



## FS1021

### Temperature transducer duct with mounting flange, digital output

Measuring size: temperature

Output: Modbus RTU, Relay

Highlights: easy to install with included mounting flange



### Description

The FS1021 duct transducer registers the temperature in gaseous media and converts this measured value into a digital output signal.

Using the mounting flange, included in the scope of delivery, the temperature transducer is fastened, for example, directly to the duct, container etc. and can be quickly and easily be replaced during service.

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
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
Dimensions	Housing: L 89 x W 80 x H 47 mm, Protection sleeve: Ø 6 mm
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	mounting flange (in scope of delivery)
Approvals	CE, EAC, RoHS

## Variants

Article Number			
Temperature	Installation length	Output	Equipment
<b>FS1021-MBR-T1-050-D</b>			
-30...+150°C	50 mm	Modbus RTU	Display
<b>FS1021-MBR-T1-050-DR</b>			
-30...+150°C	50 mm	Modbus RTU	Display, Relay
<b>FS1021-MBR-T1-050-R</b>			
-30...+150°C	50 mm	Modbus RTU	Relay
<b>FS1021-MBR-T1-050-X</b>			
-30...+150°C	50 mm	Modbus RTU	-
<b>FS1021-MBR-T1-100-D</b>			
-30...+150°C	100 mm	Modbus RTU	Display
<b>FS1021-MBR-T1-100-DR</b>			
-30...+150°C	100 mm	Modbus RTU	Display, Relay
<b>Article Number</b>			



Temperature	Installation length	Output	Equipment
<b>FS1021-MBR-T1-100-R</b>			
-30...+150°C	100 mm	Modbus RTU	Relay
<b>FS1021-MBR-T1-100-X</b>			
-30...+150°C	100 mm	Modbus RTU	-
<b>FS1021-MBR-T1-200-D</b>			
-30...+150°C	200 mm	Modbus RTU	Display
<b>FS1021-MBR-T1-200-DR</b>			
-30...+150°C	200 mm	Modbus RTU	Display, Relay
<b>FS1021-MBR-T1-200-R</b>			
-30...+150°C	200 mm	Modbus RTU	Relay
<b>FS1021-MBR-T1-200-X</b>			
-30...+150°C	200 mm	Modbus RTU	-
<b>FS1021-MBR-T1-300-D</b>			
-30...+150°C	300 mm	Modbus RTU	Display
<b>FS1021-MBR-T1-300-DR</b>			
-30...+150°C	300 mm	Modbus RTU	Display, Relay
<b>FS1021-MBR-T1-300-R</b>			
-30...+150°C	300 mm	Modbus RTU	Relay
<b>FS1021-MBR-T1-300-X</b>			
-30...+150°C	300 mm	Modbus RTU	-
<b>FS1021-MBR-T1-400-D</b>			
-30...+150°C	400 mm	Modbus RTU	Display
<b>FS1021-MBR-T1-400-DR</b>			
-30...+150°C	400 mm	Modbus RTU	Display, Relay
<b>FS1021-MBR-T1-400-R</b>			
-30...+150°C	400 mm	Modbus RTU	Relay
<b>FS1021-MBR-T1-400-X</b>			
-30...+150°C	400 mm	Modbus RTU	-



## Accessories

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MFL/E  
Mounting flange

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SWS/A  
Radiation and weather protection



### Dimensional Drawing

