

Mechanical temperature switches

Type ML1H

Local mount type

Features

- Local mount type single switch
- 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 (switch-back difference), S-micro switch
- Thermowell in stainless steel and brass 3/4" NPT male thread
- Option thermowell:

W	= Brass
WS	= Stainless steel SS316Ti, 1.4571
- Approvals: Ex ia, UL, CSA

Adjustment ranges

-45 °C...+24 °C to +66 °C...+232 °C

Applications

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

Technical Data

Housing material:	Die-cast aluminium, anodized
Process connection:	Standard 1/2" NPT male, option W/WS 3/4" NPT male
Temperature sensor material:	Standard: brass / copper, version S: stainless steel (SS304 / 1.4301) for pressure values refer to table in chap. Accessories
Electrical values:	All models are equipped with SPDT contacts
Micro switch type:	H, M, GH, GM, S, G (RD)
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.



Index: A

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
201	-73 ... +121	-45...+24	0.5... 1.6	0.5... 1.6	3.3... 11.2	
202	-73 ... +121	-9...+60	0.5... 1.6	0.5... 1.6	3.3... 11.2	
203	-73 ... +121	+24...+93	0.5... 1.6	0.5... 1.6	3.3... 11.2	
204	-73 ... +121	-45...+93	0.5... 1.6	0.5... 1.6	3.3... 11.2	
351	-73 ... +205	+38...+107	0.5... 1.6	0.5... 1.6	3.3... 11.2	
354	-73 ... +205	+38...+177	0.5... 1.6	0.5... 1.6	3.3... 11.2	
454	-18 ... +260	+66...+232	1.6... 3.3	1.6... 3.3	5.5... 16.8	

* Dependent on medium

Specifications are subject to changes without notice.

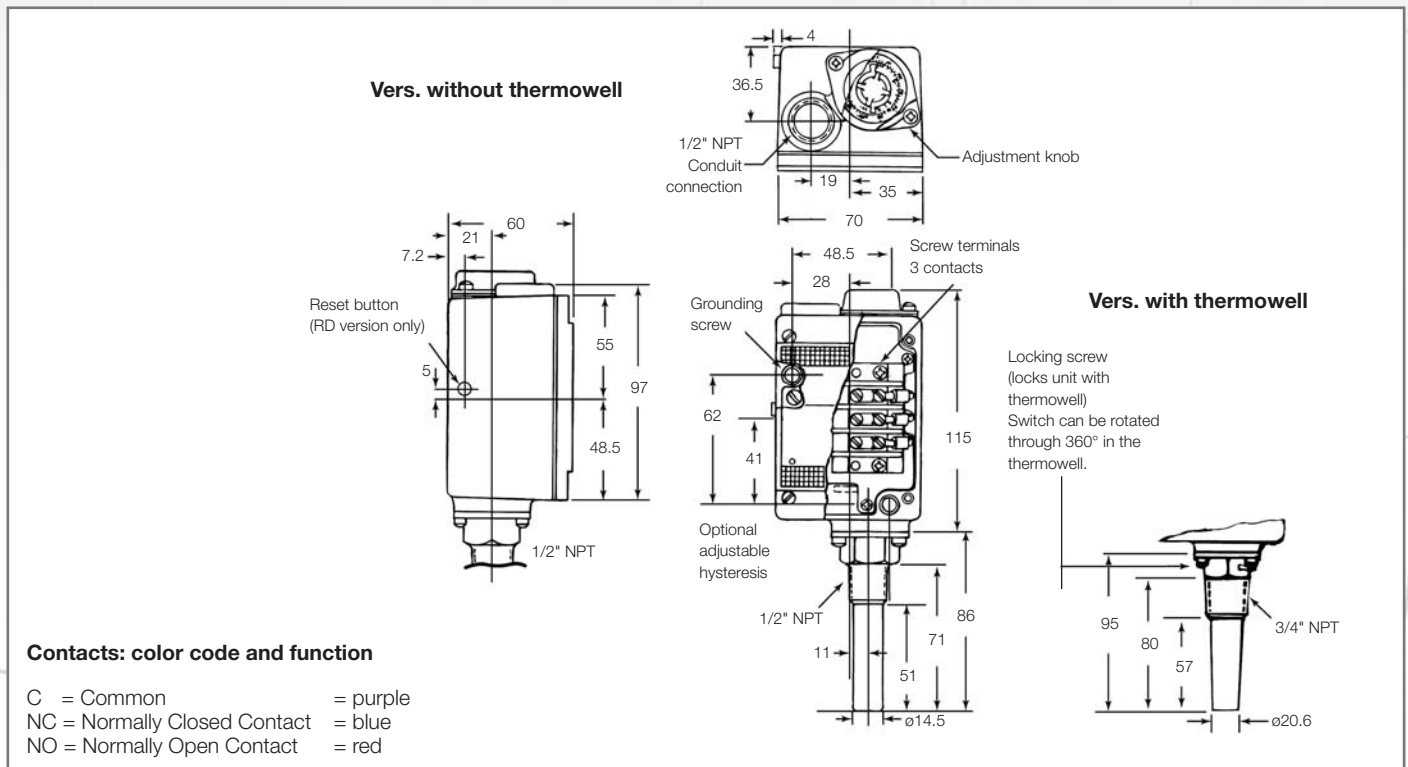
Temperature

Mechanical temperature switches

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Dimensions (in mm / inch)

Index: A



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	1.0	Small hysteresis
GM	Micro switch with gold contacts for low voltage and low current	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	Micro switch with silver contacts	480	10	10	125	0.4	0.75	Manual reset (RD)

Hermetically sealed micro switch (HML1H) on request

Sensor material / Options

Sensor material		Options 1		Options 2	
---	Brass/copper	W	Thermowell of brass	RD	Manual reset
S	Stainless steel	WS	Thermowell of SS (1.4571, SS316 Ti)	EXI	for intrinsically safe application, Ex ia

Ordering

Example for order number

Type	Micro switch	Code Adjustment range	Sensor material *	Option 1	Option 2
ML1H	GH	202	S	WS	Exi

* : Brass/copper, option: S = Stainless steel

Your order number

ML1H					
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