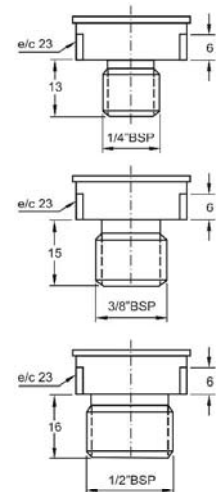
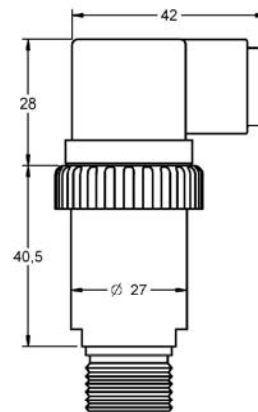


## TPSP 22

### PRESSURE TRANSMITTER SURFACE MOUNTING



<b>Materials in contact with the environment</b>	Process thread	SS AISI316L (1.4404)
	Sensor	Ceramic to aluminum oxide (AL <sub>2</sub> O <sub>3</sub> 96%)
	Toric joint	NBR. On request: Viton, EPDM, PTFE...
<b>Technical data</b>		
Pressures	Relative, Absolute and Void	
Measuring ranges	From 0..0,250 Bar to 0..250 Bar (ranges on request)	
Resolution of sensor	From 0,01 to 0,014 % FE	
Combined error sensor	≤ 0,3 % FE (Linearity, with hysteresis and repeatability)	
Insulation voltage sensor	2 KV	
Response time	Lower than 1 msec.	
Standard output signal	4..20 mADC: 2 wires - Lineal Supply voltage: 15..35 VDC Maximum load resistance: Ra ≤ [Ub(VDC) - 10(VDC)] / 0,02(ADC) 0..10 VDC: 3 wires - Lineal Supply voltage: 15..35 VDC Maximum load resistance: Ra > 10 KΩ Others: On request	
Electrical protection	Yes. Of polarity and short circuit.	
<b>Manufacturing features</b>		
Sensor type	Ceramic	
Process thread DIN-3852-E	1/2, 1/4, 3/8 BSP. NPT on request 1/2, 3/8 and 1/4	
Possibility of separator seal	Yes. See program of separators seals.	
Protection rating	IP65 (EN60529)	
Zero and span adjustments	±10 by internal potentiometers.	
Electrical connection	Connector of three poles DIN 43650 EN60529 - PG9	
Temperature	-5..+90 °C (Ambient). -10..+80 °C (Storage)	
Weight	< 250 gr.	
Conformity	RoHS: Yes CE: 97/23/EG and 89/336/CE (EN61326)	

### Characteristics of the ceramic capsule

	Minimum	Typical	Maximum
Global error (linearity, histeresys and repetibility) % (FE)	0,2	0,3	0,4
Sensitivity (span) mV/V (FE)	2,0	-	3,2
Resolution % (FE)	0,06	-	0,1
Operating temperature °C	- 25		+ 125
Response time	< 10 ms		
Isolation voltage between the capsule and any terminal	> 2 KV		

### Operating scales (bar)

Range	0,25	0,50	0,75	1,00	1,60	2,50	4,00	6,00	10,0	16,0	25,0	40,0	60,0	100,0	160,0	250,0
Maximum pressure	1,00	1,00	2,00	2,00	2,00	5,00	5,00	10,00	20,00	20,00	50,0	50,0	100,0	200,0	200,0	400,0
Breaking pressure	2,00	2,00	5,00	5,00	5,00	12,00	12,00	25,00	50,00	50,00	120,0	120,0	250,0	250,0	250,0	500,0

### General conditions of installation

Before installing the transmitter should be ensured that all materials will be in contact with the process are shareable in order to prevent their destruction.

The presence of air chambers between the sensor and the process fluid applications will cause a malfunction of the transmitter (non-linearity, erroneous readings...). To make the connection will be used two-conductor cable, avoiding the placement of it in places that there are dispersions of inductive character since its effects could damage the electronics of the transmitter.

