Pressure transmitterses

Pressure transmitters

Trafag pressure transmitters are used for electronically measuring and evaluating pressure. Over the decades they have proven themselves in a multitude of demanding applications in harsh environments. They are available in many different designs to suit pressure and electrical connections, measuring procedures, electrical output signals and certifications (CE, EX, rail and ship). Superior technology and precise manufacturing ensure that the transmitters work perfectly. This is especially important in applications where high requirements are placed on long-term stability, vibration resistance, electromagnetic compatibility, shock resistance or temperature insensitivity.

Technology

Thin-film-on-steel (welded and O-ring free) or thick-film-on-ceramic pressure sensors are key components of Trafag pressure transmitters. Both sensor technologies as well as the ASIC (application-specific microchip) are developed and produced in-house. As a result, compact pressure sensors and electronics work in perfect partnership and achieve a unique level of long-term stability and reliability even under the most adverse environmental conditions. Trafag is a technological pioneer when it comes to miniaturising robust pressure transmitters.

Thin-film-on-steel technology

- Very good long term stability
- Resistant to high media temperatures
- Completely welded stainless steel sensor system without O-rings
- Resistant to very high over pressures and ideal for nominal pressures up to 3000 bar

Thick-film-on-ceramic technology

- Resistant to aggressive media
- Ideal for low pressure ranges and absolute measurement
- Economical

Overview Pressure transmitter

	NAT 8252	NAH 8253	NAH 8254	NAE 8256	NSL 8257	
	page 22	page 30	page 26	page 29	page 25	
						
Measuring principle	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel	
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 10 to 0 ... 600 bar 0 ... 150 to 0 ... 7500 psi	0 ... 0.2 to 0 ... 2.5 bar 0 ... 3 to 0 ... 30 psi	
Output signal	4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric, Switching output: 1 or 2 PNP transistors	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric	4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric, Switching output: 1 or 2 PNP transistors	4 ... 20 mA	4 ... 20 mA, 0 ... 5 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric	
Accuracy @ 25°C typ.	± 0.5 % FS typ.	± 0.3 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.	± 0.3 % FS typ.	0.5 %: ± 0.5 % FS typ. 0.3 %: ± 0.3 % FS typ.	0.15 ... 0.8 % FS typ.	
Ambient temperature	–40°C ... +125°C	-40°C ... +125°C	–40°C ... +125°C	–40°C ... +125°C	-40°C ... +125°C	
Media temperature	–40°C ... +125°C	-40°C ... +125°C	–40°C ... +125°C	–40°C ... +125°C	-40°C ... +125°C	
Protection	IP65, IP67	Min. IP65	IP65, IP67	IP65, IP67	Min. IP65	
Sensor (wetted parts)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	
Pressure connection (wetted parts)	1.4542 (AISI630)	1.4542 (AISI630) 1.4301 (AISI304)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	
Housing	1.4301 (AISI304)	1.4301 (AISI304)	1.4301 (AISI304)	1.4301 (AISI304)	1.4301 (AISI304)	
Pressure connections	G1/4" m, 1/4"NPT m, 7/16"-20UNF SAE J512 f, 7/16"-20UNF SAE4 m, R1/4" m, R1/8" m, M10x1 m, M12x1.5 m (DIN EN ISO 9974-2)	G1/4" m, 1/4"NPT m, 7/16"-20UNF m, 7/16"-20UNF f (valve opener)	G1/4" m, 1/4"NPT m, 7/16"-20UNF SAE J512 f, 7/16"-20UNF SAE4 m, R1/4" m, R1/8" m, M10x1 m, M12x1.5 m (DIN EN ISO 9974-2)	G1/4" m, 1/4"NPT m, M10x1 m	G1/4" m, 1/4"NPT m	
Electrical connections	Industrial standard, contact distance 9.4 mm; M12x1; Cable	Industrial standard, contact distance 9.4 mm; M12x1	Industrial standard, contact distance 9.4 mm; M12x1; cable IP67	Industrial standard, contact distance 9.4 mm; M12x1	Industrial standard, contact distance 9.4 mm; M12x1	
Applications	Machine tools Hydraulics HVAC Refrigeration Process technology Water treatment	Machine tools Hydraulics Railways Process technology Water treatment Test benches	Machine tools Hydraulics HVAC Refrigeration Process technology Water treatment	Shipbuilding Engine manufacturing Hydraulics	Shipbuilding Engine manufacturing Machine tools Process technology Water treatment Test benches	
Approval / conformity				ABS, BV, DNV, GL, LRS, KRS, NKK, RINA, RMRS	GL, DNV, RINA	
Data sheet	H72303	H72300	H72304	H72305	H72302	
Instructions	H73303	H73250	H73303	H73303	H73250	

	ECT 8472	ECT 0.3 % (0.5 %, 1.0 %) 8473	ECTR 8471	ECTN 8477	EPI 8287	EPN/EPNCR 8298
	page	page 18	page 21	page 42	page 32	page 36
						
	Thick film on ceramic	Thick film on ceramic	Thick film on ceramic	Thick film on ceramic	Thin film on steel	Thin film on steel
	0 ... 1 to 0 ... 400 bar 0 ... 15 to 0 ... 5000 psi	0 ... 0.1 to 0 ... 40 bar 0 ... 1.5 to 0 ... 500 psi	-1 ... 9 to 0 ... 40 bar 0 ... 15 to 0 ... 500 psi	0 ... 1 to 0 ... 400 bar 0 ... 15 to 0 ... 5000 psi	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 2.5 to 0 ... 2500 bar
	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	4 ... 20 mA	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC	4 ... 20 mA 0.5 ... 4.5 VDC ratiometric
	± 0.5 % FS typ.	± 0.3 % FS typ. (± 0.5 % FS typ., ± 1 % FS typ.)	± 0.5 % FS typ.	± 0.5 % FS typ.	± 0.5 % FS typ.	± 0.5 % FS typ. ± 0.3 % FS typ.
	-25°C ... +85°C	-25°C ... +85°C	-25°C ... +85°C	-25°C ... +85°C	–40°C ... +125°C	-40°C ... +125°C
	-25°C ... +125°C	-25°C ... +125°C	-25°C ... +125°C	-25°C ... +85°C	–40°C ... +125°C	-40°C ... +125°C
	Min. IP65	Min. IP65	Min. IP65	Min. IP65	IP65	IP65, IP67, IP69K
	Ceramic, Al_2O_3 (96 %)	Ceramic, Al_2O_3 (96 %)	Ceramic, Al_2O_3 (96 %)	Ceramic, Al_2O_3 (96 %)	1.4542 (AISI630)	1.4542 (AISI630)
	1.4305 (AISI303 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4305 (AISI303) 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4305 (AISI303)	1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4542 (AISI630)	1.4542 (AISI630) 1.4301 (AISI304)
	1.4305 (AISI303 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4305 (AISI303) 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4305 (AISI303)	1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4542 (AISI630)	1.4301 (AISI304)
	G1/4" f, G1/4" m, G1/2" m DIN3852-A, G1/2" m DIN3852-E, 1/4"NPT m, 7/16"-20UNF m SAE4, R1/4" m ISO-7-1 (DIN2999) G3/4" frontal membrane	G1/4" f, G1/4" m, G1/2" m, 1/4"NPT m, G3/4" frontal membrane	7/16"-20UNF m, 7/16"-20UNF SAE J512 f, 1/4"NPT m	G1/4" f, G1/4" m, G1/2" m, 1/4"NPT m	G1/4" m, G1/4" f, G1/2" m, 1/4"NPT m	G1/4" m, R1/4" m, G1/2" m (Manom.), 1/4"NPT m, 1/2"NPT m, M14x1.5 m, M18x1.5 m
	EN175301-803-A (DIN43650-A); M12x1; Industrial standard, contact distance 9.4 mm; Packard Metri Pack; Cable	EN175301-803-A (DIN43650-A); M12x1; Industrial standard, contact distance 9.4 mm; Packard Metri Pack; Cable	EN175301-803-A (DIN43650-A); M12x1; Industrial standard, contact distance 9.4 mm; Packard Metri Pack; Cable	EN175301-803-A (DIN43650-A); M12x1; Industrial standard, contact distance 9.4 mm; Cable IP67; Cable IP68	Industrial standard, contact distance 9.4 mm; M12x1; Packard Metri Pack	EN175301-803-A (DIN43650-A); DIN72585; Cable
	Machine tools Hydraulics Water treatment	Machine tools Hydraulics Water treatment	HVAC Refrigeration	Shipbuilding Engine manufacturing	Machine tools Hydraulics Industrial applications	Shipbuilding Engine manufacturing Machine tools Hydraulics
				DNV, GL, KRS, RINA		ABS, BV, CCS, DNV, GL, KRS, LRS, NKK, RINA, RMRS
	H72324	H72326	H72323	H72322	H72317	H72312
	H73324	H73324	H73324	H73324	H73317	H73311

Overview electronic pressure switches

	EPN-S 8320	DPC 8380	DPS 8381	DCS 8864		
	page 40	page 54	page 56	page 58		
						
Measuring principle	Thin film on steel	Thick film on ceramic	Thin film on steel	Thin film on steel		
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 1 to 0 ... 100 bar 0 ... 15 to 0 ... 1500 psi adjustable 50 ... 100 % FS	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi adjustable 50 ... 100 % FS	0 ... 1 to 0 ... 600 bar		
Output signal	Transistor (open source)	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V	4 ... 20 mA, 0 ... 10 VDC 2 Relays, electrically isolated 30W (max.1A), 36 VAC/ DC		
Accuracy @ 25°C typ.	± 0.5 % FS typ. (Switchpoint)	± 0.5 % FS typ.	± 0.5 % FS typ.	± 0.5 % FS typ.		
Ambient temperature	Standard: -25°C ... +85°C Option: -40°C ... +125°C	-25°C ... +85°C	-25°C ... +85°C	-25°C ... +80°C (LCD display -10°C ... +70°C)		
Media temperature	-40°C ... +125°C	-25°C ... +85°C	-25°C ... +85°C	-25°C ... +125°C		
Protection	IP65 (IP67), IP69K	IP65	IP65	IP65		
Sensor (wetted parts)	1.4542 (AISI630)	Ceramic, Al_2O_3 (96 %)	1.4542 (AISI630)	1.4542 (AISI630)		
Pressure connection (wetted parts)	1.4542 (AISI630) 1.4301 (AISI304)	1.4305 (AISI303 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4542 (AISI630)	1.4542 (AISI630) 1.4404 (AISI316L)		
Housing	1.4301 (AISI304)	Steel, die cast metal galvanised display housing plastic	Steel, die cast metal galvanised display housing plastic	1.4301 (AISI304)		
Pressure connections	G1/4" m, 1/4"NPT m, G1/2" m, M14x1.5 m, 1/2"NPT m	G1/4" f, G1/4" m, G1/2" m DIN3852-E, 1/4"NPT m, R1/4" m ISO 7-1 (DIN 2999), 7/16"-20UNF m DIN 3866, 7/16"-20UNF f SAE J512 valve opener, 7/16"-20UNF f (SAE 4)	G1/4" m, R1/4" m, 1/4"NPT m, 1/2"NPT m	G1/4" m, G1/4" f, G1/2" m, Flange		
Electrical connections	EN175301-803-A (DIN43650-A); Cable	Male electrical plug M12x1, 5-pole; Male electrical plug M12x1, 4-pole	Male electrical plug M12x1, 5-pole; Male electrical plug M12x1, 4-pole	M12x1, 8-pole		
Applications	Shipbuilding Engine manufacturing Railways	Machine tools HVAC Refrigeration	Machine tools Hydraulics Process technology	Shipbuilding Machine tools Hydraulics		
Approval / conformity	GL			GL		
Data sheet	H72333	H72320	H72321	H72605		
Instructions	H73333	H73320	H73320	H73605		

Overview Pressure transmitter

	EPR 8293	NPN 8264	FPT 8235	CMP 8270	N 8202	ND 8204
	page 38	page 35	page 50	page 52	page 60	page 61
						
	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel
	0 ... 2.5 to 0 ... 600 bar	0 ... 2.5 to 0 ... 250 bar	0 ... 1 to 0 ... 100 bar 0 ... 15 to 0 ... 1500 psi	0 ... 1 to 0 ... 600 bar	0 ... 1.0 to 0 ... 600 bar	0 ... 1 to 0 ... 16 bar
	4 ... 20 mA	4 ... 20 mA	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	Bus protocol CANopen DS404	4 ... 20 mA	4 ... 20 mA (P1–P2)
	± 0.5 % FS typ. ± 0.3 % FS typ.	± 0.5 % FS typ. ± 0.3 % FS typ.	± 0.4 % FS	± 0.5 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.		
	-40°C ... +125°C	-40°C ... +100°C	-40°C ... +85°C	-40°C ... +125°C	-25°C ... +85°C	-25°C ... +85°C
	-40°C ... +125°C	-40°C ... +100°C	-40°C ... +125°C	-50°C ... +135°C	-25°C ... +125°C	-25°C ... +125°C
	IP65, IP67	IP65, IP69K	Min. IP65	Min. IP67	Min. IP65	Min. IP65
	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)
	1.4542 (AISI630) 1.4301 (AISI304)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630) 1.4301 (AISI304)	1.4542 (AISI630)	1.4542 (AISI630)
	1.4301 (AISI304) 1.4542 (AISI630)	1.4301 (AISI304)	1.4301 (AISI304)	1.4301 (AISI304)	AlSi10Mg/ Epoxy coated	AlSi10Mg/ Epoxy coated
	G1/4" m, R1/4" m, 1/4"NPT m, 1/2"NPT m	G1/4" f, M10x1 f, G1/8" f	G1/2" m, flush membrane	G1/4" m, 1/4"NPT m, 7/16"-20UNF m, 7/16"-20UNF f (valve opener)	G1/4" f, G1/2" m	G1/4" f
	EN175301-803-A (DIN43650-A)	EN175301-803-A (DIN43650-A); Cable	EN175301-803-A (DIN43650-A); M12x1; Industrial standard, contact distance 9.4 mm; Packard Metri Pack; Cable	M12x1	Terminal screw 0.75 ... 2.5 mm²	Terminal screw 0.75 ... 2.5 mm²
	Railways	Shipbuilding Engine manufacturing	Engine manufacturing Machine tools	Engine manufacturing Railways	Shipbuilding Engine manufacturing	Shipbuilding Engine manufacturing
	EN50155 (Railways)	ABS, BV, CCS, DNV, GL, KRS, LRS, NKK, RINA, RMRS			ABS, BV, CCS, DNV, GL, KRS, LRS, RINA	BV, DNV, RINA
	H72311	H72313	H72316	H72614	H72206	H72218
	H73311	H73313	H73316	H73614	H70722	H73218

Overview Ex Pressure transmitters

	EXNT 8292	EXNA 8854	EXL 8432	EXNAL 8858	
	page 64	page 62	page 66	page 63	
					
Measuring principle	Thin film on steel	Piezoresistive	Thick film on ceramic	Piezoresistive	
Measuring range	0 ... 0.4 to 0 ... 2000 bar	0 ... 0.1 to 0 ... 1000 bar	0 ... 0.2 to 0 ... 10 bar	0 ... 0.1 to 0 ... 25 bar	
Output signal	4 ... 20 mA	4 ... 20 mA	4 ... 20 mA	4 ... 20 mA	
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.		± 0.3 % FS typ. ± 0.5 % FS typ.		
Ambient temperature	Max. –40°C ... +120°C	-40°C ... +125°C	-20°C ... +70°C	-5°C ... +50°C	
Media temperature	Max. –40°C ... +120°C	-40°C ... +150°C	-20°C ... +70°C	-5°C ... +50°C	
Protection	IP65, IP67	Min. IP65	IP68 (25 bar; 250m)	Min. IP68	
Sensor (wetted parts)	1.4542 (AISI630), optional hydrogen-compatible steel	1.4435 (AISI316L) or titanium	Ceramic, Al_2O_3 (96 %)	1.4435 (AISI316L)	
Pressure connection (wetted parts)	1.4542 (AISI630) 1.4301 (AISI304) optional hydrogen-compatible steel	1.4435 (AISI316L) or titanium	1.4404/1.4435 (AISI316L)	1.4435 (AISI316L) or titanium	
Housing	1.4301 (AISI304)	1.4435 (AISI316L) or titanium	1.4404/1.4435 (AISI316L)	1.4435 (AISI316L) or titanium	
Pressure connections	G1/4" m, G1/4" f, G1/2" m, G1/2" m (Manom.), R1/4" m, 1/4"NPT m, M18x1.5 m	1/4" NPT m, 1/2"NPT m, G1/4" f, G1/4" m, G1/2" m, G1/2" m frontal membrane, G1/2" m flush membrane	Type 1 f, M 10x1, Type 2 m, M 22x1	Open; Closed; G1/4" m	
Electrical connections	EN175301-803-A; M12x1; MIL-C 26482; Binder 723; Cable	EN175301-803-A; M12x1; MIL-C 26482; Binder 723; Cable	Cable PUR/FEP/PE	Cable PUR/Teflon/PE	
Applications	Shipbuilding Ex Zones 0, 1, 2 (gas); 20, 21, 22 (dust) and mining Hydrogen	Ex Zone 0, 1, 2 / Gas Ex Zone 20, 21, 22 / Dust Ex Underground Mining	Ex Zone 0, 1, 2 / Gas Ex Underground Mining	Shipbuilding Ex SEV 11 ATEX 0145 X	
Approval / conformity	GL, KRS ATEX / IECEx, according to the norm EN/IEC 60079-0/EN 60079-11/ EN 60079-26/ EN 50303	Ex according to standards, IEC/EN 60079-0 /-11/-26, EN 50303	GL, KRS Ex ATEX/IECEx, EN 60079-0/ EN 60079-11/EN 60079-26/ EN 50303	GL, KRS	
Type of protection		Ⓔx II 1G Ex ia IIC T3 ... T6 Ga II 1D Ex ia IIIC IP6x T145 ... T70°C I M1 Ex ia I		Ⓔx Ex ia IIC T3 ... T6	
Data sheet	H72329	H72334	H72330	H72231	
Instructions	H73329		H73329		

