

Mechanical temperature switches

MT1H

with capillary

Features

- ▶ Single switch with remote sensor
- ▶ Explosion proof housing
- ▶ Terminal clip and set point adjustment in °C and °F under tamper protected cover
- ▶ Protection class: IP65, NEMA 4 / 13
- ▶ Optional:
 - Disconnection with manual reset, G (RD)-micro switch
 - Adjustable hysteresis (dead band), S-micro switch
- ▶ Approvals: Ex ia, UL, CSA, SIL2 (IEC 61508)

Adjustment ranges

-45 °C...+66 °C to +160 °C...+316 °C

Applications

Temperature monitoring in machine and machine tool industry, shipbuilding, railcars, power plants, antifreeze, heating systems, compressor monitoring



Technical Data

Housing material:	Die-cast aluminium, anodized
Temperature sensor material:	304 stainless steel (1.4301)
Temperature sensor type:	Capillary, 1.8 m long (6 foot) (optional 3.6 m and 7,5 m) (12 foot and 25 foot), armoured If not equipped with thermowell the sensor may only be used up to 21 bar max.
Operation pressure: without thermowell with thermowell	max 21 bar (max. 300 psi) see page "Accessories" table 1.4
Operation temperature: Housing: Sensor:	-40°C... +75°C (-40°F...167°F) except temp. code 601, 603; -18°C...+75°C (0°F...167°F) see table "Adjustment range" (Sensor temperature limits)
Electrical values:	All models are equipped with SPDT contacts

Micro switch type:	H, M, GH, GM, G (RD), S
Electrical connection:	1/2" NPT female, internal screw terminal, cable gland in PA, for cable size 6...12 mm is included
Protection class:	IP65 , NEMA 4 / 13
Set point adjustment:	Turn adjustment knob clockwise to increase the actuation point
Standards:	The equipment is in conformity with the following harmonised European standards: EN 60014 1977 + A1 to A4 and EN 500120 1977 + A1
Intrinsic safety:	The switches are also suitable for intrinsically safe applications. In this case we recommend gold contacts. Add "Exi" in case of ordering. Maximum rating according to ATEX: U _{max} = 28 V I _{max} = 50 mA
Approvals:	Ex ia, UL, CSA
Weight:	1.0 kg approx.

