FS1040

Temperature transducer with cable sensor silicon cable, digital output

Measuring size: temperature
Output: Modbus RTU, Relay
Highlights: easy-to-install surface-mounted housing with cable sensor

MADE IN GERMANY   EAC   CE   RoHS COMPLIANT

Description

The FS1040 cable transducer registers the temperature in gaseous and liquid media and converts this measured value into a digital output signal.

The stainless steel sleeve protects the sensor, e.g. from mechanical shocks, is rolled moisture proof (waterproof) with the connecting cable and can, using the immersion sleeve, strap or clamping screws be quickly and easily mounted.

As special equipment a potential-free alternating contact and/or a backlit display are available The contents of the display can be rotated in steps of 90° by using a command.

As special functions a series of defined measured values from other bus-participants (also cross-manufacturers) can be shown in the display. To display measured values from other bus-participants these are entered into the corresponding register by the bus-Master. The optional alternating contact can be configured for measured values from other bus-participants.

The configuration of address, transmission mode/speed, terminating resistor and master/slave function of the bus-devices can easily be done using the innovative DIP switch technology. Thus devices can quickly and easily integrated into the system and later parameterised via the master.

The bus-devices can even be reset to the works settings during operation of the master. Thus the basic functionality of the device is recreated in a matter of seconds. This can be necessary in the event of incorrect parameterisations of, e.g. offset, switching threshold, display modes etc..

By means of the FS master/slave topology autarkic nodes without additional SPS master can be installed within the device series. Hereby a bus-device assumes the master function in the node. This requests the measured values from other bus-participants, automatically enters these into the corresponding register and shows them in the internal display. Furthermore the master can evaluate and operate additional actuators in the device series (analogue in- and outputs, relay station).

Technical Specifications

Measurement range temp.	-50...+180°C
Accuracy	±0,2 K + max. ±1% mv (-30?+100°C), else ±0,3 K + max. ±1,5% mv
Offset	can be entered in the register
Supply voltage	24 V DC (±5%)
Current consumption	max. 20 mA + 30 mA (option display) + 20 mA (option relay)
Digital output	Modbus RTU
Alarm output	1 x potential-free change-over contact, 48 V, 1 A
Switching Hysteresis Relay	can be entered in the register
Electrical connection	push-in terminal, no tools required, time-saving
Cable	2 m silicone cable (max. +180°C)
Housing	Polycarbonate PC UL 94 V0 with hinge locks, color signal white similar to RAL 9003
Cable gland	PG11 high-strength cable gland with strain relief
Display	optional LCD display with backlight on/off/auto
Material	Protection sleeve: stainless steel VA 1.4571
Dimensions	Housing: L 89 x W 80 x H 47 mm, Protection sleeve: Ø 6 x 50 mm
Protection type	IP65, IP67 (probe, moisture sealed rolled)
Protection class	III
Working range r.H.	0...98% r.H. in contaminant-free, non-condensing air
Working temperature	Probe: -50...+180°C, Electronic: -20...+70°C
Storage temperature	-20...+70°C
Installation	screw fastening
Approvals	CE, EAC, RoHS

Variants

Article Number			
Temperature	Cable	Output	Equipment
FS1040-MBR-T1-2-D			
-50...+180°C	2 m silicone (2x0,22 mm²)	Modbus RTU	Display
FS1040-MBR-T1-2-DR			
-50...+180°C	2 m silicone (2x0,22 mm²)	Modbus RTU	Display, Relay
FS1040-MBR-T1-2-R			
-50...+180°C	2 m silicone (2x0,22 mm²)	Modbus RTU	Relay
FS1040-MBR-T1-2-X			
-50...+180°C	2 m silicone (2x0,22 mm²)	Modbus RTU	-

Accessories

	KV/E Compression Clamp
	SB/E Snap-on mounting for DIN rails
	SZ/E Accessories
	ZT/E Immersion sleeve

Dimensional Drawing

50

KL

Ø 6

80

08

89

14,5

16,5

63

65

PG11 / SW22

Ø 4,25