Overview Submersible pressure transmitters

	ECL 8438	ECL 8439	NAL 8838	
	page 48	page 46	page 45	
				
	Thick film on ceramic	Thick film on ceramic	Piezoresistive	
	0 ... 0.1 to 0 ... 10 bar	0 ... 0.1 to 0 ... 2.0 bar 0 ... 1.5 to 0 ... 30 psi	0 ... 0.1 to 0 ... 25 bar	
	4 ... 20 mA	4 ... 20 mA	4 ... 20 mA 0 ... 10 VDC	
	± 0.3 % FS typ. ± 0.5 % FS typ.	± 0.3 % FS typ. ± 0.5 % FS typ.		
	-25°C ... +80°C (+70°C)	-10°C ... +70°C	-5°C ... +50°C	
	-25°C ... +80°C (+70°C)	-10°C ... +70°C	-5°C ... +50°C	
	IP68 (25 bar; 250m)	IP68 (2.0 bar; 20m)	Min. IP68	
	Ceramic, Al_2O_3 (96 %)	Ceramic, Al_2O_3 (96%)	1.4435 (AISI316L)	
	1.4404/1.4435 (AISI316L)	1.4404 (AISI316L) or 1.4462 (AISI318LN)	1.4435 (AISI316L) or titanium	
	1.4404/1.4435 (AISI316L)	1.4404 (AISI316L) or 1.4462 (AISI318LN)	1.4435 (AISI316L) or titanium	
	Type 1 f, M 10x1, Type 2 m, M 22x1		Open, Closed, G1/4" m	
	Cable PUR/FEP/PE	Cable PUR/Radox/PE	Cable PUR/Teflon/PE	
	Shipbuilding Process technology Water treatment	Process technology Water treatment (wastewater, grey-water, drinking water)	Shipbuilding Process technology	
	GL, KRS		GL, KRS	
	H72328	H72336	H72228	
	H73328	H73336		

ECT 8472

Industrial Pressure Transmitter

Features

- Economical
- Good media compatibility
- Relative or absolute pressure measurement
- Titanium version optional

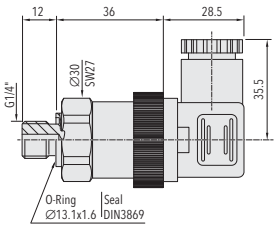
Technical Data			
Measuring principle	Thick film on ceramic	Accuracy @ 25°C typ.	± 0.5 % FS typ.
Measuring range	0 ... 1 to 0 ... 400 bar 0 ... 15 to 0 ... 5000 psi	Media temperature	-25°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	Ambient temperature	-25°C ... +85°C (Cable PVC 22: -5°C ... +60°C)

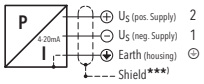
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Supply [VDC]
ECT1.0A	8472 71 5717 05 0000 0000 19 58 61	0 ... 1	3.2	4 ... 20 mA	9 ... 30
ECT2.5A	8472 75 5717 05 0000 0000 19 58 61	0 ... 2.5	5	4 ... 20 mA	9 ... 30
ECT6.0A	8472 77 5717 05 0000 0000 19 58 61	0 ... 6	12	4 ... 20 mA	9 ... 30
ECT10.0A	8472 78 5717 05 0000 0000 19 58 61	0 ... 10	20	4 ... 20 mA	9 ... 30
ECT16.0A	8472 79 5717 05 0000 0000 19 58 61	0 ... 16	32	4 ... 20 mA	9 ... 30
ECT25.0A	8472 80 5717 05 0000 0000 19 58 61	0 ... 25	50	4 ... 20 mA	9 ... 30
ECT40.0A	8472 81 5717 05 0000 0000 19 58 61	0 ... 40	80	4 ... 20 mA	9 ... 30
ECT1.0V	8472 71 5717 05 0000 0000 17 58 61	0 ... 1	3.2	0 ... 10 VDC	15 ... 30
ECT2.5V	8472 75 5717 05 0000 0000 17 58 61	0 ... 2.5	5	0 ... 10 VDC	15 ... 30
ECT6.0V	8472 77 5717 05 0000 0000 17 58 61	0 ... 6	12	0 ... 10 VDC	15 ... 30
ECT10.0V	8472 78 5717 05 0000 0000 17 58 61	0 ... 10	20	0 ... 10 VDC	15 ... 30
ECT16.0V	8472 79 5717 05 0000 0000 17 58 61	0 ... 16	32	0 ... 10 VDC	15 ... 30
ECT25.0V	8472 80 5717 05 0000 0000 17 58 61	0 ... 25	50	0 ... 10 VDC	15 ... 30
ECT40.0V	8472 81 5717 05 0000 0000 17 58 61	0 ... 40	80	0 ... 10 VDC	15 ... 30

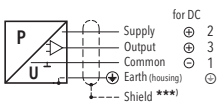
Pressure peak damping element: see 'Accessories' or data sheet H72258

Dimensions see data sheet





ECT ... A (4 ... 20 mA)



ECT ... V (0 ... 10 V)

Data sheet H72324
Instructions H73324

Ordering information/type code

8472 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 1.0	2	3	**71**	0 ... 15	30	40	**G1**
0 ... 1.6	3.2	4.8	**73**	0 ... 20	45	70	**G3**
0 ... 2.5	5	7.5	**75**	0 ... 30	60	90	**G5**
0 ... 4	8	12	**76**	0 ... 50	100	150	**G6**
0 ... 6	12	15	**77**	0 ... 100	200	250	**G7**
0 ... 10	20	25	**78**	0 ... 150	300	375	**G8**
0 ... 16	32	40	**79**	0 ... 250	500	625	**G9**
0 ... 25	50	75	**80**	0 ... 400	800	1200	**H0**
0 ... 40	80	100	**81**	0 ... 500	1000	1250	**H1**
0 ... 60	120	180	**82**	0 ... 1000	2000	3000	**H2**
0 ... 100 [4]	200	300	**83**	0 ... 1500 [4]	3000	4500	**H3**
0 ... 160 [4]	320	480	**85**	0 ... 2000 [4]	4000	6000	**H5**
0 ... 250 [4]	500	750	**74**	0 ... 3000 [4]	6000	9000	**G4**
0 ... 400 [2] [4]	800	1000	**84**	0 ... 5000 [2] [4]	10000	12500	**H4**

Sensor

Relative pressure, 1.4305	**57**	Absolute pressure, 1.4305 [3]	**87**
Relative pressure, 1.4404/1.4435 [4]	**59**	Absolute pressure, 1.4404/1.4435 [3] [4]	**89**
Relative pressure, 1.4462 [4]	**52**	Absolute pressure, 1.4462 [3] [4]	**82**
Relative pressure, titanium grade 5 [4]	**53**	Absolute pressure, titanium grade 5 [3] [4]	**83**

Pressure connection

G1/4" female	**10**	1/4" NPT male [4]	**30**
G1/4" male	**17**	7/16"-20UNF male SAE4 [4] [10]	**42**
G1/2" male DIN3852-A [4]	**21**	R1/4" male ISO-7-1 (DIN2999)	**19**
G1/2" male DIN3852-E [4]	**41**	G3/4" frontal membrane, max. nominal pressure 60 bar [4] [7]	**52**

Electrical connection

Male electrical plug EN 175301-803-A, Mat. PA	**05**	Male electrical plug industrial standard (contact distance 9.4 mm) Mat. PBT	**01**
Male electrical plug M12x1, 5-pole, Mat. PA	**35**	Cable IP67, Mat. PVC (cable gland PA6-3), -5°C ... +60°C [5] [6]	**22**
Male electrical plug Packard Metri Pack [9]	**51**	Cable IP68, max. 3m, medium +10°C...+35°C, Pmax. 1 bar rel./abs.	**68**

Output signal

Signal output	Load resistance	I (supply)	U (supply)		Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20 mA	(Usupply-9 V) / 20 mA		9 ... 30 VDC	**19**	0 ... 10 VDC	≥ 5.0 kΩ	≤ 10 mA	15 ... 30 VDC	**17**
0 ... 5 VDC	≥ 2.5 kΩ	≤ 10 mA	10 ... 30 VDC	**14**	0.5 ... 4.5 VDC ratiometric	≥ 5.0 kΩ	≤ 10 mA	5 VDC ± 0.25 VDC ratiom.	**23**
1 ... 6 VDC	≥ 5.0 kΩ	≤ 10 mA	10 ... 30 VDC	**16**					

Accessories

Seal FKM (-20°C ... +125°C)	**61**	Special electrical connection: Pin 1 out , Pin 2 -, Pin 3 + (only for output 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)	**98**
Seal CR ≤ 100 bar (-25°C ... +100°C) [8]	**62**	Special electrical connection: Pin 1 + , Pin 2 -, Pin 3 out (only for output signals 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)	**97**
Seal EPDM (-25°C ... +125°C)	**63**	Special electrical connection: Pin 1 + , Pin 3 - (only for output 4...20 mA and male electrical plug Packard Metri Pack 3-poles)	**E4**
Pressure peak damping element ø 1.0 mm (for pressure connections 17 and 30)	**40**	Special electrical connection: Pin 1 + , Pin 2 out Pin 3 - (only for output signals 14, 16, 17, 23 and male electrical plug Packard Metri Pack 3-poles)	**99**
Pressure peak damping element ø 0.3 mm (for pressure connections 17 and 30)	**43**	Cable length 1.5 m	**1M**
Pressure peak damping element ø 0.4 mm (for pressure connections 17 and 30)	**44**	Cable length 3.0 m	**3M**
Pressure peak damping element ø 0.5 mm (for pressure connections 17 and 30)	**45**	Cable length 5.0 m	**5M**
Female electrical connector EN 175301-803-A (DIN43650-A)	**58**		
Female electrical plug M12x1, 5-pole	**33**		
Female electrical connector industrial standard	**34**		
Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)	**92**		

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Media -10°C ... +125°C
[3] Absolute ranges max. 40 bar
[4] Please ask us
[5] Cable length see accessories
[6] More materials and cables with venting tubes for low pressure ranges upon request
[7] Not for sensors 57 and 87, only for pressure ranges ≤ 10 bar or 150 psi
[8] Only for pressure connections 10 and 30
[9] Pressure ranges > 16 bar (Pressure ranges ≤ 16 bar upon request)
[10] According to norm J1926, max. 35 MPa

ECT 0.3 % (0.5 %, 1.0 %) 8473

Industrial Pressure Transmitter

Features

- Economical
- Good media compatibility
- Relative or absolute pressure measurement
- Titanium version optional
- Frontal membrane optional

Technical Data			
Measuring principle	Thick film on ceramic	Accuracy @ 25°C typ.	± 0.3 % FS typ. (± 0.5 % FS typ., ± 1 % FS typ.)
Measuring range	0 ... 0.1 to 0 ... 40 bar 0 ... 1.5 to 0 ... 500 psi	Media temperature	-25°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	Ambient temperature	-25°C ... +85°C (Cable PVC 22: -5°C ... +60°C)

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Pressure connection	Signal output	Accuracy @ 25°C typ. [%]
ECT0.1A	8473 66 5417 05 0000 0000 19 58 61	0 ... 0.1	2	G1/4" male	4 ... 20 mA	1.0
ECT0.2A	8473 68 5417 05 0000 0000 19 58 61	0 ... 0.2	2	G1/4" male	4 ... 20 mA	0.5
ECT0.4A	8473 69 5417 05 0000 0000 19 58 61	0 ... 0.4	2	G1/4" male	4 ... 20 mA	0.5
ECT0.6A	8473 70 5417 05 0000 0000 19 58 61	0 ... 0.6	2	G1/4" male	4 ... 20 mA	0.3
ECT0.1V	8473 66 5417 05 0000 0000 17 58 61	0 ... 0.1	2	G1/4" male	0 ... 10 VDC	1.0
ECT0.2V	8473 68 5417 05 0000 0000 17 58 61	0 ... 0.2	2	G1/4" male	0 ... 10 VDC	0.5
ECT0.4V	8473 69 5417 05 0000 0000 17 58 61	0 ... 0.4	2	G1/4" male	0 ... 10 VDC	0.5
ECT0.6V	8473 70 5417 05 0000 0000 17 58 61	0 ... 0.6	2	G1/4" male	0 ... 10 VDC	0.3
ECTF0.1A	8473 66 5652 05 0000 0000 19 58 61	0 ... 0.1	2	G3/4" frontal membrane	4 ... 20 mA	1.0
ECTF0.2A	8473 68 5652 05 0000 0000 19 58 61	0 ... 0.2	2	G3/4" frontal membrane	4 ... 20 mA	0.5
ECTF0.4A	8473 69 5652 05 0000 0000 19 58 61	0 ... 0.4	2	G3/4" frontal membrane	4 ... 20 mA	0.5
ECTF0.6A	8473 70 5652 05 0000 0000 19 58 61	0 ... 0.6	2	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF1.0A	8473 71 5652 05 0000 0000 19 58 61	0 ... 1	2	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF1.6A	8473 73 5652 05 0000 0000 19 58 61	0 ... 1.6	3.2	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF2.5A	8473 75 5652 05 0000 0000 19 58 61	0 ... 2.5	5	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF4.0A	8473 76 5652 05 0000 0000 19 58 61	0 ... 4	8	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF6.0A	8473 77 5652 05 0000 0000 19 58 61	0 ... 6	12	G3/4" frontal membrane	4 ... 20 mA	0.3
ECTF10.0A	8473 78 5652 05 0000 0000 19 58 61	0 ... 10	20	G3/4" frontal membrane	4 ... 20 mA	0.3

Pressure peak damping element: see 'Accessories' or data sheet H72258

Dimensions & electrical connections see next page

Ordering information/type code

8473 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 0.1	1.2	2	**66**	0 ... 1.5	15	30	**F6**
0 ... 0.16	1.2	2	**67**	0 ... 2	15	30	**F7**
0 ... 0.2	1.2	2	**68**	0 ... 2.5	15	30	**F8**
0 ... 0.4	1.2	2	**69**	0 ... 5	15	30	**F9**
0 ... 0.6	2	3	**70**	0 ... 7.5	30	45	**G0**
0 ... 1.0	2	3	**71**	0 ... 15	30	45	**G1**
0 ... 1.6	3.2	4.8	**73**	0 ... 20	40	60	**G3**
0 ... 2.5	5	7.5	**75**	0 ... 30	60	90	**G5**
0 ... 4	8	12	**76**	0 ... 50	100	150	**G6**
0 ... 6	12	15	**77**	0 ... 100	200	250	**G7**
0 ... 10	20	25	**78**	0 ... 150	300	375	**G8**
0 ... 16	32	40	**79**	0 ... 250	500	625	**G9**
0 ... 25	50	75	**80**	0 ... 400	800	1200	**H0**
0 ... 40	80	100	**81**	0 ... 500	1000	1250	**H1**

Sensor

Relative pressure, 1.4305	**54**	Absolute pressure, 1.4305 [2] [3]	**84**
Relative pressure, 1.4404/1.4435 [2]	**56**	Absolute pressure, 1.4404/1.4435 [2] [3]	**86**
Relative pressure, 1.4462 [2]	**50**	Absolute pressure, 1.4462 [2] [3]	**80**
Relative pressure, titanium grade 5 [2]	**51**	Absolute pressure, titanium grade 5 [2] [3]	**81**

Pressure connection

G1/4" female	**10**
G1/4" male	**17**
G1/2" male [2]	**21**
1/4" NPT male [2]	**30**
G3/4" frontal membrane [2] [4]	**52**

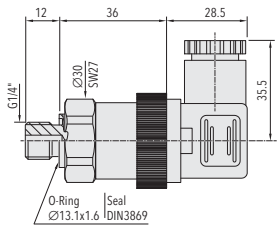
Electrical connection

Male electrical plug EN 175301-803-A, Mat. PA	**05**
Male electrical plug M12x1, 5-pole, Mat. PA	**35**
Male electrical plug industrial standard (contact distance 9.4 mm) Mat. PBT	**01**
Male electrical plug Packard Metri Pack	**51**
Cable IP67, Mat. PVC (cable gland PA6-3), -5°C ... +60°C [5] [6]	**22**
Cable IP68, max. 3m, medium +10°C...+35°C, Pmax. 1 bar rel./abs.	**68**

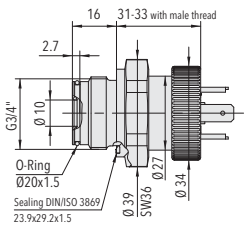
Output signal

Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20 mA	(Usupply-9 V) / 20 mA		9 ... 30 VDC	**19**
0 ... 5 VDC	≥ 2.5 kΩ	≤ 10 mA	10 ... 30 VDC	**14**
1 ... 6 VDC	≥ 5.0 kΩ	≤ 10 mA	10 ... 30 VDC	**16**
0 ... 10 VDC	≥ 5.0 kΩ	≤ 10 mA	15 ... 30 VDC	**17**
0.5 ... 4.5 VDC	≥ 5.0 kΩ	≤ 10 mA	5 VDC ± 0.25 VDC ratiom.	**23**

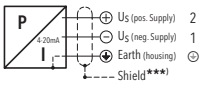
Continuation on next page



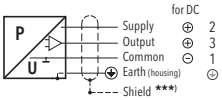
ECT ...



