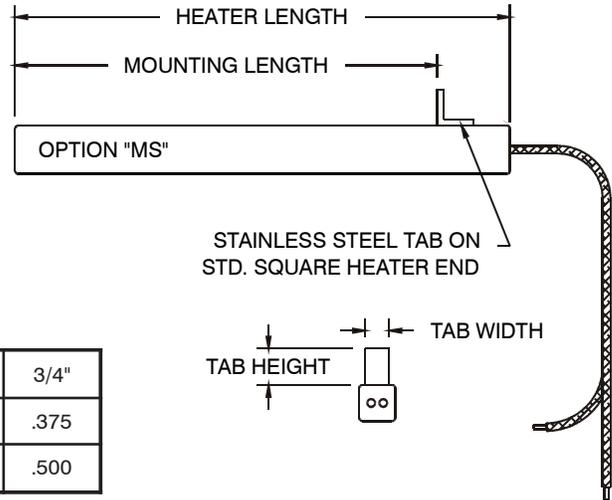


Square Cartridge Mounting Options

Option "MS" Stop Tab

The standard stainless steel stop tab provides a means of locating a square cartridge at a specific and consistent location within a through milled slot. Adding a drilled and tapped hole in close proximity to the heater allows a screw to be used to capture the stop tab edge and secure the cartridge in position. Stop tabs are manufactured from 300 series stainless steel and conform to the dimensions listed in the below table. Stop tabs in special sizes, special shapes and with mounting holes can be supplied when required. Stop tabs can be located at any position along the cartridge, but must always be placed over a cold area. To order, specify "MS" option and include the desired mounting location in your order.

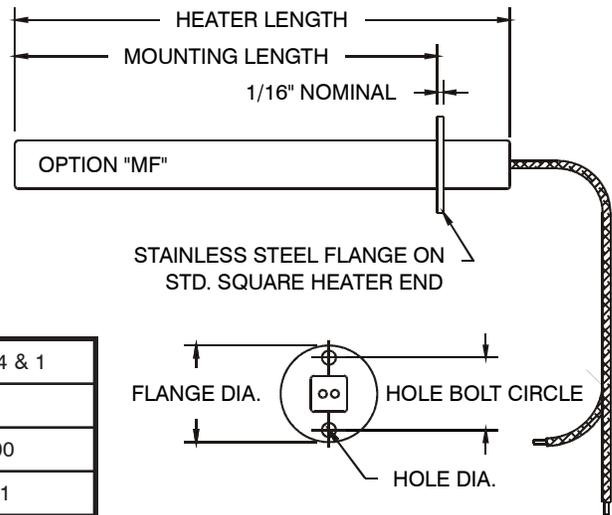
Cartridge Size	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
Stop Tab Width	.125	.187	.250	.312	.375	.375	.375
Stop Tab Height	.250	.375	.437	.500	.500	.500	.500



Option "MF" Mounting Flanges

Industry standard mounting flanges provide a means of securing the cartridge in a fixed position to prevent movement and creep due to conditions of mild vibration and thermal cycling. Standard flanges are often used to mount external wiring devices including electrical boxes and plugs. Nonstandard flanges with special shapes, sizes and hole configurations can be supplied when required. Standard flanges are manufactured from 300 series stainless steel and conform to dimensions in the table below. Flanges must be located over an unheated area. To order, specify "MF" option and note the desired mounting location.

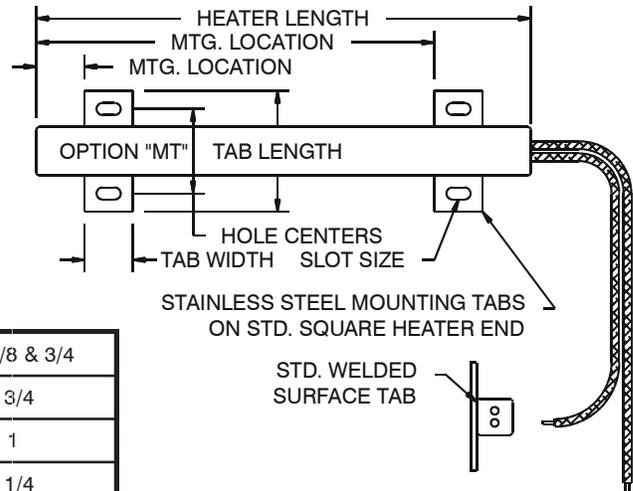
Cartridge Dia.	1/4, 5/16, 3/8 & 1/2	3/8, 1/2, 5/8 & 3/4	5/8, 3/4 & 1
Flange Dia.	1	1 1/2	2
Hole Bolt Circle	.750	1.125	1.500
Hole Dia.	.144	.156	.201



Option "MT" Mounting Tabs

Mounting tabs provide a simple method of securing a cartridge heater in place for air and gas heating and radiant heating applications. Tabs can be supplied in the common surface mount configuration or in the flush mount configuration. All tabs will be supplied with a slot style hole sized for the standard or customer specified screw size. The slots allow the movement which occurs as a result of heater expansion. While a basic standard surface mount tab configuration is offered the majority of mounting tab applications require customer specified tab and hole dimensions. To order, specify option "MT" and the quantity and the mounting locations for all tabs. If special tab sizes and configurations are required please supply a sketch detailing all dimensional requirements.

