
- High Amperage

Product Specifications – * Specifications may change without notice

- 208 to 240VAC, single phase
- 50/60 Hz
- 10 Amp Capable
- 2400 Watts
- Size: 6 1/2" Wide, 2" High, 10" Deep
- Control System Power Usage, Less than 5 watts
- Set Point Range – 0° to 999° F
- Control Accuracy – +/- 1° F (0.5° C)
- Calibration Accuracy – Better than 0.2% full range
- Cold Junction Compensation
- Operating Temperature Range -32° to 120° F
- Output Drive – Internal solid state triac, zero crossing AC pulse

OPTIONS:

MPTC10 OR MPTC20 - Single Zone Mold Power / Thermocouple Cable

CKPTM1 - Single Zone Cable End Kit—For Frame End:

NOTE: CKPTM1& MFH1-IPP are provided.

SPECIFICATIONS:

Maximum Amperage: 10 Amps 2400 Watts

Input Power: 240 VAC, Single Phase, 3 wire (2 AC & 1 Ground), 50/60 Hz.

Power to Heater: 240 VAC Single Phase, 50/60 Hz. 10 Amps Max.

Thermocouple: Type "J" or "K"

Mold Interface: Accomplished with an optional combination power and thermocouple cable with ground, Five (5) wire.
(Part No. MPTC10 OR MPTC20).

Dimensions & Weight:2" (H) x 7" (W) x 11.5" (D) Approx. 7 lbs. (without cables & connectors)

Construction: Totally self contained system with heavy duty extruded aluminum frame: Combination Power & Thermocouple connector (CKPTOC1), 5 pin, female is mounted on rear of cabinet. Input Power Plug (MFH1-IPP) is mounted on rear of cabinet. (Combination Power/Thermocouple connector & Input Power Plug are supplied standard with this system)

MFH1 Temperature Controllers

Accessories – Supplied: CKPTM1 -Cable End Connector (Combination Power/Thermocouple) which plugs into cabinet. MFH1-IPP -Cord End Connector for Input Power Cord (Must use SJO 143 Style & Type of power cord).

- Accessories – Not Supplied: Main Frame Connector (CKPTOC1) Mold Connector (CKPTIC1) Combination Power/Thermocouple Cable (MPTC10 OR MPTC20) Input Power Cord (MFH1-IPC).
- Input Power Cord: CAUTION -If customer is going to make their own input power cord, Use only SJO 14-3 type and style of power cord. Only this type and style of cord will fit the supplied connector.
- Power Usage: Less than 5 watts
- Setpoint Range: 0° to 999° F
- Control Accuracy: +/- 1° F (0.5° C)
- Calibration Accuracy: Better than 0.2% full range
- Operating Temperature Range: -32° F to 120° F
- Output Drive: Internal Solid State Triac, zero crossing, AC pulse
- Transient Protection: dv/dt and transient pulse suppression
- Shorted Triac Heater Protection: Highly sensitive, fast acting relays cut power to load
- Power Line Isolation: Optically and transformer isolated from AC lines. Isolation voltage greater than 2500 volts
- Display: Dual LED displays, 3-digit, 7-segment
- Manual Mode: Maintains constant output power to within 1% of manual set power. Adjustable from 0 to 100%
- Soft Start: Variable stepped voltage, phase fired
- Soft Start Duration: 5 Minutes (Adjustable – 0 to 20) up to 212° F (100° C)
- Soft Start Override: Temperature 212° F (100° C)
- Operational Modes:
  - Soft Start precedes Auto Mode
  - Thermocouple break overrides Soft Start and Auto Mode
  - Reversed or shorted thermocouple overrides Soft Start and Auto Mode
  - Manual Mode overrides thermocouple break, reversed, shorted thermocouple and Auto Mode.
  - Output is disabled during all fault conditions.
- Cold Junction Compensation: Automatic, better than 0.02°F/F° (0.01°C/C)
- Open Thermocouple Protection: Automatically disables power to heater or Average Power Output (APO). Selectable
- Reversed Thermocouple Protection: Automatically disables power to heater
- Shorted Thermocouple Protection: Automatically disables power to heater or Average Power Output (APO). Selectable
- Warranty: 2-Years

NOTE: ITC brand mainframes for USA and Mexico use only. Outside of US please buy the DME standard MFP Main Frame Package.

NOTE: Control cards not included with mainframes.

MF12150

- Input Voltage: 240vac, 3 Phase, 50/60Hz
- Heater Voltage: 240vac, Single Phase
- Max. Amps per Zone: 15 Amps

ACCESSORIES:

- Mold Cable: MPC12C10G, MPC12C20G or MPC12C30G
- Mold TC Cable: TC12C10G, TC12C20G or TC12C30G
- Mold T/C Connector: MTC12G
- Mold Power Connector: PIC12G
- Floor Stand: MFS512G
- Module: UATC20

MF5150

- Input Voltage: 240vac, 3 Phase, 50/60Hz
- Heater Voltage: 240vac, Single Phase
- Max. Amps per Zone: 15 Amps

ACCESSORIES:

- Mold Cable: MPC5C10G, MPC5C20G or MPC5C30G
- Mold TC Cable: TC5C10G, TC5C20G or TC5C30G
- Mold T/C Connector: MTC5G
- Mold Power Connector: PIC5G
- Floor Stand: MFS512G
- Module: UATC20

MF8150

- Input Voltage: 240vac, 3 Phase, 50/60Hz
- Heater Voltage: 240vac, Single Phase
- Max. Amps per Zone: 15 Amps

ACCESSORIES:

- Mold Power Cable: MPC8C10G, MPC8C20G or MPC8C30G
- Mold T/C Cable: TC8C10G, TC8C20G or TC8C30G
- Mold Power Connector: PIC8G
- Mold T/C Connector: MTC8G
- Floor Stand: MFS512G
- Module: UATC20

MF2

- Input Voltage: 240vac, 1 Phase, 50/60Hz
- Heater Voltage: 240vac, Single Phase
- Max. Amps per Zone: 10 Amps
- Total System Watts: 2,400 Watts

ACCESSORIES:

- Mold Cable: MPTC10 or MPTC20 (2 required)
- Mold Connector: CKPTIC1 (2 required)
- Module UATC20

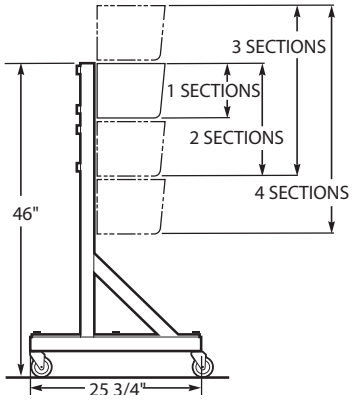
MF1

- Input Voltage: 240vac, 1 Phase, 50/60Hz
- Heater Voltage: 240vac, Single Phase
- Max. Amps per Zone: 10 Amps
- Total System Watts: 2,400 Watts

ACCESSORIES:

- Mold Cable: MPTC10 or MPTC20
- Mold Connector: CKPTIC1
- Module: UATC20

F



Universal Floor Stand

The Universal Floor Stand will accommodate all 15 or 30 amp
Mainframes from one to four sections high. Stand is made from heavy gauge steel and includes locking casters (400 lb. rating).
All assembly and Mainframe mounting hardware is included.
Heavy duty floor stand available for larger systems (1000 lb. rating).

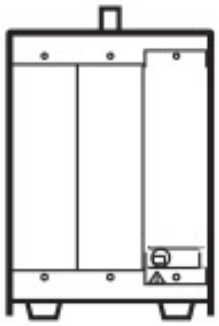
ITEM NUMBER	RATING
MFS512G	400 LBS

Floor stand comes with plates for 5-zone frame mounting on 8-zone "x" pattern

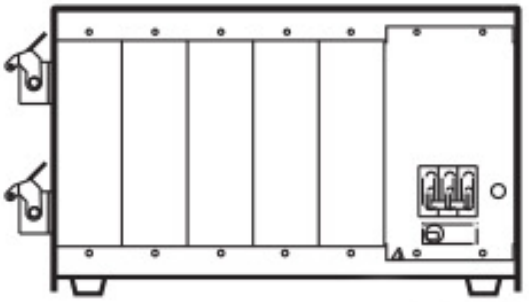
Temperature Controllers

Standard Mainframe Configurations

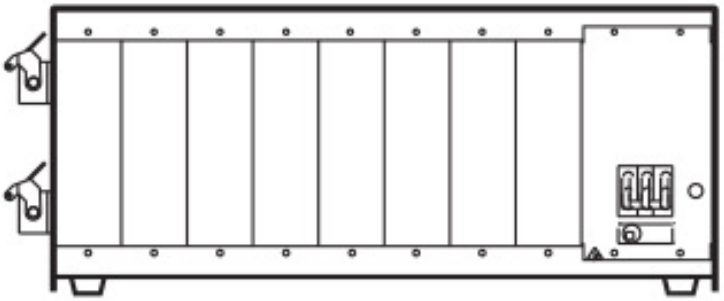
MF1



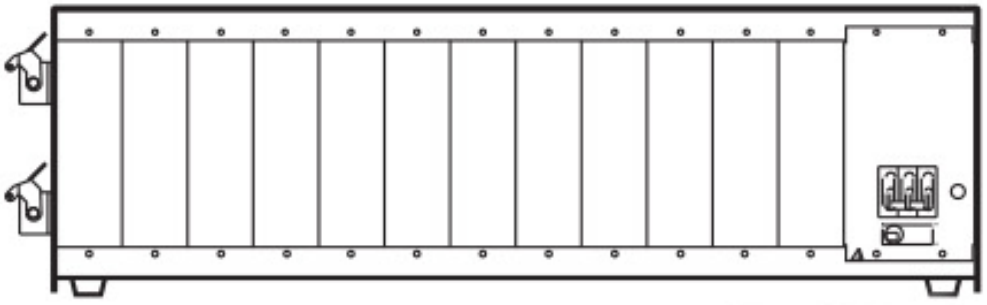
MF2



MF5150 50 AMP



MF8150 50 AMP



MF12150 50 AMP

MAINFRAMES, CABLES & CONNECTORS ALL SOLD SEPERATELY

	PART NUMBER	DESCRIPTION
	UATC20	Module, Single Zone Temperature Controller, Dual Display
1 ZONE	MF1	1-Zone Mainframe; Standard 1-phase 3 Wire, 208-240 VAC, 10 Amps
	MPTC10	1-Zone Mold Power Cable; 10' O.A.L.
	MPTC20	1-Zone Mold Power Cable; 20' O.A.L.
	CKPTIC1	1-Zone Mold Power Input Connector
2 ZONE	MF2	2 -Zone Mainframe; Standard 1-phase 3 Wire, 208-240 VAC, 10 Amps
	MPTC10	1-Zone Mold Power Cable; 10' O.A.L. (2 required)
	MPTC20	1-Zone Mold Power Cable; 20' O.A.L. (2 required)
	CKPTIC1	1-Zone Mold Power Input Connector (2 required)
5 ZONE	MF5150	5-Zone Mainframe; Standard 3-phase 4 Wire, 208-240 VAC, 15 Amps
	MPC5C10G	5-Zone Mold Power Cable; 10' O.A.L.
	MPC5C20G	5-Zone Mold Power Cable; 20' O.A.L.
	MPC5C30G	5-Zone Mold Power Cable; 30' O.A.L.
	TC5C10G	5-Zone Thermocouple Cable; 10' O.A.L
	TC5C20G	5-Zone Thermocouple Cable; 20' O.A.L
	TC5C30G	5-Zone Thermocouple Cable; 30' O.A.L
	PIC5G	5-Zone Mold Power Input Connector
	MTC5G	5-Zone Mold Thermocouple Connector
8 ZONE	MF8150	8-Zone Mainframe; Standard 3-Phase 4 Wire, 208-240 VAC, 15 Amps
	MPC8C10G	8-Zone Mold Power Cable; 10' O.A.L.
	MPC8C20G	8-Zone Mold Power Cable; 20' O.A.L.
	MPC8C30G	8-Zone Mold Power Cable; 30' O.A.L.
	TC8C10G	8-Zone Thermocouple Cable; 10' O.A.L
	TC8C20G	8-Zone Thermocouple Cable; 20' O.A.L
	TC8C30G	8-Zone Thermocouple Cable; 30' O.A.L
	PIC8G	8-Zone Mold Power Input Connector
	MTC8G	8-Zone Mold Thermocouple Connector
12 ZONE	MF12150	12-Zone Mainframe; Standard 3-Phase 4 Wire, 208-240 VAC, 15 Amps
	MPC12C10G	12-Zone Mold Power Cable; 10' O.A.L
	MPC12C20G	12-Zone Mold Power Cable; 20' O.A.L
	MPC12C30G	12-Zone Mold Power Cable; 30' O.A.L
	TC12C10G	12-Zone Thermocouple Cable; 10' O.A.L
	TC12C20G	12-Zone Thermocouple Cable; 20' O.A.L
	TC12C30G	12-Zone Thermocouple Cable; 30' O.A.L
	PIC12G	12-Zone Mold Power Input Connector
	MTC12G	12-Zone Mold Thermocouple Connector

Accessories

Universal Mainframe Floorstand.

Stand accommodates from one to four mainframes. Kit includes the uprights, casters and hardware.
Part# MFS512G & MFS512GHD

Mainframe Blank Panels

Blank panels cover unused mainframe zones to protect operators from dangerous high voltage.
Part# MFBP30G & MFBP10G

FUSES

Module Replacement Fuses		
Part Number	AMPS	Qty.
ABC1	1	5
ABC10	10	5
ABC15	15	5
13X10	10	5
13X15	15	5

Temperature Controllers

Cables

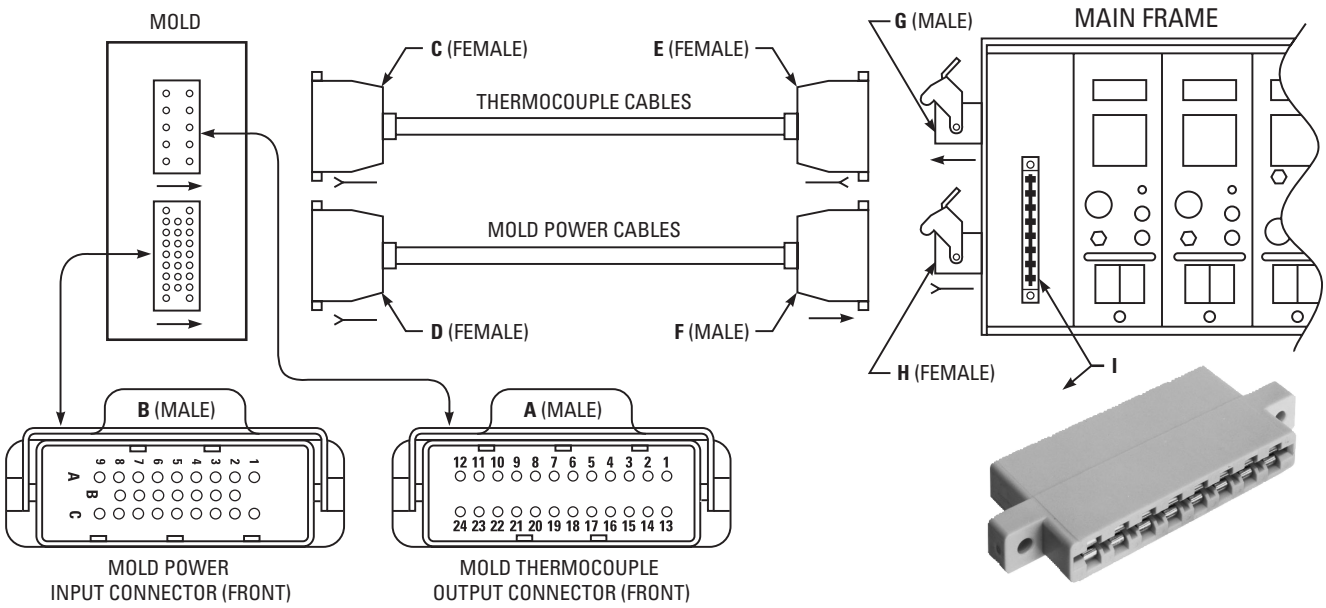
Part Number		Part Number		Part Number	
Zones	(10′ Length)	Zones	(15′ Length)	Zones	(20′ Length)
Mold Power Cable					
5	MPC5C10G	5	GMPC5-15	5	MPC5C20G
8	MPC8C10G	8	GMPC8-15	8	MPC8C20G
12	MPC12C10G	12	GMPC12-15	12	MPC12C20G
Thermocouple Cable					
5	TC5C10G	5	GTC5-15	5	TC5C20G
8	TC8C10G	8	GTC8-15	8	TC8C20G
12	TC12C10G	12	GTC12-15	12	TC12C20G

