



FS1023

Temperature transducer duct with stainless steel immersion sleeve, digital output

Measuring size: temperature

Output: Modbus RTU, Relay

Highlights: thread G1/2 inch, , Pmax 40bar



Description

The FS1023 screwable transducer registers the temperature at a maximum pressure of 40 bar in gaseous and liquid media and converts this measured value into a digital output signal.

Using the immersion sleeve, included in the scope of delivery, the temperature sensor is screwed directly into the container or the pipeline and can during service be quickly and easily replaced.

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 be 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.	-30...+150°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
Sensor	Pt100 DIN EN 60751 Cl. B
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
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, Immersion sleeve: stainless steel VA 1.4404, Pmax. 40 bar
Dimensions	Housing: L 89 x W 80 x H 47 mm, Protection sleeve: Ø 6 mm, Immersion sleeve: outside Ø 8 mm / inside Ø 6,5 mm, thread G1/2 inch
Protection type	IP65
Protection class	III
Working range r.H.	0...98% r.H. in contaminant-free, non-condensing air
Working temperature	Probe: -30...+150°C, Electronic: -20...+70°C
Storage temperature	-20...+70°C
Installation	immersion sleeve with G1/2 inch screw-in thread
Approvals	CE, EAC, RoHS

Variants

Article Number			
Temperature	Installation length	Output	Equipment
FS1023-MBR-T1-050-D			
-30...+150°C	50 mm	Modbus RTU	Display
FS1023-MBR-T1-050-DR			
-30...+150°C	50 mm	Modbus RTU	Display, Relay
FS1023-MBR-T1-050-R			
-30...+150°C	50 mm	Modbus RTU	Relay
FS1023-MBR-T1-050-X			
-30...+150°C	50 mm	Modbus RTU	-
FS1023-MBR-T1-100-D			
-30...+150°C	100 mm	Modbus RTU	Display



Article Number			
Temperature	Installation length	Output	Equipment
FS1023-MBR-T1-100-DR			
-30...+150°C	100 mm	Modbus RTU	Display, Relay
FS1023-MBR-T1-100-R			
-30...+150°C	100 mm	Modbus RTU	Relay
FS1023-MBR-T1-100-X			
-30...+150°C	100 mm	Modbus RTU	-
FS1023-MBR-T1-200-D			
-30...+150°C	200 mm	Modbus RTU	Display
FS1023-MBR-T1-200-DR			
-30...+150°C	200 mm	Modbus RTU	Display, Relay
FS1023-MBR-T1-200-R			
-30...+150°C	200 mm	Modbus RTU	Relay
FS1023-MBR-T1-200-X			
-30...+150°C	200 mm	Modbus RTU	-
FS1023-MBR-T1-300-D			
-30...+150°C	300 mm	Modbus RTU	Display
FS1023-MBR-T1-300-DR			
-30...+150°C	300 mm	Modbus RTU	Display, Relay
FS1023-MBR-T1-300-R			
-30...+150°C	300 mm	Modbus RTU	Relay
FS1023-MBR-T1-300-X			
-30...+150°C	300 mm	Modbus RTU	-
FS1023-MBR-T1-400-D			
-30...+150°C	400 mm	Modbus RTU	Display
FS1023-MBR-T1-400-DR			
-30...+150°C	400 mm	Modbus RTU	Display, Relay
FS1023-MBR-T1-400-R			
-30...+150°C	400 mm	Modbus RTU	Relay
FS1023-MBR-T1-400-X			
-30...+150°C	400 mm	Modbus RTU	-



Dimensional Drawing