Adjustment ranges

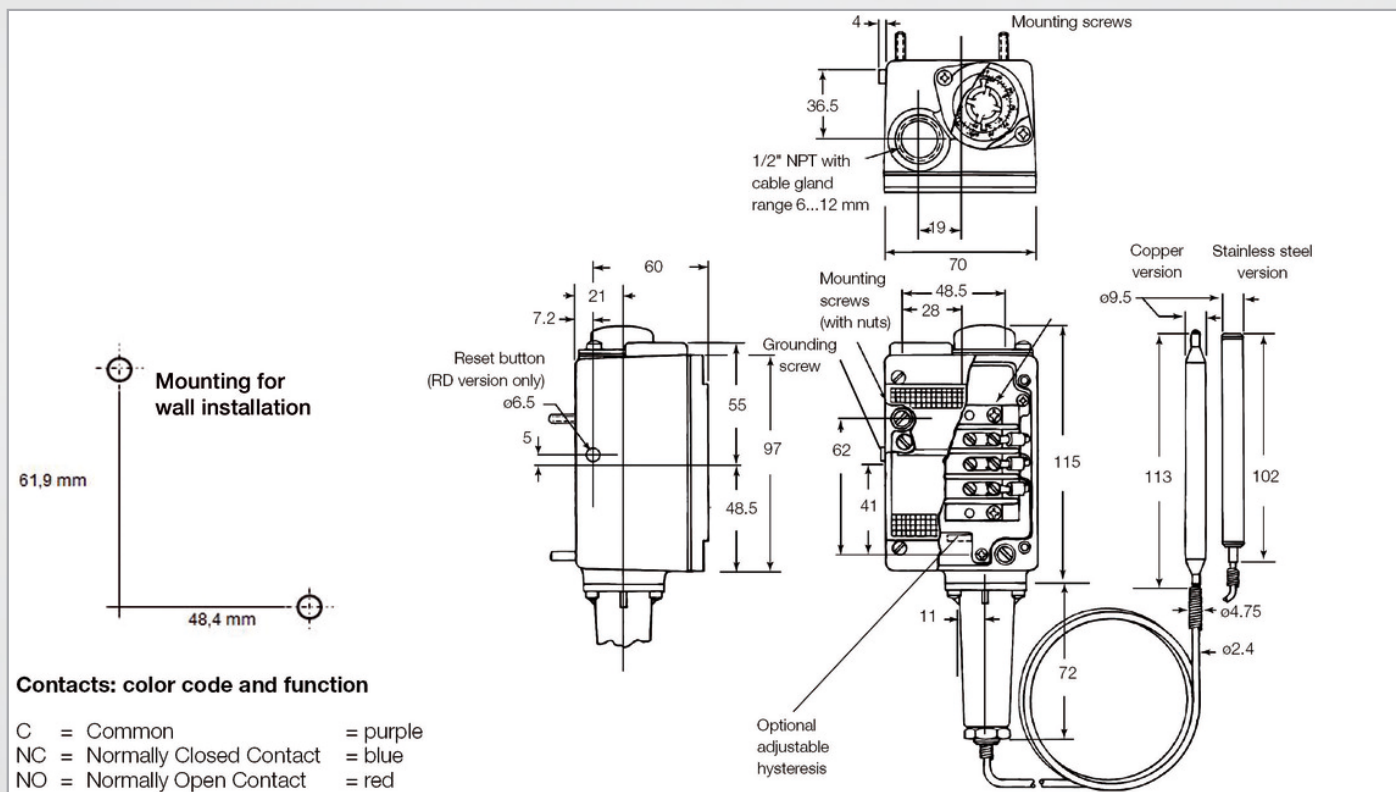
Code adjustment range	Sensor temperature limits (°C)	Adjustment range (°C)	Hysteresis (°C)* for micro switch			
			H, GH	M, GM	S	G (RD)
						2.8...manual
154	-73 ... +93	-45... +66	0.5... 1.1	1.1... 2.2	2.2... 8.3	
251	-73 ... +149	+10... +121	0.5... 1.1	1.1... 2.2	2.2... 8.3	
351	-73 ... +205	+66... +177	0.5... 1.1	1.1... 2.2	2.2... 8.3	
601	-18 ... +343	+149... +227	1.1... 2.2	2.2... 3.3	3.9... 13.9	
603	-18 ... +343	+160...+316	1.1... 2.2	2.2... 3.3	3.9... 13.9	

* Dependent on medium

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Dimensions (mm / inch)



Electrical Ratings

Micro switch	Special features	Volt AC 50/60 Hz	Ind. load A	Res. load A	Volt DC	Ind. load A	Res. load A	Comments
H	Micro switch with silver contacts	125 250 480	10 10 3	10 10 3	6 to 28	0.50	0.5	Small hysteresis; High AC / low DC loads
M	Micro switch with silver contacts	125 250 480	10 10 3	10 10 3	12 24 250	5.00 1.00 0.25	15.0 2.0 0.4	Medium hysteresis; High AC and DC loads
GH	Micro switch with gold contacts for low voltage and low current (e. g. "Exi")	125	1	1	24	1.00	1.00	Small hysteresis
GM		30	0.1	0.1	30	0.10	0.1	Medium hysteresis
S	Micro switch with silver contacts	480	15	15	125	0.05	0.4	Adjustable hysteresis
G (RD)	Micro switch with silver contacts	480	10	10	125	0.4	0.75	Manual reset

Hermetically sealed micro switch (HMT1H) on request

Sensor lengths / Options

Sensor lengths		Options	
S-A	1.8 m, armoured, SS (6 foot)	RD	Manual reset
S-12-A	3.6 m, armoured, SS (12 foot)	EXI	for intrinsically safe application, Ex ia
S-25-A	7.5 m, armoured, SS (25 foot)		

Order Code

Example for order number

Type		Micro switch		Code Adjustment range		Sensor length		Options
MT1H	-	GH	-	251	-	S-A	-	EXI

Your order number

MT1H	-		-		-		-	
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