Temperature Controllers

Connectors

Zones	Part Number
Mold Power Input Connectors	
5	PIC5G
8	PIC8G
12	PIC12G
Mold Thermocouple Connectors	
5	MTC5G
8	MTC8G
12	MTC12G

Mold Connectors, Terminal Boxes and Connector Kits

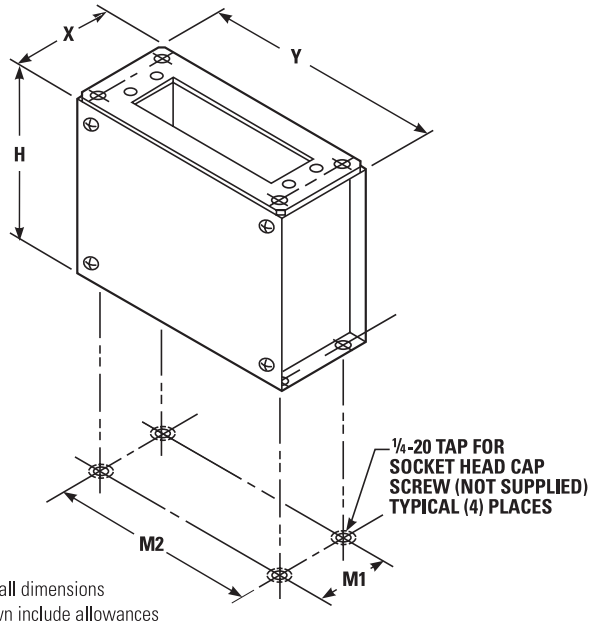


Connectors/Connector Kits (5 – 48 Zone, 15 AMP; 2 – 5 Zone, 30 AMP)

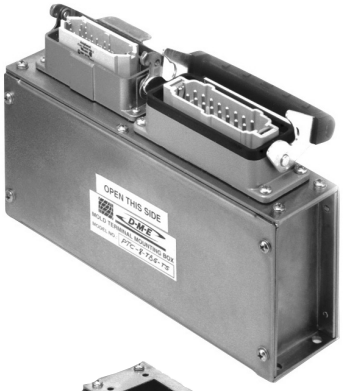
Reference Letter	Description	Part Number
A	Mold Thermocouple Output Connectors	MTC5G MTC8G MTC12G
B	Mold Power Input Connectors	PIC5G PIC8G PIC12G
C	Mold End Kit for 5-Zone Thermocouple Cable (10, 15 or 30 AMP)	CKTF15G
	Mold End Kit for 8-Zone Thermocouple Cable (10 or 15 AMP)	CKTF18G
	Mold End Kit for 12-Zone Thermocouple Cable (10 or 15 AMP)	CKTF112G
D	Mold End Kit for all 10 or 15 AMP Power Cables	CKPF112BG
	Mold End Kit for 2- or 3-Zone 30 AMP Power Cables	CKPF13CG
	Mold End Kit for 5-Zone 30 AMP Power Cables	CKPF15CG
E	Frame End Kit for all Thermocouple Cables (10, 15 or 30 AMP)	CKTF112AG
F	Frame End Kit for all 10 or 15 AMP Power Cables	CKPM112BG
	Frame End Kit for 2- or 3-Zone, 30 AMP Power Cables	CKPM13CG
	Frame End Kit for 5-Zone, 30 AMP Power Cables	CKPM15CG
G	Thermocouple Input Kit for all Mainframes (10, 15 or 30 AMP)	CKTM212AG
H	Power Output Kit for all 10 or 15 AMP Mainframes	CKPF212BG
	Power Output Kit for 2- or 3-Zone, 30 AMP Mainframes	CKPF23CG
	Power Output Kit for 5-Zone, 30 AMP Mainframes	CKPF25CG
I	Edge Card Connector Kit for all Mainframe PC Boards (10, 15 or 30 AMP)	CKF312G

Terminal Mounting Boxes

Terminal Mounting Boxes provide the easiest and most economical method of mounting power and thermocouple connectors on the mold. Constructed of plated, heavy-gauge steel, each box is precut and drilled for quick mounting of the connector to the box, and box to the mold. Connector mounting hardware is supplied. Connectors are ordered separately.



NOTE: Overall dimensions shown include allowances for hardware (assembly screws) but not connectors.



PTC8TBG
(Connectors ordered separately)

PTC5TBG

PTC0012

Terminal Mounting Boxes for Mold Power Input Connectors — TERMINAL

Part Number	X	Y	H	M1	M2	Accepts
PIC512TBG	2.75	4.875	4.25	1.500	4.250	PIC5, 8 or 12G
PICH23TBG	2.75	5.614	4.25	1.500	4.990	PICH23G
PICH5TBG	4.46	6.676	4.25	3.250	6.052	PICH5G

PTC210

Terminal Mounting Boxes for Thermocouple Connectors — TERMINAL

Part Number	X	Y	H	M1	M2	Accepts
MTC5TBG	2.75	4.875	4.25	1.500	4.250	MTC5G
MTC8TBG	2.75	5.614	4.25	1.500	4.990	MTC8G
MTC12TBG	2.75	6.676	4.25	1.500	6.052	MTC12G

PIC512TBG

Combination Terminal Mounting Boxes — COMBINATION

Part Number	X	Y	H	M1	M2	Accepts
PTC210	2.75	4.88	4.25	1.500	4.250	(2) CKPTIC1
PTC5TBG	2.75	8.66	4.25	1.500	8.031	PIC5G, MTC5G
PTC8TBG	2.75	9.47	4.25	1.500	8.843	PIC8G, MTC8G
PTC12TBG	2.75	10.53	4.25	1.500	9.906	PIC12G, MTC12G
PTCH1TBG**	4.46	4.88	4.25	3.250	4.250	AC1240MI, TCS1
PTCH23TBG	2.75	10.53	4.25	1.500	9.906	PICH23G, MTC5G
PTCH5TBG	4.46	11.06	4.25	3.250	10.431	PICH5G, MTC5G
PTC0012	4.46	7.66	4.25	3.250	7.160	TPC0001

* Used with 2-zone, 15 AMP mainframe MFFPR2G ** Used with 1-zone, 30 AMP mainframe MFHP1G

Single and Two-Zone 10 AMP Mainframes

The DME Portable 10 AMP Mainframes are designed for use with 10 or 15 AMP* Smart Series or G-Series Temperature Control Modules. Mainframe is supplied with power input and power-thermocouple output connectors. Circuit breaker provides safety for operation. Control modules and cables are to be ordered separately.

Note: Maximum safe operating amperage is 10 AMPS per zone when using 15 AMP modules. If application will draw more than 10 AMPS per zone, use 15 AMP Mainframe (MFFPR2G).

* User must install ABC10 (10 AMP) fuses in the 15 AMP control modules to protect the mainframe.

Single and Two-Zone 10 AMP Mainframes (50–60 Hz, Single Phase)

Zones	Part Numbers**	Volts	Watts Per Zone	Connectors Supplied
1	MFP1G1	120	1200	(1) AC1512F (Power In) (1) CKPTM1 (Power-TC Out)
1	MFP1G	240	2400	(1) AC2024F (Power In) (1) CKPTM1 (Power-TC Out)
2	MFPR2G	240	2400	(1) AC2024F (Power In) (2) CKPTM1 (Power-TC Out)

** Includes frame and connectors listed. Modules and cables ordered separately.

Note: Replacement power connectors in frame are also available on special order.

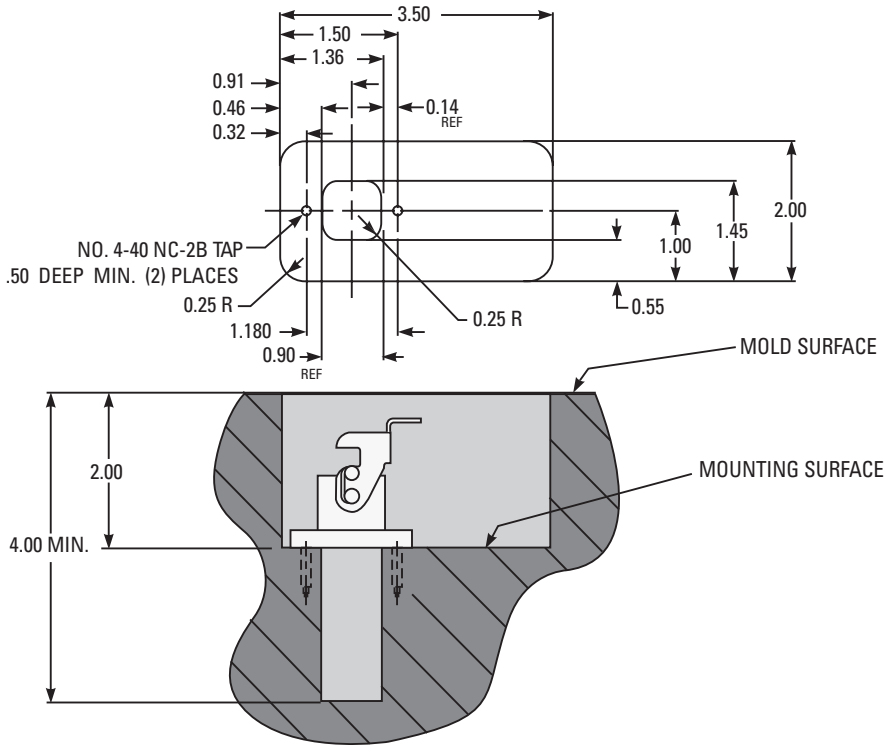
MFP1G
MFP1G1

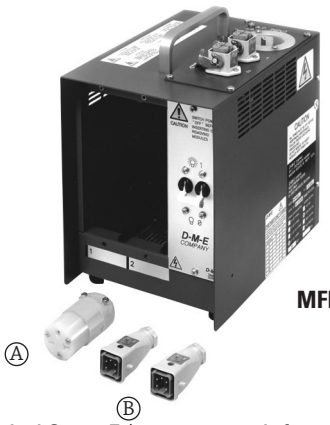
A: AC2024F (power to mainframe); AC1512F supplied with MFP1G1
B: CKPTM1 (connector to heater)

This single-zone controller is ideal for use with Straight-Shot hot sprue bushings.

Recommended Mold Pocket Layout

(For Mold Power-Thermocouple Input Connector CKPTIC1)





MFPR-2G

A: AC2024F (power to mainframe);
B: CKPTM1 (connector to heater)

Single zone, horizontal 10 AMP controllers (SSH1022/21) also available following page.

Dimensions
Frame 7"W × 9"H × 10"D
(9"H dimension does not include connectors or handle)

F

Temperature Controllers

RoHS/WEEE Compliant Smart Series®
Single Zone Temperature Controller

SSH1022/21 (10 AMP)

- Compact
- Easy-to-use
- Includes new, improved and unique features
- Provides microprocessor-based PID control
- More accurate than analog or variac controllers
- Built-in thermocouple diagnostics
- Ideal for use with a hot sprue bushing or a machine nozzle

Key Features

- Large digital display
  - For easier readability of temperature, % power and faults
- Setpoint pushwheel
  - For setting desired setpoint temperature
  - Allows adjustment of setpoint before turning power on
- AUTO % power display
  - Shows % power output while in AUTO mode
  - Indicates average % power requirement on thermocouple failure
  - A diagnostic tool for solving problems

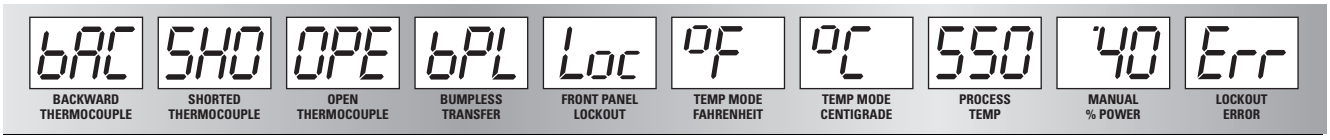
Switchable Options

- Shorted thermocouple sensitivity adjustment
  - Operation can be tailored to fast or slow reaction times
  - Sensitivity can be adjusted with internal switches
  - Very useful for zones with long startup times
- Switchable °C/°F operation
  - Scale indicated at startup
- K type thermocouple support
- Cut feature
  - Gain cut feature for small nozzles and heaters with ungrounded internal thermocouples

Operational Refinements

- Improved SmartStart®
  - A more gradual temperature rise leads to a more effective heater dry out period, thereby extending heater life
  - SmartStart® now available as an option in manual mode
- SelectiveCycle®
  - A very high-speed power output approach
  - Enables accurate temperature control and longer heater life
- Bumpless transfer
  - When a thermocouple failure occurs, operation is automatically continued with a learned % power
  - Unique software accurately assigns percent power setting
- Third fuse
  - Allows for display of low temperature alarm when the load fuses are blown

Front Panel Digital LED Indicators



RoHS/WEEE Compliant Smart Series® Single Zone Temperature Controller

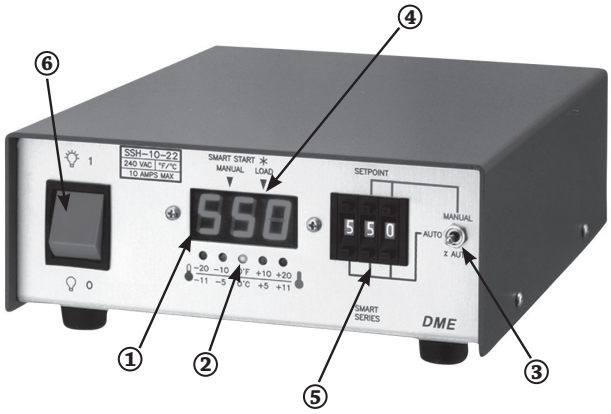
SSH1022/21 (10 AMP)

Controller includes 19-foot power cord, mating mold power and thermocouple connector (CKPTM1) and two spare fuses (ABC10). Additional cables and/or connectors must be ordered separately. See following page for detailed information on cables and connectors. Warranty: Three year (excluding triac and fuses).

Controller Part Number	Volts (VAC)
SSH1022	240
SSH1021	120

Cable* Part Number	Length (Feet)
MPTC10	10
MPTC20	20

CKPTM1
Included



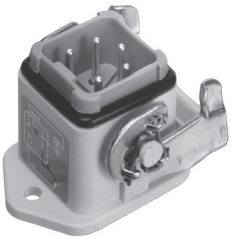
Front Panel Controls and Indicators

1. Process Temperature Display:
   Shows process temperature, thermocouple faults and other operational modes. Displays % power when switch (3) is pressed down.
2. Temperature Deviation Lights:
   Indicates deviation from setpoint. Outer lights blink at more than ±40˚F (22°C) from setpoint.
3. Auto/Manual/% Auto Power Switch:
   Selects AUTO or MANUAL control mode. Shows % power when pressed into "% AUTO" position.
4. LED Mode Indicators:
   Left LED illuminates during manual mode. Right LED illuminates when power is supplied to heater. Right LED blinks during SmartStart®.
5. Setpoint Pushwheel:
   Three-digit switch programs setpoint in AUTO mode. Right two digits program % power in MANUAL mode.
6. Power On/Off Switch:
   Controls AC power to module.

