

## Temperature Sensors Type ITS PPSU Ceramic Measuring Cell

Inline Temperature Sensor

ITS the new inline temperature sensor from AVS Römer



Inline temperature sensor for measuring temperature of fluids and gaseous medium.

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

<b>Constructional design</b>	Ceramic temperature measuring cell
<b>Product name</b>	Temperature sensor
<b>Product type</b>	ITS-958P3-...
<b>Nominal diameter</b>	2.5 DN to DN 6
<b>Connection</b>	ELSA push-in connectors for pipe/tube OD 4 to OD 8
<b>Ambient temperature</b>	0 °C to +60 °C
<b>Medium temperature</b>	0 °C to +135 °C
<b>Thermal time constant</b>	t63 <= 2.0 s (still water, higher flow velocities favor the response time)
<b>Body material</b>	PPSU (KTW-approved, NSF-certified)
<b>Sensor housing material</b>	Al203
<b>O-ring material</b>	FKM or EPDM
<b>Approval</b>	NSF/ANSI 169
<b>PNEUMATIC - HYDRAULIC</b>	
<b>Pressure range</b>	Technical vacuum up to maximum allowable operating pressure OP in accordance with the specification table
<b>Flow rate</b>	Kv-value in accordance with the specification table
<b>Medium</b>	Gases or fluidss which do not corrode the materials specified
<b>ELECTRIC</b>	
<b>Electrical Connection</b>	2-pin PVC ribbon cable AWG 24, 0.75 m, UL AWM style 2651, 300 V, 105 °C, strand ends pre-tinned

**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!

**Temperature Sensor, Type ITS**

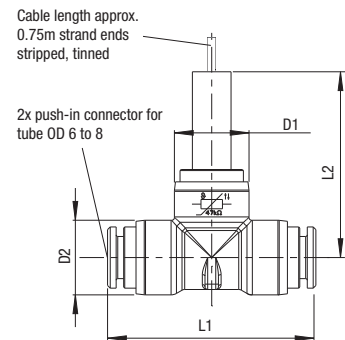
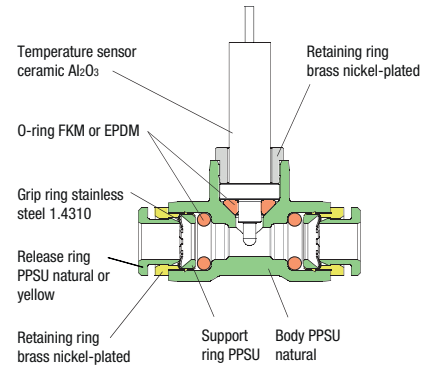
Price group **720** Max. Allow. OP at ambient temp.  
 $T_{min}$  0 °C,  $T_{max}$  +60 °C



Plastic PPSU

for tube OD	DN	Allow. OP [bar] at medium temp.			Kv-value water [l/min]	L1	L2	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
		20 °C	100 °C	135 °C												
4	2.5	20	16	10	2.4	37.8	34.6	13.9	NTC	10 kOhm	±1 %	3977 K	±1 %	FKM	ITS-958P3-4FF-NTC10	390517
4	2.5	20	16	10	2.4	37.8	34.6	13.9	NTC	10 kOhm	±1 %	3977 K	±1 %	EPDM	ITS-958P3-4PF-NTC10	390521
6	4	20	16	10	8.1	38.6	34.6	13.9	NTC	10 kOhm	±1 %	3977 K	±1 %	FKM	ITS-958P3-6FF-NTC10	390518
6	4	20	16	10	8.1	38.6	34.6	13.9	NTC	10 kOhm	±1 %	3977 K	±1 %	EPDM	ITS-958P3-6PF-NTC10	390522
8	6	16	12	6	25	44.8	35	17.2	NTC	10 kOhm	±1 %	3977 K	±1 %	FKM	ITS-958P3-8FF-NTC10	390435
8	6	16	12	6	25	44.8	35	17.2	NTC	10 kOhm	±1 %	3977 K	±1 %	EPDM	ITS-958P3-8PF-NTC10	390436
4	2.5	20	16	10	2.4	37.8	34.6	17.2	NTC	47 kOhm	±1 %	3690 K	±1 %	FKM	ITS-958P3-4FF-NTC47	390508
4	2.5	20	16	10	2.4	37.8	34.6	17.2	NTC	47 kOhm	±1 %	3690 K	±1 %	EPDM	ITS-958P3-4PF-NTC47	390509
6	4	20	16	10	8.1	38.6	34.6	13.9	NTC	47 kOhm	±1 %	3690 K	±1 %	FKM	ITS-958P3-6FF-NTC47	390510
6	4	20	16	10	8.1	38.6	34.6	13.9	NTC	47 kOhm	±1 %	3690 K	±1 %	EPDM	ITS-958P3-6PF-NTC47	390511
8	6	16	12	6	25	44.8	35	17.2	NTC	47 kOhm	±1 %	3690 K	±1 %	FKM	ITS-958P3-8FF-NTC47	390437
8	6	16	12	6	25	44.8	35	17.2	NTC	47 kOhm	±1 %	3690 K	±1 %	EPDM	ITS-958P3-8PF-NTC47	390438
4	2.5	20	16	10	2.4	37.8	34.6	13.9	Pt100	100 Ohm	KL.B.	-	±1 %	FKM	ITS-958P3-4FF-PT100	390519
4	2.5	20	16	10	2.4	37.8	34.6	13.9	Pt100	100 Ohm	KL.B.	-	±1 %	EPDM	ITS-958P3-4PF-PT100	390523
6	4	20	16	10	8.1	38.6	34.6	13.9	Pt100	100 Ohm	KL.B.	-	±1 %	FKM	ITS-958P3-6FF-PT100	390520
6	4	20	16	10	8.1	38.6	34.6	13.9	Pt100	100 Ohm	KL.B.	-	±1 %	EPDM	ITS-958P3-6PF-PT100	390524
8	6	16	12	6	25	44.8	35	17.2	Pt100	100 Ohm	KL.B.	-	±1 %	FKM	ITS-958P3-8FF-PT100	390439
8	6	16	12	6	25	44.8	35	17.2	Pt100	100 Ohm	KL.B.	-	±1 %	EPDM	ITS-958P3-8PF-PT100	390440

**Illustration**



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

