

Stainless Steel Pressure Transmitter for Level Measuring

Type UPA2-DMP 457-GL

Industrial Pressure Transmitter for Navigation- and Offshore-Applications

The pressure transmitter UPA2-DMP 457-GL was designed for use in applications with high requirements respectively environmental resilience, mechanical shock and vibrations or dynamic stress. Among the high accuracy the pressure transmitter distinguish on the excellent long term stability.

Features

- Stainless steel sensor (1.4571 resp. 1.4401)
- Pressure port: inch- and NPT-thread
- Pressure ranges 0 ... 100 mbar up to 0 ... 600 bar
- Accuracy acc. to IEC 60770 0,25% / 0,35% FSO
- Output signal 4 ... 20 mA / 2-wire
- excellent long term stability
- high resistance against electrical faults (caused by incorrect wiring, short-circuit and overvoltage)
- rugged and reliable, long operating life
- Optional: II 1 G EEx ia IIC T4 (TÜV 99 ATEX 1504 X)

Applications in navigation / offshore:

- Diesel engines
- Gears
- Compressors
- Pumps
- Boilers
- Elevators

Technical Data

Low Pressure Range [bar]

Nominal Press. PN rel	-1...0	0...0,1	0...0,25	0...0,4	0...0,6	0...1,0	0...1,6	0...2,5	0...4	0...6	0...10	0...16	0...25
Nominal Press. PN abs	-	-	-	-	0...0,6	0...1,0	0...1,6	0...2,5	0...4	0...6	0...10	0...16	0...25
Overpressure Pmax	3	1	1	1	3	3	6	6	20	20	20	60	100

High Pressure Range

Nominal Press. PN ¹⁾	0 ... 40	0 ... 60	0 ... 100	0 ... 160	0 ... 250	0 ... 400	0 ... 600
Overpressure P _{max}	140	140	340	340	600	600	1000

Supply Voltage	12 ... 36 V DC, Optional Ex-protection: 12 ... 28 V DC
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Output Signal	Standard: 2-wire, current: 4 ... 20 mA
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Performance	Accuracy according to IEC 60770 - Limit Point Adjustment (Nonlinearity, Hysteresis, Repeatability): Standard: $\leq \pm 0,35\%$ FSO ²⁾ , Optional: $\leq \pm 0,25\%$ FSO ³⁾ Permissible Load [Ω] Current 2-wire: [UB (V) - 12V] / 0,02 A Influence effects Supply: $\leq \pm 0,05\%$ FSO / 10 V Load: $\leq \pm 0,05\%$ FSO / kΩ Long Term Stability $\leq \pm 0,2\%$ FSO / Year
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Option Ex-protection	(II 1 G EEx ia CII T4) Safety relevant data: Ui = 28 V; li = 93 mA; Pi = 660 mW
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Thermal Effects	
Nominal Press. PN [bar]	-1...0 0...0,1 0...0,25 0...0,4 0...0,6 0...1,0 0...1,6 0...2,5 0...4 0...6 0...10 0...16 0...25
Tol. band [±% FSO] ⁴⁾ im	<0,75 <2,0 <1,5 <1,0 <1,0 <0,75 <0,75 <0,75 <0,75 <0,75 <0,75 <0,75 <0,75
Compens. Range [°C]	0...70 0...50 0...50 0...70 0...70 0...70 0...70 0...70 0...70 0...70 0...70 0...70 0...70
High Pressure Range	(P _N ≥ 40 bar) ≤ 1% FSO

Temperature Ranges [°C]	
Medium	-25 ... 125
Electronic/Environment	-25 ... 85
Storage	-40 ... 125

Ingress Protection	
Standard IP65	GL-qualified male and female plug DIN 43650, Optional IP67: Cable gland with 2 m cable

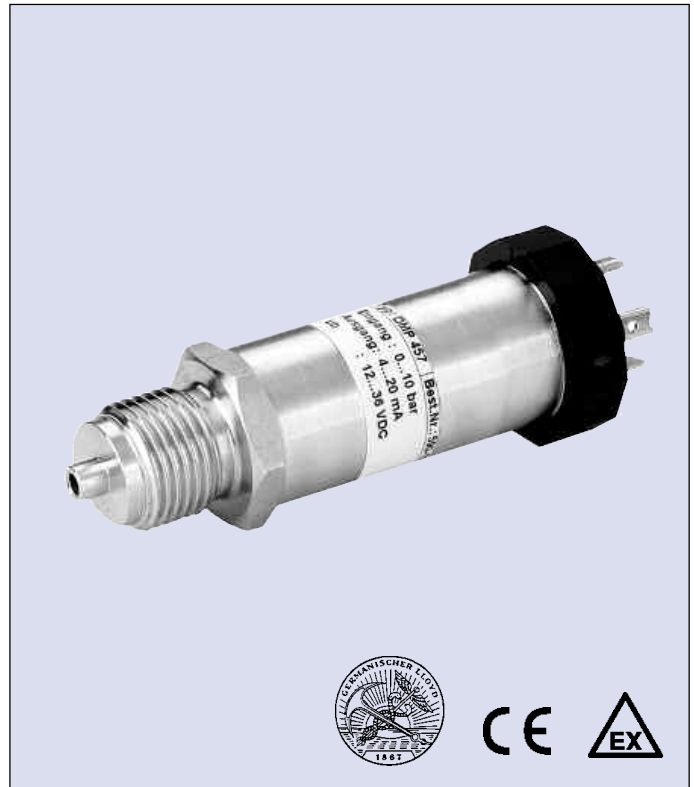
Mechanical Connection	
Standard	G ½ DIN EN 837-1/-3 (DIN 16288), Optional G ½ " NPT, G ½ DIN 3852 flush diaphragm

