

Features

- Level transmitter
- Submersible sensor
- Nominal pressure:
from 0...1 mH₂O up to
0...10 mH₂O
- Output signals:
 - 2-wire: 4...20mA;
 - 0.5...4.5V
- Piezoresistive
stainless steel sensor
- Accuracy 0.5% span
according to
EN IEC 62828-2
- Suitable for media:
 - water, rain water
 - oil
 - fuel oil
 - liquids
 - sludge

RS PRO Submersible Level Sensors

RS Stock No.: 0727512, 0727513, 0727514, 0727515,
0727516, 0727517, 0726440, 0726441, 0726442,
0726444

PVC & FEP	
PUR	

RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

Product Description

The level sensor measures liquid levels, basing on a simple relationship between the height of the liquid column and the resulting hydrostatic pressure.

The pressure measurement is carried out on the level of the separating diaphragm of the immersed probe and is related to atmospheric pressure through a capillary in the cable.

The active sensing element is a piezoresistive sensor separated from the medium by an isolating diaphragm.

The electronic amplifier, which works in combination with the sensor, and is meant to standardize the signal, is additionally equipped with an overvoltage protection circuit, which protects the probe from damage caused by induced interference from atmospheric discharges or from associated heavy current engineering appliances.

- level measurement in water and fuel oil tanks
- static tank level
- container or chamber level
- vehicle tank level
- IBC, IBC Tote or Pallet Tank
- rainwater harvesting

General Specifications

Sensor Type	piezoresistive stainless steel sensor
Pressure Reading Range	0,1Bar to 1Bar, 1mH ₂ O to 10mH ₂ O
Accuracy	±0.5% FS
Thermal error	≤ ± 0.3 % span / 10K in compensated range 0 ... 70°C
Repeatability	< ± 0.01mH ₂ O
Linearity Error	≤ 0.5 %
Output Type	Voltage / Current / NPN / PNP / Relay
Pressure Setting Range	-1bar to 20bar
Media Measured	Water / Oil / Hydraulic / Fluid / Liquid
Response Time	2-wire: ≤ 10 msec, 3-wire: ≤ 3 msec
Overpressure Resistance	1 Bar for range 1...4mH ₂ O, 3 Bar for range 4,1...10 mH ₂ O
Burst Pressure	1,5 Bar for range 1...4mH ₂ O, 5 Bar for range 4,1...10 mH ₂ O
IP protection	IP68
Signal	4..20mA, 3-wire ratiometric: 10...90 % of VS / VS = 2.7...5 VDC
Cable (diameter)	PVC (5mm), PUR (7mm), FEP (7,5mm)
Cable Length	3m / 5m / 6m / 7m / 10m / 15m

Electrical Specifications

Supply Voltage	2-wire: 4 ... 20 mA / VS = 8 ... 32 VDC 3-wire ratiometric: 10...90 % of VS / VS = 2.7...5 VDC
Output Signal	4 to 20mA / Two-Wire / 0.5V dc to 4.5 V dc / Three-Wire
Permissible load	2-wire: $R_{max} = [(VS - VS_{min}) / 0.02 A] W$ 3-wire: $R_{min} = 10 kW$
Current consumption	2-wire: max. 25 mA, 3-wire ratiometric: typ. 1.5 mA
Influence effect	supply: 0.05 % span / 10 V load: 0.05 % span / kohms
Long term stability	$\leq \pm 0.2$ % span / year at reference conditions
Reverse Voltage Protection	Yes, no damage, but also no function
Short-Circuit Resistance	2-wire permanent, 3-wire ratiometric: none
Ingress protection	IP 68
CE-conformity	EMC Directive: 2014/30/EU
Electromagnetic compatibility	Emission and immunity according to EN 61326
Electrical Connection	Weatherproof cable
Electrical connections	cable colours (DIN 47100)
Supply +	wh (white)
Supply -	bn (brown)
Signal + (only for 3-wire)	gn (green)
Shield	gn/ye (green / yellow)

Mechanical Specifications

Housing Material	Stainless Steel 1.4301 (304)
Type of Seal	FKM
Diaphragm Material	stainless steel 1.4435 (316 L)
Dimensions	69,50mm + length of cable
Diameter	24mm
Weight	approx. 150 g (without cable), cable: 25 g / m
Suitable for media	Water / Oil / Hydraulic / Fluid / Liquid / Fuel oil

Operation Environment Specifications

Admissible Air Humidity	100 % (Operation) and 90 % (Storage)
Operating Temperature Range	medium / electronics / environment -10 ... 70 °C
Storage Temperature Range	-10 ... 70 °C
Compensated temperature range	0 to 70°C
Shock	100 g / 1 msec according to DIN EN 60068-2-27
Vibration	10 g, 25 Hz ... 2 kHz according to DIN EN 60068-2-6
Electromagnetic compatibility	Emission and immunity according to EN 61326
Operating altitude	< 3,000 m or 10,000 ft

Protection Category

IP Rating	IP68
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Approvals

Compliance/Certifications	CE, UKCA, RoHS, REACH
Hazardous Area Certification	No

Series

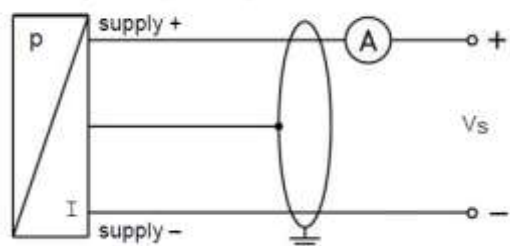
Parameters				
Brand	RS PRO	RS PRO	RS PRO	RS PRO
RS PRO No.	0727512	0727513	0727514	0727515
Pressure Reading Range	1 mH ₂ O	2,5 mH ₂ O	5 mH ₂ O	8 mH ₂ O
Output signal	4...20mA	4...20mA	4...20mA	4...20mA
Cable length	3 meters	5 meters	7 meters	10
Cable	FEP	FEP	FEP	FEP

Parameters				
Brand	RS PRO	RS PRO	RS PRO	RS PRO
RS PRO No.	0727516	0727517	0726440	0726441
Pressure Reading Range	1 mH ₂ O	2,5 mH ₂ O	2,5 mH ₂ O	5 mH ₂ O
Output signal	4...20mA	4...20mA	0.5...4.5 V DC	4...20mA
Cable length	3 meters	6 meters	5 meters	7 meters
Cable	PVC	PVC	FEP	PUR

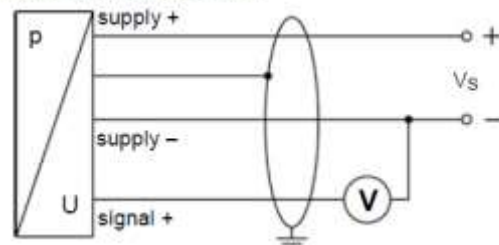
Parameters			
Brand	RS PRO	RS PRO	RS PRO
RS PRO No.	0726442	0726444	0726441
Pressure Reading Range	10 mH ₂ O	2,5 mH ₂ O	5 mH ₂ O
Output signal	4...20mA	4...20mA	4...20mA
Cable length	15 meters	5 meters	7 meters
Cable	PUR	PUR	PUR

Wiring Diagram

2-wire-system (current)



3-wire-system (voltage)



Dimension Drawings

