

## Temperature sensor type ITS



Inline **T**emperature **S**ensor

**ITS** the new inline temperature sensor from AVS-Römer



Inline temperature sensor for measuring temperature of liquid and gaseous media.

The ceramic temperature sensor combined with the proven ELSA push-in connector made from PPSU is mainly used in the food industries.

### Other features:

- fast response time
- minimal dead space
- materials and constructional design especially optimised for food applications

### Variations / options:

- other hose connections
- other materials for seal

## CHARACTERISTICS

### GENERAL

Constructional design	ceramic temperature measuring cell
Product name	Temperature sensor
Product type	ITS-958P3-...
Nominal diameter	2.5 DN or DN 4
Connection	ELSA push-in connectors for pipe/tube OD 4 or OD 6
Ambient temperature	0°C to +60°C
Medium temperature	0°C to +135°C
Medium viscosity	up to approx. 35 mm <sup>2</sup> /s
Thermal time constant	< 2 s (water)
Body material	PPSU (KTW-approved, NSF-certified)
Sensor housing material	Al <sub>2</sub> O <sub>3</sub>
O-ring material	FKM (FDA-compliant) or EPDM (NSF-, KTW-approved)
Approval	NSF/ANSI 169

### PNEUMATIC - HYDRAULIC

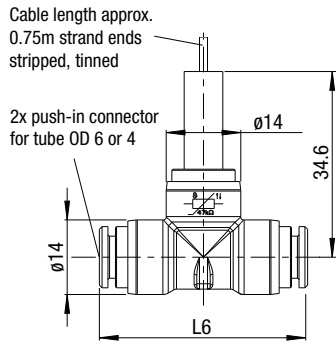
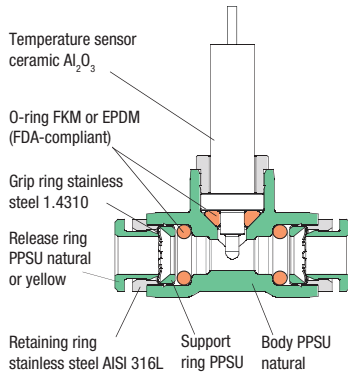
Nominal pressure	PN 20
Pressure range	technical vacuum up to maximum allowable operating pressure OP in accordance with the specification table
Flow rate	Kv-value in accordance with the specification table
Medium	Gases or liquids which do not corrode the materials specified

### ELECTRIC

Electrical Connection	2-pin PVC ribbon cable AWG 24, 0.75 m, UL AWM style 2651, 300 V, 105°C, strand ends pre-tinned
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**Caution!** PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

**Illustration**



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Product group	<b>23</b>	PN	20	Amb. temp.	$T_{min} 0^{\circ}C, T_{max} +60^{\circ}C$	Operating pressure:	0 to max. 20 bar	NSF	Plastic PPSU
				Med. temp.	$T_{min} 0^{\circ}C, T_{max} +135^{\circ}C$	Temperature-dependent			

for tube OD	DN	Kv-value water [l/min]	L6	Sensor-type	Nominal resistance NTC at 25°C Pt100 at 0°C	R Tolerance	B value R25/85	B Tolerance	Sealant material	Type	Order number	Price
4	2.5	2.4	38	NTC	10 kOhm	± 1%	3977 K	± 1%	FKM (FDA-compliant)	ITS-958P3-4FF-NTC10	390517	a. A.
4	2.5	2.4	38	NTC	10 kOhm	± 1%	3977 K	± 1%	EPDM (FDA-compliant)	ITS-958P3-4PF-NTC10	390521	a. A.
6	4.0	8.1	39	NTC	10 kOhm	± 1%	3977 K	± 1%	FKM (FDA-compliant)	ITS-958P3-6FF-NTC10	390518	a. A.
6	4.0	8.1	39	NTC	10 kOhm	± 1%	3977 K	± 1%	EPDM (FDA-compliant)	ITS-958P3-6PF-NTC10	390522	a. A.
4	2.5	2.4	38	NTC	47 kOhm	± 1%	3690 K	± 1%	FKM (FDA-compliant)	ITS-958P3-4FF-NTC47	390508	a. A.
4	2.5	2.4	38	NTC	47 kOhm	± 1%	3690 K	± 1%	EPDM (FDA-compliant)	ITS-958P3-4PF-NTC47	390509	a. A.
6	4.0	8.1	39	NTC	47 kOhm	± 1%	3690 K	± 1%	FKM (FDA-compliant)	ITS-958P3-6FF-NTC47	390510	a. A.
6	4.0	8.1	39	NTC	47 kOhm	± 1%	3690 K	± 1%	EPDM (FDA-compliant)	ITS-958P3-6PF-NTC47	390511	a. A.
4	2.5	2.4	38	Pt100	100 Ohm	Kl. B	-	-	FKM (FDA-compliant)	ITS-958P3-4FF-PT100	390519	a. A.
4	2.5	2.4	38	Pt100	100 Ohm	Kl. B	-	-	EPDM (FDA-compliant)	ITS-958P3-4PF-PT100	390523	a. A.
6	4.0	8.1	39	Pt100	100 Ohm	Kl. B	-	-	FKM (FDA-compliant)	ITS-958P3-6FF-PT100	390520	a. A.
6	4.0	8.1	39	Pt100	100 Ohm	Kl. B	-	-	EPDM (FDA-compliant)	ITS-958P3-6PF-PT100	390524	a. A.

**Characteristic curve -10 to +135°C 0-250 kΩ**