ECTF ...



ECT ... A/ECTF ... A (4 ... 20 mA)

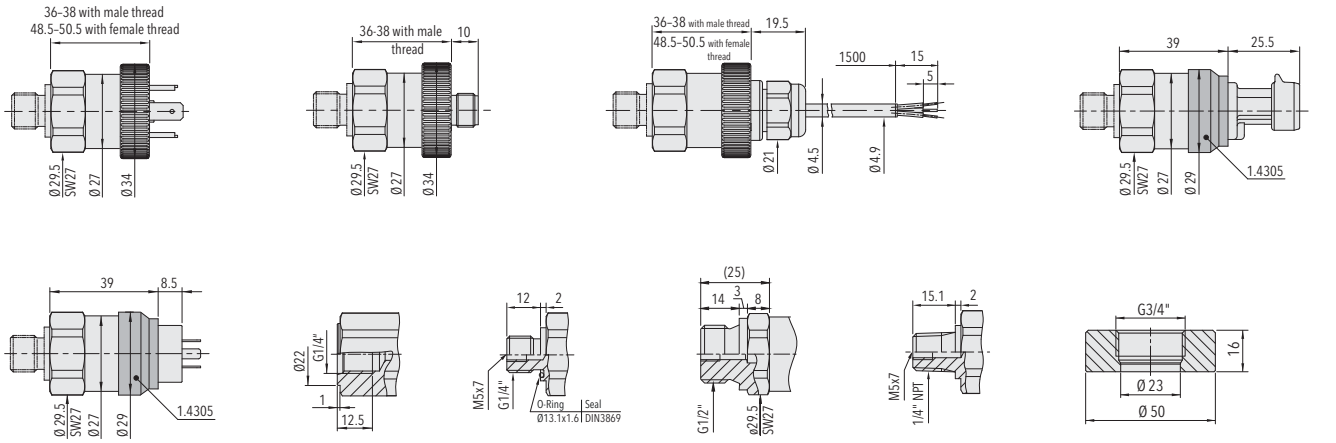


ECT ... V (0 ... 10 V)

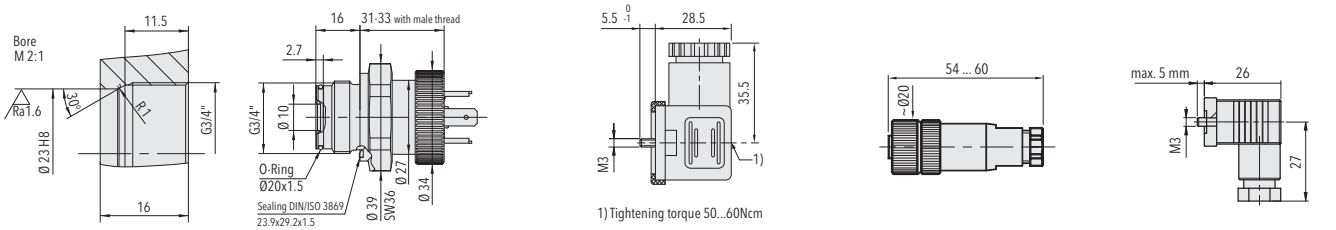
	8473 . XX XX XX XX XX XX
Accessories	
Seal FKM (-20°C ... +125°C)	**61**
Seal CR ≤ 100 bar (-25°C ... +100°C) [7]	**62**
Seal EPDM (-25°C ... +125°C)	**63**
Pressure peak damping element ø 1.0 mm (for pressure connections 17 and 30)	**40**
Pressure peak damping element ø 0.3 mm (for pressure connections 17 and 30)	**43**
Pressure peak damping element ø 0.5 mm (for pressure connections 17 and 30)	**45**
Female electrical connector EN 175301-803-A (DIN43650-A)	**58**
Female electrical plug M12x1, 5-pole	**33**
Female electrical connector industrial standard	**34**
Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)	**92**
Special electrical connection: Pin 1 out , Pin 2 -, Pin 3 + (only for output 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)	**98**
Special electrical connection: Pin 1 + , Pin 2 -, Pin 3 out (only for output signals 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)	**97**
Special electrical connection: Pin 1 + , Pin 3 - (only for output 4...20 mA and male electrical plug Packard Metri Pack 3-poles)	**E4**
Special electrical connection: Pin 1 + , Pin 2 out Pin 3 - (only for output signals 14, 16, 17, 23 and male electrical plug Packard Metri Pack 3-poles)	**99**
Cable length 1.5 m	**1M**
Cable length 3.0 m	**3M**
Cable length 5.0 m	**5M**

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Please ask us
[3] Only for ranges: ≥ 400 mbar or 5 psi
[4] Not for sensors 54 and 84, only for pressure ranges ≤ 10 bar or 150 psi
[5] Cable length see accessories
[6] More materials and cables with venting tubes for low pressure ranges upon request
[7] Only for pressure connections 10 and 30

Identical construction for refrigeration:
Data sheet No. H72323



Welding flange for G3/4" frontal membrane (1.4301) Ordering No. C27805



Data sheet	H72326
Instructions	H73324

ECTR 8471

Economic Refrigeration Pressure Transmitter

Features

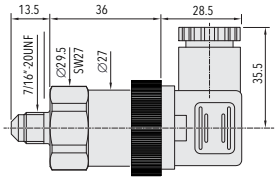
- Economical
- Good media compatibility
- Relative or absolute pressure measurement
- Titanium version optional

Technical Data			
Measuring principle	Thick film on ceramic	Accuracy @ 25°C typ.	± 0.5 % FS typ.
Measuring range	-1 ... 9 to 0 ... 40 bar 0 ... 15 to 0 ... 500 psi	Media temperature	-25°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	Ambient temperature	-25°C ... +85°C (Cable PVC 22: -5°C ... +60°C)

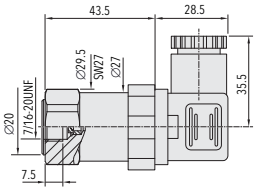
Data sheet H72323
Instructions H73324

Standard products (extra short lead time)

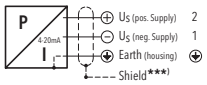
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Supply [VDC]
ECTR9.0A	8471 26 5718 05 0000 0000 19 58 62 01	-1 ... 9	20	4 ... 20 mA	9 ... 30
ECTR16.0A	8471 27 5718 05 0000 0000 19 58 62 01	-1 ... 16	32	4 ... 20 mA	9 ... 30
*ECTR25.0A	8471 80 5718 05 0000 0000 19 58 62	0 ... 25	50	4 ... 20 mA	9 ... 30
ECTR30.0A	8471 29 5718 05 0000 0000 19 58 62 01	0 ... 30	50	4 ... 20 mA	9 ... 30
ECTRV9.0A	8471 26 5724 05 0000 0000 19 58 62 01	-1 ... 9	20	4 ... 20 mA	9 ... 30
ECTRV16.0A	8471 27 5724 05 0000 0000 19 58 62 01	-1 ... 16	32	4 ... 20 mA	9 ... 30
ECTRV25.0A	8471 80 5724 05 0000 0000 19 58 62	0 ... 25	50	4 ... 20 mA	9 ... 30



ECTR ...



ECTRV ...



ECTR ... A (4 ... 20 mA)
ECTRV ... A (4 ... 20 mA)

NAT 8252

Industrial Pressure Transmitter

Features

- Smallest design
- Completely welded steel sensor system without additional seals
- Excellent long-term stability
- Optional: fivefold overpressure resistance

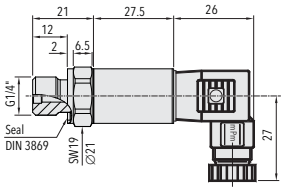
Technical Data

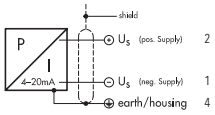
Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.5 % FS typ.
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	Media temperature	–40°C ... +125°C
Output signal	4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric, Switching output: 1 or 2 PNP transistors	Ambient temperature	–40°C ... +125°C (Cable PVC 22: -5°C ... +60°C) (Cable PUR 24: -40°C ... +70°C)

Standard products (extra short lead time)

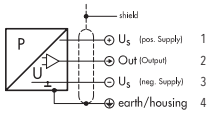
Product No.	Type Code	Signal output	Pressure range [bar]	Product No.	Type Code	Signal output	Pressure range [bar]
NAT2.5A	8252 75 2517 01 19 34 44 61	4 ...20 mA	0 ... 2.5	NAT2.5V	8252 75 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 2.5
NAT4.0A	8252 76 2517 01 19 34 44 61	4 ... 20 mA	0 ... 4	NAT4.0V	8252 76 2517 0117 34 44 61	0 ... 10 VDC	0 ... 4
NAT6.0A	8252 77 2517 01 19 34 44 61	4 ... 20 mA	0 ... 6	NAT6.0V	8252 77 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 6
NAT10.0A	8252 78 2517 01 19 34 44 61	4 ... 20 mA	0 ... 10	NAT10.0V	8252 78 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 10
NAT16.0A	8252 79 2517 01 19 34 44 61	4 ... 20 mA	0 ... 16	NAT16.0V	8252 79 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 16
NAT25.0A	8252 80 2517 01 19 34 44 61	4 ... 20 mA	0 ... 25	NAT25.0V	8252 80 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 25
NAT40.0A	8252 81 2517 01 19 34 44 61	4 ... 20 mA	0 ... 40	NAT40.0V	8252 81 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 40
NAT100.0A	8252 83 2517 01 19 34 44 61	4 ... 20 mA	0 ... 100	NAT100.0V	8252 83 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 100
NAT250.0A	8252 74 2517 01 19 34 44 61	4 ... 20 mA	0 ... 250	NAT250.0V	8252 74 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 250
NAT400.0A	8252 84 2517 01 19 34 44 61	4 ... 20 mA	0 ... 400	NAT400.0V	8252 84 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 400
NAT600.0A	8252 86 2517 01 19 34 44 61	4 ... 20 mA	0 ... 600	NAT600.0V	8252 86 2517 01 17 34 44 61	0 ... 10 VDC	0 ... 600

Pressure peak damping element integrated





NAT ... A (4 ... 20 mA)



NAT ... V (0 ... 10 VDC)

Data sheet	H72303
Instructions	H73303

Ordering information/type code

8252 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]	
0 ... 2.5	7.5	50	**75**
0 ... 4	12	60	**76**
0 ... 6	18	100	**77**
0 ... 10	30	200	**78**
0 ... 16	48	200	**79**
0 ... 25	75	300	**80**
0 ... 40	120	300	**81**
0 ... 60	180	400	**82**
0 ... 100	300	500	**83**
0 ... 160	480	750	**85**
0 ... 250	750	1000	**74**
0 ... 400	1000	2000	**84**
0 ... 600	1500	2500	**86**
Option 5P:	**Fivefold overpressure**		
0 ... 2.5	12.5	60	**55**
0 ... 4	20	100	**56**
0 ... 6	30	200	**57**
0 ... 10	50	200	**58**
0 ... 16	80	300	**59**
0 ... 25	125	300	**60**
0 ... 40	200	400	**61**
0 ... 60	300	500	**62**
0 ... 100	500	750	**63**
0 ... 160	800	1000	**65**

Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 30	90	700	**G5**
0 ... 50	150	850	**G6**
0 ... 100	300	1450	**G7**
0 ... 150	450	2500	**G8**
0 ... 200	600	2500	**GA**
0 ... 250	750	2500	**G9**
0 ... 300	900	4000	**HA**
0 ... 400	1200	4000	**H0**
0 ... 500	1500	4000	**H1**
0 ... 1000	3000	5000	**H2**
0 ... 1500	4500	7000	**H3**
0 ... 2000	6000	10000	**H5**
0 ... 3000	9000	14500	**G4**
0 ... 5000	12500	21750	**H4**
0 ... 7500	18750	29000	**H6**

Sensor

Relative pressure	**25**

Pressure connection

G1/4" male, seal: DIN 3869 (accessories 61/63/83)	**17**
1/4" NPT male	**30**
7/16"-20UNF female SAE J512 with valve opener [4]	**24**
7/16"-20UNF SAE4 male, seal: accessory 61 [8]	**42**
R1/4" male ISO 7-1 (DIN 2999) [5]	**19**
R1/8" male ISO 7-1 (DIN 2999) [5]	**16**
M10x1 male	**32**
M12x1.5 male (DIN EN ISO 9974-2), upon request	**49**

Electrical connection

Male electrical plug, industrial standard, contact distance 9.4 mm, Mat. PA	**01**
Male electrical plug M12x1, 4-pole, Mat. PA	**32**
Male electrical plug M12x1, 5-pole, Mat. PA	**35**
Cable IP67, Mat. PVC [7]	**22**
Cable IP67, Mat. PUR [7]	**24**
Cable IP67, Mat. EPD Raychem FDR25 [7]	**08**

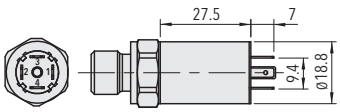
Output signal

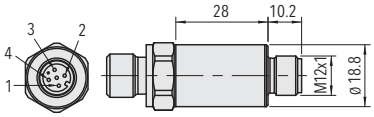
Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20mA	See graphic		24 (9 ... 32) VDC	**19**
0.5 ... 4.5 VDC	≥ 5.0 kΩ to Us-	≤ 20 mA	24 (9 ... 32) VDC	**20**
0 ... 5 VDC	≥ 5.0 kΩ to Us-	≤ 20 mA	24 (9 ... 32) VDC	**14**
1 ... 5 VDC	≥ 5.0 kΩ to Us-	≤ 20 mA	24 (9 ... 32) VDC	**25**
1 ... 6 VDC	≥ 5.0 kΩ to Us-	≤ 20 mA	24 (9 ... 32) VDC	**16**
0 ... 10 VDC	≥ 5.0 kΩ to Us-	≤ 15 mA	24 (15 ... 32) VDC	**17**
0.1 ... 10.1 VDC	≥ 5.0 kΩ to Us-	≤ 15 mA	24 (15 ... 32) VDC	**13**
0.5 ... 4.5 VDC ratiometric	≥ 5.0 kΩ to Us-	≤ 10 mA	5 (4.75 ... 5.25) VDC	**23**
2 PNP transistors [3]		≤ 10 mA	24 (9 ... 32) VDC	**PS**
1 PNP transistor [3]		≤ 10 mA	24 (9 ... 32) VDC	**T1**

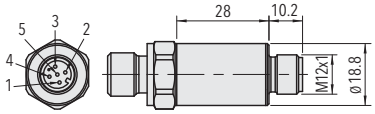
Continuation on next page

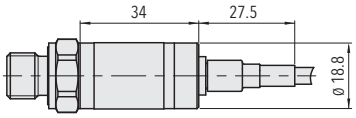
		8252 . XX XX XX XX XX XX
Accessories	Female electrical plug M12x1, 5-pole [2]	33
	Female electrical connector industrial standard (for electrical connection 01)	34
	Pressure peak damping element ø 1.0 mm [6]	40
	Pressure peak damping element ø 0.4 mm [6]	44
	Seal FPM, -18°C ... +125°C	61
	Seal EPDM, -40°C ... +125°C	63
	Seal NBR, -25°C ... +100°C	83
	Special electrical connection: Pin 2 +, Pin 3 ground, Pin 4 - (only for output signal 19 and male electrical plug 01, industrial standard)	90
	Special electrical connection: Pin 1 out, Pin 2 +, Pin 3 ground, Pin 4 - (only for output signals 14, 16, 17, 23 and male electrical plug 01, industrial standard)	91
	Special electrical connection: Pin 1 + , Pin 2 Ground, Pin 3 -, Pin 4 Out (only for output signals 14, 16, 17, 23 and male electrical plug 32, M12x1, 4-pole)	96
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 4 ground (only for output signal 19 and male electrical plug 01, industrial standard)	92
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 4 ground (only for output signal 19 and male electrical plug 32, M12x1, 4-pole)	E1
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 out, Pin 4 ground (only for output signals 14, 16, 17, 23 and male electrical plug 32, M12x1, 4-pole)	E2
	Cable length 0.5 m	EM
	Cable length 1.0 m	1M
	Cable length 2.0 m	2M
	Parameterisation according to customer specification (see table parameter), for output signal PS, T1 [3]	ZC

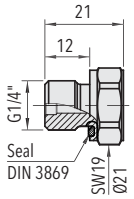
[1] Customized pressure ranges upon request
[2] For electrical connections 32 and 35
[3] Only with electrical connection 32
[4] Max. allowable pressure range 60 bar at 120 bar overpressure
[5] Max. allowable pressure range 160 bar at 500 bar overpressure
[6] Only for pressure connections 17, 30, 32
[7] Cable length see accessories
[8] According to norm J1926, max. 35 MPa

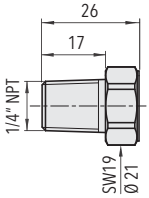


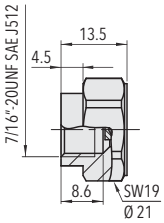


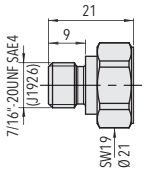


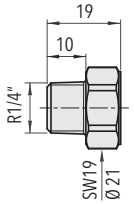


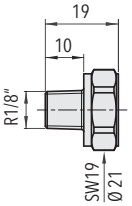


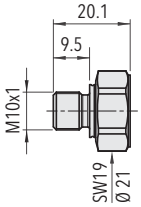


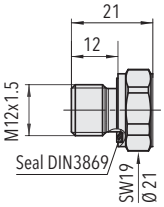












NSL 8257

Low Pressure Transmitter

Features

- Smallest design
- Relative or absolute pressure measurement
- Excellent temperature resistance
- Improved vibration resistance
- Completely welded steel sensor system without additional seals

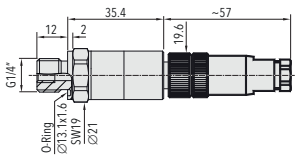
Technical Data			
Measuring principle	Thin film on steel	Media temperature	-40°C ... +125°C
Measuring range	0 ... 0.2 to 0 ... 2.5 bar 0 ... 3 to 0 ... 30 psi	Ambient temperature	-40°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric	Approval / conformity	GL, DNV, RINA
Accuracy @ 25°C typ.	0.15 ... 0.8 % FS typ.		

