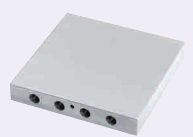


Hot Plates, Cooling Plates, Mounting Bolts for Cartridge Heaters

Features: This metal plate has a sensor hole and heater holes for heater insertion.

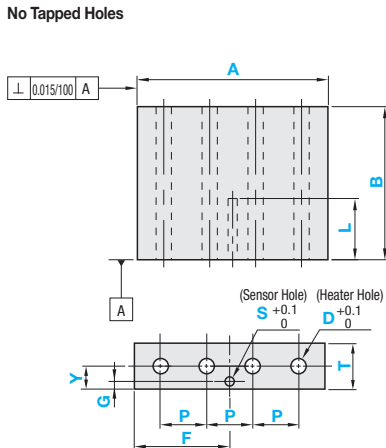
Hot Plates



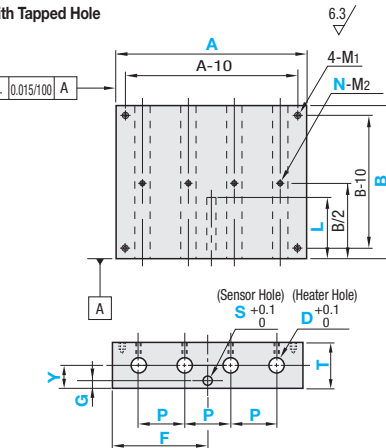
RoHS 10

Type	Material Surface Treatment Code	Material
HTPL (No Tap)	A	A5052
HTPLT (With Tap)	S	SUS303

No Tapped Holes



With Tapped Hole



Ⓜ S/2+2; G ≤ T-(S/2+2) A ≥ (N-1) × P + D + 4 (N=1 With some exceptions)

M1 Size Table			M2 Size Table	
A	B	M1	D	M2
50~100	50~100	M4x0.7 Depth 6	5, 6	M3x0.5
101~200	101~200	M5x0.8 Depth 8	8~16	M4x0.7
101~200	101~200	M6x1.0 Depth 10	18	M5x0.8

Part Number	Plate	Heater Hole (Selection)		Sensor Hole (Selection)		Heater Position		Sensor Position				
		D	N	S	L	P	Y	F	G			
HTPL	A	50~200	50~200	12~30	5	1~10	1.6	10~30	8~191	6~25	4~197	4~27
					6							
HTPLT	S	50~200	50~200	12~30	10	1~10	2.3	10~100	8~191	6~25	4~197	4~27
					12							
					14							
					16							
					18							

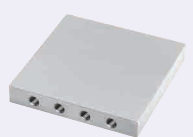
Ⓜ The distance from the upper, lower or side plate end faces to the heater/sensor holes and tapped hole should be 2 mm or more.
 Ⓜ The distance between all holes (between heater holes, between heater holes and sensor holes, or between heater/sensor holes and tapped holes) should be 2 mm or more.
 Ⓜ M1: tapped holes (pilot holes) may go through when the T dimension is 15 mm or less.
 Ⓜ It is recommended to establish the distance between heaters (P) 3 to 4 times larger than the heater diameter (D). (If the distance between heaters is too small, the heating may accumulate in the plate and heating unevenness may occur.)

Ordering Example

Part Number: HTPLA - 200 - 200 - 30 - D5 - N6 - S1.6 - L30 - P20 - Y15 - F100 - G5

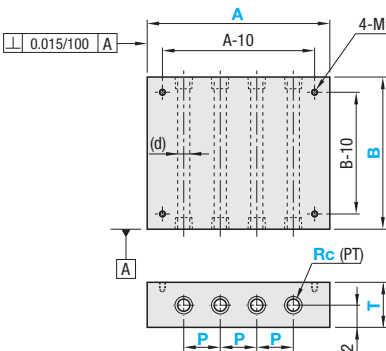
Features: Plate type terminal for water. Cool an object by running cooling water through the terminal.

