

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. |
| 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. Add "Exi" in case of ordering. The following max. values are valid when using these switches: 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 | |

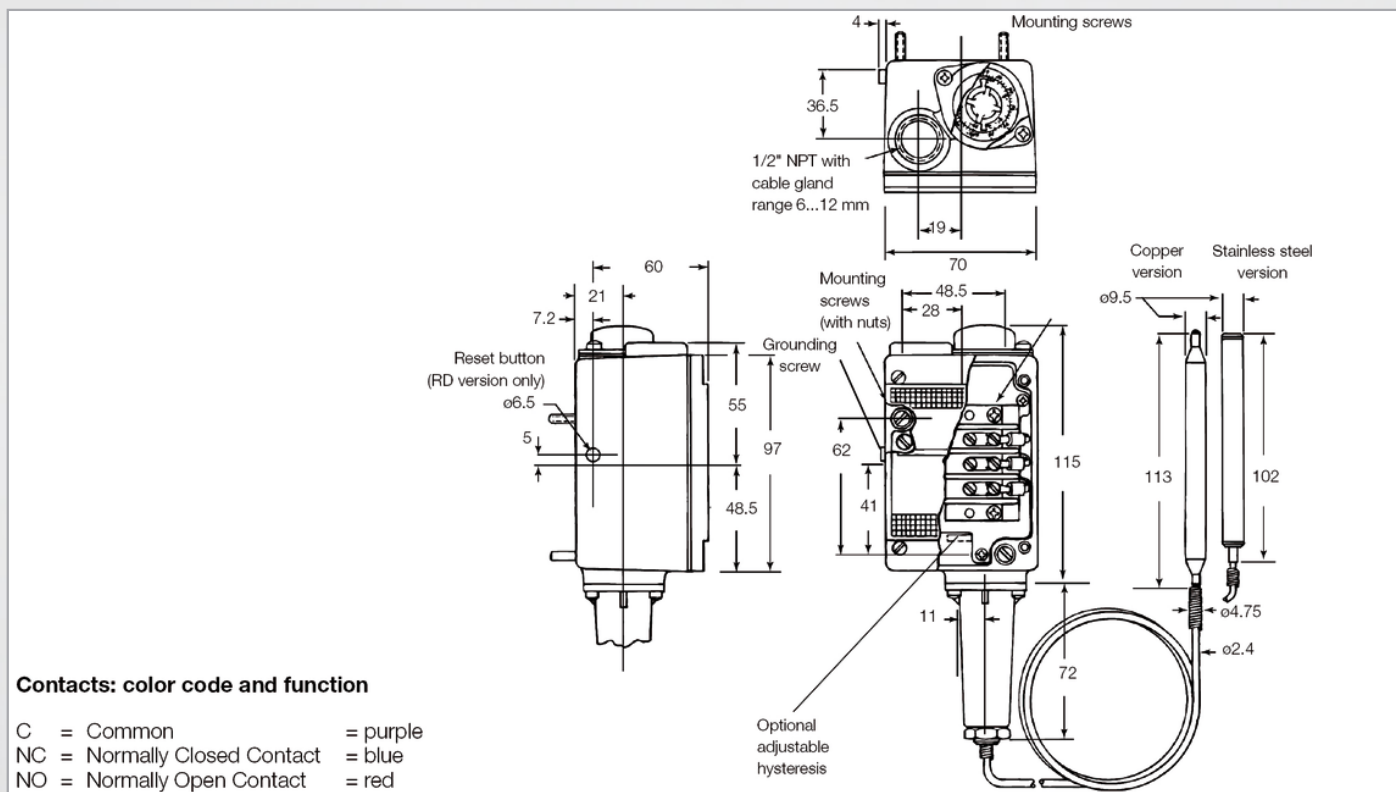
* Dependent on medium

Temperature

Mechanical temperature switches

MT1H

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 | 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 | - H | - 251 | - S-A | - EXI |

Your order number

| | | | | |
|------|---|---|---|---|
| MT1H | - | - | - | - |
|------|---|---|---|---|