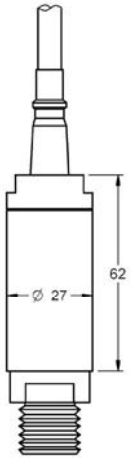
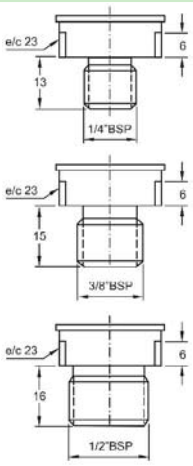
DISIBEINT

TPSP 42

PRESSURE TRANSDUCER FLUSH MOUNTING FOR LOW PRESSURES





Materials in contact with the environment	Process thread	SS AISI316L (1.4404)
	Sensor	Ceramic aluminum oxide (AL_2O_3 96%)
	Toric joint	NBR. On request: Viton, EPDM, PTFE...

Technical data	
Pressures	Relatives, Absolutes and Void
Measurement 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 of sensor	≤ 0,3 % FE (Linearity, with hysteresis and repeatability)
Enviroment voltage of sensor	2 KV
Response time	Lower than 1 mseg.
Output signal normalized	4..20 mADC: 2 wires - Linear Supply voltage: 10..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
Electric protections	Yes. Of polarity and short circuit.

Construction features	
Type of sensor	Ceramic
Process threads DIN-3852-E	1/2 BSP. Others on request: 3/8, 1/4 BSP. 1/2, 3/8 and 1/4 NPT
Possibility of remote seal	Yes. See program of separators seals.
External body material	Stainless steel
Degree protection	IP68 (EN60529)
Electrical connection	By special wire (3x0,34 mm^2), double sealing chamber and reference tube to outside atmospheric pressure balance.
Temperature	-5..+90 ºC (Enverioment). -10..+80 ºC (Storage)
Weight	< 300 gr.
Approval	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)	0,012	-	0,018
Operating temperature ºC	- 25		+ 125
Response time		< 10 ms	
Isolation voltage between the capsule and any terminal		> 2 KV	

Operating scales (mBar)

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

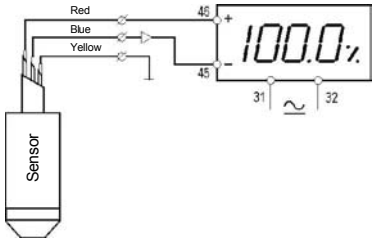
Cable Features	The wire consists of three tinned copper conductors plus a nylon tube and a stainless steel portor flexible, all wired and shielded with aluminum-polyester tape and tinned copper drain wire and PVC outer jacket, ready for immersion in water, even salt. Wire free of dangerous products.
Outer section (approx.)	9 mm
Color outer sheath	Blue - Ral: 5015
Cover material	Acrilic PVC TM5 as rule UNE 21031/13
Tube atms compensation.	Nylon 1x2
Electric conductors	3x0,34 mm^2 (UNE 21064)
Cable steel portor	1 mm
Breaking load	110 Kg.
Approximate weight	100 gr/m
Electrical resistance conductor 20 °C	59 Ω/Km
Color code	Red, yellow and blue
Process temperature	-5..+70 ºC
Wire handling	As the wire fundamental to the proper functioning of submersible level transmitter, you should take special care in handling, avoiding it during installation can be a cut or tear in the outer shell. This circumstance would allow liquid penertración inutilizándose completely inside the level transmitter. In the event that the wire will have to be interconnected with another conductor, the connection is made via a shunt box located on the outside of the measuring installation (therefore be discarded any interconnection within the medium). The plastic tube located inside the hose should not obstruct, since the transmitter takes the atmospheric reference level through it and will have special cuidadoque its interior there is no possibility of entry of moisture, liquid or any similarly as it would severely damage the level transmitter.

Protections	As these hydrostatic pressure transmitters accidentally subjected to damage by environmental effects (lightning...), on the situation in the field is highly desirable placement of elements of protection against these effects.

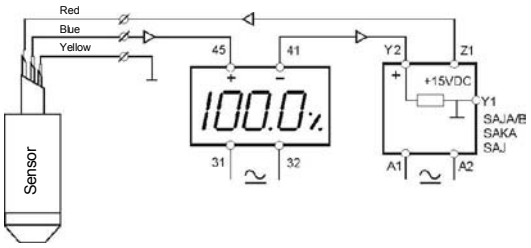
General conditions of Installation	Before installing the transmitter shall be verified that all materials will be in contact with the process are compatible to avoid destruction. The presence of air chambers between the sensor and process fluid applications result in a malfunction of the transmitter (non-linearity, erroneous readings...). To extend the wiring outside the medium was used two-conductor cable, thereby avoiding placing it in locations that exist inductive character dispersions because their effects may damage the electronic elements of the transmitter. In some cases it is advisable to use shielded cable connecting the grounding braid. As the ceramic sensor transmitter is very fragile tendráespecial care in handling and should not ever be subjected to a higher pressure which determines its characteristics because the ceramic sensor would deteriorate (water hammer overpressures point for unwanted effects, etc.).

Connection and application exemples

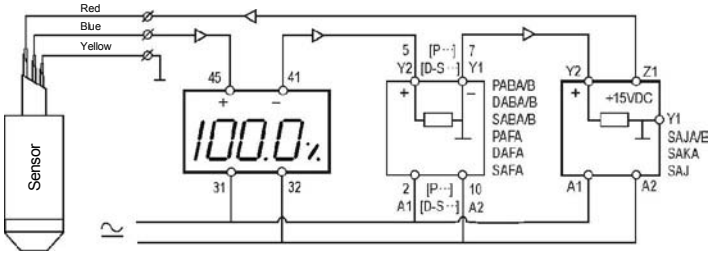
Only visualization



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 RELAYS FOR A 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 asociate independent release adjustables. Visualization to asociate magnitude to loop current.
Loop 4-20 mA	15 VDC	15 VDC	15 VDC
Sensibility	-	-	Adjustable in to relay.

Digital indicator

IPD

· Instrument for digital indication.
· Three set points.
· 96 x 50 x 70 mm (panel)
· Range 4-20 mA
· Loop supply: 16..25 VDC / 0..20 mA

Surge protector atm

PS4

It is designed for the protection of electronic elements which are fed by a maximum voltage of 35 VDC and subject to the effects of lightning, surge, etc.

Installation adapter

TPSM TB

· Adapter for the installation of any kind of pressure sensor to TPSM type.
· Process connection by top screw. Any size from 1/2" G.
· SS AISI316 (1.4401) or PVC.
· Cable length on request.

DISIBEINT ELECTRONIC SL
Segle XX, 91
E08032-Barcelona
T: +34 934 330 370
F: +34 934 354 532
www.disibeint.com
disibeint@disibeint.com