

Mechanical temperature switches

Type L1X

Local mount type for hazardous areas

Features

- Local mount type single switch with explosion proof housing
- Terminal clip integrated, set point adjustment in °C and °F under tamper protected cover
- Protection class: IP65, NEMA 4 / 7 / 9
- Optional:
 - Adjustable hysteresis (deadband), S-micro switch
 - Option thermowell: W = Brass
WS = Stainless steel SS316Ti, 1.4571
- Approvals: Ex d, Ex ia, UL, CSA

Adjustment ranges

-45 °C...+24 °C to +66 °C...+232 °C

Applications

Temperature monitoring and control in industry, shipbuilding, railcars



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Technical Data

| | |
|-------------------------------------|---|
| Housing material: | Die-cast aluminium, painted |
| 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 |
| 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 / 7 / 9 |
| 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 |
| Intrinsically safe: | 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 d, Ex ia, UL, CSA |
| Weight: | 2.0 kg approx. |

Adjustment ranges

| Code adjustment range | Sensor temperature limits (°C) | Adjustment range (°C) | Hysteresis (°C)* for micro switch | | |
|-----------------------|--------------------------------|-----------------------|-----------------------------------|-----------|------------|
| | | | H, GH | M, GM | S |
| 201 | -73 ... +121 | -45...+24 | 0.5...1.6 | 1.6...3.3 | 3.3...11.2 |
| 202 | -73 ... +121 | -9...+60 | 0.5...1.6 | 1.6...3.3 | 3.3...11.2 |
| 203 | -73 ... +121 | +24...+93 | 0.5...1.6 | 1.6...3.3 | 3.3...11.2 |
| 204 | -73 ... +121 | -45...+93 | 0.5...1.6 | 1.6...3.3 | 3.3...11.2 |
| 351 | -73 ... +205 | +38...+107 | 0.5...1.6 | 1.6...3.3 | 3.3...11.2 |
| 354 | -73 ... +205 | +38...+177 | 0.5...1.6 | 1.6...3.3 | 3.3...11.2 |
| 454 | -18 ... +260 | +66...+232 | 1.6...3.3 | 3.3...5.0 | 5.5...16.8 |

* Dependent on medium

Specifications are subject to changes without notice.

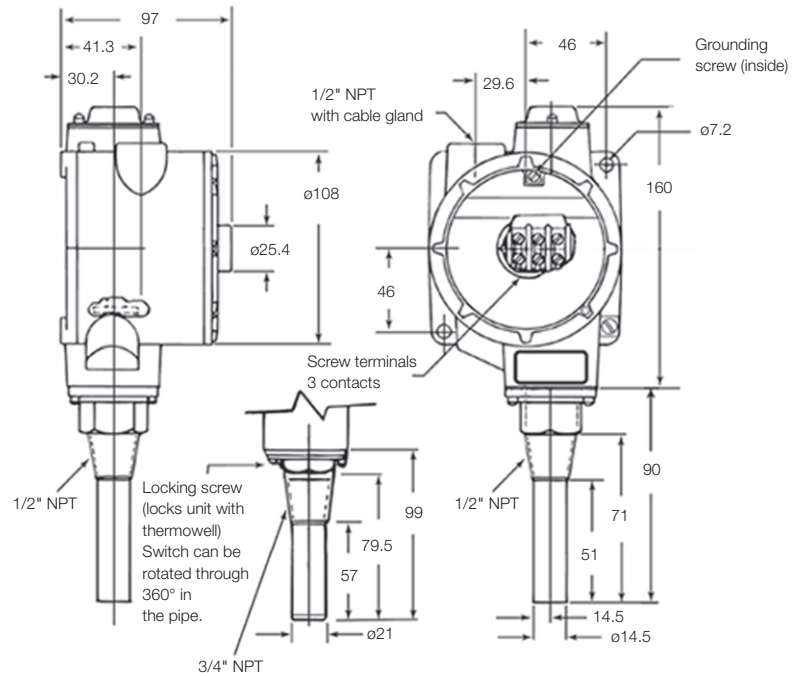
Temperature

Mechanical temperature switches

Type L1X

Dimensions (in mm / inch)

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Contacts: color code and function

- C = Common = purple
- NC = Normally Closed Contact = blue
- NO = Normally Open Contact = red

Vers. without thermowell Vers. with thermowell

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 silver contacts | 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 |

Hermetically sealed micro switch (HL1X) on request

Sensor material / Options

| Sensor material | | Options 1 | | Options 2 | |
|-----------------|-----------------|-----------|-------------------------------------|------------|---|
| --- | Brass/copper | W | Thermowell of brass | EXI | For intrinsically safe application, Ex ia |
| S | Stainless steel | WS | Thermowell of SS (1.4571, SS316 TI) | Ex | Ex d protection |

Ordering

Example for order number

| | | | | | |
|------------|--------------|-----------------------|-------------------|-----------|------------|
| Type | Micro switch | Code Adjustment range | Sensor material * | Option 1 | Option 2 |
| L1X | H | 204 | S | WS | EXI |

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

Your order number

| | | | | | |
|------------|--|--|--|--|--|
| L1X | | | | | |
|------------|--|--|--|--|--|

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