

Mechanical temperature switch

With bimetallic disc inside the stem



Description

These temperature switches are designed for use in rough industrial environment. Due to the used bimetallic disc technology and a special build-up of the switches, they are suitable for applications with high vibrations.

There are standard models available with plug connector acc. to DIN EN 175301-803, in brass as well as in stainless steel. The certain electrical connections allow a quick installation of the switch. The ingress protection corresponds up to IP66/67, when the plugs are connected.

Bimetals are the basis of these temperature switches. The sensing of the temperature results from a bimetal disc, which is inside the stem. This disc snaps over, if the defined switching temperature is reached. As switching function, there are available NC (Normally Closed) and NO (Normally Open). After cooling down to the reset switching point (hysteresis usually 30K), the switch returns to its initial state. As the bimetal disc is not carrying current, imprecise switching because of self-heating or arcing can be eliminated.

Features

- vibration proof
- certain electrical connections
- snap action contact, non-current-carrying
- available as NO or NC
- up to IP66/67
- customer specific geometries

Switch ranges

- factory set switching point
- +40 .. +200 °C
- available in 5K interval

Applications

- compressors
- motors
- gear boxes
- mobile hydraulics
- machine building

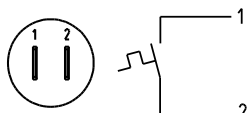
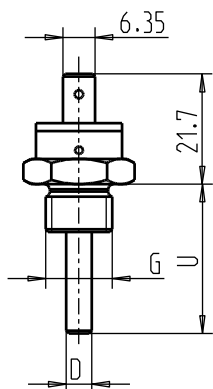
Model: S6410

Technical Data

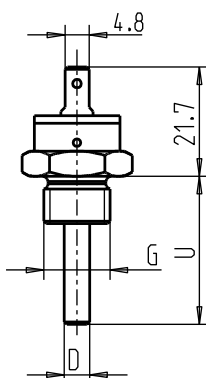
	Mechanical temperature switch
Model	S6410
Process connection	G1/2 G1/4 G3/8 M14x1,5 M22x1,5 1/2 NPT 1/4 NPT Others on request
Diameter Standard Optional	10mm Others on request
Insertion length	28mm 40 mm 50 mm 60 mm 100 mm Others on request
Measuring principle	Bimetallic disc, snap action contact
Material Standard Optional	brass stainless steel 1.4305; Others on request
Switching point Quantity Function Temperature Adjustment Hysteresis	1 (optional 2 in combination with L-plug or M12x1, circular connector) Normally Closed (NC) / Normally Open (NO) +40 ... +200 °C ; with 5 K interval Factory set switching point typical 30K (dependent of the switching temperature)
Switch rating DC 12V 24V AC 115 V 250 V	4A 3A 3A 2A Optional: up to 10A
Contact resistance	< 50 mΩ
Dielectric strength	AC 1500V /1min. between the switch and the housing
Switching cycles	Min. 10000 cycles
Ambient temperature	-50 ... +125°C At high temperatures and short insertion lengths special attention has to be paid to the maximum temperature of the connector.
Electrical connection Standard Optional	L-plug acc. to DIN EN 175301-803 FAST-On flat connector 6,3x0,8mm FAST-On flat connector 4,8x0,8mm Plug connector, AMP Junior Power Timer M12x1, circular connector Deutsch connector DT04-2P Bayonet connector DIN72585
Ingress protection	Up to IP66/67 if connected acc. to DIN EN 60529 / IEC 529, (dependent on the electrical connection)
Vibration resistance	Up to 10g, depends on the geometry, material and medium
Shock resistance	Up to 500g, depends on the geometry, material and medium
Pressure rating	Max. 100 bar, Optional: up to 600 bar, depends on the geometry, material and medium

Dimensions

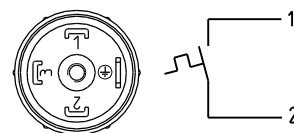
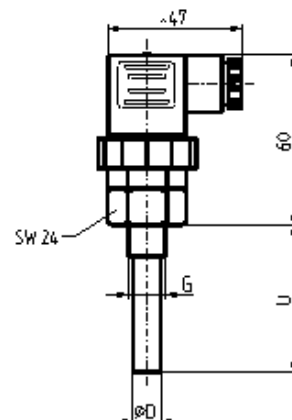
**FAST-ON flat connector
6,3x0,8mm**



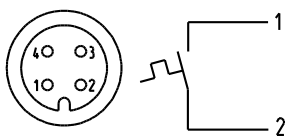
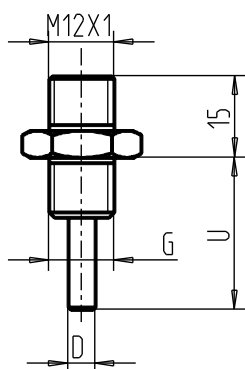
**FAST-ON flat connector
4,8x0,8mm**



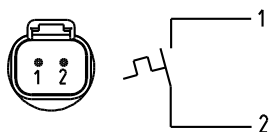
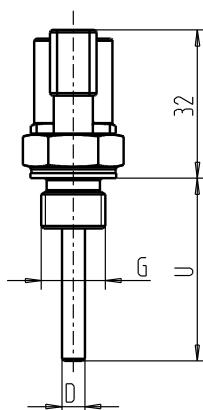
**plug connection acc. to
DIN EN 175301-803**



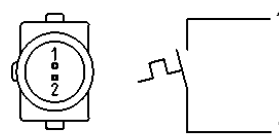
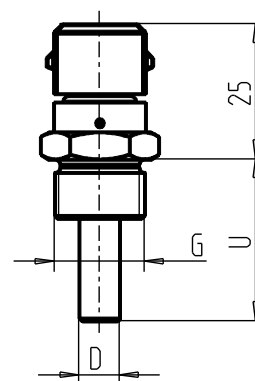
**M12x1, circular connector
4-pole**



Deutsch connector DT04-2P



**plug connector
AMP Junior Power Timer**



Modifications reserved