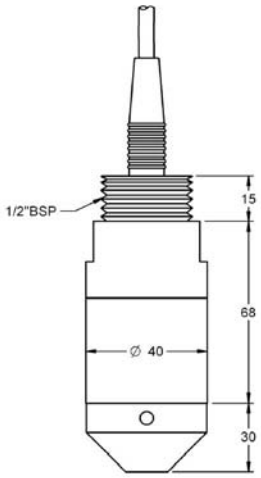
DISIBEINT

TPSM 51

PRESSURE TRANSMITTER SUBMERSIBLE FOR LOW PRESSURE



Materials in contact with the environment	Body	SS AISI316L (1.4404)
	Sensor	Ceramic of aluminum oxide (AL_2O_3 96%)
	Toric joint	Viton. On request: NBR, EPDM, PTFE...
	Protector cone	PVC
	Protector junction	Polyolefin
	Wire	PVC acrilic Polyethylene

Technical data	Pressures	Relatives
	Measurement ranges	From 0..50 to 0..200 mBar (ranges on request)
	Sensor resolution	From 0,012 to 0,018 % FE
	Combined error sensor	≤ 0,2 % FE (Hysteresis). ≤ 2,5 % FE (Linearity)
	Response time	Lower as 1 mseg.
	Output signal	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 - Linear Supply voltage: 15..35 VDC Maximum load resistance: Ra > 10 KΩ Others: On request
	Electrical protections	Yes. Of polarity, overvoltage and short-circuit.

Construction features	Type of sensor	Ceramic
	Protection degree	IP68. With permanent seal locked.
	Electrical connection	By special wire (3x0,34 mm^2), with double sealing chamber and reference tube to balance the outside atmospheric pressure.
	Temperature	-5..+70 ºC (Environment). -10..+80 ºC (Storage)
	Extenal diameter of probe	40 mm
	Weight	< 725 gr. With 3 m of wire
	Agreement	RoHS: Yes CE: 97/23/EG and 89/336/CE (EN61326)

Operating scales (mBar)

Range	50	60	70	80	100	125	150	200
Maximum pressure	200							
Breaking pressure	400							

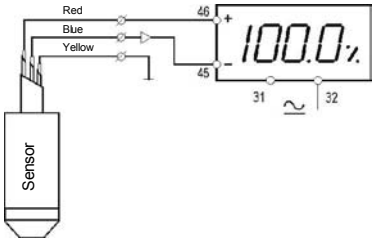
Wire features	The wire consists of three tinned copper conductors plus a nylon tube and a flexible steel catcher, all wired and shielded with aluminum-polyester tape and tinned copper drain wire and PVC outer jacket, ready to dive in water, even salt. Wire free of dangerous products.
External section (aprox.)	9 mm
Color of external cover	Blue - Ral: 5015
Cover material	PVC acrilic TM5 according to rule UNE 21031/13
Compensation tube atms.	Of nylon 1x2
Electric conductive	3x0,34 mm^2 (UNE 21064)
Wire steel portor	1 mm
Breaking load	110 Kg.
Approximate weight	100 gr/m
Electrical resistance of the conductor 20 °C	59 Ω/Km
Colors code	Red, yellow and blue
Process temperature	-5..+70 ºC
Wire handling	As the cable 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 cable 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 (atmospheric discharges...), on the situation in the field is highly desirable placement of elements of protection against these effects.

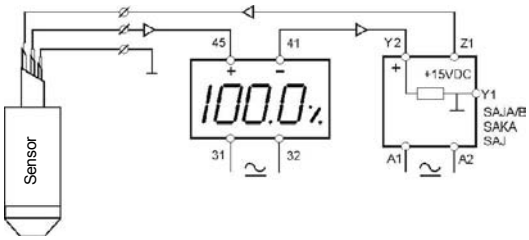
General conditions of Installation	Before installing the transmitter shall be verified that all materials will be in contact with the process are compatible to avoid destruction. The presence of air chambers between the sensor and process fluid applications result in a malfunction of the transmitter (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

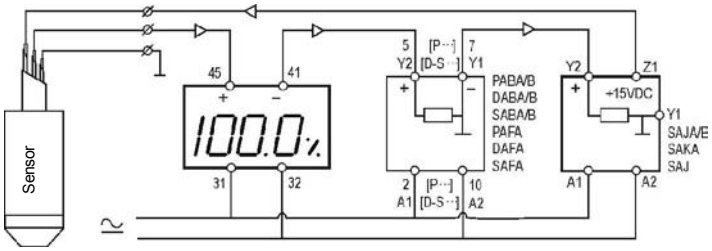
Only visualization



Sensor supply and 1 or 2 order points



Sensor supply and several models



Amplifiers for level sensors with 4-20 mA current loop

LEVEL RELAYS FOR PRESSURE SENSORS WITH 4-20 mA CURRENT LOOP

	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.

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