product news

ifm electronic

Fluid sensors and diagnostic systems

Temperature measurement without calibration – now with Profibus PA.

Temperature transmitter with Profibus PA profile 3.01 or 4…20 mA output.

- **Integrated drift monitoring, diagnostic and backup function.**
- **Including free 5-point calibration certificate.**
- **Precision of 0.2 K at -10...100 °C and 0.3 K at -25…-10 / 100…150°C.**
- **Increased process safety due to self-monitoring.**
- **Cost savings due to elimination of calibration.**

EHEDG certified | CIP/SIP | IP 68 IP 69 K | Profibus PA

No more calibration

The use of two different sensor elements which monitor each other in the process ensures that a developing sensor drift is immediately detected and reliably diagnosed. Furthermore, if one element fails, the process continues with the second measuring element (backup function).

Profibus PA or 4…20 mA output

The TAP series complements the tried-and-tested and calibration-free TAD temperature sensors (4...20 mA). TAP transmitters communicate via the established bus system Profibus PA. The unit supports the Profibus PA profile 3.01 "Temperature Transmitter" including the extension for "Installation and Maintenance" and an optimised diagnostic function for drift monitoring.

TAD temperature transmitters in hygienic applications for CIP and SIP

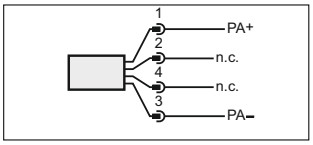
fluid sensors and diagnostic systems
position sensors and object recognition
bus, identification and control systems

Electrical design	Process connection	Rod length [mm]	Operating voltage [V DC]	Protection rating	Order no.
TAP, Profibus PA profile 3.01, electrically separated, GSD file on supplied CD					
Profibus PA	Aseptoflex thread	40	9…32	IP 68 / IP 69K	**TAP961**
Profibus PA	Aseptoflex thread	100	9…32	IP 68 / IP 69K	**TAP161**
TAD transmitter 4…20 mA					
4…20 mA (scaleable)	Aseptoflex thread	40	20...32	IP 67 / IP 69K	**TAD961**
4…20 mA (scaleable)	Aseptoflex thread	100	20...32	IP 67 / IP 69K	**TAD161**
4…20 mA (scaleable)	G 1/2 male	36	20...32	IP 67 / IP 69K	**TAD971**
4…20 mA (scaleable)	G 1/2 male	96	20...32	IP 67 / IP 69K	**TAD171**

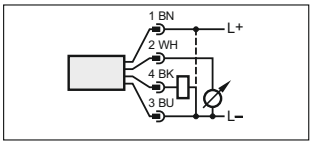
Programming options: Parameter setting to Profibus PA profile temperature transmitter, version 3.01; I&M parameter, drift and diagnostic functions

Programming options: Threshold for drift warning / alarm; fail-safe; display unit; scaling of the analogue output; redundancy switching; performance diagnostic output; output logic; normally open / normally closed

Wiring



Wiring TAP



Wiring TAD

Accessories

Type	Description	Order no.
	Aseptoflex adapter* clamp 1"–1,5" (DN25–40)	**E33001**
	Aseptoflex adapter* clamp 2" (DN50)	**E33002**
	Aseptoflex adapter* Varivent D 50 (DN25 / 1")	**E33021**
	Aseptoflex adapter Varivent D 68 (DN40–125 / 1,5"–6")	**E33022**
	Welding adapter Ø 50 mm high-grade stainless steel (316S12) / O-ring: FPM	**E30052**
	* other Aseptoflex adapters available	
	Adapter G 1/2 female – clamp 1"–1,5"	**E33401**
	Adapter G 1/2 female – clamp 2"	**E33402**
	Adapter G 1/2 female – SMS DN25	**E33430**
	Welding adapter ball, G 1/2	**E30055**
	Welding adapter collar, G 1/2	**E30056**

Other technical data

Self-monitoring temperature sensor for liquids and gases		
Measuring range	[°C]	-25…150
Response time T05 / T09	[s]	6 / 13
Perm. overload pressure	[bar]	50
Accuracy Process value, drift monitoring (-10…100 °C) (-25…-10 / 100…150 °C)	 [°C] [°C]	 ± 0.2 ± 0.3
Resolution	[°C]	< 0.05
Measuring element		Pt1000 / NTC, thermically coupled
Material mit dem Medium		high-grade stainless steel (316S12)
Surface characteristics		Ra: < 0.6
Connection		M12 connector, Gold-plated contacts

Connectors and splitter boxes

Type	Description	Order no.
	M12 socket, 5 m orange, PVC cable	**EVT001**
	M12 socket, 5 m orange, PVC cable	**EVT004**