

HYDROSTATIC PRESSURE TRANSDUCER E153-01

for submersible measurement



- Corrosion resistant stainless steel design 1.4571
- Protection type IP 68 (up to 100 m depth)
- PUR sheathed cable with inner ventilation (flexible)
- tensile strength of the cable up to 1000 N

Applications:

- Potable water wells
- Bore holes
- Waste water plants
- Containers
- Flow water
- Biodiesel, fuel oil (model with PTFE-cable)

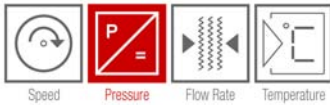
The pressure sensor for submersible measurement has been developed especially for the use in liquids for hydrostatic level measurement.

Due to the material stainless steel the sensor is suitable for the food industry without any restrictions. For measuring tasks in aggressive media as well as food industry a special version with PTFE-cable is available.

A hermetically sealed stainless steel case with a protection type IP 68 allows the pressure sensor to be immersed down to a depth of 100 m.

The inner vented connection cable enables pressure compensation of the measuring cell against the atmosphere and thus hydrostatic pressure measurement.

The mechanical fastening of the pressure sensor does not require any additional strain relief, as the construction of the cable is suitable to take a maximum tensile force of 1000 N.

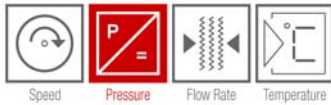


Technical data

PRESSURE TYPE	positive gauge pressure
MEASUREMENT RANGE	0,1; 0,25; 0,6; 1; 10 bar
OUTPUT SIGNAL	4 - 20 mA, 2-wire
ACCURACY	0,25 % of F.S.
POWER SUPPLY	10 ... 30 V DC
REPEATABILITY	$\leq \pm 0,05$ % of F.S.
STABILITY (ANNUAL)	$\leq \pm 0,2$ % of F.S. in rated conditions
PRESSURE CONNECTION	G 1/2 B with protection cap
ELECTRICAL CONNECTION	PUR-cable with inner ventilation; NL = 10 m (standard), tensile strength 1000 N
OVERLOAD LIMIT	≤ 1 bar, 5x; ≤ 4 bar, 4x; ≤ 10 bar, 3,5x
TEMPERATURE COMPENSATED RANGE	0 ... + 50°C
TEMPERATURE INFLUENCE MEDIUM TK	$\pm 0,2$ % /10 K, on zero and span (0,4 % for measuring range 0,1 bar)
RESPONSE TIME	≤ 1 ms (within 10% to 90% of F.S.)
EMISSION	acc. to EN 61326
INTERFERENCE	acc. to EN 61326
PROTECTION TYPE	IP 68
ELECTRICAL PROTECTION TYPE	Polarity, overload and short circuit protection
MATERIAL	Case: stainless steel 1.4571 Protection cap: PA
TEMPERATURBEREICHE	Storage: - 30 ... 80°C Medium: - 10 ... 50°C (- 10 ... 85°C with PTFE-cable, option S35)
WEIGHT	Sensor: ca. 0,2 kg Cable: ca. 0,08 kg/m of F.S. = of full scale value

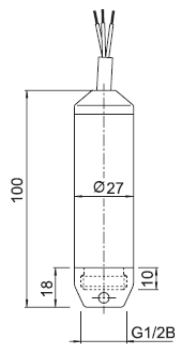
Options

S1	0 - 20 mA, 3-wire (Minimum order quantity: 10 pcs)
S4	0 - 10 V, 3-wire; Power consumption: 8 mA; Output: 14 ... 30 V DC; load ≥ 100 K Ohm (Minimum order quantity: 10 pcs)
S30	Cable clip
S31	Junction box IP 54
S34	Filter element for capillary tube
S35	PTFE-cable; NL = 2,5 m (standard) for food industry and aggressive media, e.g. biodiesel (Minimum order quantity: 10 pcs)

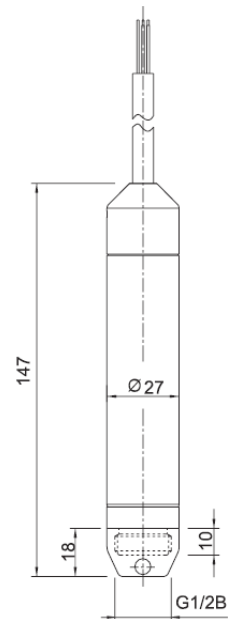


Dimension illustration

E153-01 with PUR-cable

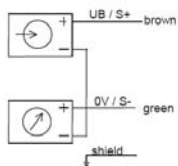


E153-01 S35 with PTFE-cable

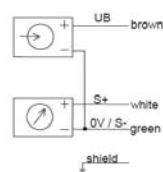


Electrical connection

2-wire with cable outlet



2-wire with cable outlet



Connection table for cable outlet

	E153-01 4 - 20 mA, 2-WIRE	E153-01 S1 0 - 20 mA, 3-WIRE	E153-01 S4 0 - 10 V, 3-WIRE
POWER SUPPLY: UB+	brown	brown	brown
POWER SUPPLY: 0V	green	green	green
SIGNAL: S+	-	white	white
SIGNAL: S-	-	green	green
SHIELD	blue	blue	blue