Data sheet H72302
Instructions H73250

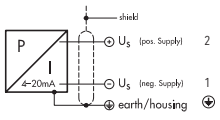
Additional dimensions see data sheet

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NSL0.2A	8257 68 2317 32 0000 0000 19 33 43	0 ... 0.2	1.2	9 ... 32	± 0.8
NSL0.4A	8257 69 2317 32 0000 0000 19 33 43	0 ... 0.4	1.2	9 ... 32	± 0.5
NSL0.6A	8257 70 2317 32 0000 0000 19 33 43	0 ... 0.6	1.5	9 ... 32	± 0.3
NSL1.0A	8257 71 2317 32 0000 0000 19 33 43	0 ... 1.0	2	9 ... 32	± 0.3
NSL1.6A	8257 73 2317 32 0000 0000 19 33 43	0 ... 1.6	3.5	9 ... 32	± 0.3
NSL2.5A	8257 75 2317 32 0000 0000 19 33 43	0 ... 2.5	5	9 ... 32	± 0.3



Pressure peak damping element integrated



NSL ... A (4 ... 20 mA)

NAH 8254

Hydraulic Pressure Transmitter

Features

- Measuring accuracy 0.3 %
- Completely welded steel sensor system without additional seals
- Smallest design
- Excellent long-term stability
- Optional: fivefold overpressure resistance

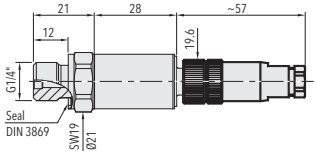
Technical Data

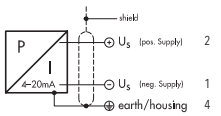
Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.3 % FS typ.
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	Media temperature	–40°C ... +125°C
Output signal	4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric, Switching output: 1 or 2 PNP transistors	Ambient temperature	–40°C ... +125°C (Cable PVC 22: -5°C ... +60°C) (Cable PUR 24: -40°C ... +70°C)

Standard products (extra short lead time)

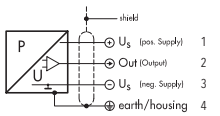
Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAH2.5A	8254 75 2317 32 0000 0000 19 33 44 61	0 ... 2.5	7.5	9 ... 32	± 0.3
NAH4.0A	8254 76 2317 32 0000 0000 19 33 44 61	0 ... 4	12	9 ... 32	± 0.3
NAH6.0A	8254 77 2317 32 0000 0000 19 33 44 61	0 ... 6	18	9 ... 32	± 0.3
NAH10.0A	8254 78 2317 32 0000 0000 19 33 44 61	0 ... 10	30	9 ... 32	± 0.3
NAH16.0A	8254 79 2317 32 0000 0000 19 33 44 61	0 ... 16	48	9 ... 32	± 0.3
NAH25.0A	8254 80 2317 32 0000 0000 19 33 44 61	0 ... 25	75	9 ... 32	± 0.3
NAH40.0A	8254 81 2317 32 0000 0000 19 33 44 61	0 ... 40	120	9 ... 32	± 0.3
NAH100.0A	8254 83 2317 32 0000 0000 19 33 44 61	0 ... 100	300	9 ... 32	± 0.3
NAH250.0A	8254 74 2317 32 0000 0000 19 33 44 61	0 ... 250	750	9 ... 32	± 0.3
NAH400.0A	8254 84 2317 32 0000 0000 19 33 44 61	0 ... 400	1000	9 ... 32	± 0.3
NAH600.0A	8254 86 2317 32 0000 0000 19 33 44 61	0 ... 600	1500	9 ... 32	± 0.3

Pressure peak damping element integrated





NAH ... A (4 ... 20 mA)



NAH ... V (0 ... 10 VDC)

Data sheet	H72304
Instructions	H73303

Ordering information/type code

8254 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]	
0 ... 2.5	7.5	50	**75**
0 ... 4	12	60	**76**
0 ... 6	18	100	**77**
0 ... 10	30	200	**78**
0 ... 16	48	200	**79**
0 ... 25	75	300	**80**
0 ... 40	120	300	**81**
0 ... 60	180	400	**82**
0 ... 100	300	500	**83**
0 ... 160	480	750	**85**
0 ... 250	750	1000	**74**
0 ... 400	1000	2000	**84**
0 ... 600	1500	2500	**86**
Option 5P:	**Fivefold overpressure**		
0 ... 2.5	12.5	60	**55**
0 ... 4	20	100	**56**
0 ... 6	30	200	**57**
0 ... 10	50	200	**58**
0 ... 16	80	300	**59**
0 ... 25	125	300	**60**
0 ... 40	200	400	**61**
0 ... 60	300	500	**62**
0 ... 100	500	750	**63**
0 ... 160	800	1000	**65**

Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 30	90	700	**G5**
0 ... 50	150	850	**G6**
0 ... 100	300	1450	**G7**
0 ... 150	450	2500	**G8**
0 ... 200	600	2500	**GA**
0 ... 250	750	2500	**G9**
0 ... 300	900	4000	**HA**
0 ... 400	1200	4000	**H0**
0 ... 500	1500	4000	**H1**
0 ... 1000	3000	5000	**H2**
0 ... 1500	4500	7000	**H3**
0 ... 2000	6000	10000	**H5**
0 ... 3000	9000	14500	**G4**
0 ... 5000	12500	21750	**H4**
0 ... 7500	18750	29000	**H6**

Sensor

Relative pressure, accuracy: 0.3 %	**23**

Pressure connection

G1/4" male, seal: DIN 3869 (accessory 61/63/83)	**17**
1/4" NPT male	**30**
7/16"-20UNF female SAE J512 with valve opener [4]	**24**
7/16"-20UNF SAE4 male, seal: accessory 61 [8]	**42**
R1/4" male ISO 7-1 (DIN 2999) [5]	**19**
R1/8" male ISO 7-1 (DIN 2999) [5]	**16**
M10x1 male	**32**
M12x1.5 male (DIN EN ISO 9974-2), upon request	**49**

Electrical connection

Male electrical plug, industrial standard, contact distance 9.4 mm, Mat. PA	**01**
Male electrical plug M12x1, 4-pole, Mat. PA	**32**
Male electrical plug M12x1, 5-pole, Mat. PA	**35**
Cable IP67, Mat. PVC [7]	**22**
Cable IP67, Mat. PUR [7]	**24**
Cable IP67, Mat. EPD Raychem FDR25 [7]	**08**

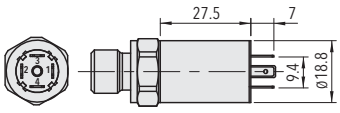
Output signal

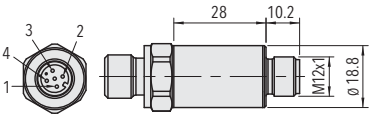
Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20mA	See graphic		24 (9 ... 32) VDC	**19**
0.5 ... 4.5 VDC	≥ 5.0 kΩ to Us-	≤ 20 mA	24 (9 ... 32) VDC	**20**
0 ... 5 VDC	≥ 5.0 kΩ to Us-	≤ 20 mA	24 (9 ... 32) VDC	**14**
1 ... 5 VDC	≥ 5.0 kΩ to Us-	≤ 20 mA	24 (9 ... 32) VDC	**25**
1 ... 6 VDC	≥ 5.0 kΩ to Us-	≤ 20 mA	24 (9 ... 32) VDC	**16**
0 ... 10 VDC	≥ 5.0 kΩ to Us-	≤ 15 mA	24 (15 ... 32) VDC	**17**
0.1 ... 10.1 VDC	≥ 5.0 kΩ to Us-	≤ 15 mA	24 (15 ... 32) VDC	**13**
0.5 ... 4.5 VDC ratiom.	≥ 5.0 kΩ to Us-	≤ 10 mA	5 (4.75 ... 5.25) VDC	**23**
2 PNP transistors [3]		≤ 10 mA	24 (9 ... 32) VDC	**PS**
1 PNP transistor [3]		≤ 10 mA	24 (9 ... 32) VDC	**T1**

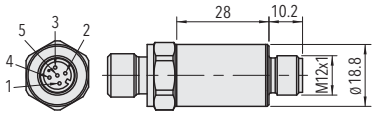
Continuation on next page

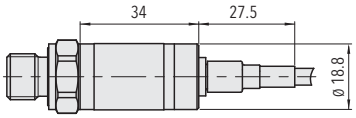
		8254 . XX XX XX XX XX XX
Accessories	Female electrical plug M12x1, 5-pole [2]	33
	Female electrical connector industrial standard (for electrical connection 01)	34
	Pressure peak damping element ø 1.0 mm [6]	40
	Pressure peak damping element ø 0.4 mm [6]	44
	Seal FPM, -18°C ... +125°C	61
	Seal EPDM, -40°C ... +125°C	63
	Seal NBR, -25°C ... +100°C	83
	Special electrical connection: Pin 2 +, Pin 3 ground, Pin 4 - (only for output signal 19 and male electrical plug 01, industrial standard)	90
	Special electrical connection: Pin 1 out, Pin 2 +, Pin 3 ground, Pin 4 - (only for output signals 14, 16, 17, 23 and male electrical plug 01, industrial standard)	91
	Special electrical connection: Pin 1 + , Pin 2 Ground, Pin 3 -, Pin 4 Out (only for output signals 14, 16, 17, 23 and male electrical plug 32, M12x1, 4-pole)	96
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 4 ground (only for output signal 19 and male electrical plug 01, industrial standard)	92
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 4 ground (only for output signal 19 and male electrical plug 32, M12x1, 4-pole)	E1
	Special electrical connection: Pin 1 +, Pin 2 -, Pin 3 out, Pin 4 ground (only for output signals 14, 16, 17, 23 and male electrical plug 32, M12x1, 4-pole)	E2
	Cable length 0.5 m	EM
	Cable length 1.0 m	1M
	Cable length 2.0 m	2M
	Parameterisation according to customer specification (see table parameter), for output signal PS, T1 [3]	ZC

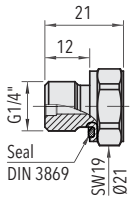
[1] Customized pressure ranges upon request
[2] For electrical connections 32 and 35
[3] Only with electrical connection 32
[4] Max. allowable pressure range 60 bar at 120 bar overpressure
[5] Max. allowable pressure range 160 bar at 500 bar overpressure
[6] Only for pressure connections 17, 30, 32
[7] Cable length see accessories
[8] According to norm J1926, max. 35 MPa

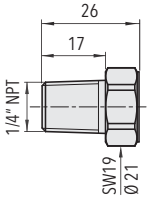


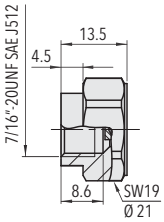


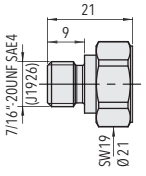


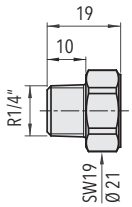


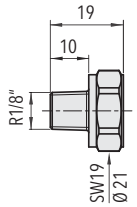


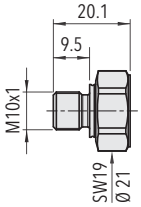


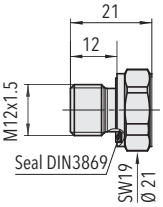












NAE 8256

Engine Pressure Transmitter

Features

- Measuring accuracy 0.3 %, 0.5 %
- Completely welded steel sensor system without additional seals
- Smallest design
- High resistance to over pressure
- Excellent long-term stability

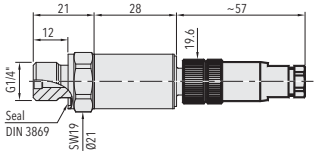
Technical Data			
Measuring principle	Thin film on steel	Media temperature	–40°C ... +125°C
Measuring range	0 ... 10 to 0 ... 600 bar 0 ... 150 to 0 ... 7500 psi	Ambient temperature	–40°C ... +125°C
Output signal	4 ... 20 mA	Approval / conformity	ABS, BV, DNV, GL, LRS, KRS, NKK, RINA, RMRS
Accuracy @ 25°C typ.	0.5 %: ± 0.5 % FS typ. 0.3 %: ± 0.3 % FS typ.		

Data sheet H72305
Instructions H73303

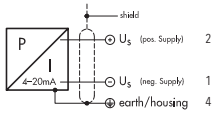
Additional dimensions see data sheet

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAE10.0A	8256 78 2317 32 0000 0000 19 33 44 61	0 ... 10	30	9 ... 32	± 0.3
NAE16.0A	8256 79 2317 32 0000 0000 19 33 44 61	0 ... 16	48	9 ... 32	± 0.3
NAE25.0A	8256 80 2317 32 0000 0000 19 33 44 61	0 ... 25	75	9 ... 32	± 0.3
NAE40.0A	8256 81 2317 32 0000 0000 19 33 44 61	0 ... 40	120	9 ... 32	± 0.3
NAE100.0A	8256 83 2317 32 0000 0000 19 33 44 61	0 ... 100	300	9 ... 32	± 0.3
NAE250.0A	8256 74 2317 32 0000 0000 19 33 44 61	0 ... 250	750	9 ... 32	± 0.3
NAE400.0A	8256 84 2317 32 0000 0000 19 33 44 61	0 ... 400	1000	9 ... 32	± 0.3
NAE600.0A	8256 86 2317 32 0000 0000 19 33 44 61	0 ... 600	1500	9 ... 32	± 0.3



Pressure peak damping element integrated



NAE... A (4 ... 20 mA)

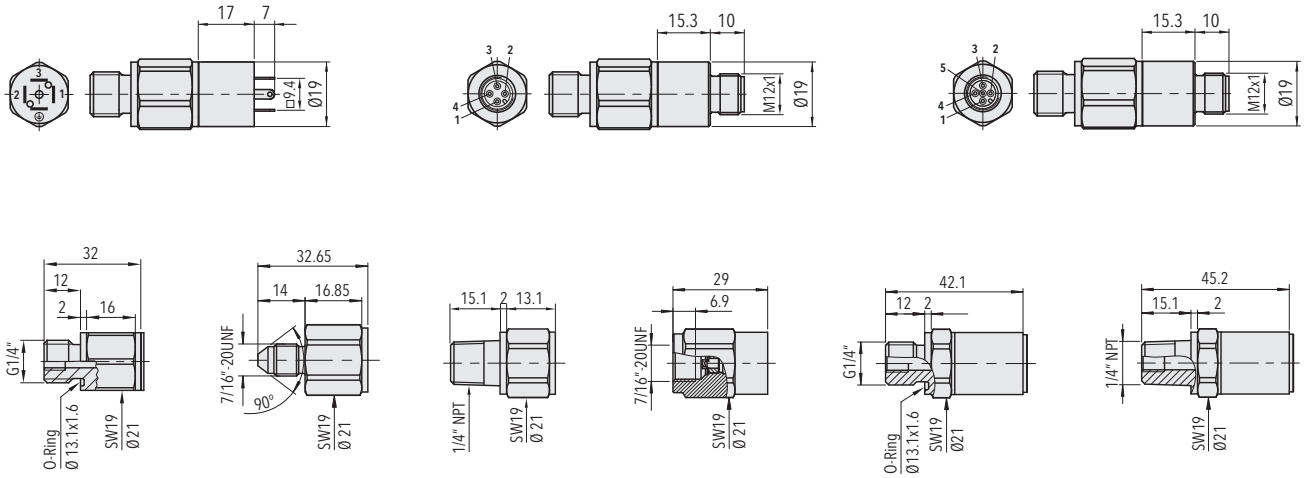
NAH 8253

Hydraulic Pressure Transmitter

Features

- Smallest design
- Accuracy classes 0.1%, 0.3%
- Excellent temperature resistance
- Improved vibration resistance
- Completely welded steel sensor system without additional seals

Technical Data			
Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.3 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	Media temperature	-40°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric	Ambient temperature	-40°C ... +125°C



Data sheet	H72300
Instructions	H73250

Ordering information/type code

8253 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 2.5 [2]	5	50	**75**	0 ... 30	90	700	**G5**
0 ... 4	8	60	**76**	0 ... 50	150	850	**G6**
0 ... 6	12	100	**77**	0 ... 100	300	1450	**G7**
0 ... 10	20	200	**78**	0 ... 150	450	2500	**G8**
0 ... 16	32	200	**79**	0 ... 200	600	2500	**GA**
0 ... 25	50	300	**80**	0 ... 250	750	2500	**G9**
0 ... 40	80	300	**81**	0 ... 300	900	4000	**HA**
0 ... 60	120	400	**82**	0 ... 400	1200	4000	**H0**
0 ... 100	200	500	**83**	0 ... 500	1500	4000	**H1**
0 ... 160	320	750	**85**	0 ... 1000	3000	5000	**H2**
0 ... 250	500	1000	**74**	0 ... 1500	4500	7000	**H3**
0 ... 400	800	1500	**84**	0 ... 2000	6000	10000	**H5**
0 ... 600	1000	2000	**86**	0 ... 3000	9000	14500	**G4**
				0 ... 5000	12500	21750	**H4**
				0 ... 7500	18750	29000	**H6**