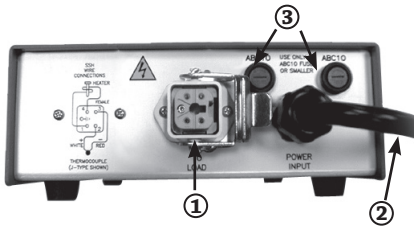
Rear Panel

1. Mold Power and Thermocouple Output Connector:
   CKPTIC1 connects to the heater and thermocouple. Mating connector CKPTM1 is supplied with controller.
2. Power Input Cord:
   Nineteen-foot cord supplies power to controller. Plug supplied with SSH1021 (120 VAC) units. No plug supplied with SSH1022.
3. Load Fuse Receptacles:
   Provides safe and easy replacement of load fuses.

Mold Power and Thermocouple Connector* Part Number
CKPTIC1



*** Items ordered separately**



F

Temperature Controllers

RoHS/WEEE Compliant: Smart Series® Single and 2-Zone Mainframe Accessories (10 AMP)

For Use With MFP1G, MFP1G1, MFPR2G, SSH1022 and SSH1021

Mold Power-Thermocouple Input Connector

A Single-Zone Power-Thermocouple Input Connector is available for mounting in or on the mold to accept the power-thermocouple cable from the mainframe. Water resistant, the connector has an integral retaining latch for a secure cable connection and numbered screw-type terminals for power and thermocouple lead wires.

*Can be mounted on top of mold for use with DME Straight Shot hot sprue bushings.

Part Number
MPTC10
MPTC20

Armored Mold Power-Thermocouple Cables

Single-Zone Mold Power-Thermocouple Cables are constructed of special lead wire for use in high temperature environments, and are available to connect the mainframe to the connector on the mold. Available in lengths of 10 or 20 feet. Integral retaining latches on the mainframe and mold connections provide secure cable connections. Connector configurations ensure proper insertion of cable.

Replacement Connector Kits (for Controller & Cables)

Male Power-TC Connectors

- CKPTM1 is on MPTC10/20 Cables; mates with Frame or CKPTF1L only
- CKPTM1L mates with CKPTF1 only

Female Power-TC Connectors

- CKPTF1 is on MPTC10/20 Cables; mates with Mold or CKPTM1L only
- CKPTF1L mates with CKPTM1 only

AC1512F

CKPTM1

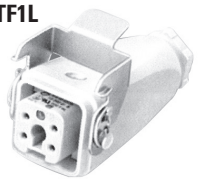
CKPTF1

PTC210

AC2024F

CKPTM1L

CKPTF1L



Power Input Connectors for Mainframe

Part Number	Volts
AC1512F	120
AC2024F	240

Part Number
CKPTM1
CKPTM1L
CKPTM1MH (metal hood)
CKPTM1LMH (metal hood)

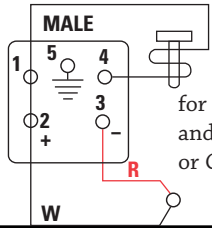
Part Number
CKPTF1
CKPTF1L
CKPTF1MH (metal hood)
CKPTF1LMH (metal hood)

Part Number
PTC210

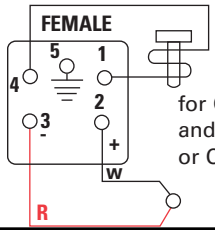
Wiring Diagrams

Part Number
CKPTOC1

Power-Thermocouple Output Connector
(for Mainframe Bulkhead)



for CKPTIC1 and CKPTM1 or CKPTM1L



for CKPTOC1 and CKPTF1 or CKPTF1L

RoHS/WEEE Compliant: Smart Series® Single and 2-Zone Mainframe Accessories (10 AMP)

Two-Zone 15 AMP Mainframes

Provides 15 AMP (3600 watts) per zone. For use with Smart Series or G-Series modules. Supplied with built-in cooling fan, power input, power output and thermocouple input connectors. Control modules and cables are ordered separately.

Two-Zone 15 AMP Mainframe (240 VAC, 50–60 Hz, Single Phase)

Part Number	Watts Per Zone	Connectors Supplied
MFFPR2G	3600	(1) AC1240F (Power In) (2) AC1524M (Power Out) (3) M2MJ (TC In)

Includes frame and connectors listed. Modules and cables ordered separately.

Part Number	Description
AC1240F*	Female 240 VAC twist-lock power input connector (mates with male frame power input)
AC1524M*	Male 240 VAC power output connector (mates with female frame power outputs)
M2MJ*	Thermocouple mini-plug mates with frame as jack strip connector
PTC2TBGTS	2 zone, pre-wired terminal mounting box with terminal strip (mounts to mold; mates with PTC0110 or PTC0120 cables)

* Included with MFFPR2G

Frame Dimensions

7″W × 9″H × 10″D
(9″H dimension does not include connectors or handle)

F

Armored Mold Power – Thermocouple Cables (15 AMP)

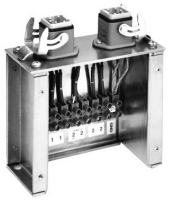
Single-Zone Mold Power-Thermocouple Cable is constructed of special lead wire for use in high temperature environments. This cable connects the mainframe to the connector on the mold. Available in lengths of 10 or 20 feet. Retaining latches on the mold connector provide secure cable connections.

Part Number
PTC0110
PTC0120

For use with MFFPR2G only

Terminal Mounting Boxes – Prewired (15 AMP)

Terminal Mounting Boxes provide the easiest and most economical method of mounting power and thermocouple connectors on the mold. Constructed of plated, heavy-gauge steel, each box is precut and drilled for quick mounting of the box to the mold (2-zone, prewired terminal mounting box with terminal strip shown with cover plate removed).



Part Number
PTC2TBGTS

For use with MFFPR2G only

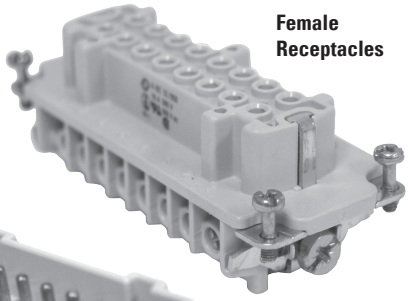
EPIC CONNECTORS

Part	Part Number
6 Contacts, HBE Series	
Male Plug	10.1900
Receptacle	10.1910
Single Latch	
Panel Base	RPM0060
Surface Base	10.0050
Top Hood	RPM0060
Side Hood	10.0120
6 Contacts, H-BS Series	
Male Plug	10.1700
Receptacle	10.1710
Single Latch	
Panel Base	RPM0060
Surface Base	10.0749
Top Hood	RPM0069
Side Hood	10.0829
Double Latch	
Panel Base	10.0720
Surface Base	10.0740
Top Hood	10.0800
Side Hood	10.0820
10 Contacts, HBE Series	
Male Plug	RPM0062
Receptacle	RPM0065
Single Latch	
Panel Base	RPM0059
Surface Base	10.0349
Top Hood	RPM0068
Side Hood	10.0429
Double Latch	
Panel Base	10.0320
Surface Base	10.0340
Top Hood	10.0400
Side Hood	10.0420
10 Contacts, HA Series	
Male Plug	10.4400
Receptacle	10.4410
Single Latch	
Panel Base	10.4420
Surface Base	10.4481
Top Hood	10.4460
Side Hood	10.4450

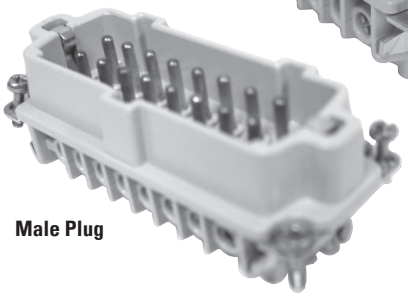
Part	Part Number
12 Contacts, H-BS Series	
Male Plug	10.1820
Receptacle	10.1830
Double Latch	
Panel Base	10.1320
Surface Base	10.1370
Top Hood	10.1330
Side Hood	10.1350
16 Contacts, H-BE Series	
Male Plug	RPM0063
Receptacle	RPM0066
Single Latch	
Panel Base	RPM0060
Surface Base	10.0749
Top Hood	RPM0069
Side Hood	10.0829
Double Latch	
Panel Base	10.0720
Surface Base	10.0740
Top Hood	10.0800
Side Hood	10.0820
24 Contacts, H-BE Series	
Male Plug	RPM0064
Receptacle	RPM0067
Single Latch	
Panel Base	RPM0061
Surface Base	10.1049
Top Hood	RPM0070
Side Hood	10.1139
Double Latch	
Panel Base	10.1020
Surface Base	10.1040
Top Hood	10.1210
Side Hood	10.1130
25 Contacts, H-D Series	
Male Plug	RPM0072
Receptacle	RPM0073
Single Latch	
Panel Base	RPM0074
Surface Base	10.5670
Top Hood	10.5650
Side Hood	10.5640

Male Plugs and Female Receptacles

- With screw terminals: 3 to 48 captive, backed-off screws for easy and convenient wire termination
- With crimped terminals 7 to 216 contacts
- Contacts are hard, silver-plated copper alloy. (Gold plating available in crimp versions.)
- Ground-safety feature "makes first, breaks last."
- Insulators are interchangeable within either base or hood, and are key-molded to ensure proper assembly
- Terminals are number coded, front and back, for easy installation



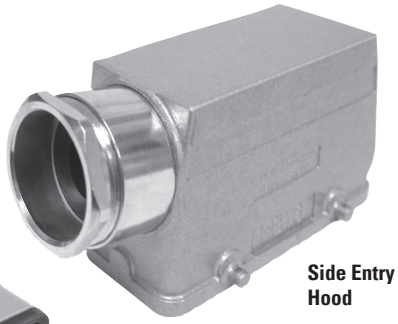
Female Receptacles



Male Plug

Hood

- Built to withstand severe environmental and industrial hazards
- Provides protection against dirt, grease, oil, water, vibration and impact
- Durable, rugged, single-piece aluminum die casting
- Designed for flexible cable; adaptable for seal-tight connections
- Available with front, angled or top entry
- Fully adaptable - a multi-cut Neoprene gasket provides for cables of different sizes



Side Entry Hood

Top Entry Hood

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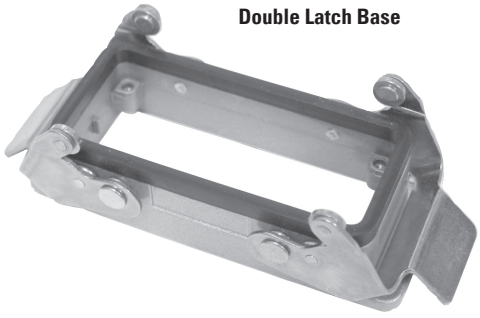
Base

- Positive, spring-loaded locking-latches for quick connect and disconnect
- Designed with a lip-mounted Neoprene gasket for long protection against harsh environments
- Available in panel-mount base and single or double-entry, surface-mount base versions
- Available with spring-loaded or string-attached dust covers

Double Latch Base



Single Latch Base

Digital Pocket Thermometer

Wide Range
40° to 450°F
Updates: At 10 second intervals or instantly when button is pushed
Display: LCD, ¼" high
Stem: Stainless steel
Range: –40° to 450°F
Resolution: 0.1°F
Accuracy: 0.4% of total range between –4° and 77°F; 0.8% maximum over entire range
Maximum Temperature: Intermittent use 400°–450°F
Update Interval: 10 sec (or instant when update button pressed)
Auto-Off: After 50 minutes of non-use
Battery Eveready #392 or equivalent
Minimum Insertion: 1 inch

Part Number D-450

Analog Pocket Thermometer

Part Number	Temp. Range
K795	50 to 550°F

Standard Ranges: Fahrenheit						
Range	0–200°	*0–250°	*50–300°	*50–500°	150–750°	200–1000°
Divisions	2°	2°	2°	5°	10°	10°

*Stock Range

Standard Ranges: Celsius			
Range	0–100°	*0–150°	0–300°
Divisions	1°	1°	2°

Dual Ranges		
Range	50–300°F./ 10–150°C.	50–500°F./ 10–260°C.
Divisions	2°	5°

Model Number	LN250	212	00200
NPT Stem			
⅛" NPT and 2-⅜" Head Dia	LN200		
¼" NPT and 2-⅜" Head Dia	LN250		
½" NPT and 3" Head Dia	GT300		
	Stem Length		
	2-½"	212	
	4"	400	
	6"	600	
	9"	900	
	12"	1200	
	15"	1500	
	18"	1800	
Temperature Range °F			
	0–200		00200
	0–250		00250
	50–300		50300
	50–500		50500
	150–750		150750
	200–1000		2001000

⅛", ¼" or ½" NPT Stem Diameter Industrial Thermometers

- Type 304 stainless steel
- All welded construction
- Easy to read
- Rustproof
- Dustproof
- Leakproof
- Corrosion resistant
- Accuracy to ± 1% of range
- Dampened for minimum vibration
- Perfect for hopper dryers, barrels, fluid heaters, etc.

DIAL THERMOMETERS

F

Non-Contact Thermometers

Wide Range Mini IR Thermometer

Compact Thermometer with Wide Temperature Range

- Measures temperature from –58 to 1000°F with 0.1° resolution up to 199.9°
- Built-in laser pointer identifies target area
- 2000 count backlit display
- Over range indicator
- Automatic data hold when trigger is released
- Fixed 0.95 emissivity covers 90% of surface applications
- Auto power off saves battery life
- Complete with 9V battery

Specifications	
Display Counts	2000 count backlit LCD
Basic Accuracy	±2% of reading
Field of View	8:1
Dimensions	3.2 × 1.6 × 6.3" (82 × 42 × 160 mm)
Weight	6.4 oz (180g)

Part Number 42510

Non-Contact Thermometers

Wide Range IR Thermometer with Type K Input

Measures Both Non-Contact and Contact Temperature Plus Stores 20 Readings

- Wide temperature range IR temperature and type K thermocouple measurements
- Automatic emissivity adjustment (for temperatures 212°F or higher)
- Memory stores up to 20 readings
- Large LCD display with bright backlight for easy-to-read measurements and programming parameters
- Laser pointer provides better aim and accuracy
- Auto-hold activates when the measurement trigger is released
- Adjustable high/low alarm alerts user visually and audibly when temperature exceeds programmed limits
- MAX/MIN/AVG/DIF features display highest, lowest, average, and MAX minus MIN values
- Data hold, auto power off, and low battery indication
- Switches built into handle allow for °C/°F display selection, auto power off defeat, and alarm on/off control
- Complete with 9V battery, type K thermocouple sensor (–4 to 482°F/–20 to 250°C), and carrying case

Specifications	
Display Counts	4000 count backlit LCD
Range	IR: –58 to 1472°F (–50 to 800°C) Type K: –58 to 2498°F (–50 to 1370°C)
Basic Accuracy	IR: (±2% of reading or 4°F/2°C) whichever is greater < 932°F/500°C ± (2.5% rdg +5°) > 932°F/500°C Type K: (±1.5% Reading + 5° For 3°C)
Max Resolution	0.1°F/°C
Emissivity	Adjustable 0.10 to 1.00
Field of View	13:1 distance to target ratio
Dimensions	3.2 × 1.6 × 6.3" (82 × 42 × 160 mm)
Weight	6.4 oz (180g)

Part Number 42515

NOTE: The included type K temperature probe plugs into bottom of handle when in use.

Type K Thermometers with single or dual input direct or differential measurements to 0.1˚

Features

- Rugged design for field use - includes rubber holster
- Dual input model provides differential readings
- Accurate to 0.3%, C°/F° switchable
- Front panel offset adjustment to optimize accuracy
- Displays maximum reading plus data hold on large LCD display
- Includes (6) AAA batteries, holster with stand, and temperature probe

EXTECH INSTRUMENTS

Single Input – Part Number EA11 Dual Input – Part Number EA10

Specifications	Ranges	Accuracy
Temperature	–50 to 1300°C	(0.3% rdg + 1°C); >1000°C (0.5%)
	–58 to 2000°F	(0.3% rdg + 2°F)
Resolution	0.1° or 1°	
Dimensions	5.2 x 2 x 2.8 x 1.2" (135 x 72 x 31mm)/6 x 2.8 x 1.5" (152 x 72 x 37mm)	
Weight	8.3 oz. (235g)	

F

Principles of Thermocouples & Thermocouple selection

General Information

Thermocouples are the most widely used devices to measure temperature in the injection molding industry. They consist of a welded (hot) junction, between two lead wires of dissimilar metals (usually iron and constantan, Type J) and a reference junction at the other end of the lead wires. The hot junction creates an electrical current which can be measured at the reference junction. This measurement corresponds to a specific temperature, which provides output reading or control switching. Advantages of using thermocouples include the ability to measure a wide temperature range, durability at high temperature, fast response time, and low cost.

