

Temperature control digital display, 1 or 2 solid state contacts or 1 solid state contact plus 1 analog output 4...20 mA, accuracy class 0,5% f. s.

Features

7-segment LED display, microprocessor controlled, self monitoring with error display, display rotatable around 330°, DESINA®-conformity (see also www.desina.de), all parameters are configured by keypad, tamper proof, keypad lock, rugged construction, vibration- and shock-proof, long term stability

Measuring Ranges

0...+100 °C to -30...+150 °C, 0...+212 °F to -22...+302 °F

Applications

Hydraulics and pneumatics (e. g. presses), lubrication monitoring, machine industry, automobile industry, machine tools, injection moulding machines

Technical Data

| | |
|-----------------------|--|
| Sensor Element | : PT100-element (Class B) |
| Materials: | |
| Wetted Parts | : Stainless steel 1.4435 (SS 316L) |
| Housing (Electronics) | : Aluminum die-cast |
| Seals | : FKM |
| Proof Pressure | : 600 bar (8700 psi) |
| Operating Elements | : 3 easy response pushbuttons |
| Protection / Class | : IP65 / III |
| Process Connection | : G1/4 male |
| Dimensions (Housing) | : 36 x 130 mm (1,42 x 5,12 inch) (without electrical plug), rotatable housing for switch adjustment after mounting |
| Weight | : appr. 200 g with 17 mm sensor length appr. 0.44 lb. with 0.67 inch sensor l. |
| Measuring Ranges | : -30...+100 °C, -30... +150 °C 0...+100 °C, 0... +150 °C (-22...+212 °F, -22... +302 °F 0...+212 °C, 0... +302 °F) |
| Linearity Error | : ±0,5% f. s. at 25 °C (77 °F) |
| Time Constant | : appr. 40 s |
| A/D-Converter | |
| Resolution | : 10 bit (1024 steps per meas. span) |
| Scanning Rate | : 100/s (for peak value memory) |
| Electrical Connection | : Plug M 12 x 1, 4-pin, DESINA®-conforming |
| Sensor Length | : 17 mm (Standard), 25, 50, 100, 150, 200, 250 mm (0.67 inch (standard), 0.98, 1.97, 3.94, 5.91, 7.88, 9.85 inch) |
| Sensor Diameter | : 6 mm (0,24 inch) |