Sensor

Relative pressure, accuracy: 0.3 %	**23**
Relative pressure, accuracy: 0.15 %	**21**
Relative pressure, accuracy: 0.1 %	**24**
Absolute pressure, accuracy: 0.3 %	**43**
Absolute pressure, accuracy: 0.15 %	**41**
Absolute pressure, accuracy: 0.1 %	**44**

Pressure connection

G1/4" male (Seal)	**17**
1/4" NPT male	**30**
7/16"-20UNF male [3] [4]	**18**
7/16"-20UNF female, DIN3866 (valve opener) [3] [4]	**24**

Electrical connection

Male electrical plug, industrial standard (contact distance 9.4 mm), Mat. PBT	**01**
Male electrical plug M12x1, 4-pole, Mat. PBT	**32**
Male electrical plug M12x1, 5-pole, Mat. PBT	**35**

Output signal

Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20 mA	(Usupply-9 V) / 20 mA		24 (9 ... 32) VDC	**19**
0 ... 5 VDC	≥ 2.0 kΩ	≤ 10 mA	24 (9 ... 32) VDC	**14**
1 ... 6 VDC	≥ 2.0 kΩ	≤ 10 mA	24 (9 ... 32) VDC	**16**
0 ... 10 VDC	≥ 5.0 kΩ	≤ 10 mA	24 (15 ... 32) VDC	**17**
0.5 ... 4.5 VDC	≥ 2.0 kΩ	≤ 10 mA	5 (4.5 ... 5.5) VDC ratiom.	**23**

Accessories

Female electrical plug M12x1, 5-pole, for electrical connections 32 and 35	**33**
Female electrical connector industrial standard	**34**
Meets EN50155 (railways) dielectrical strength: 500 VAC, 50 Hz [5]	**11**
Pressure peak damping element ø 1.0 mm [6]	**40**
Pressure peak damping element ø 0.3 mm [6]	**43**
Pressure peak damping element ø 0.5 mm [6]	**45**
Special electrical connection: Pin 1 + , Pin 2 Ground, Pin 3 -, Pin 4 Out (only for output signals 14, 16, 17, 23 and male electrical plug 32, M12x1, 4-pole)	**96**

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Measuring accuracy 0.3 %
[3] Relative pressure only
[4] Max. allowable pressure range 40 bar
[5] Only with output 19
[6] Only for pressure connections 17 and 30

Identical construction with higher/lower specifications: Data sheet No. H72250, H72301

EPI 8287

Industrial Pressure Transmitter

Features

- Excellent long-term stability
- High resistance to over pressure
- Completely welded steel sensor system without additional seals
- Compact design

Technical Data			
Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.5 % FS typ.
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	Media temperature	–40°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC	Ambient temperature	–40°C ... +125°C

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Supply [VDC]
EPI4.0A	8287 76 2517 05 0000 0000 19 44 58 61	0 ... 4	12	4 ... 20 mA	9 ... 32
EPI6.0A	8287 77 2517 05 0000 0000 19 44 58 61	0 ... 6	18	4 ... 20 mA	9 ... 32
EPI10.0A	8287 78 2517 05 0000 0000 19 44 58 61	0 ... 10	30	4 ... 20 mA	9 ... 32
EPI16.0A	8287 79 2517 05 0000 0000 19 44 58 61	0 ... 16	48	4 ... 20 mA	9 ... 32
EPI25.0A	8287 80 2517 05 0000 0000 19 44 58 61	0 ... 25	75	4 ... 20 mA	9 ... 32
EPI40.0A	8287 81 2517 05 0000 0000 19 44 58 61	0 ... 40	120	4 ... 20 mA	9 ... 32
EPI60.0A	8287 82 2517 05 0000 0000 19 44 58 61	0 ... 60	180	4 ... 20 mA	9 ... 32
EPI100.0A	8287 83 2517 05 0000 0000 19 44 58 61	0 ... 100	300	4 ... 20 mA	9 ... 32
EPI250.0A	8287 74 2517 05 0000 0000 19 44 58 61	0 ... 250	750	4 ... 20 mA	9 ... 32
EPI400.0A	8287 84 2517 05 0000 0000 19 44 58 61	0 ... 400	1000	4 ... 20 mA	9 ... 32
EPI600.0A	8287 86 2517 05 0000 0000 19 44 58 61	0 ... 600	1500	4 ... 20 mA	9 ... 32
EPI4.0V	8287 76 2517 05 0000 0000 17 44 58 61	0 ... 4	12	0 ... 10 VDC	15 ... 32
EPI6.0V	8287 77 2517 05 0000 0000 17 44 58 61	0 ... 6	18	0 ... 10 VDC	15 ... 32
EPI10.0V	8287 78 2517 05 0000 0000 17 44 58 61	0 ... 10	30	0 ... 10 VDC	15 ... 32
EPI16.0V	8287 79 2517 05 0000 0000 17 44 58 61	0 ... 16	48	0 ... 10 VDC	15 ... 32
EPI25.0V	8287 80 2517 05 0000 0000 17 44 58 61	0 ... 25	75	0 ... 10 VDC	15 ... 32
EPI40.0V	8287 81 2517 05 0000 0000 17 44 58 61	0 ... 40	120	0 ... 10 VDC	15 ... 32
EPI60.0V	8287 82 2517 05 0000 0000 17 44 58 61	0 ... 60	180	0 ... 10 VDC	15 ... 32
EPI100.0V	8287 83 2517 05 0000 0000 17 44 58 61	0 ... 100	300	0 ... 10 VDC	15 ... 32
EPI250.0V	8287 74 2517 05 0000 0000 17 44 58 61	0 ... 250	750	0 ... 10 VDC	15 ... 32
EPI400.0V	8287 84 2517 05 0000 0000 17 44 58 61	0 ... 400	1000	0 ... 10 VDC	15 ... 32
EPI600.0V	8287 86 2517 05 0000 0000 17 44 58 61	0 ... 600	1500	0 ... 10 VDC	15 ... 32

Data sheet H72317
Instructions H73317

Ordering information/type code

8287 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]	
0 ... 2.5	7.5	50	**75**
0 ... 4	12	60	**76**
0 ... 6	18	100	**77**
0 ... 10	30	200	**78**
0 ... 16	48	200	**79**
0 ... 25	75	300	**80**
0 ... 40	120	300	**81**
0 ... 60	180	400	**82**
0 ... 100	300	500	**83**
0 ... 160	480	750	**85**
0 ... 250	750	1000	**74**
0 ... 400	1000	2000	**84**
0 ... 600	1500	2500	**86**
Option 5P:	**Fivefold overpressure**		
0 ... 2.5	12.5	60	**55**
0 ... 4	20	100	**56**
0 ... 6	30	200	**57**
0 ... 10	50	200	**58**
0 ... 16	80	300	**59**
0 ... 25	125	300	**60**
0 ... 40	200	400	**61**
0 ... 60	300	500	**62**
0 ... 100	500	750	**63**
0 ... 160	800	1000	**65**

Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 30	90	700	**G5**
0 ... 50	150	850	**G6**
0 ... 100	300	1450	**G7**
0 ... 150	450	2500	**G8**
0 ... 200	600	2500	**GA**
0 ... 250	750	2500	**G9**
0 ... 300	900	4000	**HA**
0 ... 400	1200	4000	**H0**
0 ... 500	1500	4000	**H1**
0 ... 1000	3000	5000	**H2**
0 ... 1500	4500	7000	**H3**
0 ... 2000	6000	10000	**H5**
0 ... 3000	9000	14500	**G4**
0 ... 5000	12500	21750	**H4**
0 ... 7500	18750	29000	**H6**

Sensor

Relative pressure, accuracy: 0.5 %; Material pressure connection and housing: 1.4542 (AISI630)	**25**
Relative pressure, accuracy: 0.5 %; Material pressure connection and housing: 1.4404 (AISI316L) [3]	**35**

Pressure connection

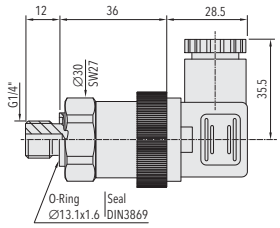
G1/4" female	**10**
G1/4" male (Seal)	**17**
R1/4" male	**19**
G1/2" male DIN16288-8 (Manometer)	**11**
1/4" NPT male [2]	**30**
1/2" NPT male	**51**
M14x1.5 male DIN6149-2	**31**

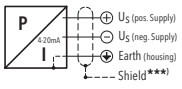
Electrical connection

Male electrical plug EN 175301-803-A, Mat. PA	**05**

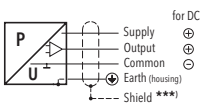
Output signal

Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20 mA	(Usupply-9 V) / 20 mA		9 ... 32 VDC	**19**
0 ... 5 VDC	> 2.5 kΩ	< 10 mA	9 ... 32 VDC	**14**
1 ... 6 VDC	> 5.0 kΩ	< 10 mA	9 ... 32 VDC	**16**
0 ... 10 VDC	> 5.0 kΩ	< 10 mA	15 ... 32 VDC	**17**





EPI ... A (4 ... 20 mA)

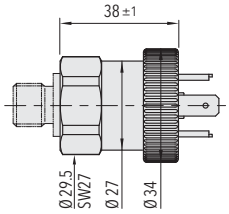


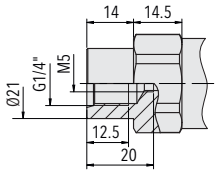
EPI ... V (0 ... 10 VDC)

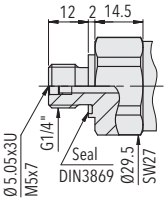
Continuation on next page

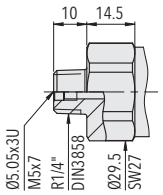
		8287 . XX	XX	XX	XX	XX	XX
Accessories	Seal FPM, -18°C ... +125°C						**61**
	Seal EPDM, -40°C ... +125°C						**63**
	Seal NBR, -25°C ... +100°C						**83**
	Pressure peak damping element ø 1.0 mm (for pressure connections 17 and 30)						**40**
	Pressure peak damping element ø 0.4 mm (for pressure connections 17 and 30)						**44**
	Female electrical connector EN 175301-803-A (DIN43650-A)						**58**
	Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)						**92**
	Special electrical connection: Pin 1 + , Pin 2 -, Pin 3 out (only for output signals 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)						**98**
	Special electrical connection: Pin 1 + , Pin 2 -, Pin 3 out (only for output signals 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A)						**97**

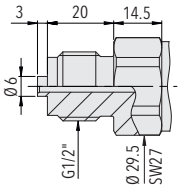
[1] Customized pressure ranges upon request
[2] Upon request
[3] Only with pressure connection 17 (G1/4")

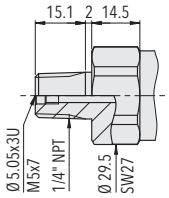


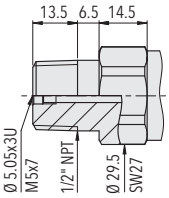


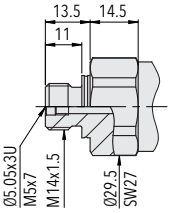












NPN 8264

Picotrans

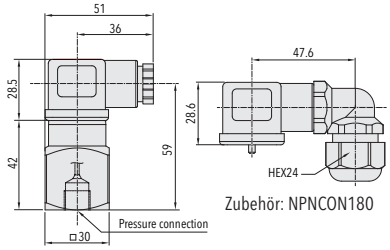
Features

- Compact design
- Flange connection (PICO family)
- High vibration restistance
- Good temperature resistance
- Completely welded steel sensor system without additional seals

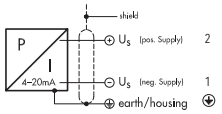
Technical Data			
Measuring principle	Thin film on steel	Media temperature	-40°C ... +100°C
Measuring range	0 ... 2.5 to 0 ... 250 bar	Ambient temperature	-40°C ... +100°C
Output signal	4 ... 20 mA	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS, NKK, RINA, RMRS
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.		

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Supply [VDC]
NPN4.0A4	8264 76 2510 04 0000 0000 19 58 V3	0 ... 4	10	4 ... 20 mA	24 (9 ... 32)
NPN6.0A4	8264 77 2510 04 0000 0000 19 58 V3	0 ... 6	15	4 ... 20 mA	24 (9 ... 32)
NPN10.0A4	8264 78 2510 04 0000 0000 19 58 V3	0 ... 10	20	4 ... 20 mA	24 (9 ... 32)
NPN16.0A4	8264 79 2510 04 0000 0000 19 58 V3	0 ... 16	32	4 ... 20 mA	24 (9 ... 32)
NPN25.0A4	8264 80 2510 04 0000 0000 19 58 V3	0 ... 25	50	4 ... 20 mA	24 (9 ... 32)
NPN40.0A4	8264 81 2510 04 0000 0000 19 58 V3	0 ... 40	80	4 ... 20 mA	24 (9 ... 32)
NPN4.0AF4	8264 76 2510 04 0000 0000 19 41 58 74 V3	0 ... 4	10	4 ... 20 mA	24 (9 ... 32)
NPN6.0AF4	8264 77 2510 04 0000 0000 19 41 58 74 V3	0 ... 6	15	4 ... 20 mA	24 (9 ... 32)
NPN10.0AF4	8264 78 2510 04 0000 0000 19 41 58 74 V3	0 ... 10	20	4 ... 20 mA	24 (9 ... 32)
NPN16.0AF4	8264 79 2510 04 0000 0000 19 41 58 74 V3	0 ... 16	32	4 ... 20 mA	24 (9 ... 32)
NPN25.0AF4	8264 80 2510 04 0000 0000 19 41 58 74 V3	0 ... 25	50	4 ... 20 mA	24 (9 ... 32)
NPN40.0AF4	8264 81 2510 04 0000 0000 19 41 58 74 V3	0 ... 40	80	4 ... 20 mA	24 (9 ... 32)



Zubehör: NPNCON180



NPN ... A4 (4 ... 20 mA)
NPN ... AF4 (4 ... 20 mA)

Data sheet H72313
Instructions H73313

Additional dimensions see data sheet

EPN/EPNCR 8298

Engine Pressure Transmitter

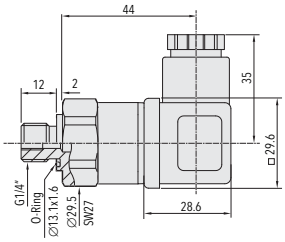
Features

- Nominal pressure up to 2500 bar (Common Rail) with high pressure threaded connection
- High vibration restistance
- Good temperature resistance
- Different accuracy classes
- Completely welded steel sensor system without additional seals

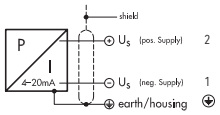
Technical Data			
Measuring principle	Thin film on steel	Media temperature	-40°C ... +125°C
Measuring range	0 ... 2.5 to 0 ... 2500 bar	Ambient temperature	-40°C ... +125°C
Output signal	4 ... 20 mA 0.5 ... 4.5 VDC ratiometric	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS, NKK, RINA, RMRS
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.		