Junctions

Grounded – In grounded thermocouples, the conductors are contained in a stainless steel sheath. The hot junction is welded to the end of the sheath (see diagram 1). This provides high durability and environmental protection without sacrificing response time. The disadvantage of this construction is that there is no electrical protection from voltage surges coming into contact with the sheath. Grounded construction is the most common thermocouple type used in the plastics industry. Most DME thermocouples are grounded. Insulated thermocouples are available on request.

Ungrounded (Insulated): In ungrounded construction the hot junction is insulated from the sheath within mineral insulating compound (see diagram 2). This provides complete isolation from any stray voltage that may be present in the application. The drawback with this construction is increased response time due to increased time for heat to penetrate the insulation and reach the hot junction.

Fig. 1

Grounded
Hot junction welded to sheath tip. Earthed output provides fast response time.

Fig. 2

Insulated
Hot junction insulated from sheath. Insulation resistance over 100 Megohms.

Fig. 3

Exposed
Hot junction extends beyond sheath.

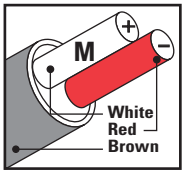
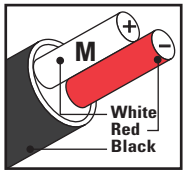
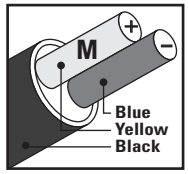
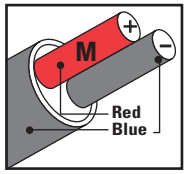
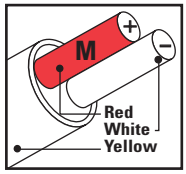
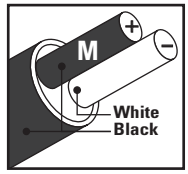
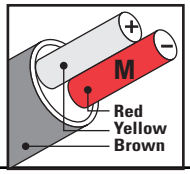
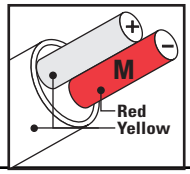
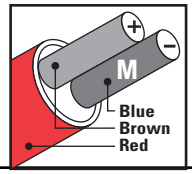
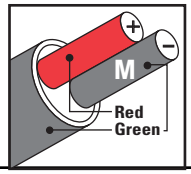
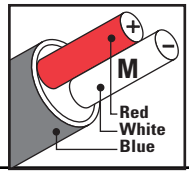
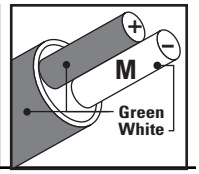
Exposed – The conductors extend beyond the sheath (see diagram 3), providing very rapid response time, but no protection from the environment or stray voltages. Exposed thermocouples are fragile.

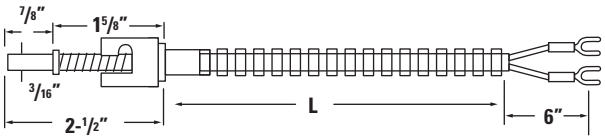
Calibration (Type)

Thermocouples are made of two dissimilar metals with specific electrical characteristics. The specific metals used determine the type of thermocouple. Most thermocouples used in the U.S. plastics industry are Type J (iron/constantan). Less commonly used is Type K (chromel/alumel). Check your machine or temperature control to determine which type you need. If you are unsure, determine the type from the wire color coding in the table

ISA Code	Conductor Characteristics		Temperature Range (°F)	Limits of Error		Application Notes
	Positive	Negative		Standard	Special	
J	Iron (magnetic)	Constantan (non-magnetic)	0 to 530	±4.0°F	±2.0°F	Reducing atmosphere recommended
			530 to 1400	±0.75%	±0.38%	
K	Chromel (non-magnetic)	Alumel (magnetic)	0 to 530	±4.0°F	±2.0°F	Oxidizing atmosphere recommended
			530 to 2300	±0.75%	±0.38%	
T	Copper	Constantan	–75 to 200	±1.8°F	±0.9°F	Can be used in oxidizing or reducing atmosphere; Corrosion resistant
			200 to 700	±0.75%	±0.38%	
E	Chromel	Constantan	0 to 600	±3.0°F	±1.8°F	Oxidizing atmosphere recommended; highest EMF output
			600 to 1600	±0.5%	±0.38%	

Thermocouple and Extension Wire Color Codes

U.S. ANSI/ASTM Code	U.S. ANSI/ASTM TC	U.S. ANSI/ASTM Extension	U.K. BS 1843	Germany DIN 43710	Japan JIS C1610-1981	Europe IEC 584-3
Type J Pos. Magnetic						
Type K Neg. Magnetic						



Straight model TCJ

STANDARD

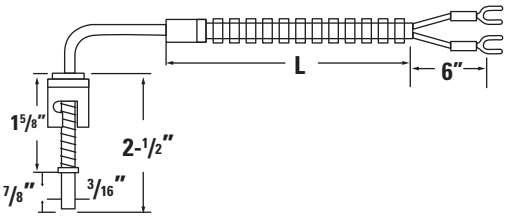
Standard Thermocouples have a variable immersion depth of 1 1/4" to 1¾" with a probe mounting length of 2 1/2". Featuring heavy-duty armor covered leads with standard wire lug lead termination and a 3/16" probe diameter, they will accommodate most requirements in either a straight or 90° bend. Off-the-shelf delivery and a very low price make our standard thermocouples just what you need. Also available in K & RTD types.

Standard Thermocouple

Part Number	Lead Length	End
TCJ1048	48"	Straight
TCJ1060	60"	Straight
TCJ1072	72"	Straight
TCJ1120	120"	Straight

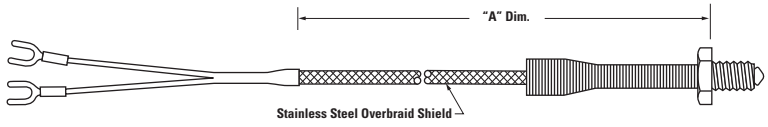
Standard Thermocouple - 90°

Part Number	Lead Length	End
TCJ9-1048	48"	90°
TCJ9-1060	60"	90°
TCJ9-1072	72"	90°
TCJ9-1120	120"	90°



90-degree bend model TCJ9

Shallow Nozzle Thermocouples



Spade Lugs

F

Shallow nozzle thermocouples are available in J or K type and 3 thread sizes. Our 1/2" swivel will seat in shorter holes but also provide accurate readings in deep holes.

SHALLOW NOZZLE

Shallow Nozzle Type Thermocouples

Metrics Fit Nissei, Kawaguchi and Others			
Part Number	TC Type	Thread Size	(A) Lead Length
NTJ-48	J	¼-28 N.F.	48"
NTJ-72	J	¼-28 N.F.	72"
NTJ-48M6	J	M6 × 1 Metric	48"
NTJ-72M6	J	M6 × 1 Metric	72"
NTJ-48M8	J	M8 × 1 Metric	48"
NTJ-72M8	J	M8 × 1 Metric	72"
NTK-48	K	¼-28 N.F.	48"
NTK-72	K	¼-28 N.F.	72"
NTK-48M6	K	M6 × 1 Metric	48"
NTK-72M6	K	M6 × 1 Metric	72"
NTK-48M8	K	M8 × 1 Metric	48"
NTK-72M8	K	M8 × 1 Metric	72"

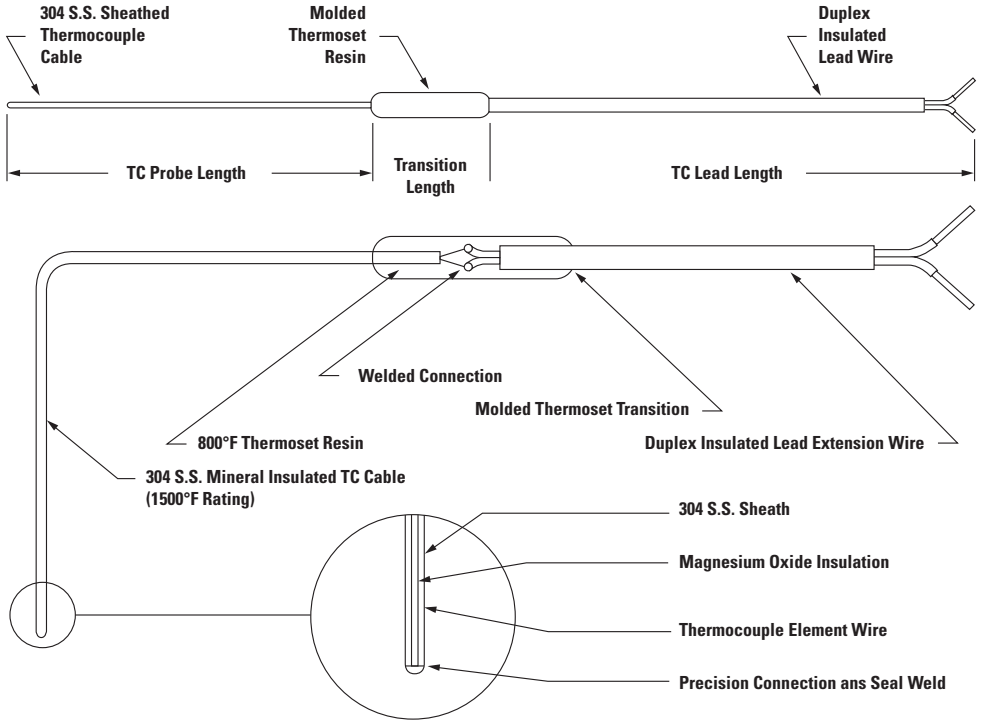
Hi-Temp. Thermocouples

Style "MMT" Miniature Molded Transition

Sensor accuracy and reliability are essential to the precise control of temperatures in multi-component industrial processing systems. Our mineral-insulated style "MMT" thermocouples feature a high-temperature, molded thermoset lead transition. The durable and cost-effective molded transition provides heat and moisture resistance for demanding applications. These high-quality thermocouples are manufactured to stringent specifications and have gained a reputation for unsurpassed performance and reliability. All alloys used in the cable and leads meet or exceed the ANSI specifications for thermocouple grade wire. A full range of lead insulation materials allows selection of leads based on application requirements.

The precision-welded element and lead connections are totally encapsulated in a high-temperature molded thermoset material. If very durable, small diameter thermocouple transitions are required the style "MSMT" thermocouples which are molded into a protective stainless steel cover should be considered. The molded transition provides the highest level of moisture resistance. The standard molded thermoset transition is rated at 800°F. These thermocouples can be readily installed into small diameter thermowells, drilled holes or grooves. When required, tabs, rings and other fastening devices can be induction brazed to the cable to simplify their attachment tool surfaces.

Style "MMT" Miniature Molded Transition Thermocouples

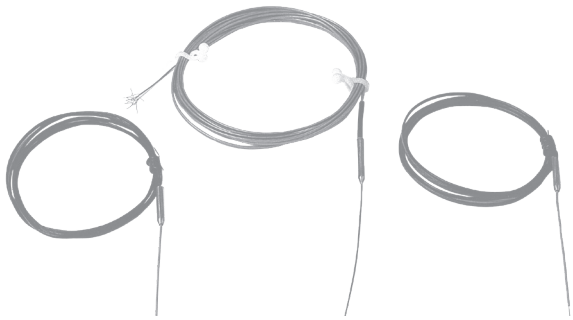


HIGH TEMP THERMOCOUPLES

Part Number	Type	Junction	Probe		Transition		Lead Length	Lead Type
			Dia.	Length	Dia.	Length		
MMT040JG06S48K	J	Grounded	.040″	6″	.188″	.750″	48″	Kapton
MMT040JG14S48K			.040″	14″	.188″	.750″		
MMT063JG06S48K			.063″	6″	.204″	.750″		
MMT063JG14S48K			.063″	14″	.204″	.750″		

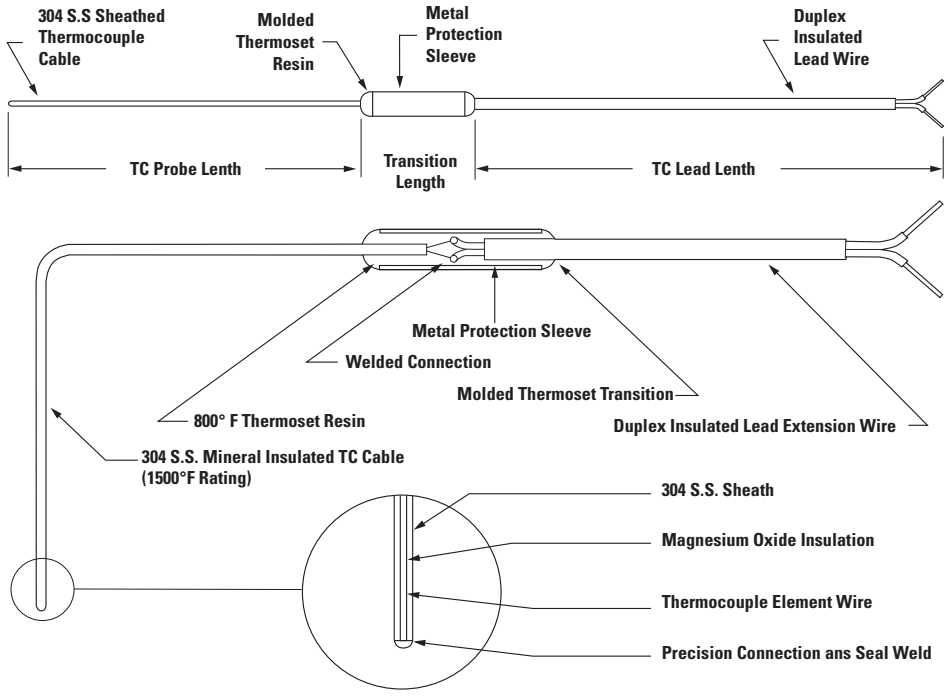
For Hot Runner Molding Applications

- Type "J" calibration (others on request)
- Kapton leads
- Grounded junction
- OEM quality at substantial savings!
- Other probe & lead lengths on request



MINI HI-TEMP THERMOCOUPLES

Probe Dia.	Transition Dia.	Length	Lead Gauge	Probe Length	Lead Length	Part Number
.020″	.135″	.750″	#24	6″	48″	**MHID020JG06S48T**
.020″	.135″	.750″	#24	14″	48″	**MHID020JG14S48T**
.025″	.135″	.750″	#24	6″	48″	**MHID025JG06S48T**
.025″	.135″	.750″	#24	14″	48″	**MHID025JG14S48T**
.031″	.135″	.750″	#24	6″	48″	**MHID031JG06S48T**
.031″	.135″	.750″	#24	14″	48″	**MHID031JG14S48T**
.040″	.165″	.750″	#20	6″	48″	**MHID040JG06S48T**
.040″	.165″	.750″	#20	14″	48″	**MHID040JG14S48T**
.063″	.165″	.750″	#20	6″	48″	**MHID062JG06S48T**
.063″	.165″	.750″	#20	14″	48″	**MHID062JG14S48T**
.093″	.188″	.875″	#20	6″	48″	**MHID093JG06S48T**
.093″	.188″	.875″	#20	14″	48″	**MHID093JG14S48T**
.125″	.250″	.875″	#20	6″	48″	**MHID125JG06S48T**
.125″	.250″	.875″	#20	14″	48″	**MHID125JG14S48T**



