WIT-S

Technical Datasheet



Three versions of the WIT-S, each with M8 connector.

Short description

Resistance temperature sensor with Pt100 platinum element for air and gases, −30 to +80 °C. The WIT-S measures with a four-wire connection. Accuracy class, housing and connection version are matched to the application requirements.

The probe version allows variable immersion depths: if required, it is mounted with a compression fitting, and the immersion depth can be adjusted. With a Ø 6 mm sheath tube it fits a compression fitting for 6 mm tube. The screw-in version with G1/4 or G1/2 thread is more compact and robust.

Identification

Product name	WIT-S
Design	resistance temperature sensor
Measuring element	Pt100 platinum element
Versions	probe version, also with sheath tube, screw-in version G1/4 and G1/2
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Measuring range and accuracy

Measured variable	temperature
Measuring range	−30 to +80 °C
Measuring element	Pt100 platinum element
Accuracy class	1/3 class B, corresponds to the new class AA class A (being discontinued)
Response time T_{99}	open sensor tube approx. 25 s closed sensor tube approx. 40 s

Operating conditions

Operating temperature	−30 to +80 °C, sensor tip briefly up to 150 °C
Storage temperature	−30 to +80 °C
Pressure limit	with compression fitting 6 bar screw-in version 16 bar
Sealing surface	compression fittings and screw-in versions require a flat sealing surface

Media compatibility

Tube end open	air and non-corrosive gases
Tube end closed	air and corrosive gases compatible with stainless steel and PTFE (compression fitting) or epoxy resin (screw-in version G1/2)

Mechanical and electrical data

Housing material	stainless steel
Process connection	probe: rod probe, optionally with compression fitting probe with sheath tube: compression fitting for 6 mm tube screw-in version: G1/4 or G1/2 male thread, flat sealing
Probe length / installation depth	20, 30, 50, 100 or 250 mm
Sheath tube	Ø 6 mm, 45 or 80 mm long, on sensor tube Ø 2 mm × 100 mm
Measuring circuit	four-wire connection
Measuring current	1 mA
Signal	95 to 140 mV
Electrical connection	M8×1 male insert, 4-pin, press-fitted

Versions

VERSION	IMMERSION DEPTH	Ø SENSOR TUBE	WEIGHT
Probe version	variable	2 or 3 mm	6 to 9 g
Probe version with sheath tube	–	2 mm, sheath tube 6 mm	–
Screw-in version G1/4	20 mm	1.6 mm	36 g
Screw-in version G1/2	30 mm	2 mm	87 g

Accessories

PART NO.	DESCRIPTION
VT-20-G18	compression fitting for 2 mm sensor tube, G1/8
VT-20-G14	compression fitting for 2 mm sensor tube, G1/4
VT-20-G12	compression fitting for 2 mm sensor tube, G1/2
VT-30-G18	compression fitting for 3 mm sensor tube, G1/8
VT-30-G14	compression fitting for 3 mm sensor tube, G1/4
VT-30-G12	compression fitting for 3 mm sensor tube, G1/2
SS-6M0-1-4RSBT	Swagelok compression fitting for 6 mm sheath tube, G1/4, stainless steel, bored-through
LTG-PTM8-...	connection cable on request (length, connection)

Calibration and service

Calibration	on request in our calibration laboratory

FURTHER INFORMATION

Benefits, operating principle and application examples are given in the product brochure **WIT-S**. To design your measuring point, contact us at **+49 7157 5387-0** or **info@tetratec.de**.