Cooling Plates



RoHS 10

Type	Material Surface Treatment Code	Material
HTPC	S	SUS303



M1 Size Table			(d) Size Table	
A	B	M1	Rc (PT)	(d)
50~100	50~100	M4x0.7 Depth 6	1(1/8)	8.5
101~200	101~200	M5x0.8 Depth 8	2(1/4)	11.4
101~200	101~200	M6x1.0 Depth 10		

Part Number	Plate	1mm Increment		T	Rc (PT)	N	P
		A	B	5mm Increment	(Number of Cooler Holes)	1mm Increment	
HTPC	S	50~200	50~200	15~30	1 (1/8)	1~7	25~(A-25)
				20~30	2 (1/4)		

Ⓜ The distance from the upper, lower or side plate end faces to the cooler holes and tapped holes should be 2 mm or more.
 Ⓜ The distance between all holes (between cooler holes, or between cooler holes and tapped holes) should be 2 mm or more.

Ordering Example

Part Number: HTPCS - 200 - 200 - 15 - R1 - N4 - P30

Ⓜ The body price is the price shown in the table added to Heater Hole/Cooling Hole Unit Price x Number of pcs.
 (Ex.) Hot Plates
 HTPLA100-50-22-D5-N2-S3.2-L25-P70-Y11-F50-G10 = (Product Price)
 (Body Price) + (Heater Hole Unit Price x Qty.)

(Ex.) Cooling Plates
 Part Number: A - B - T - Rc - N - P
 HTPCS - 100 - 100 - 20 - R1 - N4 - P25 = Plate Price
 (Body Price) + (Cooling Hole Unit Price x Qty.)

Body Price * HTPL and HTPLT include sensor hole drilling.

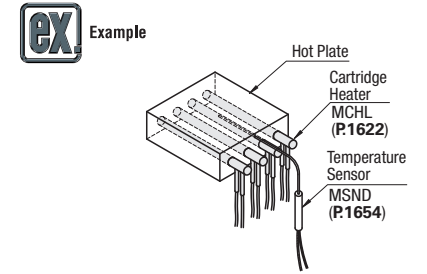
Part Number	Material Code	A	B	Unit Price			
				HTPL		HTPLT, HTPC	
				T10~20	T21~30	T10~20	T21~30
Hot Plates HTPL HTPLT Cooling Plates HTPC	A	50~100	50~100				
			101~150				
			151~200				
		101~150	50~100				
			101~150				
			151~200				
	S	50~100	50~100				
			101~150				
			151~200				
		101~150	50~100				
			101~150				
			151~200				

Unit Price of Heater Hole (D: 5~18) / Unit Price of Cooling Hole (Rc: 1~2)


Type	Material Code	
	A	S
HTPL		
HTPLT		
HTPC		

Precision Standards

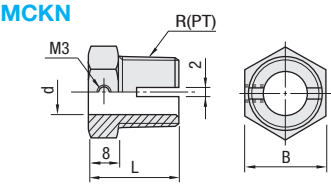
- Thickness Parallelism: 0.015 or less per 100mm
- Flatness: Per 100 mm: T 10~15: 0.03, 16~25: 0.015, 26 or More: 0.012
- Dimension Tolerance of A and B: 99 mm or Less: ±0.2, 100~200: ±0.3
- T Dimension Tolerance: ±0.1
- Circumference Chamfering: C0.2~C1.0



Mounting Bolts for Cartridge Heaters



RoHS 10



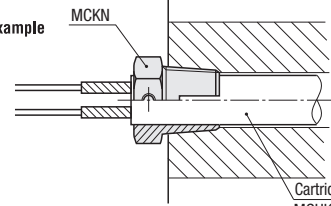
Material: SUS303

Part Number	No.	d	B	L	R (PT)	Unit Price
MCKN	5	5.1	14	18	1/8	
	6	6.1				
	6.25	6.4	17	1/4		
	8	8.1				
	9.42	9.5	21	20	3/8	
	10	10.1				
	12	12.1	24	25	1/2	
	12.6	12.7				
	14	14.1	29	27	3/4	
	16	16.1				
	18	18.1				

Ordering Example

Part Number: MCKN8

Example



Cartridge Heater MCHK (P.1607)

Ⓜ Use M3 set screw to fix the heater mounting bolt and the heater from the side face when tightening is inadequate or when mounting the heater.
 Ⓜ Avoid using Mounting Bolt with heater when power density exceeds 15W/cm².