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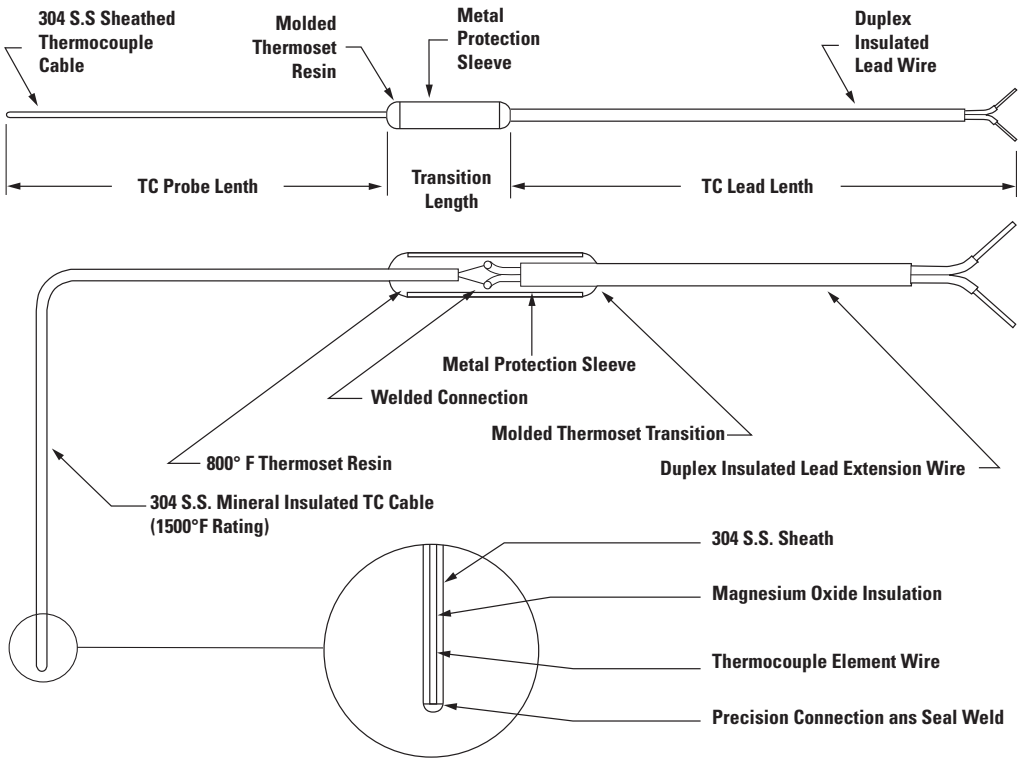
Hi-Temp. Thermocouples

Style "MSMT" Mini SLEEVE Molded Transition

Sensor accuracy and reliability are essential to the precise control of temperatures in multi-component industrial processing systems. Our mineral-insulated style "MSMT" thermocouples feature a metal-sleeved, high-temperature molded thermoset lead transition. The durable and cost-effective molded transition provides maximum strength, heat resistance and moisture resistance for demanding applications. These high-quality thermocouples are manufactured to stringent specifications and have gained a reputation for unsurpassed performance and reliability. All alloys used in the cable and leads meet or exceed the ANSI specifications for thermocouple grade wire. All lead types can be supplied with lead protection for additional abuse resistance. The precision-welded element and lead connections are totally encapsulated in a high-temperature thermoset material molded directly into a protective stainless steel cover.

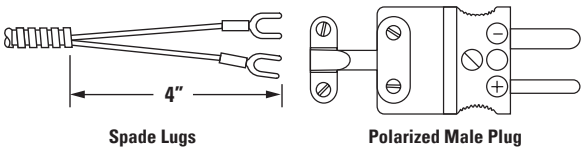
The metal-sleeved, molded transition provides the highest level of moisture resistance and durability. The standard, metal-sleeved style molded thermoset transition is rated at 800°F. These thermocouples can be readily installed into small diameter thermowells, drilled holes or grooves. Tabs, rings and other fastening devices can be molded in to the transition or attached to the metal sleeve by brazed or welding.

Style "MSMT" Miniature Sleeve Molded Transition Thermocouples



MINI SLEEVE

Part Number	Type	Junction	Probe		Transition		Lead Length	Lead Type
			Dia.	Length	Dia.	Length		
MSMT040JG06S48K	J	Grounded	.040″	6″	.165″	.750″	48″	Kapton
MSMT040JG14S48K			.040″	14″	.165″	.750″		
MSMT063JG06S48K			.063″	6″	.165″	.750″		
MSMT063JG14S48K			.063″	14″	.165″	.750″		



- Stainless steel leads
- Accurate to 1000°F
- Fits all standard adapters
- Fits hole depth from 1/2" to 10"
- Flexible probe bends to any angle
- Best selection, in-stock!

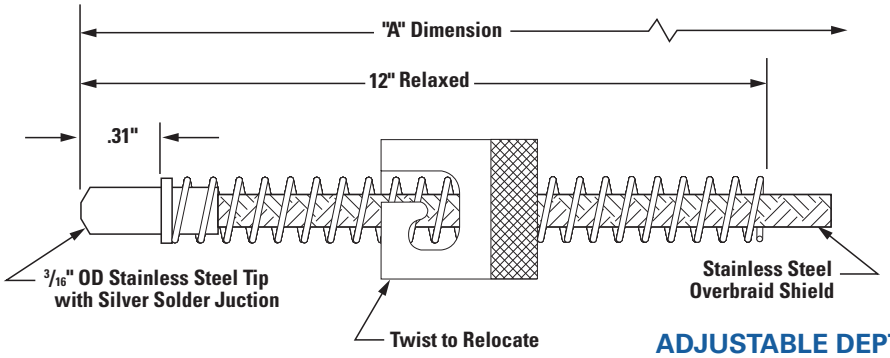
Type J–Stainless Overbraid - Adjustable Depth - Grounded

with Spade Lugs		with Polarized Male Plug	
Part Number	(A) Overall Length	Part Number	(A) Overall Length
ADT1024	24"	ADT1024P	24"
ADT1036	36"	ADT1036P	36"
ADT1048	48"	ADT1048P	48"
ADT1060	60"	ADT1060P	60"
ADT1072	72"	ADT1072P	72"
ADT1096	96"	ADT1096P	96"
ADT1120	120"	ADT1120P	120"
ADT1144	144"	ADT1144P	144"

Type J–Stainless Overbraid - Adjustable Depth - Ungrounded

with Spade Lugs	
Part Number	(A) Overall Length
ADT1030U	30"
ADT1036U	36"
ADT1048U	48"
ADT1072U	72"
ADT1096U	96"
ADT1120U	120"
ADT1144U	144"

ADJUSTABLE DEPTH-TYPE J



ADJUSTABLE DEPTH-TYPE K

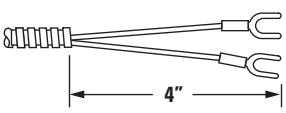
Type K–Stainless Overbraid - Adjustable Depth - Grounded

with Spade Lugs		with Polarized Male Plug	
Part Number	(A) Overall Length	Part Number	(A) Overall Length
ADK1024	24"	ADK1024P	24"
ADK1036	36"	ADK1036P	36"
ADK1048	48"	ADK1048P	48"
ADK1072	72"	ADK1072P	72"
ADK1120	120"	ADK1120P	120"
ADK1144	144"	ADK1144P	144"

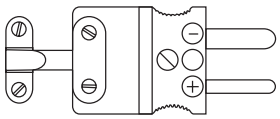
F

Thermocouples

Adjustable Depth - Armor Covered



Spade Lugs

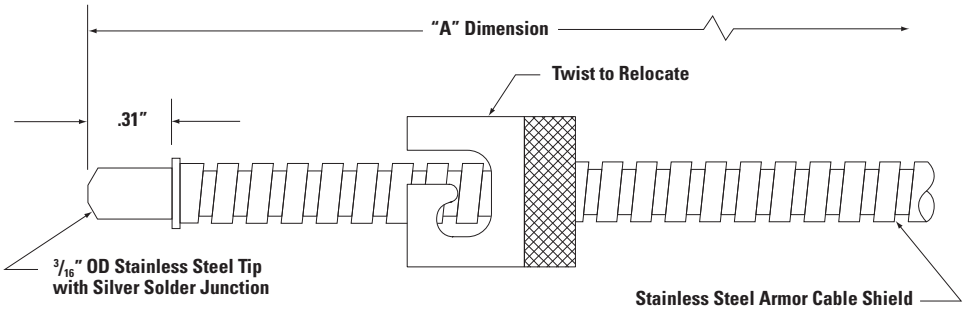

Polarized Male Plug

- Stainless steel armor leads
- Accurate to 1000°F
- Fits all standard adapters
- Fits hole depth from 1/2" to 10"
- Flexible probe bends to any angle
- Best selection, in-stock!

ADJUSTABLE DEPTH-TYPE J

Type J–Armor Covered - Adjustable Depth - Grounded

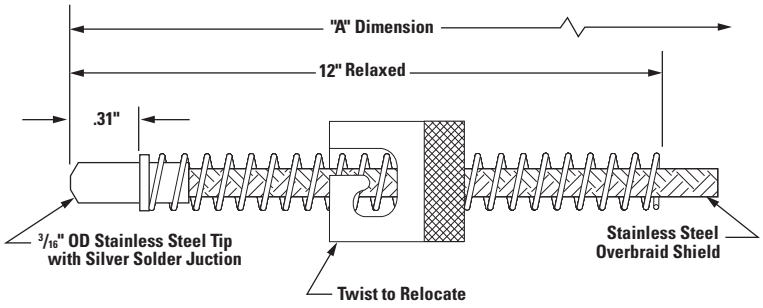
with Spade Lugs		with Polarized Male Plug	
Part Number	(A) Overall Length	Part Number	(A) Overall Length
AAT1024	24"	**AAT1024P**	24"
AAT1036	36"	**AAT1036P**	36"
AAT1048	48"	**AAT1048P**	48"
AAT1072	72"	**AAT1072P**	72"
AAT1096	96"	**AAT1096P**	96"
AAT1120	120"	**AAT1120P**	120"
AAT1144	144"	**AAT1144P**	144"
Type K–Armor Covered - Adjustable Depth - Grounded			
AAK1024	24"	**AAK1024P**	24"
AAK1036	36"	**AAK1036P**	36"
AAK1048	48"	**AAK1048P**	48"
AAK1072	72"	**AAK1072P**	72"
AAK1120	120"	**AAK1120P**	120"
AAK1144	144"	**AAK1144P**	144"

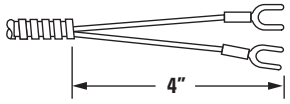


Adjustable Depth - Resistive Temp. Device (RTD)

DME adjustable depth RTDs can be used with thermocouple holes from 1/2" to 10" deep. Standardize on one model RTD for most requirements. Featuring threaded locking cap, which can be rotated or threaded up or down the spring to obtain the desired immersion length.

To install, place probe end in thermocouple hole allowing the tip to rest on the bottom of the hole. Screw bayonet cap down to bayonet adaptor, then back off 2 to 3 turns to provide tension. Push the cap down and twist-lock in place. The spring maintains positive pressure contact between probe tip and thermocouple hole bottom for accurate temperature readings.





Spade Lugs

- 100 ohm platinum sensor
- 3/16" diameter probe
- 2-wire type
- Stainless overbraid
- In stock, low priced!

This is not a Thermocouple

Part Number	(A) Overall Length
RTD1024	24"
RTD1036	36"
RTD1048	48"
RTD1072	72"
RTD1120	120"

ADJUSTABLE DEPTH-RTD

F

Thermocouples

Spade Type

Spade thermocouples have the thermocouple sandwiched between two very thin stainless steel shims. They are usually installed between the heater band and the nozzle.

Part Number	(A) Lead Length
Type J	
STC48	48"
STC72	72"
Type K	
STK48	48"
STK72	72"

SPADE TYPE

More Sizes Available! Call for Pricing!

Thermocouples

Lug Mount

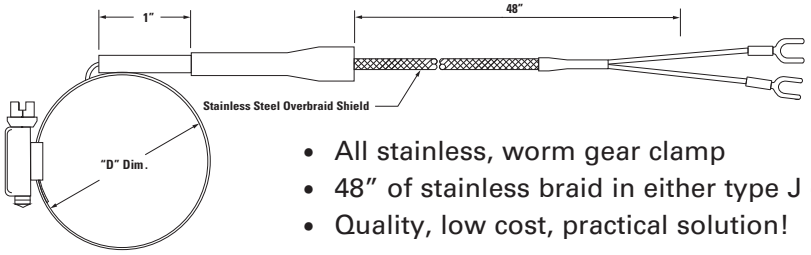
Our washer thermocouples are designed to be used for surface temperature readings of nozzles, barrels, molds, cylinders or die heads. These handy molding accessories can be mounted by a bolt, screw or threaded stud and nut.

LUG MOUNT

Part Number	(A) Lead Length	Washer I.D.	Screw or Bolt Size	Washer O.D.
Type J				
WTC336	36″	3/16	#6-8-10 Screw	3/8
WTC348	48″	3/16	#6-8-10 Screw	3/8
WTC360	60″	3/16	#6-8-10 Screw	3/8
WTC372	72″	3/16	#6-8-10 Screw	3/8
WTC396	96″	3/16	#6-8-10 Screw	3/8
WTC3120	120″	3/16	#6-8-10 Screw	3/8
WTC536	36″	5/16	1/4″-5/16″ Bolt	21/32
WTC548	48″	5/16	1/4″-5/16″ Bolt	21/32
WTC560	60″	5/16	1/4″-5/16″ Bolt	21/32
WTC572	72″	5/16	1/4″-5/16″ Bolt	21/32
Type K				
WTK536	36″	5/16	1/4″-5/16″ Bolt	21/32
WTK548	48″	5/16	1/4″-5/16″ Bolt	21/32
WTK560	60″	5/16	1/4″-5/16″ Bolt	21/32
WTK572	72″	5/16	1/4″-5/16″ Bolt	21/32

Thermocouples

Pipe Clamp



- All stainless, worm gear clamp
- 48″ of stainless braid in either type J or K with spade lug terminations
- Quality, low cost, practical solution!

PIPE CLAMP

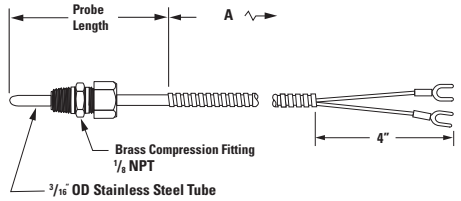
Pipe Clamp Thermocouple–Type J			Pipe Clamp Thermocouple–Type K		
T/C Type	Clamping Range Inches	Part Number	TC Type	Clamping Range Inches	Part Number
			K	1/2 to 7/8	**PCK006**
J	7/8 to 1-1/2	**PCJ016**	K	7/8 to 1-1/2	**PCK016**
J	1-5/16 to 2-1/4	**PCJ032**	K	1-5/16 to 2-1/4	**PCK032**
J	2-1/4 to 3-5/16	**PCJ048**	K		
J	3-5/16 to 4-1/4	**PCJ064**	K		
J	4-1/4 to 5-1/4	**PCJ096**	K	4-1/4 to 5-1/4	**PCK096**

Pipe Clamp Adapters

Clamping Range Inches	Adapter O.A.L.	Part Number
1/2 to 7/8	1 3/4″	**PCA100**

Bendable Probe

The Bendable Probe Thermocouple is designed for hard-to-reach places. The probe tube can be bent to any angle. This thermocouple can also be used in a variety of hole depths.



BENDABLE PROBE

Bendable Probe Thermocouples – Includes Compression Fitting

Part Number	(A) Overall Length	Probe Length	Diameter	TC Type
BPJ6048	48″	6″	3⁄16″	J
BPJ6072	72″	6″	3⁄16″	J
BPJ60120	120″	6″	3⁄16″	J
BPJ1248	48″	12″	3⁄16″	J
BPJ1272	72″	12″	3⁄16″	J
BPJ12120	120″	12″	3⁄16″	J
BPK6048	48″	6″	3⁄16″	K
BPK6072	72″	6″	3⁄16″	K
BPK60120	120″	6″	3⁄16″	K
BPK1248	48″	12″	3⁄16″	K
BPK1272	72″	12″	3⁄16″	K
BPK12120	120″	12″	3⁄16″	K

Extra Compression Fittings
-
Part Number
CF68-3-2

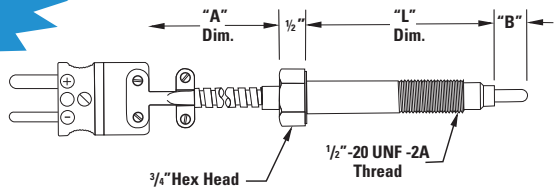
Thermocouples

Melt Bolt

Melt Bolt Thermocouples are used to measure the melt temperature as it moves down the extruder barrel, and is in direct contact with the melting plastic for the most accurate readings.