¹⁾ measurement starts with ambient pressure,

²⁾ Nominal pressure P_N 0,1 ... 0,4 bar: $\leq \pm 0,50\%$ FSO

³⁾ Nominal pressure P_N >0,4 bar

⁴⁾ Tolerance band for offset and span



Type UPA2-DMP 457-GL

Materials

Housing + Press. Port	Stainless steel 1.4571
Diaphragm	Stainless steel 1.4404
Seals	Standard: Viton (FKM), Optional: welded version (G 1/2, EN 837-1/-3)

Miscellaneous

Current Consumption	Signal output current <30 mA
Weight	appr. 120 g
Mounting Position	any ¹⁾
Operational Life	>100 x 10 ⁶ cycles

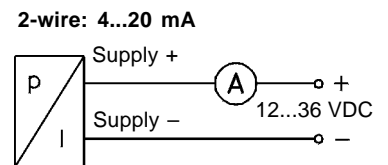
¹⁾ Transmitters are calibrated in vertical position, thread port showing down. Changing installation position may cause a slight offset shift with pressure ranges ≤1 bar.

02/02 PGS-ED 02/2

Connection chart

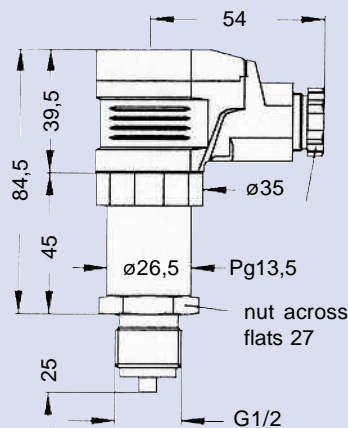
2-wire system:	DIN 43650 (GL)	Cable gland with 2 m cable
Supply +	1	white
Supply -	2	brown
Ground	Ground pin	Cable shield

Electrical connection

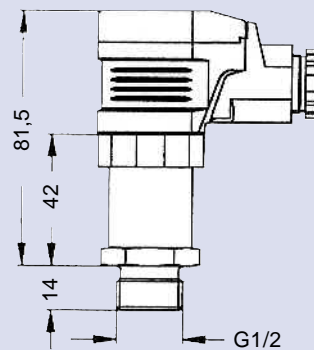


Dimensions (in mm)

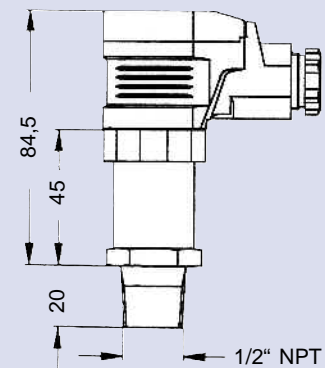
Standard G1/2 EN 837-1/-3



Option G1/2 flush diaphragm



Option 1/2" NPT



Barksdale Level Probes

Order number example

Type	Series	Unit	Measuring range	Output signal	Accuracy	Electrical connection	Mechanical connection	Sealing
UPA2	DMP 457-GL	590	1000	1	2	1	N	2

Your order number

UPA2	DMP 457-GL							
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Specifications are subject to changes without notice.

Unit	Meas. range [bar.....mm]	Meas. range [bar.....mm]	Output signal	Accuracy	Electrical connection	Mechanical connection	Sealing
(590) relative	0,1 1000 0,25 ...2500 0,44000	16 1602 25 2502 40 4002	(1) 4... 20 mA 2-wire	(3) 0,35% Standard	(1) Plug DIN 43650 (GL-qualified)	(2) G ½ DIN EN 837-1/-3 (DIN 16288)	(1) Viton (FMK) / NBR (at PN ≥40 bar)
(591) absolute	0,66000 1,01001 1,61601 2,52501 4,04001 6,06001 101002	60 6002 100 1003 160 1603 250 2503 400 4003 600 6003 1...0 ... X102	(E) 4... 20 mA 2-wire Ex-protection II 1 G EExia IIC T4	(5) Option 0,5% (at PN ≤ 0,4 bar) (2) Option 0,25% (at PN > 0,4 bar)	(4) Cable gland with 2 m cable	(N) ½ " NPT (F) G ½ DIN 3852 flush diaphragm	(2) without, welded version (only G½ EN837-1/3)