Cartridge Size	3/16, 1/4 & 5/16	5/16, 3/8 & 1/2	1/2, 5/8 & 3/4
Tab Length	1	1 1/4	1 3/4
Tab Width	5/8	3/4	1
Hole Centers	5/8	7/8	1 1/4
Slot Size	.156 X .312	.218 X .437	.281 X .500

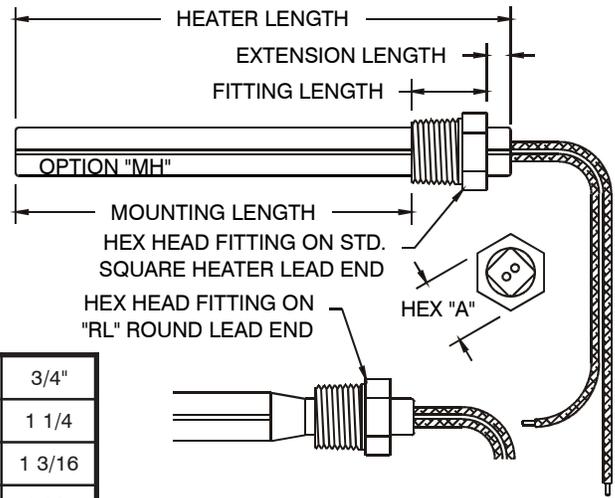


Square Cartridge Mounting Options

Option "MH" Hex Head Pipe Fittings

Standard hex head pipe fittings provide a leak resistant, square cartridge mounting system for liquid filled container systems and piping. These fittings are also useful in gas heating applications. Fittings can be located at any desired location but must always be located over unheated areas. Standard fitting location for straight lead styles is flush with the lead end of the heater, leaving no extension. Fitting location for 90 degree lead styles corresponds to the start of the standard lead extension. Fittings are available in brass, steel and stainless steel. Special fitting sizes and materials can be supplied when required. Please specify desired material and mounting length when ordering.

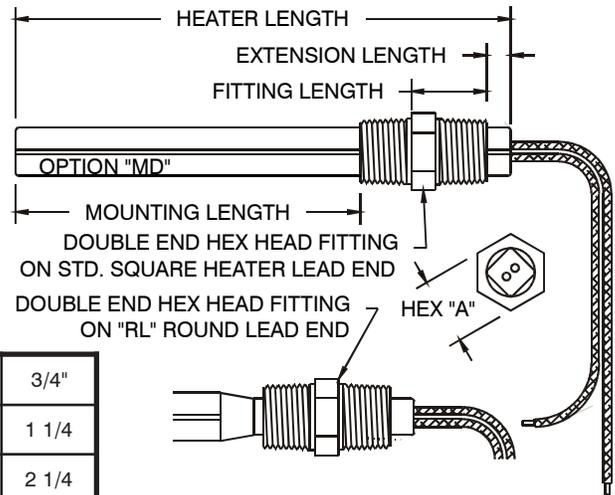
Cartridge Size	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
Fitting NPT Thread	1/8	1/4	1/4	1/2	3/4	1	1 1/4
Fitting Length	9/16	3/4	3/4	13/16	1	1	1 3/16
Hex "A"	7/16	9/16	9/16	7/8	1 3/8	1 3/8	1 3/4



Option "MD" Double End Hex Head Pipe Fittings

The double end pipe nipples provide a leak resistant, cartridge mounting system for liquid and gas applications and provides for mounting of boxes for lead protection. Fittings can be located at any desired location but must always be located over unheated areas. Standard fitting location for straight lead styles is flush with the lead end of the heater, leaving no extension. In the case of 90 degree leads the standard fitting location corresponds to the start of the standard lead extension. Fittings are available in brass, steel and stainless steel. Special fitting sizes and materials can also be supplied when required. Please specify desired material and mounting length when ordering.

Cartridge Size	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
Fitting NPT Thread	1/8	1/4	1/4	1/2	3/4	1	1 1/4
Fitting Length	1	1 1/4	1 1/4	1 1/2	1 9/16	1 7/8	2 1/4
Hex "A"	7/16	9/16	9/16	7/8	1 3/8	1 3/8	1 3/4



Option "MB" Bulkhead Fittings

The bulkhead style fittings are useful in air and gas heating applications involving thin wall containers and can also be used to attach protective electrical boxes to the square heater. Fittings can be positioned at any location but must be over an unheated zone. The standard fitting location for straight lead styles is flush with the lead end of the heater, leaving no extension. The 90 degree lead styles are not recommended due to difficulty of installation. Fittings are available in brass, steel and stainless steel and are supplied with gasket, washer and nut. Special fitting sizes and materials can be supplied if required. Please specify desired material and bulkhead mounting length when ordering.

Cartridge Size	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
Fitting Thread Size	1/2-20	1/2-20	5/8-18	3/4-16	1-12	1 1/4-12	1 1/2-12
Thread Length	3/4	3/4	1	1	1 1/4	1 1/2	1 3/4
Flange Length	3/16	3/16	1/4	1/4	3/8	3/8	3/8
Hex "A"	3/4	3/4	15/16	1 1/8	1 1/2	1 7/8	2 1/4