- 1⁄8″ tip diameter
- 1⁄2 - 20 UNF thread
- 20,000 P.S.I. pressure rating
- 1000°F maximum temperature
- Grounded for faster response
- 304 stainless bolt & extensions

More Sizes Available! Call for Pricing!



MELT BOLT

Flexible Extension - Type J

TC Type	(L) Bolt Length	Part Number	(B) Tip Length	"A" Length
J	3″	**MBJ0-3F**	Flush	4″
J	3″	**MBJ2-3F**	1⁄8″	4″
J	3″	**MBJ4-3F**	1⁄4″	4″
J	6″	**MBJ0-6F**	Flush	4″
J	6″	**MBJ2-6F**	1⁄8″	4″
J	6″	**MBJ4-6F**	1⁄4″	4″

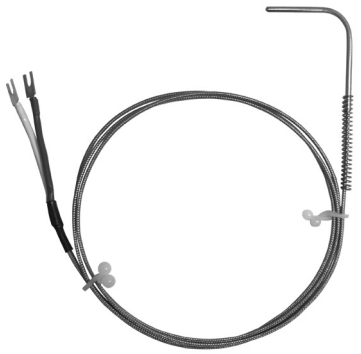
Flexible Extension - Type K

TC Type	(L) Bolt Length	Part Number	(B) Tip Length	"A" Length
K	3″	**MBK0-3F**	Flush	4″
K	3″	**MBK2-3F**	1⁄8″	4″
K	3″	**MBK4-3F**	1⁄4″	4″
K	6″	**MBK0-6F**	1⁄8″	4″
K	6″	**MBK2-6F**	1⁄4″	4″
K	6″	**MBK4-6F**	Flush	4″

Thermocouples

Newbury (Type J)

Newbury OEM-type thermocouples are held in place by means of a set screw which is tapped into the nozzle hex. The thermocouple junction is side sensing and can be inserted from either side of the nozzle. The probe is 1/8″ diameter by 1″ long with a 90° bend, strain reliever and stainless braid leads.



NEWBURY

Part Number	Overall Length
NNT48	48″
NNT72	72″

Thermocouples

Extensions

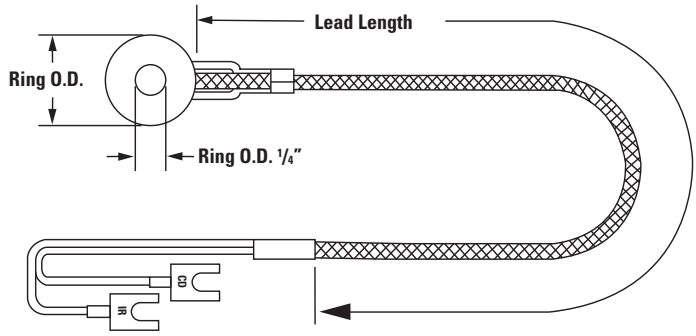
EXTENSIONS

Part Number	Lead Length	
SEM48	48″	Male plug braid SEM part numbers 
SEM72	72″	
SEM120	120″	
SEF48	48″	Female plug braid SEF part numbers 
SEF72	72″	
SEF120	120″	
AEM48	48″	Male plug armor AEM part numbers 
AEM72	72″	
AEM120	120″	
AEF48	48″	Female plug armor AEF part numbers 
AEF72	72″	
AEF120	120″	

Thermocouple extensions stock - Type J ; all other types on request.

Ring Mount

Gasket thermocouples can be quickly and firmly secured to any flat surface with an appropriate sized bolt. Gasket thermocouples are often used in parallel with other types of sensors to create an average temperature measurement between surface and internal temperatures.

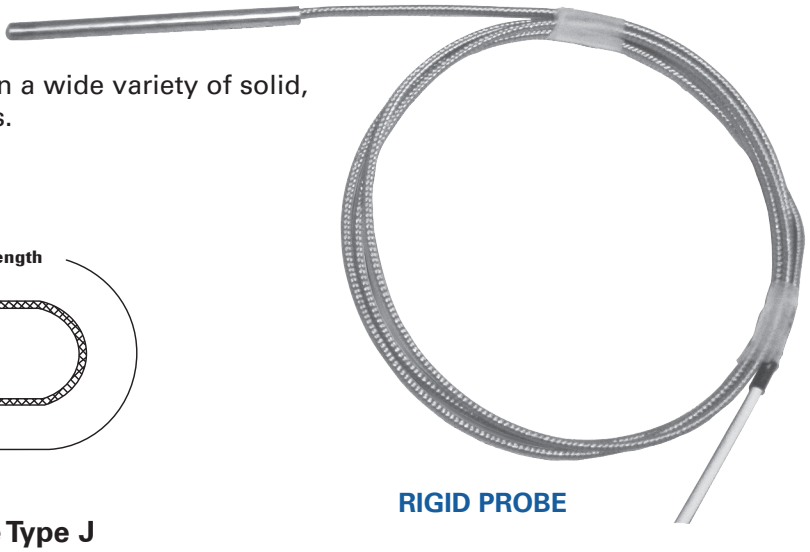


RING MOUNT

Part Number	Desc.
60J723	SS br. 72″ str.
60J91201	SS br. 120″ 90 deg. plug
60J9723	Kapton 72″ 90 deg.
60J91443	Kapton 144″ 90 deg.

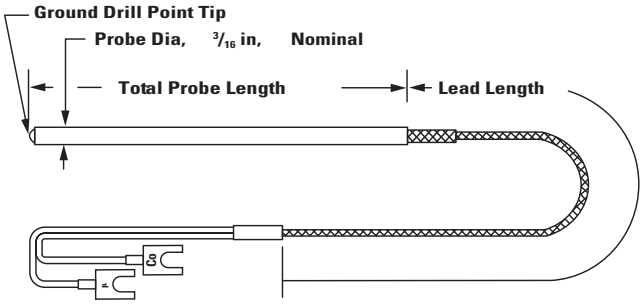
Thermocouples

Rigid Probe Thermocouples



RIGID PROBE

Rigid probe thermocouples are useful in a wide variety of solid, gas and liquid temperature applications.



All Thermocouples Listed Below are Type J

Part Number	Probe	Lead Description
RPTC11	1/8″ dia. × 1″ long	36″ stainless steel braid
RPTC14	1/8″ dia. × 2″ long	72″ stainless steel braid
RPTC01	3/16″ dia. × 1/2″ long	48″ stainless steel braid
RPTC02	3/16″ dia. × 3″ long	48″ stainless steel braid
RPTC03	3/16″ dia × 3″ long	72″ stainless steel braid

Insulated Quick Disconnects

"Quick-Slide" male and female fully Insulated Quick Disconnects give reliable connection, and resist corrosion and arching while improving conductivity. Funnel barrel for easy insertion of wire. Centered male blade allows reversible entry; female connector has corrugated barrel.

- Rated for 300VAC
- 221°F/105°C
- Tab size - .250" × .032"

50 Pieces Per Bag

Male/Female Wire Range	Male 22–18	Female 22–18	Male 16–14	Female 16–14
Part Number	NQM-2216	NQF-2216	NQM-1614	NQF-1614

Non-Insulated Quick Disconnects

50 Pieces Per Bag

Male/Female Wire Range	Male 22–18	Female 22–18	Male 16–14	Female 16–14
Part Number	QM-2216	QF-2216	QM-1614	QF-1614

Bayonet Adapters

BAYONET ADAPTERS

⅛-27 N.P.T.		⅜-24 N.F.
Part Number	Length	Part Number
BA-72	⅞"	BA-76
BA-202	1¼"	BA-206
BA-362	2¼"	BA-366
BA-562	3"	

Metric-to-English Adapters

Metric Thread	English Thread	Length	Part Number
10 × 1.5	⅛-27	1"	MBA-10
12 × 1	⅛-27	1"	MBA-12
14 × 1.5	⅛-27	1"	MBA-14

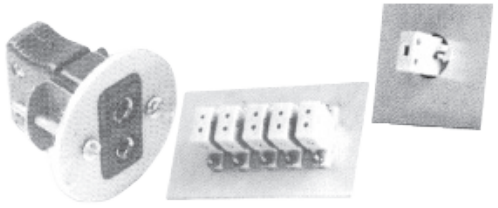
Screw into metric threaded hole and then use standard ⅛-27 NPT Bayonet Adapter

METRIC TO ENGLISH ADAPTERS

Panel Jacks

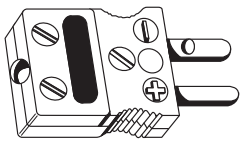
Part Number	Size	Descpt.
630RJ	1–⅛" dia.	Round - J
630RK	1–⅛" dia.	Round - K
630RJM	1–⅛" dia.	Mini - J
631J1	2" square	1 Jack
631J5	3–¼" × 5"	5 Jack
631J5M	2" × 4"	5 - Mini J

PANEL JACKS



STANDARD MALE PLUGS

Part Number
MPJ
MPK

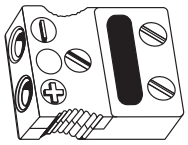


Glass-filled nylon - rated to 400°; type J is black, type K yellow

Standard Female Jacks

Part Number
FJJ
FJK

STANDARD FEMALE JACKS

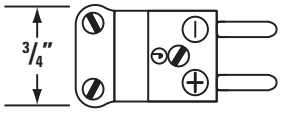


Glass-filled nylon - rated to 400°; type J is black, type K yellow

Miniature Male Plugs

Part Number
MMPJ
MMPK

MINI MALE PLUGS

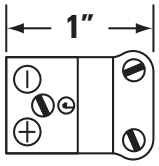


Glass-filled nylon - rated to 400°; type J is black, type K yellow

Miniature Female Jacks

Part Number
MFJJ
MFJK

MINI FEMALE JACKS



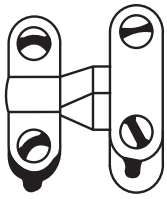
Glass-filled nylon - rated to 400°; type J is black, type K yellow

F

Cable Clamp

Part Number	Size
CC610	Std
CCM610	Mini

CABLE CLAMP

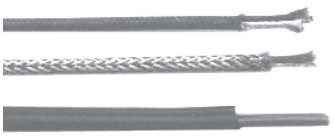


Thermocouple Wire

High Temperature

- High quality
- In stock for immediate shipment

THERMOCOUPLE WIRE



Thermocouple Extension Wire						
Part Number	**Wire Size**	**Wire Type**	**Rated Description**	**°F**	**Wire**	**Overall**
Type J						
TCEW1	20 Ga	Stranded	Fiberglass Jacket Over Insulated Duplex Parallel Conductors	900°	Glass	Glass
TCEW1S	20 Ga	Solid	Fiberglass Jacket Over Insulated Duplex Parallel Conductorts	900°	Glass	Glass
TCEW2	20 Ga	Stranded	Stainless Braid Jacket Over Fiberglass Insulated Duplex Parallel Conductors	900°	Glass	Stainless
TCEW2S	20 Ga	Solid	Stainless Braid Jacket Over Fiberglass Insulated Duplex Parallel Conductors	900°	Glass	Stainless
TCEW3	20 Ga	Stranded	PVC Jacket Over Insulated Duplex Parallel Conductors	220°	PVC	PVC
TCEW3S	20 Ga	Solid	PVC Jacket Over Insulated Duplex Parallel Conductors	220°	PVC	PVC
TCEW6	20 Ga	Stranded	PTFE Jacket Over Insulated Duplex Parallel Conductors	500°	PTFE	PTFE
TCEW6S	20 Ga	Solid	PTFE Jacket Over Insulated Duplex Parallel Conductors	500°	PTFE	PTFE
Type K						
TCEW8	20 Ga	Stranded	Fiberglass Jacket Over Insulated Duplex Parallel Conductors	900°	Glass	Glass
TCEW9	20 Ga	Stranded	Stainless Braid Jacket Over Fiberglass Insulated Duplex Parallel Conductors	900°	Glass	Stainless
TCEW12S	20 Ga	Solid	Parallel Conductors	Red 220°	PVC	PVC

Stainless Steel Armor

STAINLESS STEEL ARMOR

Use for molding machines, granulators, chillers, general wiring, heater extensions, controller wiring and all types of plant applications. Stainless armor will withstand extremes in heat (1700°F) and abrasion without rusting or crushing.

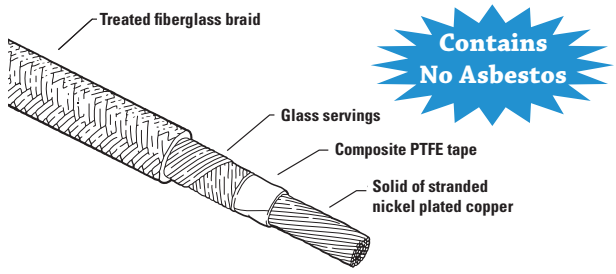
- Use on heater bands, cartridge heaters, thermocouples, etc.
- Solid stainless steel construction
- Crush-resistant shielding, easy to install
- Rust, corrosion, and vibration resistant

Part Number	I.D. Inches	O.D. Inches	Bend Radius
SSA316	3/16 (.187)	9/32	1-7/8"
SSA140	1/4 (.250)	11/32	2"
SSA380	3/8 (.375)	1/2	2-1/4"
SSA120	1/2 (.500)	5/8	2-1/2"

High Temperature - Type TGGT

HEATER WIRE

600 volt/250˚C
Conductor: flexible stranded, 10% nickel-plated copper
Tape Wrap: PTFE tape
Insulation: ceramic tape
Jacket: PTFE-impregnated glass braid
Physical Properties: The ceramic tape insulation combines high dielectric strength with excellent flexibility and ease of stripping to achieve a lead wire of superior resistance to high temperature, abrasion, chemicals and moisture.



Listing: listed by UL (style 5251) and CSA (type C3)
Nominal Thickness: TFE tape - all sizes .015" (.38mm); ceramic tape -24-8 AWG .010" (.25mm) 6-4/0 AWG .015" (.38mm); glass braid - 2408 AWG .005" (.13mm) 6-2 AWG .0075" (.19mm) 1-4/0 AWG .010" (.25mm)

Best utilized: for internal wiring of heating equipment, wiring and extensions for heating equipment used in plastics processing, heating equipment and industrial cooking equipment.