In some cases it is advisable to use shielded cable connecting the braid to in terminal intended for that purpose in the connector.

As the ceramic sensor is very fragile transmitter will take special care in handling and should not ever be subjected to a pressure above which would deteriorate (water hammer, pressure surges unwanted effect of specific, direct fluid jets on the sensor, etc.).

### Starting up

Once completed the installation conditions shall place the pressure transmitter to the appropriate media. The thread process shall be protected against leakage of the element to be measured by an toric joint, PTFE tape or other elemneto to ensure that a maximum working pressure there is no escape.

Air will be drawn DIN 43650 connector connecting to it and conveniently electrical conductors. Special care should be, once that is done, tightening the packing nut and screw fastening the connector to the base enchuufable across the board that comes with the connector garantizarel IP65.

Once the connection eléctrica give power to the system (8 to 35 VDC) and proved that in the absence of pressure from the circulating loop current 4 mA, and the maximum working pressure of 20 mA with a suitable measuring instrument.

When connecting multiple devices or control readings on the current loop will be found that the sum of its internal resistance does not exceed the operating range of the transmitter.

### Accessories Separators

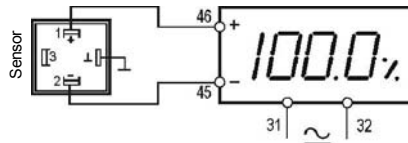
Our range of separators have a scope in the paper industry, chemical, pharmaceutical, food, etc. and adapts to all nuesrtro transmitter program.

The separator body is usually supplied in SS AISI316 (1.4401) and the diaphragm may be of different materials such as Hastelloy, Monel, Nickel, Halar, PTFE, SS AISI316L (1.4404), Tantalum, etc.

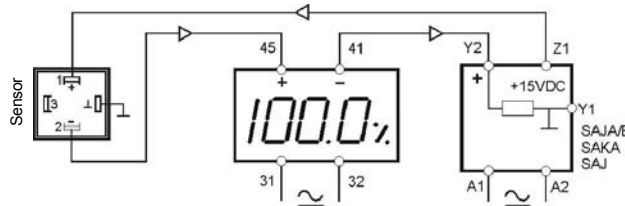


Connection and application examples

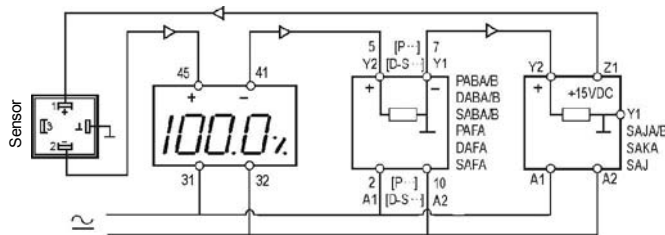
Only visualization



Sensor supply and 1 or 2 order points



Sensor supply and use of several models



Amplifiers for level sensors with loop 4-20 mA

LEVEL RELAY FOR PRESSURE SENSORS WITH LOOP 4-20 mA

	SAJA SAJB	SAKA	SAJ
Function	Relay for loop current 4-20 mA.	Relay for loop current 4-20 mA.	Relay for loop current 4-20 mA.
Operating mode	A order to detection.	Two orders to independent adjustable detection.	Detection orders and/or associate independent release adjustables. Visualization to associate magnitude to loop current.
Loop 4-20 mA	15 VDC	15 VDC	15 VDC
Sensibility	-	-	Adjustable in to relay.

**Digital Display**

IPD

- Instrument digital display.
- Three setpoints.
- 96 x 50 x 70 mm (panel)
- Range 4-20 mA
- Supply loop: 16..25 VDC/0..20 mA

**Overvoltage Protector atm**

PS4

It is conceived to protect electronic components that are powered by a maximum voltage of 35 VDC and subject to the effects of atmospheric discharges, overvoltages, etc..

**Radiator**

Have been developed for the protection of both active and passive elements compared to high process temperature (pressure transmitters, pressure gauges, cablegland, etc..). The thread of adaptation to the environment is 1/2 BSP (other thread pitches on request).