

LFI, SFI 2-WIRE TEMPERATURE TRANSMITTERS

PRODUCT DATA

GENERAL

The LFI and SFI 2-wire temperature transmitters are typically used in HVAC systems to measure duct or water temperature where high accuracy is needed.

These temperature transmitters are suitable for use in all systems capable of accepting 4...20 mA inputs.

MODELS

OS no.	type	sensor out-put scaling range	IP rating	probe length, in mm (in.)
LFI-100-1B65	duct	0...100 °C	65	150 (5.91)
LFI-100-3B65	duct	0...100 °C	65	300 (11.81)
SFI-100-1B65	strap-on	0...100 °C	65	n/a
LF-MF	Bulk pack of 10 mounting flanges for LFI duct temperature transmitters.			

NOTE: The LFI duct temperature transmitter is delivered with an LF-MF flange as a standard accessory; no need to purchase separately.

WIRING

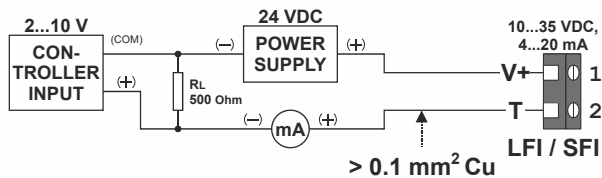


Fig. 1. Wiring transmitters (example)

See also Table 1. Typical controller inputs, burdens, and power supply.

FEATURES

- 4...20 mA temperature transmitters
- Same look and feel as standard sensors VF-x
- Flange for air-duct mounting included; well as accessory
- High accuracy
- Probe length 150 mm and 300 mm

SPECIFICATION

Accuracy	±0.3 °C (±0.54 °F) at 20 °C (68 °F)
Response time τ_{63}	
Duct temp. transmitter	< 1 min at 3 m/s (590 ft/min) air velocity
Immersion temp. transmitter	< 30 s in liquid water bath
Sensor sleeve material	stainless steel (1.4571 / 316Ti)
Electrical specifications	
Output	4...20 mA, $-1 \text{ mA} < I_L < 1 \text{ mA}$
Current demand DC	typ. 5 mA
Sensing element	Pt1000 (class A, DIN EN 60751)
Power supply	See Fig. 1 and Table 1.
DC _{max}	35 VDC
DC _{min}	10 VDC + (R _L · 20 mA)
Wiring box	
Storage temperature	-30...+70 °C (-22...+158 °F)
Humidity	5...95% rh, non-condensing
Material	Polycarbonate
Operating temperature	
Duct transmitter (probe)	-40...+110 °C (-40...+230 °F)
Immersion transmitter (probe)	-40...+110 °C (-40...+230 °F)
Electronics	-40...+70 °C (-40...+158 °F)
Safety	IP65 as per EN 60529
Dimensions	See section "Dimensions" on pg. 2.

DIMENSIONS

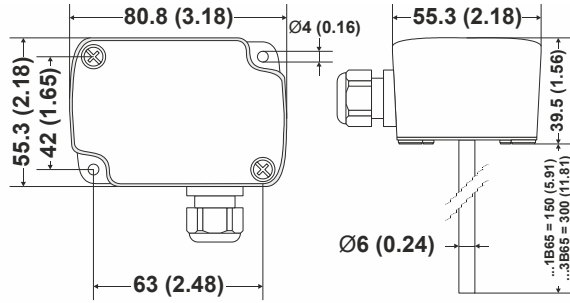


Fig. 2. LFI duct temp. transmitter, dimensions in mm (in)

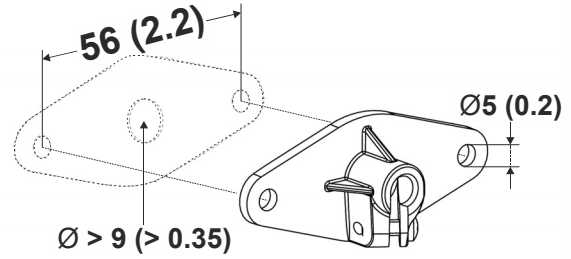


Fig. 4. LF-MF mounting flange, dimensions in mm (in)

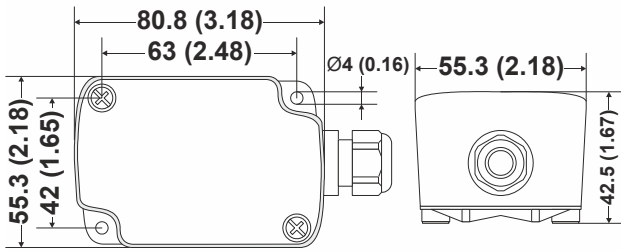


Fig. 3. SFI strap-on temp. transmitter, dimensions in mm (in)

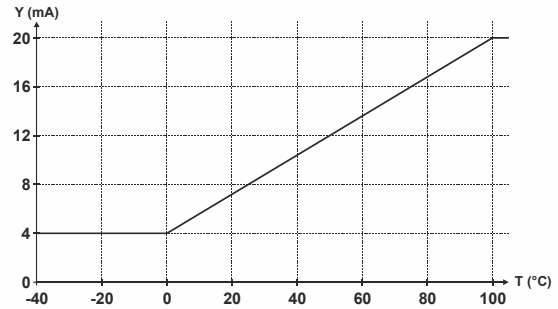


Fig. 5. LF-MF, SFI characteristic temperature curve

Table 1. Typical controller inputs, burdens, and power supply

Controller input	Burden (R _L)	Power supply (20 mA)
0.2 ... 1 V	50 Ω	11 ... 35 VDC (e.g., 12 VDC / 18 VDC / 24 VDC)
1 ... 5 V	250 Ω	15 ... 35 VDC (e.g., 18 VDC / 24 VDC)
2 ... 10 V	500 Ω	20 ... 35 VDC (e.g., 24 VDC)

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