Hi-Temp Heater Extension Wire 482° Rated (750°F. Intermittent)

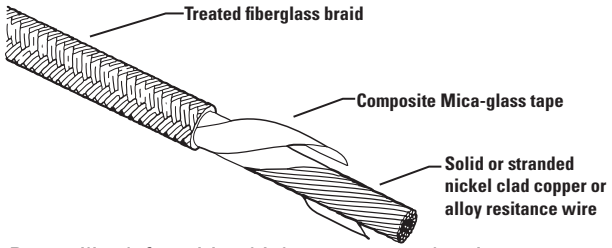
Part Number	Size AWG	Strand	Nom. O.D. (In./mm)	Bend Rad. (In./cm)	Ampacity*
TGGT18	18	19 × .010	.114/2.90	.66/1.68	23
TGGT16	16	26 × .010	.124/3.15	.72/1.83	40
TGGT14	14	41 × .010	.140/3.56	1.12/2.84	53
TGGT12	12	65 × .010	.162/4.11	1.28/3.25	70
TGGT10	10	105 × .010	.204/5.18	1.48/3.76	93
TGGT8	8	168 × .010	.248/6.30	2.30/5.87	115

*Ampacity is based on maximum conductor temperature of 250°C in free air at ambient temperature of 30°C

High Temperature - Type MG

HEATER WIRE

600 volt/450°C
Conductor: flexible, stranded, 27% nickel-clad copper
Insulation: glass reinforced mica tapes
Jacket: glass braid impregnated with high-temperature finisher
Physical Properties: superior resistance to high temperature and the effects of radiation; insulating materials retain their integrity after exposure to 1012



Listing: listed by UL (style 5107) CSA - applied for
Nominal Thickness:

Insulation	Jacket
22-12 AWG .025" (.64mm);	22-12 AWG .007" (.18mm)
10-4 AWG .030" (.76mm);	10-4 AWG .015" (.38mm)
2-4/0 AWG .035" (.89mm)	2-4/0 AWG .020" (.51mm)

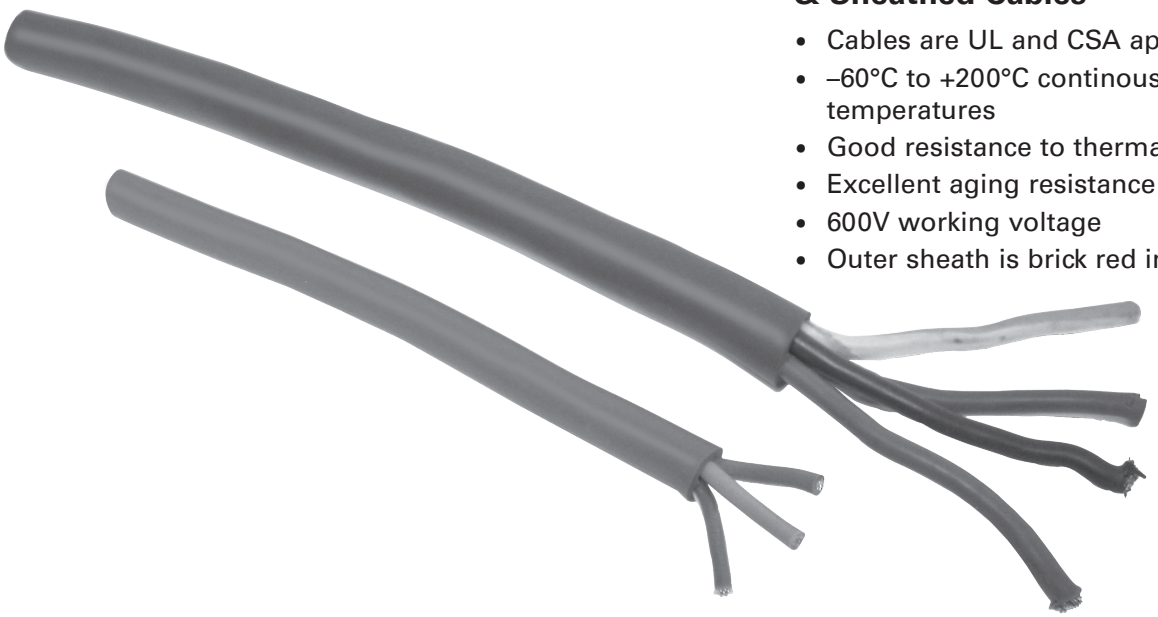
Best utilized: for wiring high temperature heating equipment, wiring and extensions for heating equipment used in plastic processing machinery. Well suited for presses and extruders, hot gates etc.

Extreme Temp Heater Extension Wire 868° Rated (1350°F. Intermittent)

Part Number	Size AWG	Strand	Nom. O.D. (In./mm)	Bend Rad. (In./cm)	Ampacity*
MG20	20	7 × .0126	.110/2.79	.66/1.68	27
MG18	18	19 × .010	.120/3.05	.72/1.83	39
MG16	16	26 × .010	.131/3.33	.78/1.97	51
MG14	14	41 × .010	.142/3.61	1.12/2.84	64
MG12	12	65 × .010	.163/4.14	1.20/3.04	86
MG10	10	105 × .010	.226/5.74	1.76/4.49	115
MG8	8	168 ×.010	.266/6.76	2.60/6.63	120

*Ampacity is based on maximum conductor temperature of 250°C in free air at ambient temperature of 30°C

Sheathed Cables



Multiconductor Silicone-Insulated & Sheathed Cables

- Cables are UL and CSA approved
- –60°C to +200°C continous working temperatures
- Good resistance to thermal shock
- Excellent aging resistance
- 600V working voltage
- Outer sheath is brick red in color

SHEATHED CABLES

Number of Conductors	AWG	Part Number
3 core	16 gauge	**CORE3**
4 core		**CORE4**

Silicone Sleeving

Custom-formulated silicone rubber extruded over electrical grade braided fiberglass

- Flexible
- Grade C
- –70°C to +200°C temperature range

SILICONE SLEEVING

Part Number	I.D.
SS12M	0.133
SS25M	0.263
SS31M	0.313
SS37M	0.375
SS50M	0.5

Spring Return Wire Strippers-KCT600

- Cuts and strips copper or aluminum 10–18 AWG solid and stranded wire
- Holes on the side of the jaws are intended for looping solid wire
- Use pliers to tighten or loosen small nuts
- Precision ground cutting and stripping jaws
- Spring return
-

KCT600

Fiberglass Sleeving

Special high-temperature “E” Type Fiberglass® developed to provide protection in elevated temperatures that are encountered with molding and extruding applications. E-Glass is non-fray sleeving which is heat treated to remove impurities in the yarn and to retard fraying and splaying. Passes VW-1 flammability requirements. Sleeving may be easily distended to cover terminals and solder connections.

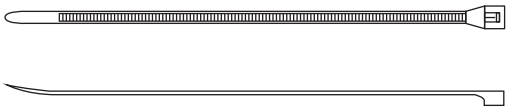
Temperature Ranges:

Continuous service: 500˚F (260˚C)
Sustained service: 800˚F (430˚C)
Intermittent use: 1400˚F (760˚C)

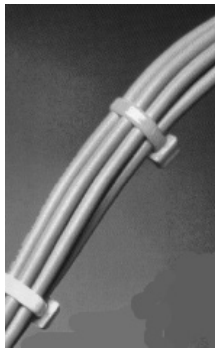
FIBERGLASS SLEEVING

Part Number	Nominal Size	Sleeve I.D.	Fits Wire Sizes
FGS12	12	.091	1 - #12 Wire or Smaller 2 - #18 Wire
FGS7	7	.158	1 - #7 Wire or Smaller 2 - #14 Wires 3 - #16 Wires
FGS2	2	.278	2 - #8 Wires 3 - #12 Wires 6 - #18 Wires 10 - #22 Wires
FGS50	½”	.524	4 - #8 Wires 6 - #12 Wires 8 - #14 Wires 12 - #18 Wires 18 - #22 Wires

- Made in USA
- High quality, low price!
- Use for: wire, cable, hose, ducting, retaining and repair



Ties feature a patented locking system that assures a firm grip. These natural-color cable ties have smooth edges and a taper tip for easy installation. UL approved.



NYLON CABLE TIES

Natural Color (off white) Ties

Part Number	Length O.A.	Max. Dia.	Tensile Looped	Pieces Per Bag
NCT4	4″	13⁄16″	18	100
NCT7	7″	1–3⁄4″	50	100
NCT11	11″	3″	50	100
NCT14	14″	4″	50	100
NCT14HD	14–1⁄2″	4″	175	100
NCT18HD	18–1⁄2″	5–1⁄4″	175	50
NCT24HD	24–1⁄2″	7″	175	50

Black Color Ties

Part Number	Length O.A.	Max. Dia.	Tensile Looped	Pieces Per Bag
NCT4BLK	4″	13⁄16″	18	100
NCT7BLK	7″	1–3⁄4″	50	100
NCT11BLK	11″	3″	50	100
NCT14BLK	14″	4″	50	100
NCT14HDBLK	14–1⁄2″	4″	175	100
NCT18HDBLK	18–1⁄2″	5–1⁄4″	175	50
NCT24HDBLK	24–1⁄2″	7″	175	50

F

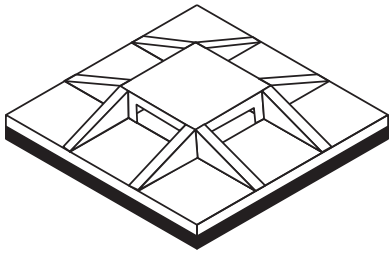
Cable Tie Bases

These Cable Tie Bases make mounting wire and cable a quick, easy and secure process. They are designed so they can be screw-mounted, and they also have an adhesive backing for extra easy application.

Black Nylon Cable Tie Base

Part Number	Description
6295	0.75″ × 0.75″ Base
6297	1″ × 1″ Base

CABLE TIE BASES



Butt Connectors

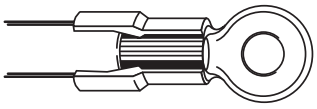
	Part Number	Max. Temp.	Wire Size
Non-Insulated	**BCC18**	600°F	22-18
	BCC14	600°F	16-14
	BCC10	600°F	12-10
	BCS18	900°F	22-18
	BCS14	900°F	16-14
	BCS10	900°F	12-10
Nylon Insulated	**BCC18N**	300°F	22-18
	BCC14N	300°F	16-14
	BCC10N	300°F	12-10

BUTT CONNECTORS

High Temperature Terminal Lugs

Features & Construction

- Wire ranges clearly marked on all terminals
- Load capacity greater than wire itself
- One-piece construction for greater strength & economy
- Full ¼" long shank provides extra length for fast, easy location when crimping, and wide crimping area for permanent vibration-free and moisture-proof connections
- Extra added feature - beveled O.D.



Extreme Temp. Terminal Lugs - 900°F

Part Number	Wire Size	Stud Size
HTTL18	22-18	1/8
HTTL14	16-14	3/16
HTTL10	12-10	3/16

TERMINAL LUGS

Tan/Red Super Wire Connectors

3M®

Features

- One connector replaces three
- Compact size and red miniskirt
- Quick bite spring design
- Comfortable wing design for a better grip
- UL listed, CSA certified & CE
- Temp rating 221°F/105°C
- 600 volts maximum

TRBOX
100 pieces per box

Tan/Red Super Wire Connectors

Ceramic Wire Connectors

- For very high temperature applications
- Usable up to 1740°F/950°C
- Ribbed design for easy use
- 600 volt max.

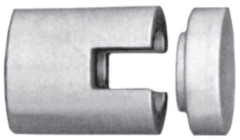
CERAMIC WIRE CONNECTORS

Part Number	Wire Sizes	
	Min.	Max
CWN20	2-#16	2-#16 & 1-#18
CWN16	3-#16	2-#16 & 2-#18
CWN10	2-#14	3-#16 & 1-#18

F

Ceramic Terminal Covers

Part Number	Thd Size
CTC1024	10–24
CTC1032	10–32



CERAMIC TERMINAL COVER

Economy Glass Tape

Economy Glass Cloth Therm-X Electrical Tapes are designed to offer efficiencies in application and versatility in selection.

730 Glass Cloth Electrical Tape

- Operates at 130° (266°F)
- 7 mil. thickness
- Roll length 180′

7300 Glass Cloth Electrical Tape

- Operates at 180° (356°F)
- 7.5 mil. thickness
- Roll length 108′

Part Number	Width	Rated Temp Range	Thickness	Length
730-500	½″	266°F/130°C	7 Mil	180′
730-750	¾″	266°F/130°C	7 Mil	180′
730-1000	1″	266°F/130°C	7 Mil	180′
7300-500	½″	356°F/180°C	7.5 Mil	108′
7300-750	¾″	356°F/180°C	7.5 Mil	108′
7300-1000	1″	356°F/180°C	7.5 Mil	108′

ECONOMY GLASS TAPE

PVC Electrical Tape

PVC Electrical Tape

Part Number ET750

- 7 mil., 3⁄4″ wide, 60′ long
- UL listed
- Individually cello wrapped
- All purpose – all weather
- Service temperature: 176°F/80°C

3M Vinyl Electrical Tape

- 7 mil., 3⁄4″ wide, 66′ long
- UL & SA listed
- Stickier, stretchier and highly conformable
- All purpose – all weather
- Operating range up to 20˚F/105˚C
- Flame-retardant
- Hot and cold weather-resistant
- Use Super 33 + as a primary insulation for wire cable splices up to 600V and for fixture and wire splices up to 1 kV

Meets requirements of ASTM d-3005 Type 1, UL 510, HHI-595C and CSA C22.2

PN # SUPER 33

Product on this page is no longer available

Features

- 7 mil, ¾" wide, 66' long
- 9 colors
- UL listed & CSA certified
- All purpose - all weather
- Color coding, phase identification, marking, wire harnessing
- Temp rating 220°F/105°C

35**
1 roll (¾" × 66')

** To complete part number, add the color of the tape desired from the list to the right (e.g. Red tape would make the part number 35RED)

Colors Available

- RED
- WHITE
- BLUE
- GREEN
- YELLOW
- ORANGE
- BROWN
- GRAY
- VIOLET

3M Electrical Tape Multi-Pack

Features

- 5 colors in one pack: blue, green, red, white & yellow
- Color coding, phase identification, marking, wire harnessing
- 7 mil - ½" wide × 20' long
- UL listed & CSA certified
- All purpose - all weather
- Temp rating 220°F/105°C

PN: 35 Multipack
5 rolls (½" × 20')

3M Hi-Heat Electrical Tapes

F

3M Hi-Heat Electrical Tapes are ideal for use on heater bands and thermocouple lead extensions as well as all high-heat applications. We offer two temperature ratings and mill thicknesses. Both are thermosetting and pressure sensitive for a long service life.

Part Number	Width	Rated Temp Range	Thickness
27-500	½"	266°F/130°C	7 Mil
27-750	¾"	266°F/130°C	7 Mil
69-500	½"	356°F/180°C	7.5 Mil
69-750	¾"	356°F/180°C	7.5 Mil

27 Glass Cloth Electrical Tape

- Operates at 130°C (266°F)
- 7 mil thickness
- UL recognized component listing for 150°C (guide OANZ2, file E17385). CSA accepted component 130°C file LR93411. Meets MIL-I-15126F type GFT

69 Glass Cloth Electrical Tape

- Operates at 180°C (356°F)
- 7.5 mil thickness
- Meets requirements of MIL-I-19166C and has UL recognized component listing for 200°C (guide OANZ2, file E17385). CSA accepted component 180°C file LR93411

All Tapes 66' Long!

GPMS Solid State Relays

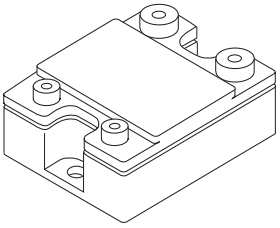
Applications for Solid State Relays are typically used to operate devices such as motors, heaters and lights from low-power signals such as those generated by computers, microprocessors and other logic systems. Here are some examples: heating controls, P.C. drilling machines, industrial process controls, electrostatic precipitators, electromagnets, assembly equipment, plastics thermoforming, welding controls, artificial vision systems, fire and alarm systems, production equipment, lubrication systems, industrial fans and blowers, utility control systems.

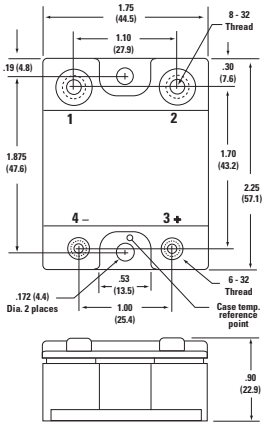
GLOBAL PLASTIC MOULDING SUPPLIES

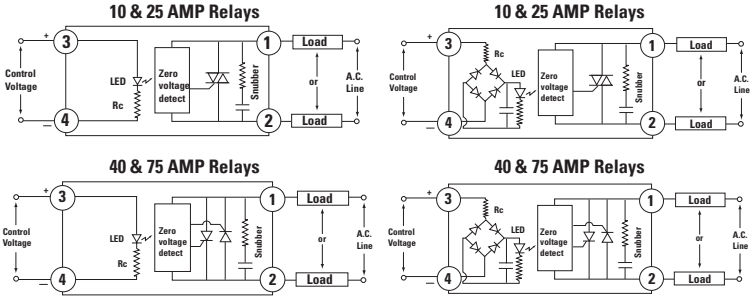
Long life reliability when properly used, the Solid State Relay (SSR) provides a high degree of reliability, long life and reduced Electro-Magnetic Interference(EMI), together with fast response and high vibration resistance. No moving parts; the absence of moving parts means that there is nothing to "wear out." Fast switching Solid State Relays can switch up to 80 times per second, much faster than any electro-mechanical relays low input power required SSR's allows the switching of high loads via ultra-sensitive input power. A low level logic signal (TTL) can activate a switch for as much as 100 AMPS. Resistant to shock and vibration, our solid state relays are filled with an epoxy compound. When cured, the epoxy hardens so that the finished relay is a solid block. This prevents damage to the unit by the shock or vibration present in many industrial usages. Quiet operation, completely quiet switching. Beneficial in many areas where quiet operations are desirable.

