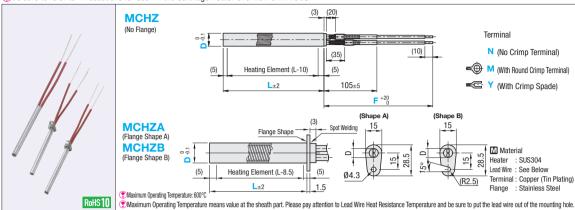
Cartridge Heaters

Stranded Wire

PBe sure to refer to "Precautions for Use" in the Cartridge Heater Overview on P.1605.



Stranded Wire

Part Number		L	V (Voltage)	W (Electric Power)	F (Lead	Wire Lengt	h) Tormi	nal Electrical Power Density (W/cm²)
Type	D	1mm Increment	Selection	10W Increment	Lead Wire 1	ype 10mm Incr	ement	nai Electrical Power Density (W/Cili)
	0	50~400	100	50~ 600				
MCHZ MCHZA MCHZB	0		200	50~1200	B G T M			2≤W/cm ² ≤15
	10 12	50~600	100	50~ 600			l N	
			200	50~1200		100~1		® W/cm²=W/{Dπ(L-10)*/100}
			100	50~ 800		100~11	,000 W	* For Flanged Type (L-8.5)
			200	50~1600			- '	(Calculate with the electrical power density of heat-generating part, not with the overall length.)
	*		100	50~ 800				(near-generating part, not with the overall length.)
* D:14 is for MCHZ only	14	I	200	100~1600	1		- 1	

Type of Lead Wire

Symbol	Selection	Heat Resistance Temperature	Features
В	Tin Plated Annealed Copper Fiber Glass Braided Wire	180°C	General Use
G	Silicon Rubber + Tin Plated Annealed Copper Wire	180°C	For chemical and water resistant items
Т	Teflon + Nickel Plated Anneaed Copper Wire	260°C	For chemical, water and weather resistant items
М	Mica Polvimide-Wound Silica + Nickel Coated Copper Wire	400°C	For heat resistant items

Type of Terminal

Symbol	Type of Terminal	Nominal Screw
N	No Crimp Terminal	-
M	Crimp Terminal - Round	M4
Υ	Crimp Terminal - Y-Shaped	M4

Example

Insulator

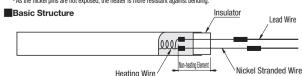




	Part Numb		H	eater B	ody Prid	ce		Flanged Type Addition	Additional	Lead Wire	Price (Boo) Additional Terminal Price (Body Price +)					
	Type	D	L50~100	L101~200	L201~300	L301~400	L401~500	L501~600	Shape A	Shape B	В	G	T	M	N	M	Y
	MCHZ	8					-	-									
	MCHZA	10															
	MCHZB	12															
,	D:14 is for MCHZ only	14															

Features of the Cartridge Heater - Stranded Wire

- . The wires are less prone to breakage.
- The cartridge heater (break resistant internal connection type) employs a connection with heat-generating wire and nickel stranded wire in the sheath and a connection with nickel stranded wire and lead wire outside the sheath.
- · As the nickel pins are not exposed, the heater is more resistant against bending.



Precautions for Use

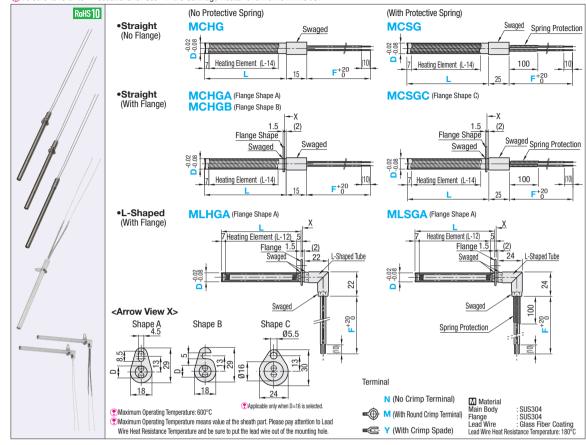
- Do not let the heaters run idle in the atmosphere. If the heater is used with some or the whole of the heating element projected
- from the heated objects, the wire may break or ignite due to abnormal heating. Do not repeatedly bend the connection part between the nickel stranded wire and the lead wire. (Do not bend repeatedly.)
- Do not pull the connection part between the nickel stranded wire and the lead wire. (Forcibly pulling on it could result in breakage.)
- Keep the temperature around the lead wire exit at 130°C or less.
- When bending the wire, be careful not to expose the stranded wire

Do not apply any load to the insulator.

Cartridge Heaters

Lead Wire Protection, Internal Connection

Be sure to refer to "Precautions for Use" in the Cartridge Heater Overview on P.1605.



Part Number	Part Number		V (Voltage)	W (Electric Power) 10W Increment	F (Lead Wire Length)	Terminal	Heater Body Price Additional Terminal Add Price (Body Price +) Pr							
Type	D	1mm Increment	Selection	TOW INCIDENTE	TOTALIT INCIDENT		L50~100	L101~200	L201~300	L301~400	N	M	Υ	(Body Price +)
•			100 110	50~500		N M Y								
(No Protective Spring)	0	50~400	200 220	50~1100										
MCHG	10		100 110	50~600										
WOTG			200 220	50~1600	300~1000									
(With Protective Spring)	12		100 110	50~900	300~1000									
MCSG	12		200 220	50~1800										
WCSG	16		100 110	50~1000										
	10		200 220	50~2000										

Part Number			V (Voltage)	W (Electric Power)	F (Lead Wire Length)	Tomologi	Heater Body Price									onal Ter	rminal	Additional Price for
		L					Straight				L-Shaped				Price (Body Price +)			
Time	D	1mm Increment	Selection		10mm Increment		MCHGA, MCHGB, MCSGC				MLHGA, MLSGA			4	N		<	(Padu Drian I)
Туре	U						L50~100	L101~200	L201~300	L301~400	L50~100	L101~200	L201~300	L301~400	1 N	i IVI	'	(Body Price +)
(No Protective Spring) (With Protective Spring)			100 110	50~500														
	0		200 220	50~1100														
MCHGA MLSGA	10	50 400	100 110	50~600		N.												
MCHGB	10		200 220	50~1600	300~1000	IN NA												
MLHGA	40	50~400	100 110	50~900	300~1000	IWI												
	12		200 220	50~1800	0													
(With Protective Spring)	16		100 110	50~1000														
` MCSGC "	16		200 220	50~2000														

• 2≤W/cm²≤15 W/cm²=W/{Dπ(L-14)*/100} * L-12 for Shape L (Calculate with the electrical power density of heat-generating part, not with the overall length.)



Symbol Type of Terminal Nominal Screw N M No Crimp Terminal

Crimp Terminal - Round

Crimp Terminal - Y-Shaped M4

M4

Features

 Heat generating wire and lead wire are connected in stainless steel sheath. Since crimp terminal is not exposed, it has stronger structure against breakage due to bending and vibration.

Basic Structure Heating Wire

- Precautions for Use
- Do not let the heaters run idle in the atmosphere. If the heater is used with some or the whole of the heating element projected from the heated objects, the wire may break or ignite due to abnormal heating.
- Neep the temperature around the lead wire exit at 180°C or less.
- Cartridge Heater with protective spring is recommended for a use at a moving part.