

TS300 – Electrical Temperature Switch



- ▶ Low cost
- ▶ Measuring range from -50°C to 120°C
- ▶ Inductive setting
- ▶ Setting by the teach-mode, hand hold device or computer
- ▶ 2 independent switching outputs
- ▶ NC / NO programmable
- ▶ Stainless steel wetted parts

TS300, a compact temperature switch with low cost, equips with a PT1000 class A thermal resistance for temperature measuring. Output signal is processed to standard electrical signal. Metal housing; NO/NC programmable; PNP/NPN selectable; Multiple process connections.



Specifications

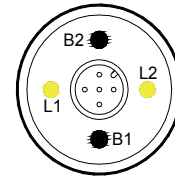
| | |
|------------------------------|---|
| Power Supply | 12...30Vdc |
| Current Consumption | ≤22mA (power supply 24Vdc, no-load) |
| Switching Output | |
| Output | PNP/NPN output, NC/NO configurable |
| S1, S2 Output Current | <500mA |
| Response Time | <5ms |
| Voltage Drop | <1V |
| Accuracy | ≤±0.25% of F.S. |
| Wiring Protection | Reverse polarity and short-circuit |
| Display | Switching state / Auxiliary set – 2 yellow LEDs |
| Sensor | PT1000 Class A |
| Accuracy | ≤±0.25% of F.S. |
| Pressure Rating | 200bar |
| Stability(Drift/Year) | ≤±0.1% of F.S. |
| Temperature | |
| Medium(Measuring Range) | -50...120°C |
| Ambient | -20...85°C |
| Storage | -20...85°C |
| Material | |
| Housing | 304 stainless steel |
| Wetted Parts | 316 stainless steel |
| Protection Class | IP67 |
| Electrical Connection | M12×1 plug |

Applications

- ▶ Circulating water/Cooling liquids
- ▶ Hydraulics and pneumatics
- ▶ Oil and Gas
- ▶ Machinery manufacturing
- ▶ Water treatment
- ▶ Construction automation

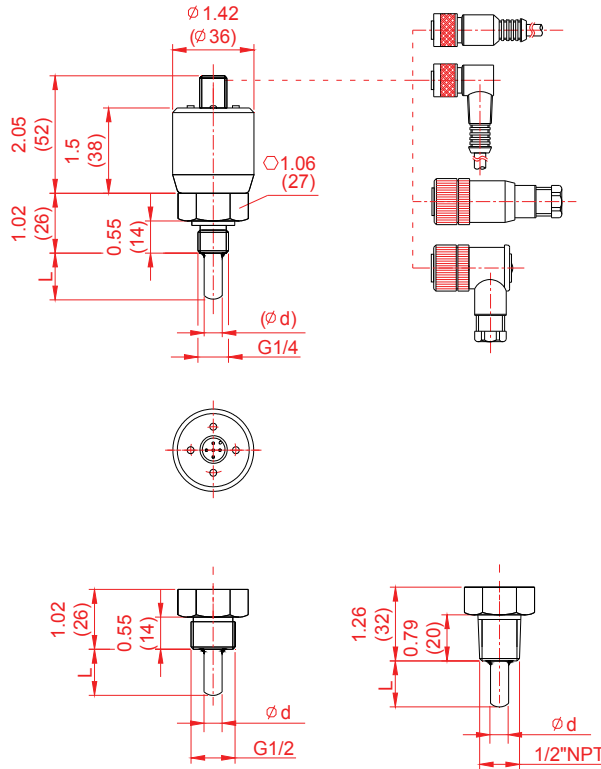
Output Setting as Setting Output 1

| | |
|--------------------------|---|
| Switching output setting | Adjust system temperature to desired switching point, press B1 and hold for 3s. When L1 flashes with 2Hz, press B1 quickly and release, current temperature was set as switching point. |
| NC / NO setting | Press B1 and hold for 10s, when L1 flashes with 8Hz, release B1, output was switched. (NO ↔ NC) |



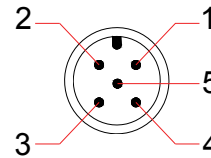
- B1: output 1 setting key
- B2: Output 2 setting key
- L1: Output 1 state (Auxiliary set)
- L2: Output 2 state (Auxiliary set)

Dimensions in inches (mm)



Wiring

| Signal | Plug | Cable |
|--------------------|------|-------|
| U+ | 1 | Brown |
| U- | 3 | Blue |
| Switching output 1 | 4 | Black |
| Switching output 2 | 2 | White |



| PNP output | | NPN output | |
|------------|--|------------|--|
| 2xPNP | | 2xNPN | |

Order Code

| | |
|---|-------------------------------|
| TS : | Electrical temperature switch |
| 300 : | Series# |
| Measuring range : | C-50-120 = -50...120°C |
| Note: Use FAA-BBBB for Fahrenheit, in which AA, BBBB are lower and upper limit respectively. | |

| | | | | | | | |
|-----------|-------------|------------------|-----------|-------------|----------|------------|------------|
| TS | 300/ | C-50-120/ | 2P | G12M | S | 025 | D06 |
|-----------|-------------|------------------|-----------|-------------|----------|------------|------------|

| | |
|---------------------------|-------------------------|
| 2P : | 2 PNP switching outputs |
| 2N : | 2 NPN switching outputs |
| Process connection | |
| G14M : | G1/4 male thread |
| G12M : | G1/2 male thread |
| N12M : | 1/2"NPT male thread |
| S : | M12X1 5-pin plug |
| Probe length L | |
| 025= | 25mm (L≤500 mm) |
| 1"= | 1 inch (L≤20 inches) |
| Probe diameter d | |
| D06= | 6mm |
| D08= | 8mm |

Special Order on Request