- Optically isolated
- Built-in snubber
- 4000 volt isolation
- Zero voltage turn-on
- Direct copper bonded SCR's
- High surge capability
- 100% tested at rated current
- UL recognized
- CSA certified
- CE compliance
- 600 volt peak blocking voltage (1200 volt peak blocking voltage)*
- LED status indicator*
- Clear safety cover included*

* Features available on the 660 volt AC output models only







DC Control Models

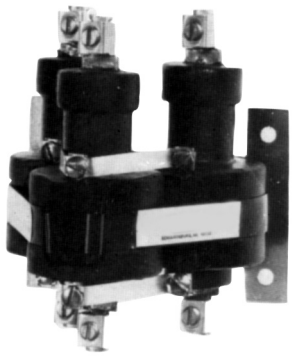
Part Number	Maximum Current	Line Voltage	Min. Control Voltage	Max.Control Voltage
610DC	10A	24-330 VAC	3 VDC	32 VDC
625DC	25A	24-330 VAC	3 VDC	32 VDC
640DC	40A	24-330 VAC	4 VDC	28 VDC
675DC	75A	24-330 VAC	4 VDC	28 VDC
500DC	50A	48-660 VAC	4 VDC	28 VDC
750DC	75A	48-660 VAC	4 VDC	28 VDC
AC Control Models				
610AC	10A	24-330 VAC	100 VAC	280 VAC
625AC	25A	24-330 VAC	100 VAC	280 VAC
640AC	40A	24-330 VAC	100 VAC	280 VAC
675AC	75A	24-330 VAC	100 VAC	280 VAC
500AC	50A	48-660 VAC	100 VAC	280 VDC
750AC	75A	48-660 VAC	100 VAC	280 VDC

OBSOLETE

- Totally encapsulated
- Moisture resistant
- Stainless steel tube
- High speed
- Hermetically sealed
- Long lasting
- Cool and quiet
- High reliability
- 3 styles available:
  - Single pole
  - Double pole
  - Triple pole
- UL, CSA & CE Listed

Specifications

Life: Five million operations minimum for resistive loads
Dielectric withstand: min. 2500VRMS
Temperature range: –35°C to 85°C
Coil terminals: #6 binding head screws
Load terminals: Pressure connectors, AWG #6–14 for 35A AWG #2–12 for 60A
Operate time: .05 second
Release time: .08 second
Contact resistance: 35 AMP: .003 Ohms 60 AMP: .002 Ohms
Pull-In Voltage: 65% of normal



MERCURY CONTACTORS

1 Pole–Normally Open

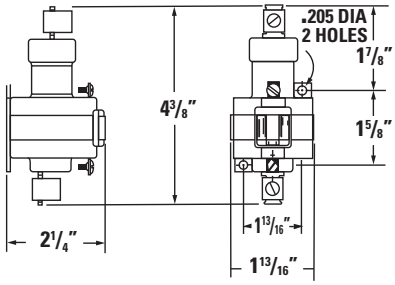
Part Number	Contact Rating at 480VAC	Coil Information		
		Voltage	Watts	Volt AMP
MC35-1201	35 A.	120	3.5	6.4
MC35-2401	35 A.	208/240	3.2/4.0	5.4/7.0
MC60-1201	60 A.	120	2.9	5.8
MC60-2401	60 A.	208/240	3.0/4.0	5.2/7.0
MC100-1201	100 A.	120	7.1	16.4
MC100-2401	100 A.	208/240	7.5	16.1

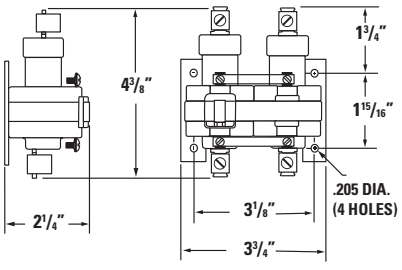
2 Pole–Normally Open

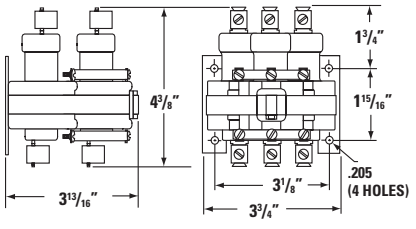
Part Number	Contact Rating at 480VAC	Coil Information		
		Voltage	Watts	Volt AMP
MC35-1202	35 A.	120	7	12.8
MC35-2402	35 A.	208/240	6.4/8.0	10.8/14.0
MC60-1202	60 A.	120	5.8	11.6
MC60-2402	60 A.	208/240	6.0/8.0	10.4/14.0
MC100-1202	100 A.	120	14.2	32.8
MC100-2402	100 A.	208/240	15	32.2

3 Pole–Normally Open

Part Number	Contact Rating at 480VAC	Coil Information		
		Voltage	Watts	Volt AMP
MC35-1203	35 A.	120	10.5	19.2
MC35-2403	35 A.	208/240	9.6/8.0	16.2/21.0
MC60-1203	60 A.	120	8.7	17.4
MC60-2403	60 A.	208/240	9.0/12.0	15.6/21.0
MC100-1203	100 A.	120	21.3	49.2
MC100-2403	100 A.	208/240	22.5	48.3







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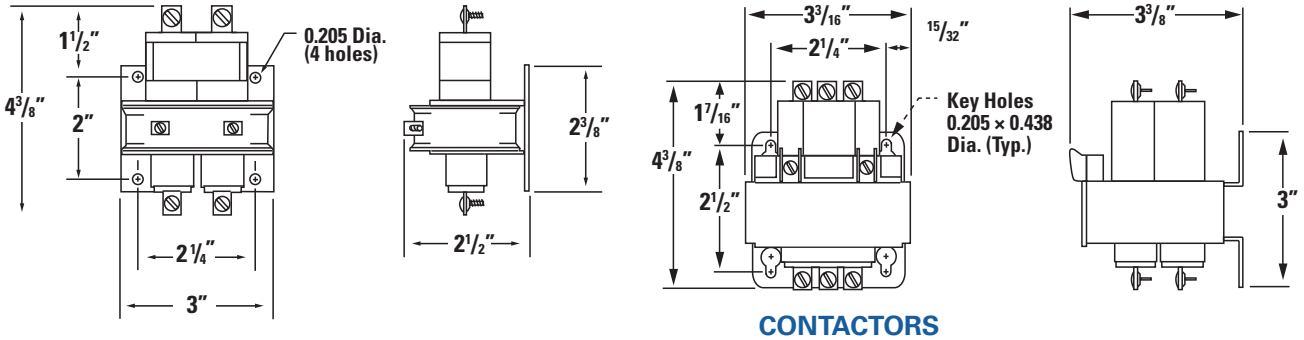
30 AMP Contactors

Quantum IM Mounts



Double Pole

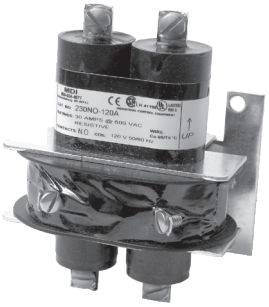
Part Number	Voltage	Wattage	Volt AMPS
CMC30-24DC2	24 VDC	6.3	6.3
CMC30-24AC2	24V-50/60Hz	4.9	13.9
CMC30-1202	120V-50/60Hz	4.9	13.8
CMC30-2402	220V-50/60Hz	4.4	11.7

Triple Pole

Part Number	Voltage	Wattage	Volt AMPS
CMC30-24DC3	24 VDC	5.2	5.2
CMC30-24AC3	24V-50/60Hz	5.0	19.6
CMC30-1203	120V-50/60Hz	4.2	16.8
CMC30-2403	220V-50/60Hz	3.9	14.5

CONTACTORS

- Contact resistance
- Dielectric withstand 2,500 VAC RMS min
- Operation time: 50 mille second
- Release time: 70 mille second
- 30 AMP @ 600 RES rating per pole
- PTFE plunger guides
- UL listing CSA certified
- Coil terminals - #6 screw
- Load terminals - #8 screw

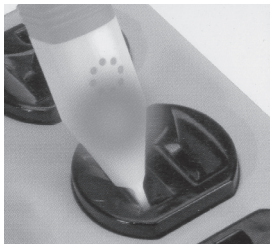


Voltage Sensor

With Both Visual and Audible Alarm!

Made in the USA!

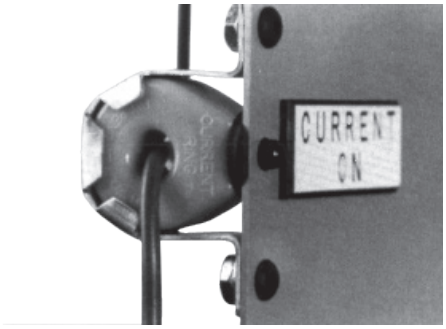
- Detects 50–1000 volts AC
- CAT3 & CAT4 rated
- Detects defective grounds
- No switch required - always ready to go!
- Buzzer will only react to an AC field - NOT static electricity
- Safety instrument - locates defective grounds, breaks in wires, energized circuits, blown fuses, etc.
- Non-conductive surfaces
- Personal verification - lockout/tagout procedures



Part Number VP200

VOLTAGE SENSOR

Current Rings are totally self-contained devices for detecting current flow. These devices provide a safe, economical way of indicating the presence of an absence of electrical current flow. The indicator is attached directly to a current-carrying wire. When the current exceeds the turn-on point, the LED will illuminate to indicate the presence of current.

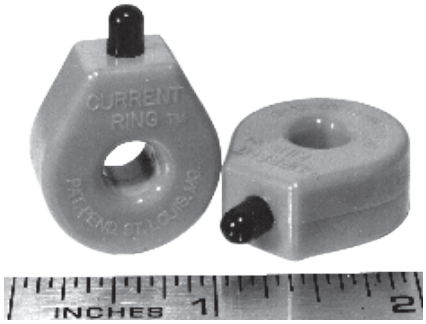


Applications

- Monitor status of heater element
- Observe remote loads
- Indicate phase loss
- Monitor motor operation

Features

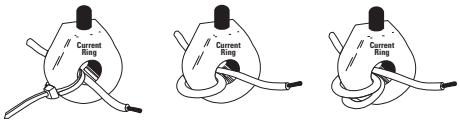
- Self-powered
- Red or green indicator
- Easy to install
- Supplied with plastic tie
- Bright yellow case for easy I.D.
- Panel-mounting bracket available



Specifications

Min. turn-on point:
2 AMPS for CR-45-R
2.5 AMPS for CR-45-G
Indicating Range:
2 to 100 AMPS (for CR-45-R)
2.5 to 100 AMPS (for CR-45-G)
Max. Continuous Current:
100 AMPS

LED Type: TI ¾ diffused
LED Color: Red or green
Case Material: Thermoplastic
Case Color: Bright safety yellow
Weight: .5 oz.
Frequency: 50 – 60 Hz
Mounting Bracket Material:
Non-magnetic aluminum



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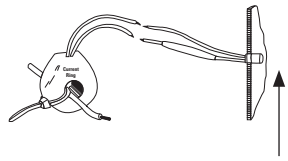
Wire Passes	Turn-On Point		Max. Wire Diameter
	Red	Green	
1	2	2.5	.29
2	1	1.25	.14
3	.66	.83	.13
4	.5	.62	.12
N	2, N	2.5, N	

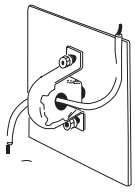
CURRENT RING INDICATORS



CR-19 Transformer

CR-25 Press-In Indicator

Part Number	Description
CR45R	Current Ring - Red
CR45G	Current Ring - Green
CR19	Current Transformer
CR25	Press-In Indicator
MB45	Mounting Bracket



Mounting Bracket

Analog & Digital Sound Level Meters

Check Noise Levels Economically

Features

- Tripod mount ideal for field use
- Analog output for connection to chart recorders, data loggers, etc.
- Selectable weighting ('A' or 'C') and response time (Fast or Slow)
- MAX HOLD front-panel select switch locks highest reading on the display
- Complete with battery

Applications

- Identify noise ordinance violations, traffic noise measurements, community noise measurements, theater acoustic studies, stereo balancing.

Specifications

	407706 Analog SLM	407730 Digital SLM
Range:	54 to 126 dB	40 to 130 dB
Accuracy:	± 3dB @ 94 dB,1000Hz	± 2dB @ 94 dB,1000Hz
Weighting:	'A' and 'C' (Selectable)	'A' and 'C' (Selectable)
Response time: (Selectable)	FAST and SLOW (Selectable)	FAST and SLOW
Microphone:	0.5 Electret Condenser Type	0.5 Electret Condenser Type
Analog output:	AC: 0.707 Vrms	AC: 0.707 Vrms
Power supply:	Heavy duty, 9V Battery	(4) AAA batteries
Dimensions:	2.7 × 7.1 × 1.4 (68 × 180 × 36mm)	2.2 × 9 × 1.7 (57 × 230 × 44mm)
Weight:	5.1 oz. (145g)	5.6 oz. (160g)

Digital Sound Level Meter

- Analog bargraph with 50 dB range updates every 40ms
- ± 2dB accuracy with 0.1 dB resolution
- AC analog output
- Complete with microphone wind-screen and four AAA batteries

Digital Sound Level Meter

Part Number 407730

True RMS Autoranging

Economical True RMS Multimeter with 11 functions

Features

- Advanced measurements include capacitance, frequency, and duty cycle
- Relative function for establishing a base line reference
- Easy-to-read large 4000 count backlit display
- True RMS AC measurements
- Type K thermometer built-in for surface or air temperature measurements
- Input fuse protection and mis-connection warnings with audible and visible signals
- Auto power off saves battery life
- Data hold freezes current display reading
- Ergonomically designed to fit comfortably in hand
- Protective holster with test lead holder
- Complete with CAT III test leads, multi-position tilt stand, hanging strap, holster with built-in test lead storage, bead wire temperature probe, and 9V battery

Specifications	Range
Basic Accuracy	± 0.3% (VDC)
AC/DC Voltage	0.1mV to 600V (DC/AC)
AC/DC Current	0.1μA to 20A
Resistance (Ω)	0.1Ω to 40MΩ
Capacitance	0.01nF to 100μF
Frequency	0.001Hz to 10MHz
Temperature	–4 to 1382°F (–20 to 750°C)
Diode/Continuity	0.1 to 99.9%
Dimensions/Weight	7.4 × 3.2 × 2" (187 × 81 × 50mm)/0.75 lbs (342g)

Part Number:EX430

F

1000A Clamp Meters

With IR Thermometer

Features

- Autoranging with manual range override
- Data hold, min./max, and auto power off
- Peak hold for inrush currents
- Dimensions: 10.6 × 4.3 × 2, weight 13.6 oz
- AC/DC voltage, resistance, capacitance and frequency
- Complete with test leads, 9V battery and belt holster

Specifications	
Display Counts	4000 count backlit LCD
Basic Accuracy	±3% rdg (AC)
AC/DC Volt (max res)	600V (0.1mV)
Resistance (max res)	40MΩ (0.1Ω)
Capacitance (max res)	40mF (0.001nF)

Specifications	
Frequency (max res)	4kHz (1Hz)
IR Temp	–58 to 518°F
	–50 to 270°C
Temp. Type K	–4 to 1832°F
(only on EX820)	–20 to 1000°C

Part Number EX810 (average responding)

Part Number EX820 (True RMS and Type K thermocouple temp. probe)