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
EPN4.0A	8298 76 2517 04 0000 0000 19 43 58	0 ... 4	8	9 ... 32	± 0.5
EPN6.0A	8298 77 2517 04 0000 0000 19 43 58	0 ... 6	12	9 ... 32	± 0.5
EPN10.0A	8298 78 2517 04 0000 0000 19 43 58	0 ... 10	20	9 ... 32	± 0.5
EPN16.0A	8298 79 2517 04 0000 0000 19 43 58	0 ... 16	32	9 ... 32	± 0.5
EPN25.0A	8298 80 2517 04 0000 0000 19 43 58	0 ... 25	50	9 ... 32	± 0.5
EPN40.0A	8298 81 2517 04 0000 0000 19 43 58	0 ... 40	80	9 ... 32	± 0.5
EPN60.0A	8298 82 2517 04 0000 0000 19 43 58	0 ... 60	120	9 ... 32	± 0.5
EPN100.0A	8298 83 2517 04 0000 0000 19 43 58	0 ... 100	200	9 ... 32	± 0.5
EPN250.0A	8298 74 2517 04 0000 0000 19 43 58	0 ... 250	500	9 ... 32	± 0.5
EPN400.0A	8298 84 2517 04 0000 0000 19 43 58	0 ... 400	800	9 ... 32	± 0.5



Pressure peak damping element integrated



EPN ... A (4 ... 20 mA)

Data sheet H72312
Instructions H73311

Ordering information/type code

8298 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]	
0 ... 2.5	5	100	**75**	0 ... 100	200	500	**83**
0 ... 4	8	100	**76**	0 ... 160	320	1000	**85**
0 ... 6	12	100	**77**	0 ... 250	500	1000	**74**
0 ... 10	20	200	**78**	0 ... 400	800	1500	**84**
0 ... 16	32	200	**79**	0 ... 600	1000	2000	**86**
0 ... 25	50	300	**80**	0 ... 1600	3000	4000	**89**
0 ... 40	80	300	**81**	0 ... 2000	3000	4000	**90**
0 ... 60	120	500	**82**	0 ... 2500	3000	4000	**91**

Sensor

Relative pressure, accuracy: 0.3 %	**23**
Relative pressure, accuracy: 0.5 %	**25**

Pressure connection

G1/4" male (Seal) [2]	**17**	1/2" NPT male [2] [5]	**51**
R1/4" male [2] [4]	**19**	M14x1.5 male (conical seal: 58°) [3]	**28**
G1/2" male DIN16288-8 (Manometer) [2]	**11**	M18x1.5 male (conical seal: 58°) [3]	**29**
1/4" NPT male [2] [5]	**30**		

Electrical connection

Male electrical plug EN 175301-803-A (DIN43650-A), Mat. PA, normal vibration resistance ≤ 600 bar	**04**
Male electrical plug EN 175301-803-A (DIN43650-A), Mat. PA, extended vibration resistance	**05**
Male electrical plug: DIN72585 Code 1, Mat.: PBT (Contacts Mat.: Sn)	**25**
Male electrical plug MIL-C 26482, 6-pole, metal [8]	**02**
Cable with shield: Material: FDR 25 (Raychem) 4 x 0.5mm² [6]	**78**

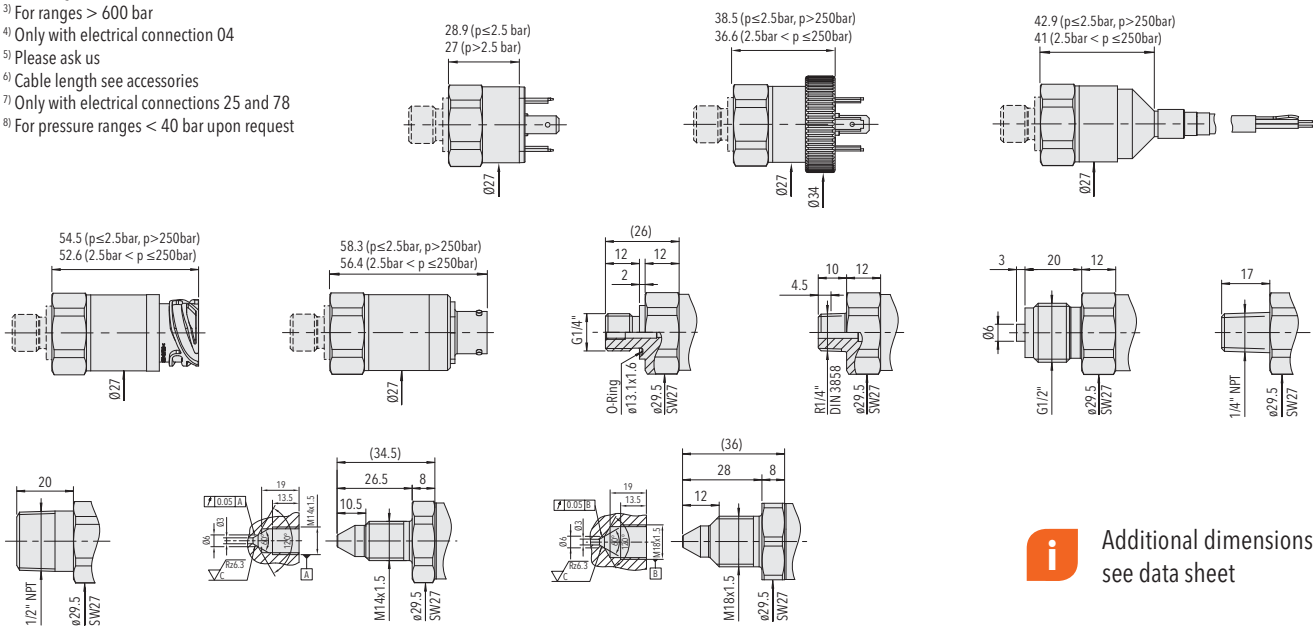
Output signal

Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20mA	(Usupply-9 V) / 20 mA		9 ... 32 VDC	**19**
0.5 ... 4.5 VDC [7]	≥ 15.0 kΩ	≤ 12 mA	5 VDC ± 0.25 VDC ratiom.	**23**

Accessories

Pressure peak damping element ø 1.0 mm	**40**	Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)	**92**
Pressure peak damping element ø 0.3 mm	**43**	Cable length 1.5 m	**1M**
Pressure peak damping element ø 0.5 mm	**45**	Cable length 3.0 m	**3M**
Female electrical connector EN 175301-803-A (DIN43650-A)/NBR, -40...90°C	**58**	Cable length 5.0 m	**5M**
Female electrical connector MIL-C 26482, 6-pole, metal	**32**		

[1] Extended overpressure as well as customized pressure ranges upon request
[2] For Ranges ≤ 600 bar
[3] For ranges > 600 bar
[4] Only with electrical connection 04
[5] Please ask us
[6] Cable length see accessories
[7] Only with electrical connections 25 and 78
[8] For pressure ranges < 40 bar upon request



Additional dimensions see data sheet

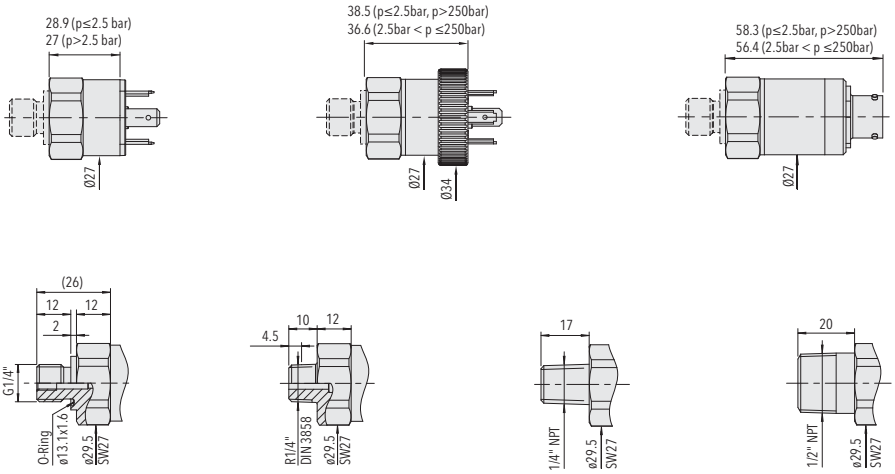
EPR 8293

Railway Pressure Transmitter

Features

- Dielectrical strength: 500 VAC, 50 Hz, meets EN50155 (Railways)
- Compact design
- Good temperature resistance
- Different accuracy classes
- Completely welded steel sensor system without additional seals

Technical Data			
Measuring principle	Thin film on steel	Media temperature	-40°C ... +125°C
Measuring range	0 ... 2.5 to 0 ... 600 bar	Ambient temperature	-40°C ... +125°C
Output signal	4 ... 20 mA	Approval / conformity	EN50155 (Railways)
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.		



Data sheet H72311
Instructions H73311

Ordering information/type code

				8293 . XX	XX	XX	XX	XX	XX
Measuring range [1]	**Pressure measurement range [bar]**	**Over pressure [bar]**	**Burst pressure [bar]**						
	0 ... 2.5	5	100	**75**					
	0 ... 4	8	100	**76**					
	0 ... 6	12	100	**77**					
	0 ... 10	20	200	**78**					
	0 ... 16	32	200	**79**					
	0 ... 25	50	300	**80**					
	0 ... 40	80	300	**81**					
	0 ... 60	120	500	**82**					
	0 ... 100	200	500	**83**					
	0 ... 160	320	1000	**85**					
	0 ... 250	500	1000	**74**					
	0 ... 400	800	1500	**84**					
	0 ... 600	1000	2000	**86**					
Sensor	Relative pressure, accuracy: 0.3 %				**23**				
	Relative pressure, accuracy: 0.5 %				**25**				
Pressure connection	G1/4" male (Seal)					**17**			
	R1/4" male [2]					**19**			
	1/4" NPT male [3]					**30**			
	1/2" NPT male [3]					**51**			
Electrical connection	Male electrical plug EN 175301-803-A (DIN43650-A), Mat. PA						**04**		
	Male electrical plug EN 175301-803-A, Mat. PA, Extended vibration resistance						**05**		
	Male electrical plug MIL-C 26482, 6-pole, metal [4]						**02**		
Output signal	**Signal output**	**Load resistance**	**I (supply)**	**U (supply)**					
	4 ... 20mA	(Usupply-9 V) / 20 mA		9 ... 32 VDC				**19**	
Accessories	Pressure peak damping element ø 1.0 mm								**40**
	Pressure peak damping element ø 0.3 mm								**43**
	Pressure peak damping element ø 0.5 mm								**45**
	Female electrical connector: EN 175301-803-A (DIN43650-A)/Silicone, -40...125°C								**56**
	Female electrical connector EN 175301-803-A (DIN43650-A)/NBR, -40...90°C								**58**
	Female electrical connector MIL-C 26482, 6-pole, metal								**32**
	Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)								**92**

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Only with electrical connection 04
[3] Please ask us
[4] For pressure ranges < 40 bar upon request

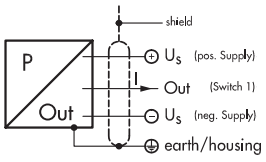
EPN-S 8320

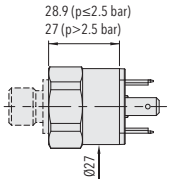
Electronic Pressure Switch

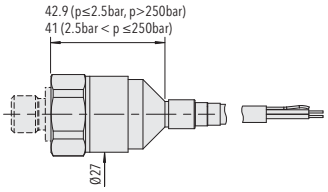
Features

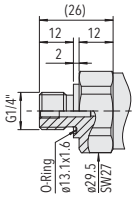
- Rugged design for harsh environments
- Wide temperature range
- Excellent long-term stability
- Very compact design
- Switchpoint factory set or programmable on site with Trafag Sensor Communicator SC

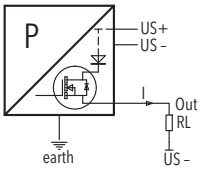
Technical Data			
Measuring principle	Thin film on steel	Media temperature	-40°C ... +125°C
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	Ambient temperature	Standard: -25°C ... +85°C Option accessory 67: -40°C ... +125°C
Output signal	Transistor (open source)	Approval / conformity	GL
Accuracy @ 25°C typ.	± 0.5 % FS typ. (Switchpoint)		



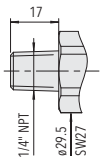


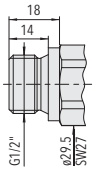


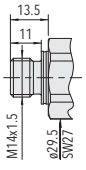


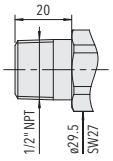


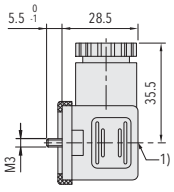
Connection of loads to switch contacts











1) Tightening torque 50...60Ncm

Switching output	
Output signal	1 transistor (open source)
Switchpoint setting	Switchpoint factory set or programmable on site with Trafag Sensor Communicator SC
Adjustment range	0 … 100 % FS
Switching hysteresis	≥ 1 % FS
Switching current	≤ 0.5 A @ -40°C ... +85°C ≤ 0.4 A @ +85°C ... +125°C (only with accessory 67: higher operating temperature -40°C ... +125°C)
Switching resistance	≤ 3Ω
Delay time	Standard adjustment: 5 ms Adjustable with Trafag Sensor Communicator (only electrical connection 04): 5 ms ... 10 s

Data sheet H72333
Instructions H73333

Ordering information/type code

8320 . XX XX XX XX XX XX

Measuring range [1)]

Pressure measurement range [bar]	Over pres-sure [bar]	Burst pres-sure [bar]	Code	Pressure measurement range [ps]	Over pres-sure [ps]	Burst pres-sure [ps]	Code
0 ... 2.5	5	100	**75**	0 ... 30	30	720	**G5**
0 ... 4	8	100	**76**	0 ... 50	115	860	**G6**
0 ... 6	12	100	**77**	0 ... 100	170	1450	**G7**
0 ... 10	20	200	**78**	0 ... 150	290	2900	**G8**
0 ... 16	32	200	**79**	0 ... 250	464	2900	**G9**
0 ... 25	50	300	**80**	0 ... 400	725	4350	**H0**
0 ... 40	80	300	**81**	0 ... 500	1160	4350	**H1**
0 ... 60	120	500	**82**	0 ... 1000	1740	5800	**H2**
0 ... 100	200	500	**83**	0 ... 1500	2900	7250	**H3**
0 ... 160	320	1000	**85**	0 ... 2000	4640	10850	**H5**
0 ... 250	500	1000	**74**	0 ... 3000	7250	14500	**G4**
0 ... 400	800	1500	**84**	0 ... 5000	11600	21750	**H4**
0 ... 600	1000	2000	**86**	0 ... 7500	14500	29000	**H6**

Section	Description	Code
Sensor	Relative pressure	**23**
Pressure connection	G1/4" male (Seal)	**17**
	1/4" NPT male	**30**
	G1/2" male (DIN3852-A) [2)]	**21**
	M14x1.5 male (DIN3852-A) [2)]	**22**
	1/2" NPT male [2)]	**51**
Electrical connection	Male electrical plug: EN 175301-803-A (DIN43650-A)	**04**
	Cable with shield: Material: FDR 25 (Raychem) 4 x 0.5mm², -40°C ... +125°C, (Cable lenght see "Accessories")	**78**
	Cable with shield: Material: Radox Tenuis-TW 600V MM S (EN45545), 4 x 0.5mm², -40°C ... +120°C, (Cable lenght see "Accessories")	**88**
Output signal	1 Transistor out: switchpoint "ON": ... (bar); switchpoint "OFF": ... (bar); delay time: standard 5 (ms), ... (ms) range: 5...10000 (ms)	**T1**
Accessories	Pressure peak damping element ø 0.4 mm	**44**
	Pressure peak damping element ø 1.0 mm	**40**
	Female electrical connector EN 175301-803-A (DIN43650-A)/NBR, -40...90°C	**58**
	Railways version (500 VAC/DC), with shielded cable only	**11**
	Higher operating temperature: -40°C ... +125°C	**67**
	Cable length 1.5 m	**1M**
	Cable length 3.0 m	**3M**
	Cable length 5.0 m	**5M**

[1)] Customized pressure ranges upon request
[2)] Please ask us

Programming device Sensor Communicator SC

Ordering No.

- Sensor Communicator SC: F88030
- Programming cable with connector EN 175301-803A: F88049

Manuals:

- Sensor Communicator SC: H73699 (EN) / H73698 (DE)

trafag sensors controls

ECTN 8477

Marine Pressure Transmitter

Features

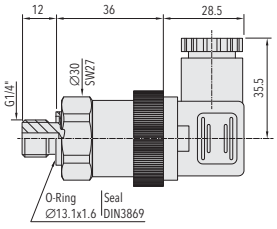
- Economical
- Good media compatibility
- Relative or absolute pressure measurement
- Titanium version optional

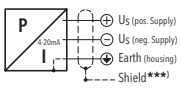
Technical Data			
Measuring principle	Thick film on ceramic	Media temperature	-25°C ... +85°C 400 bar/5000 psi: -10°C ... +85°C
Measuring range	0 ... 1 to 0 ... 400 bar 0 ... 15 to 0 ... 5000 psi	Ambient temperature	-25°C ... +85°C
Output signal	4 ... 20 mA	Approval / conformity	DNV, GL, KRS, RINA
Accuracy @ 25°C typ.	± 0.5 % FS typ.		