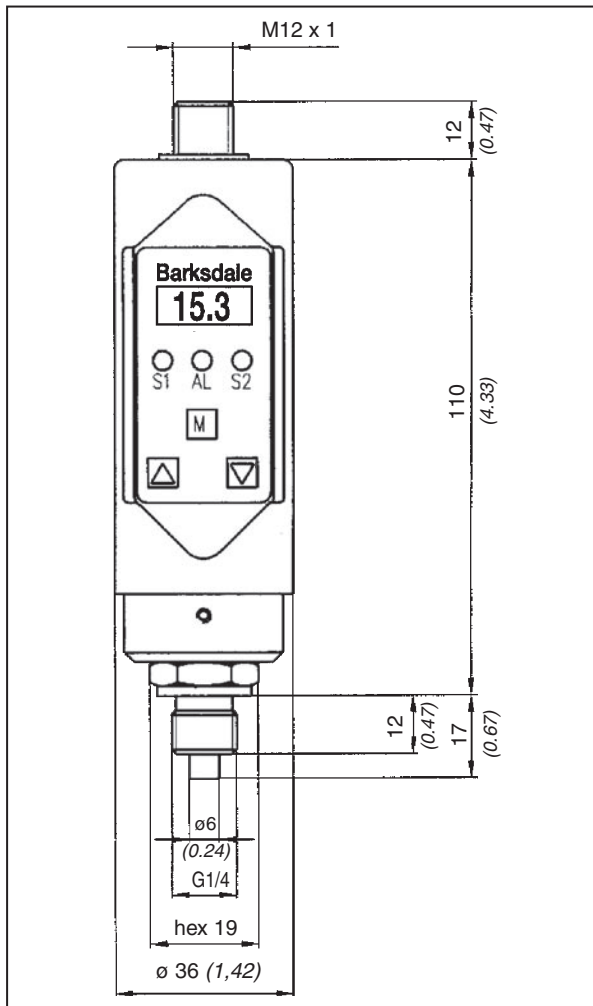


| | |
|---------------------|--|
| Repeatability | : ±0,1% f. s. |
| Temperature Range: | |
| Media | : -30 °C...+150 °C (-22 °F...+302 °F) |
| Electronics | : -10 °C...+ 70 °C (+14 °F...+158 °F) |
| Storage | : -30 °C...+ 80 °C (-22 °F...+176 °F) |
| Power Supply | : 12 ... 32 V DC unregulated, max. 10 % residual ripple, reversed polarity protected |
| Digital Display | : 3-digit LED display, 7-segment, height 10 mm (0,39 inch), red |
| Display Range | : -99 ... 999 |
| Display Rate | : 20/s |
| Display Unit | : °C, °F - adjustable |
| Error Display | : LED yellow and alphanumeric display (Diagnosis function acc. DESINA®) |
| Power Consumption | : appr. 50 mA (without load) |
| Analog Output | |
| Current Output | : 4... 20 mA |
| Load | : max. RI = (Ub-12 V) / 20 mA RI = 600 Ohm at Ub = 24 V DC |
| Load Influence | : 0,3% / 100 Ohm |
| Scanning Rate | : 5 ms |
| Voltage Output | : 0... 10 V DC |
| Rating | : max. 10 mA, short circuit-proof |
| Adjustment Range | : 25%...100% f. s. |
| Switching Output(s) | |
| Switching Function | : Normally open/ normally closed, standard-/windows-mode |
| Adjustment Range | : 0%... 125% f. s. |
| Hysteresis | : 0%... 125% f. s. |
| Diagnosis Function | : SP2 (DESINA®-version) |
| Switching Frequency | : max. 100 Hz |
| Contact Rating | : max. 500 mA, short circuit-proof |
| Delay | : 0,0... 9,9 s adjustable |
| Status Display(s) | : LED(s) green for activated switching point |
| Options | : electrical plug with screw terminal |

TempSwitch 2000

Dimensions in mm (inch)

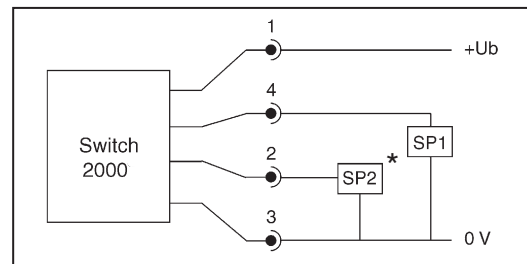
10 / 05 TS2000 US 923-0877 03/1



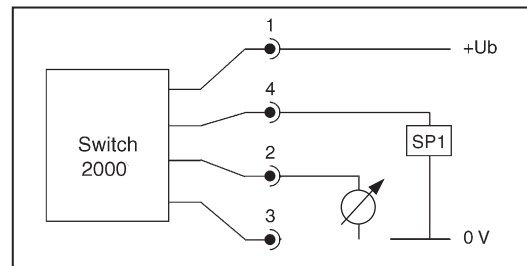
Connection Chart

| Plug M 12 x 1, 4-pin | Version with 1 switching output | Version with 2 switching outputs (DESINA®-version) | Version with 1 switching output and 1 analog output |
|----------------------------|------------------------------------|--|---|
| Pin 1 | +Ub (12...32 V DC) | +Ub (12...32 V DC) | +Ub (12...32 V DC) |
| Pin 2 | - | SP2 (0,5 A max.) | analog |
| Pin 3 | 0 V | 0 V | 0 V |
| Pin 4 | SP1 (0,5 A max.) | SP1 (0,5 A max.) | SP1 (0,5 A max.) |

Connection Scheme



* SP2 = Diagnosis output (DESINA®-version)



Order Numbers

| Measuring range (°C) | 0...+100 °C | -30...+150 °C | 0...+100 °C | -30...+150 °C | 0...+100 °C | -30...+150 °C |
|---|-------------------|---------------|-------------------|---------------|---------------------|---------------|
| Measuring range (°F) | 0...+212 °F | -22...+302 °F | 0...+212 °F | -22...+302 °F | 0...+212 °F | -22...+302 °F |
| Sensor length | 17 mm (0.67 inch) | | 50 mm (1.97 inch) | | 300 mm (11.82 inch) | |
| 1 Switching output | 0628-011 | 0628-012 | 0628-013 | 0628-014 | 0628-023 | 0628-024 |
| 2 Switching output | 0628-015 | 0628-016 | 0628-017 | 0628-018 | 0628-025 | 0628-026 |
| 1 Switching output 1 Analog output 4...20 mA | 0628-096 | 0628-097 | 0628-098 | 0628-099 | 0628-100 | 0628-101 |
| DESINA® | | | | | | |
| 1 Switching output 1 Diagnosis output | 0628-019 | 0628-020 | 0628-021 | 0628-022 | 0628-027 | 0628-028 |

Accessories

| Order Number | Description |
|--------------|---|
| 907-0357 | Electrical plug M 12 x 1, 4-pin, with screw terminal, 90° elbow |
| 907-0344 | Electrical plug M 12 x 1, 4-pin, with screw terminal, straight |

Specifications are subject to changes without notice.