

Mechanical Temperature Switch

T2H

with capillary

Features

- Dual switch with remote sensor
- Terminal clip integrated, set point adjustment
- in °C and °F under tamper protected cover
- Protection class: IP65, NEMA 4 / 13
- For use as two position controller
- Optional for high circuit S2:
 - Disconnection with manual reset, RD-micro switch
 - Adjustable hysteresis (dead band), S-micro switch
 - The low circuit S1 can also be used for max. or min monitoring or for sensor monitoring
- Approvals: Ex ia, UL, CSA (on request)
- Suitable for SIL2/3 (IEC 61508) acceptance

Adjustment ranges

- -45 °C...+66 °C to +160 °C...+316 °C

Applications

Temperature monitoring and control in

- Industry
- Shipbuilding



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 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 accessories data sheet
Operation temperature Housing	-40°C...+75°C (-40°F...167°F) except temp. code 601, 603: -18°C...+75°C (0°F...167°F)
Sensor	see table "Adjustment range" (Sensor temperature limits)
Electrical values	All models are equipped with SPDT contacts
Micro switch type	H, M, GH, GM, S, RD

Electrical connection	3/4" NPT female, internal screw terminal, cable gland in PA 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
Intrinsically 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 (on request)
Weight	approx. 1,5 kg

Adjustment ranges

Code adjustment range	Sensor temperature limits (°C)	Adjustment range (°C) ¹	Hysteresis (°C) * for micro switch			
			H, GH	M, GM	S	RD
154	-73 ... +93	-45 ... +66	0.5 ... 1.1	1.1 ... 2.2	2.2 ... 8.3	2.8 ... manual
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	

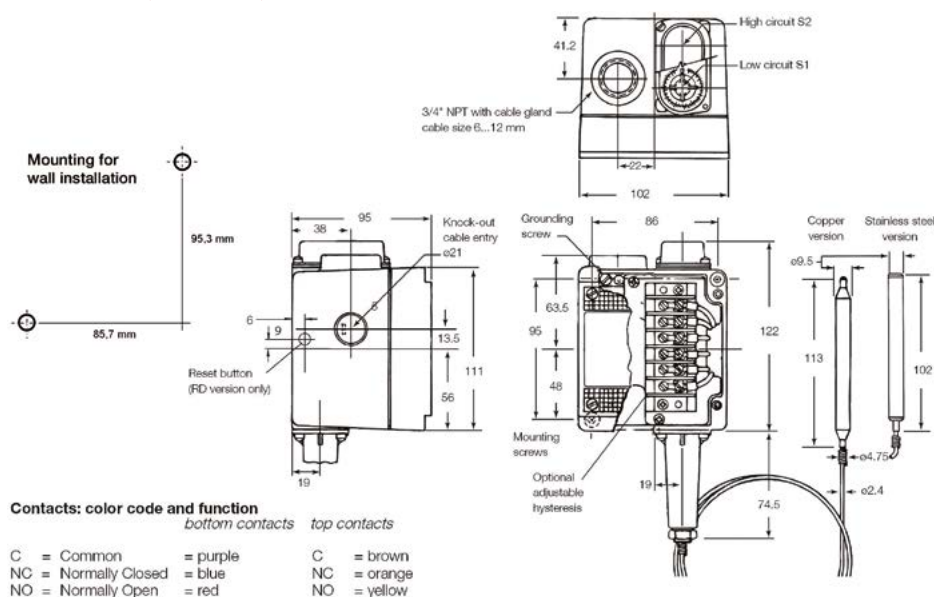
* Dependent on medium

¹ Factory presetting available from -15°C to +175°C

Mechanical Temperature Switch

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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	Silver contacts	125	10	10	6			Small hysteresis; High AC / low DC loads
		250	10	10	bis	0.5	0.5	
		480	3	3	28			
M	Silver contacts	125	10	10	12	5.00	15.0	Medium hysteresis; High AC and DC loads
		250	10	10	24	1.00	2.0	
		480	3	3	250	0.25	0.4	
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	0.1	0.1	Medium hysteresis
S	Silver contacts	480	15	15	125	0.05	0.4	Adjustable hysteresis
RD *	Silver contacts	480	10	10	125	0.4	0.75	Manual reset (S2 only)

* Please note: enter "RD" in "Option" and the micro switch for S1 (H, M, GH or GM) in "Micro switch" when placing your order.
Hermetically sealed micro switch (HT2H) on request.

Order Code

Base model**			
T2H			
	Micro switch		
	-H	with silver contacts	
	-M	with silver contacts	
	-GH	with gold contacts	
	-GM	with gold contacts	
	-S	with silver contacts	
	Code Adjustments range		Adjustment range, (°C) - factory presseting available from -15°C to +175°C
	154	-45... +66	
	251	+10... +121	
	351	+66... +177	
	601	+149... +227	
	603	+160..+316	
	Sensor length		
	S-A	1.8 m, armoured, VA	
	S-12-A	3. 6 m, armoured, VA	
S-25-A2	7.5 m, armoured, VA		
Options			
-RD	Manual reset (S2 only)		
-EXI	for intrinsically safe application, Ex ia		

Example

T2H -GH 251 S-A -EXI

** Standard parts without UL approval