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Supply [VDC]
ECTN1.0A	8477 71 5917 05 0000 0000 19 58 61	0 ... 1	2	4 ... 20 mA	9 ... 30
ECTN2.5A	8477 75 5917 05 0000 0000 19 58 61	0 ... 2.5	5	4 ... 20 mA	9 ... 30
ECTN4.0A	8477 76 5917 05 0000 0000 19 58 61	0 ... 4	8	4 ... 20 mA	9 ... 30
ECTN6.0A	8477 77 5917 05 0000 0000 19 58 61	0 ... 6	12	4 ... 20 mA	9 ... 30
ECTN10.0A	8477 78 5917 05 0000 0000 19 58 61	0 ... 10	20	4 ... 20 mA	9 ... 30
ECTN16.0A	8477 79 5917 05 0000 0000 19 58 61	0 ... 16	32	4 ... 20 mA	9 ... 30
ECTN25.0A	8477 80 5917 05 0000 0000 19 58 61	0 ... 25	50	4 ... 20 mA	9 ... 30
ECTN40.0A	8477 81 5917 05 0000 0000 19 58 61	0 ... 40	80	4 ... 20 mA	9 ... 30

Pressure peak damping element: see 'Accessories' or data sheet H72258





ECTN ... A (4 ... 20 mA)

Data sheet H72322
Instructions H73324

Additional dimensions see data sheet

Ordering information/type code

8477 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 1.0	2	3	**71**	0 ... 15	30	45	**G1**
0 ... 1.6	3.2	4.8	**73**	0 ... 20	40	70	**G3**
0 ... 2.5	5	7.5	**75**	0 ... 30	60	90	**G5**
0 ... 4	8	12	**76**	0 ... 50	100	150	**G6**
0 ... 6	12	15	**77**	0 ... 100	200	250	**G7**
0 ... 10	20	25	**78**	0 ... 150	300	375	**G8**
0 ... 16	32	40	**79**	0 ... 250	500	625	**G9**
0 ... 25	50	75	**80**	0 ... 400	800	1200	**H0**
0 ... 40	80	100	**81**	0 ... 500	1000	1250	**H1**
0 ... 60	120	180	**82**	0 ... 1000	2000	3000	**H2**
0 ... 100 [4]	200	300	**83**	0 ... 1500 [4]	3000	4500	**H3**
0 ... 160 [4]	320	480	**85**	0 ... 2000 [4]	4000	6000	**H5**
0 ... 250 [4]	500	750	**74**	0 ... 3000 [4]	6000	9000	**G4**
0 ... 400 [2] [4]	800	1000	**84**	0 ... 5000 [2] [4]	10000	12500	**H4**

Sensor

Relative pressure, 1.4404/1.4435	**59**
Relative pressure, 1.4462 [4]	**52**
Relative pressure, titanium grade 5 [4]	**53**
Absolute pressure, 1.4404/1.4435 [3]	**89**
Absolute pressure, 1.4462 [3] [4]	**82**
Absolute pressure, titanium grade 5 [3] [4]	**83**

Pressure connection

G1/4" female [4]	**10**
G1/4" male	**17**
G1/2" male [4]	**21**
1/4" NPT male [4]	**30**

Electrical connection

Male electrical plug EN 175301-803-A, Mat. PA	**05**

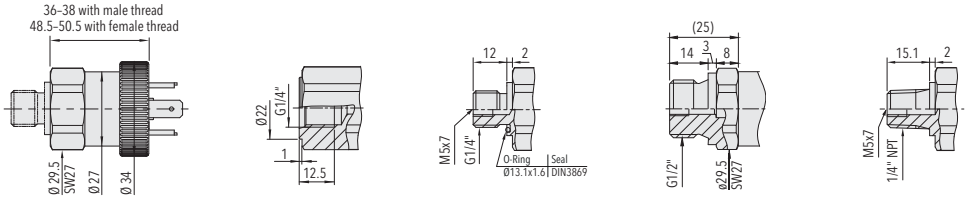
Output signal

Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20 mA	(Usupply-9 V) / 20 mA		9 ... 30 VDC	**19**

Accessories

Seal FKM (-20°C ... +125°C)	**61**
Seal EPDM (-25°C ... +125°C)	**63**
Female electrical connector EN 175301-803-A (DIN43650-A)	**58**
Pressure peak damping element ø 0.4 mm	**44**
Pressure peak damping element ø 1.0 mm (for pressure connections 17 and 30)	**40**
Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)	**92**

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Media -10°C ... +85°C
[3] Absolute ranges max. 40 bar
[4] Upon request



trafag sensors controls

NAP 8842/8843

Pressure Transmitter

Features

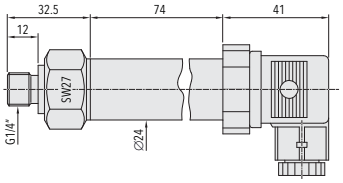
- Pressure ranges from 100 mbar
- Media temperature to 150°C
- EMC protection, IEC 61000
- Option: Lightning protection (IEC 61000-4-5), 10kA (8/20 µs)

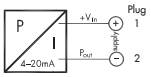
Technical Data			
Measuring principle	Piezoresistive	Media temperature	0°C ... +80°C (opt. -25 ... +100°C/-25 ... +150°C)
Measuring range	0 ... 0.1 to 0 ... 1000 bar	Ambient temperature	0°C ... +70°C (opt. -25 ... +85°C)
Output signal	4 ... 20 mA 0 ... 10 VDC	Approval / conformity	GL, KRS

Data sheet	H72230
Instructions	H73208

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAP0.1A	8842 66 P515 04 0000 0000 19 58	0 ... 0.1	3	9 ... 33	±0.5
NAP0.2A	8842 68 P515 04 0000 0000 19 58	0 ... 0.2	3	9 ... 33	±0.5
NAP0.4A	8842 69 P515 04 0000 0000 19 58	0 ... 0.4	3	9 ... 33	±0.5
NAP0.6A	8842 70 P515 04 0000 0000 19 58	0 ... 0.6	3	9 ... 33	±0.5
NAP1.0A	8842 71 P515 04 0000 0000 19 58	0 ... 1.0	3	9 ... 33	±0.5





NAP ... A (4 ... 20 mA)

NAL 8838

Submersible Pressure Transmitter

Features

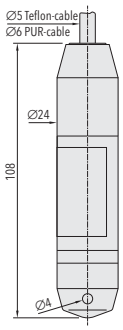
- Pressure ranges from 100 mbar
- No media contacting O-rings
- PUR or Teflon cables
- Option: Chemical resistant material, e.g. titanium
- Option: Lightning protection (IEC 61000-4-5)

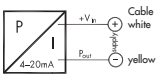
Technical Data			
Measuring principle	Piezoresistive	Media temperature	-5°C ... +50°C
Measuring range	0 ... 0.1 to 0 ... 25 bar	Ambient temperature	-5°C ... +50°C
Output signal	4 ... 20 mA 0 ... 10 VDC	Approval / conformity	GL, KRS

Data sheet H72228
Instructions

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
NAL0.1A	8838	0...0.1	3	9...33	±0.5
NAL0.2A	8838	0...0.2	3	9...33	±0.5
NAL1.0A	8838	0...1.0	3	9...33	±0.5





NAL ... A (4 ... 20 mA)

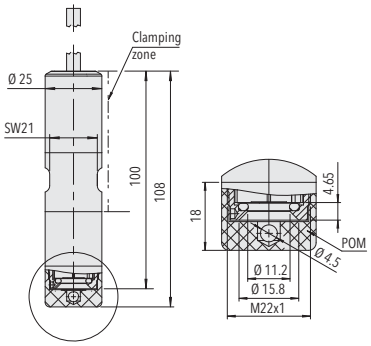
ECL 8439

Submersible Pressure Transmitter

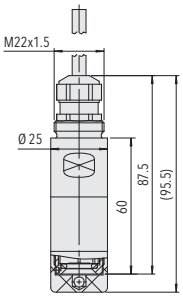
Features

- Suitable for thick and viscous media
- Different materials for optimum media compatibility
- Lightning protection integrated

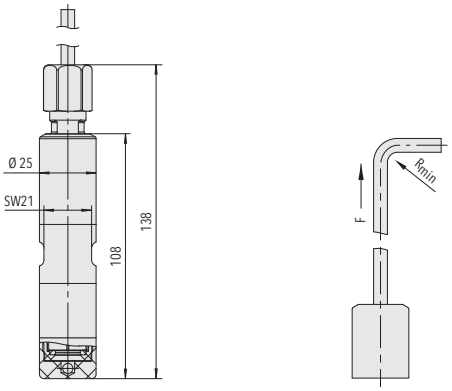
Technical Data			
Measuring principle	Thick film on ceramic	Accuracy @ 25°C typ.	± 0.3 % FS typ. Range 0 ... 0.1 to 0 ... 0.2 bar: ± 0.5 % FS typ.
Measuring range	0 ... 0.1 to 0 ... 2.0 bar 0 ... 1.5 to 0 ... 30 psi	Media temperature	-10°C ... +70°C (Cable PE: -10°C … +65°C)
Output signal	4 ... 20 mA	Ambient temperature	-10°C ... +70°C (Cable PE: -10°C … +65°C)



Standard version



OEM version



Serto adapter

Serto adapter SO 50021-12
for stainless steel tubes with
outer diameter 12 mm
inner diameter 8 mm

Data sheet	H72336
Instructions	H73336

Ordering information/type code

8439 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 0.1	1.2	2	**66**	0 ... 1.5	15	30	**F6**
0 ... 0.16	1.2	2	**67**	0 ... 2	15	30	**F7**
0 ... 0.2	1.2	2	**68**	0 ... 2.5	15	30	**F8**
0 ... 0.4	1.2	2	**69**	0 ... 5	15	30	**F9**
0 ... 0.5	1.2	2	**64**	0 ... 6.5	15	30	**F4**
0 ... 0.6	1.2	2	**70**	0 ... 7.5	15	30	**G0**
0 ... 1.0	2	3	**71**	0 ... 15	30	45	**G1**
0 ... 1.6	3.2	4.8	**73**	0 ... 20	45	70	**G3**
0 ... 2.0	3.2	4.8	**72**	0 ... 30	45	70	**G2**

Sensor

Relative pressure	**23**

Housing

Housing AISI316L, standard version [2]	**58**	Housing 1.4462, OEM-version [2] [3]	**50**
Housing 1.4462, standard version [2] [3]	**55**	Housing AISI316L, Serto Connection [2] [3]	**60**
Housing AISI316L, OEM-version [2]	**56**		

Electrical connection

Cable PUR, Ø 6 mm, L = 5 m	**21**	Cable Radox, Ø 6 mm, L = 25 m	**35**
Cable PUR, Ø 6 mm, L = 10 m	**22**	Cable Radox, Ø 6 mm, L = 30 m	**36**
Cable PUR, Ø 6 mm, L = 15 m	**23**	Cable Radox, Ø 6 mm, customized (L = max. 50m)	**30**
Cable PUR, Ø 6 mm, L = 20 m	**24**	Cable PE, Ø 6 mm, L = 5 m	**41**
Cable PUR, Ø 6 mm, L = 25 m	**25**	Cable PE, Ø 6 mm, L = 10 m	**42**
Cable PUR, Ø 6 mm, L = 30 m	**26**	Cable PE, Ø 6 mm, L = 15 m	**43**
Cable PUR, Ø 6 mm, customized (L = max. 50m)	**20**	Cable PE, Ø 6 mm, L = 20 m	**44**
Cable Radox, Ø 6 mm, L = 5 m	**31**	Cable PE, Ø 6 mm, L = 25 m	**45**
Cable Radox, Ø 6 mm, L = 10 m	**32**	Cable PE, Ø 6 mm, L = 30 m	**46**
Cable Radox, Ø 6 mm, L = 15 m	**33**	Cable PE, Ø 6 mm, customized (L = max. 50m)	**40**
Cable Radox, Ø 6 mm, L = 20 m	**34**		

Output signal

4 ... 20 mA	**19**

Accessories

Seal FKM / FPM / Viton	**61**
Seal EPDM / TPE	**63**

[1] Extended overpressure as well as customized pressure ranges upon request
[2] See "Dimensions"
[3] Upon request

Type	Type code	Housing	Cable material	Seal	Typical applications
Standard [1] OEM [1] Serto	8439.XX.2358.2X.19.61.XX 8439.XX.2356.2X.19.61.XX 8439.XX.2360.2X.19.61.XX	AISI316L	PUR	FKM / Viton	General applications
Standard OEM Serto	8439.XX.2358.3X.19.61.XX 8439.XX.2356.3X.19.61.XX 8439.XX.2360.3X.19.61.XX	AISI316L	Radox	FKM / Viton	Oils and fuels
Standard OEM Serto	8439.XX.2358.4X.19.63.XX 8439.XX.2356.4X.19.63.XX 8439.XX.2360.4X.19.63.XX	AISI316L	PE	EPDM / TPE	Wastewater, grey-water, drinking water
Standard OEM	8439.XX.2355.4X.19.63.XX 8439.XX.2350.4X.19.63.XX	1.4462	PE	EPDM / TPE	Seawater, Saline water
Standard OEM	8439.XX.23.55.3X.19.63.XX 8439.XX.23.50.3X.19.63.XX	1.4462	Radox	EPDM / TPE	Marine applications

Non-standard build-up combinations may be selected, whereas minimum order quantities may apply
[1] Extra short lead time

ECL 8438

Submersible Pressure Transmitter

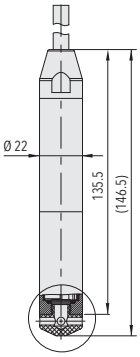
Features

- Good media compatibility
- Economical
- Cable PUR/PE or FEP
- Lightning protection integrated

Technical Data			
Measuring principle	Thick film on ceramic	Media temperature	-25°C ... +80°C (+70°C)
Measuring range	0 ... 0.1 to 0 ... 10 bar	Ambient temperature	-25°C ... +80°C (+70°C)
Output signal	4 ... 20 mA	Approval / conformity	GL, KRS
Accuracy @ 25°C typ.	± 0.3 % FS typ. Range 0...0.1 to 0...0.4 bar: ± 0.5 % FS typ.		

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Cable length
ECL0.2A	8438 68 2646 22 0000 0000 19 61 5M	0 ... 0.2	2	9 ... 30	5 m
ECL0.5A	8438 21 2346 22 0000 0000 19 61 8M 01	0 ... 0.5	2	9 ... 30	10 m



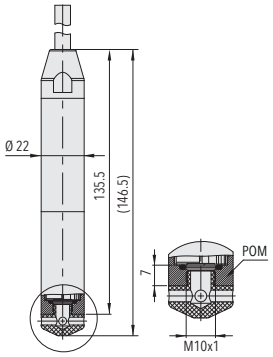
ECL ... A (4 ... 20 mA)

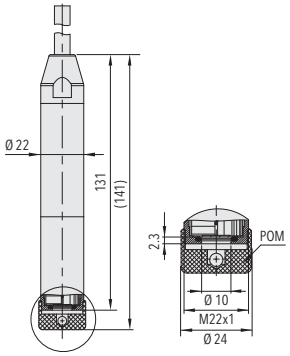
Data sheet H72328
Instructions H73328

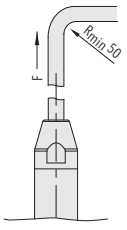
Ordering information/type code

					8438 . XX	XX	XX	XX	XX	XX
Measuring range [1]	**Pressure measurement range [bar]**		**Over pressure [bar]**	**Burst pressure [bar]**						
	0 ... 0.1		1.2	2	66					
	0 ... 0.16		1.2	2	67					
	0 ... 0.2		1.2	2	68					
	0 ... 0.4		1.2	2	69					
	0 ... 0.6		1.2	2	70					
	0 ... 1.0		2	3	71					
	0 ... 1.6		3.2	4.8	73					
	0 ... 2.5		5	7.5	75					
	0 ... 4		8	12	76					
	0 ... 6		12	15	77					
	0 ... 10		20	25	78					
Sensor	Relative pressure > 400 mbar, accuracy 0.3%					23				
	Relative pressure ≤ 400 mbar, accuracy: 0.5%					26				
Pressure connection	Type 1, female, M 10x1, 1.4404/1.4435						46			
	Type 2, male, M 22x1, 1.4404/1.4435						48			
Electrical connection	Cable: PUR ø 6 mm [2] [3]							22		
	Cable: FEP ø 6 mm [2] [3]							32		
	Cable: PE ø 6 mm [2] [3]							42		
Output signal	**Signal output**	**Load resistance**		**I (supply)**	**U (supply)**				19	
	4 ... 20mA	(Usupply-9 V) / 20 mA			9 ... 30 VDC					
Accessories	Seal FKM									61
	Seal CR									62
	Seal EPDM									63

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Please specify cable length when ordering (cable lengths >50 m up to 120 m upon request)
[3] For level measurement applications on ships under certification GL (German Lloyd), the cable of such transmitters must be installed inside the tank only







FPT 8235

Flush Membrane Transmitter

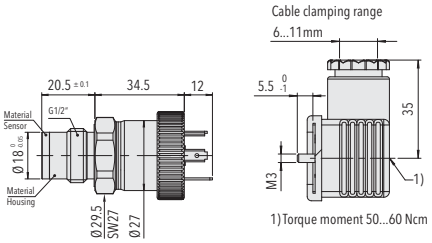
Features

- Flush membrane with smooth and plain surface
- Completely welded sensor system
- Very compact design
- Accuracy NLH 0.1% FS typ.
- Excellent long-term stability

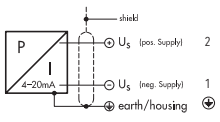
Technical Data			
Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.4 % FS
Measuring range	0 ... 1 to 0 ... 100 bar 0 ... 15 to 0 ... 1500 psi	Media temperature	-40°C ... +125°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	Ambient temperature	-40°C ... +85°C (Cable PVC 22: -5°C ... +60°C)

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output	Accuracy @ 25°C typ. [%]
FPT1.0A	8235 71 2391 05 0000 0000 19 58 61	0 ... 1	2	4 ... 20 mA	± 0.4
FPT2.5A	8235 75 2391 05 0000 0000 19 58 61	0 ... 2.5	5	4 ... 20 mA	± 0.4
FPT4.0A	8235 76 2391 05 0000 0000 19 58 61	0 ... 4	8	4 ... 20 mA	± 0.4
FPT6.0A	8235 77 2391 05 0000 0000 19 58 61	0 ... 6	12	4 ... 20 mA	± 0.4
FPT10.0A	8235 78 2391 05 0000 0000 19 58 61	0 ... 10	20	4 ... 20 mA	± 0.4
FPT16.0A	8235 79 2391 05 0000 0000 19 58 61	0 ... 16	32	4 ... 20 mA	± 0.4
FPT25.0A	8235 80 2391 05 0000 0000 19 58 61	0 ... 25	50	4 ... 20 mA	± 0.4
FPT40.0A	8235 81 2391 05 0000 0000 19 58 61	0 ... 40	80	4 ... 20 mA	± 0.4
FPT100.0A	8235 83 2391 05 0000 0000 19 58 61	0 ... 100	200	4 ... 20 mA	± 0.4



FPT ... A Female electrical plug included



FPT ... A (4 ... 20 mA)

Data sheet H72316
Instructions H73316

Ordering information/type code

							8235 .	XX	XX	XX	XX	XX	XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 1.0	2	3	**71**	0 ... 15	30	40	**G1**
0 ... 2.5	5	7.5	**75**	0 ... 30	70	100	**G5**
0 ... 4	8	12	**76**	0 ... 50	115	170	**G6**
0 ... 6	12	18	**77**	0 ... 100	150	260	**G7**
0 ... 10	20	30	**78**	0 ... 150	290	430	**G8**
0 ... 16	32	48	**79**	0 ... 250	450	690	**G9**
0 ... 25	50	75	**80**	0 ... 400	725	1080	**H0**
0 ... 40	80	120	**81**	0 ... 500	1100	1740	**H1**
0 ... 100	200	300	**83**	0 ... 1450	2900	4350	**H3**

Sensor

Relative pressure	**23**

Pressure connection

G1/2" male, flush membrane	**91**

Electrical connection

Male electrical plug EN 175301-803-A (DIN 43650-A) Mat. PA	**05**
Male electrical plug M12x1, 5-pol., Mat. PA	**35**
Male electrical plug, Industrial standard (contact distance 9.4 mm) Mat. PBT	**01**
Male electrical plug Packard Metri Pack	**51**
Cable IP67 (cable length see "Accessories") Mat. PVC (cable gland PA6-3), -5°C ... +60°C [2]	**22**
Cable IP68 max. 3m, medium +10°C...+35°C, max. 1 bar relative	**68**

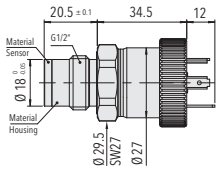
Output signal

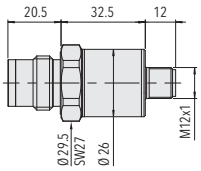
Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20mA	(Usupply-9 V) / 20 mA		9 ... 30 VDC	**19**
0 ... 5 VDC	> 2.5 kΩ	< 10 mA	10 ... 30 VDC	**14**
1 ... 6 VDC	> 5.0 kΩ	< 10 mA	10 ... 30 VDC	**16**
0 ... 10 VDC	> 5.0 kΩ	< 10 mA	15 ... 30 VDC	**17**
0.5 ... 4.5 VDC	> 5.0 kΩ	< 10 mA	5 VDC ± 0.25 VDC ratiom.	**23**

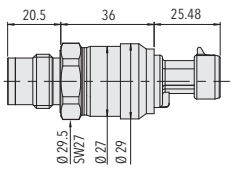
Accessories

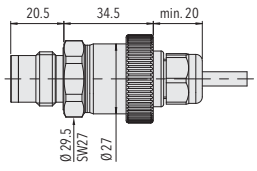
Sealing Ring DIN 3869, Mat. FPM (FKM) -15°C ... +125°C	**61**
Sealing Ring DIN 3869, Mat. NBR, -25°C ... +100°C	**69**
Female electrical connector EN 175301-803-A (DIN43650-A)/NBR, -40...90°C	**58**
Female electrical plug M12x1, 5-pole	**33**
Female electrical connector industrial standard	**34**
Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A) [2]	**92**
Special electrical connection: Pin 1 out , Pin 2 -, Pin 3 + (only for output 14, 16, 17, 23 and male electrical plug EN175301-803-A / DIN43650-A) [2]	**98**
Special electrical connection: Pin 1 + , Pin 2 -, Pin 3 out (Only for output 0...5VDC, 1...6VDC, 0...10VDC, 0.5...4.5VDC and male electrical plug EN175301-803-A / DIN43650-A) [2]	**97**
Special electrical connection: Pin 1 + , Pin 2 -, Pin 3 GR (Only for output 4...20mA and male electrical plug M12x1, 5-pol.) [2]	**94**
Special electrical connection: Pin 1 + , Pin 2 - (Only for male electrical plug Packard Metri Pack 3-pol.) [2]	**99**
Membrane electropolished Ra=0.4µm	**EP**
Cable length 1.5 m	**1M**
Cable length 3.0 m	**3M**
Cable length 5.0 m	**5M**

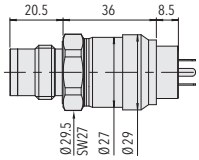
[1] Extended overpressure as well as customized pressure ranges upon request
[2] Details see electrical connection

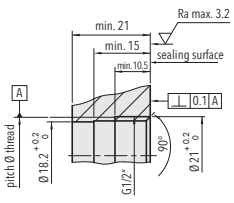




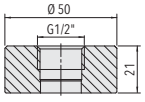








Mounting thread G1/2"
DIN EN ISO 1179-1



Welding flange for
G1/2" (1.4301)

trafag sensors controls

CMP 8270

CANopen Miniature Pressure Transmitter

Features

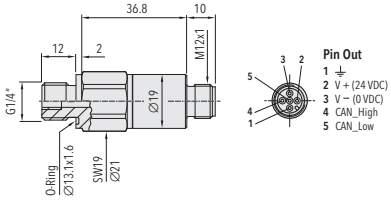
- Small and rugged construction
- Different accuracy classes
- Measurement of pressure and temperature
- CANopen bus protocol DS301/DS404 supports CAN 2.0A/B
- LSS (DS 305 V2.0)

Technical Data

Measuring principle	Thin film on steel	Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.
Measuring range	0 ... 1 to 0 ... 600 bar	Media temperature	-50°C ... +135°C
Output signal	Bus protocol CANopen DS404	Ambient temperature	-40°C ... +125°C

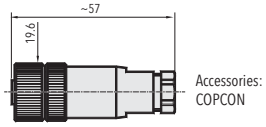
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
CMP4.0M	8270 76 2517 35 0000 0000 52 43	0 ... 4	12	8 ... 32	± 0.5
CMP6.0M	8270 77 2517 35 0000 0000 52 43	0 ... 6	12	8 ... 32	± 0.5
CMP10.0M	8270 78 2517 35 0000 0000 52 43	0 ... 10	20	8 ... 32	± 0.5
CMP16.0M	8270 79 2517 35 0000 0000 52 43	0 ... 16	32	8 ... 32	± 0.5
CMP25.0M	8270 80 2517 35 0000 0000 52 43	0 ... 25	50	8 ... 32	± 0.5
CMP40.0M	8270 81 2517 35 0000 0000 52 43	0 ... 40	80	8 ... 32	± 0.5
CMP100.0M	8270 83 2517 35 0000 0000 52 43	0 ... 100	200	8 ... 32	± 0.5
CMP250.0M	8270 74 2517 35 0000 0000 52 43	0 ... 250	500	8 ... 32	± 0.5
CMP400.0M	8270 84 2517 35 0000 0000 52 43	0 ... 400	800	8 ... 32	± 0.5

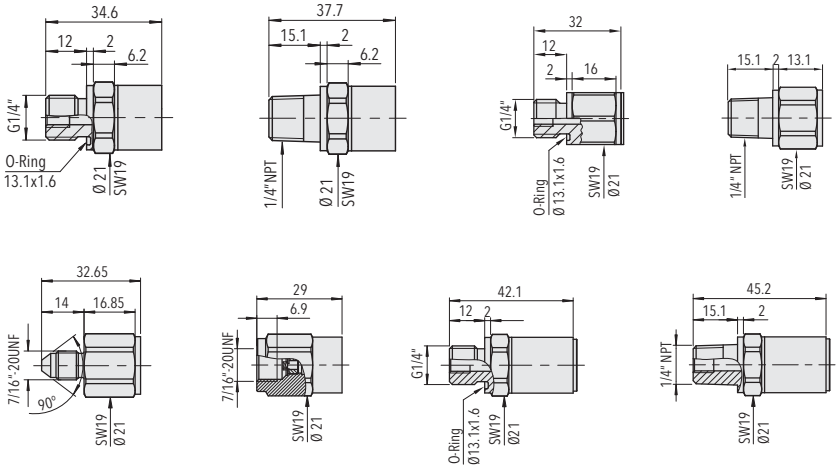


CMP ... M

Pressure peak damping element integrated



Accessories:
COPCON



Data sheet	H72614
Instructions	H73614

Ordering information/type code

8270 . XX XX XX XX XX XX

Measuring range [1)]

Pressure measurement range [bar]	Over pres-sure [bar]	Burst pres-sure [bar]		Pressure measurement range [bar]	Over pres-sure [bar]	Burst pres-sure [bar]	
0 ... 1 [2)]	2	25	**71**	0 ... 40	80	300	**81**
0 ... 1.6 [2)]	3.5	50	**73**	0 ... 60	120	400	**82**
0 ... 2.5 [2)]	5	50	**75**	0 ... 100	200	500	**83**
0 ... 4	12	100	**76**	0 ... 160	320	750	**85**
0 ... 6	12	100	**77**	0 ... 250	500	1000	**74**
0 ... 10	20	200	**78**	0 ... 400	800	1500	**84**
0 ... 16	32	200	**79**	0 ... 600	1200	2000	**86**
0 ... 25	50	300	**80**				

Sensor

Relative pressure, accuracy: 0.5 %	**25**	Absolute pressure, accuracy: 0.5 %	**45**
Relative pressure, accuracy: 0.15 %	**21**	Absolute pressure, accuracy: 0.15 %	**41**
Relative pressure, accuracy: 0.1 %	**24**	Absolute pressure, accuracy: 0.1 %	**44**

Pressure connection

G1/4" male (Seal)	**17**
1/4" NPT male	**30**
7/16"-20UNF male [3)]	**18**
7/16"-20UNF female, DIN3866 (valve opener) [3)]	**24**

Electrical connection

Male electrical plug M12x1, 5-pole, Mat. PA	**35**

Output signal

CANopen bus protocol with pre-adjustment Node-ID = 1, baudrate = 20 kbps	**52**
CANopen bus protocol with pre-adjustment, Node-ID: 1, automatic baudrate detection	**53**

Accessories

Female electrical plug M12x1, 5-pole	**33**
Pressure peak damping element ø 1.0 mm	**40**
Pressure peak damping element ø 0.3 mm	**43**
Pressure peak damping element ø 0.5 mm	**45**

[1)] Extended overpressure as well as customized pressure ranges upon request
[2)] Only with pressure connection 17 (G1/4") or 30 (1/4"NPT)
[3)] Only for relative pressure measurement, max. allowable pressure range 40 bar

CANopen Features

- CiA conformance tested
- All CiA bus speeds: 10kbit/s...1Mbit/s
- Autobaud
- Supports11/29 bit identifiers: CAN 2.0 A/B
- Frequency of measurement and transmission upto 1kHz
- Moving average filter: 1ms...65s (pressure)
- Additional PDO mode: delta and limit triggered
- All standardised data types for PDO's Floating point, integer with 32, 24, 16 bits
- Eligible, prefix adjustable units pressure: bar, Pa, psi, mmHg, mmWg, atm, at; temperature: °C, °F, K
- Auto-zero function
- Auto-Start-Mode for operation without master
- 4 Pressure - and 4 temperature tresholds with 8 free definable CAN messages
- Separate storage of parameters for communication and application
- Flash-Update
- Baudrate detection

CANopen- Bus Protocol

- Output signal: CAN BUS (ISO 118982)
- CANopen: DS301 V4.0
- Device profile: DS404 V1.2
- Baudrate (Autobaude): 10kbit/s...1Mbit/s
- Error control: Nodeguarding, Heartbeat
- Node ID: LSS (DSP 305 V2.0) fully implemented, proprietary
- No. of PDO's: 4 TX
- PDO modes: event-/time-triggered, remotely requested, sync (cyclic/acyclic)
- PDO linking: yes
- PDO mapping: yes
- No. of SDO's: 1 server
- Emergency message: yes

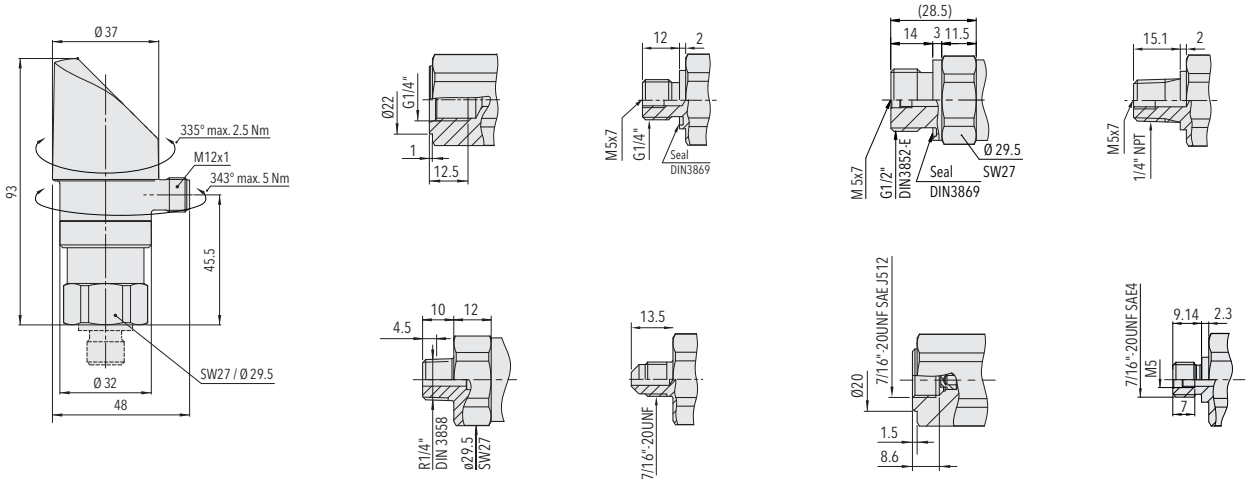
DPC 8380

Display Pressure Switch

Features

- Analogue output switchable mA or V
- 2 Switching outputs PNP
- Relative or absolute pressure measurement, measuring principle thick film on ceramic
- Parametrisation also via NFC-smartphone App (Android)
- Display and electrical connection are independently rotatable 335°/343°

Technical Data			
Measuring principle	Thick film on ceramic	Media temperature	-25°C ... +85°C
Measuring range	0 ... 1 to 0 ... 100 bar 0 ... 15 to 0 ... 1500 psi adjustable 50 ... 100 % FS	Ambient temperature	-25°C ... +85°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V	Pressure unit for display	bar, psi, MPa, kPa, m WC, mm WC
Switching output	2 transistors PNP	Logger	Ring buffer: 3518 data points Sampling time: 0.1 ... 999.9 s, Off (0)
Accuracy @ 25°C typ.	± 0.5 % FS typ.		



Pressure peak damping element: see 'Accessories' or data sheet H72258

Data sheet	H72320
Instructions	H73320

Ordering information/type code

8380 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
0 ... 1	2	4.8	**71**	0 ... 15	45	70	**G1**
0 ... 1.6	3.2	4.8	**73**	0 ... 20	45	70	**G3**
0 ... 2.5	5	7.5	**75**	0 ... 30	60	90	**G5**
0 ... 4	8	12	**76**	0 ... 50	100	150	**G6**
0 ... 6	12	15	**77**	0 ... 100	200	250	**G7**
0 ... 10	20	25	**78**	0 ... 150	300	375	**G8**
0 ... 16	32	40	**79**	0 ... 250	500	625	**G9**
0 ... 25	50	75	**80**	0 ... 400	800	1200	**H0**
0 ... 40	80	100	**81**	0 ... 500	1000	1250	**H1**
0 ... 60	120	180	**82**	0 ... 1000	2000	3000	**H2**
0 ... 100	200	300	**83**	0 ... 1500	3000	4500	**H3**

Sensor

Relative pressure, 1.4305, accuracy: 0.5 %	**57**	Absolute pressure, 1.4305, accuracy: 0.5 % [3]	**87**
Relative pressure, 1.4404/1.4435, accuracy: 0.5 % [4]	**59**	Absolute pressure, 1.4404/1.4435, accuracy: 0.5 % [3] [4]	**89**
Relative pressure, 1.4462, accuracy: 0.5 % [4]	**52**	Absolute pressure, 1.4462, accuracy: 0.5 % [3] [4]	**82**
Relative pressure, Titanium Grade 5, accuracy: 0.5 % [4]	**53**	Absolute pressure, Titanium Grade 5, accuracy: 0.5 % [3] [4]	**83**

Pressure connection

G1/4" female	**10**	R1/4" male ISO 7-1 (DIN 2999) [4]	**19**
G1/4" male	**17**	7/16"-20UNF male, DIN3866 [4]	**18**
G1/2" male DIN3852-E [4]	**41**	7/16"-20UNF female SAE J512 with valve opener [4]	**24**
1/4" NPT male [4]	**30**	7/16"-20UNF female SAE4 [4]	**42**

Electrical connection

Male electrical plug M12x1, 4-pole, Mat. PA (Accessories P3, P4)	**32**
Male electrical plug M12x1, 5-pole, Mat. PA (Accessories P1, P2)	**35**

Output signal

Switching output PNP, current output 4 ... 20 mA; output detail see accessories P1, P2, P3	**PA**
Switching output PNP, voltage output 1 ... 6 VDC; output detail see accessories P1, P2, P3	**PU**
Switching output PNP, voltage output 0 ... 10 VDC; output detail see accessories P1, P2, P3	**PV**
Switching output PNP, voltage output 0 ... 5 VDC; output detail see accessories P1, P2, P3	**PW**
Switching output PNP; output detail see accessory P4	**PS**

Accessories

Pin configuration 5-pole.; 1: U+, 2: analogue, 3: U-, 4: SP1, 5: SP2	**P1**
Pin configuration 5-pole.; 1: U+, 2: SP2 , 3: U-, 4: SP1, 5: analogue	**P2**
Pin configuration 4-pole.; 1: U+, 2: analogue, 3: U-, 4: SP1	**P3**
Pin configuration 4-pole.; 1: U+, 2: SP2 , 3: U-, 4: SP1	**P4**
Pressure peak damping element ø 1.0 mm (for pressure connections 17 and 30)	**40**
Pressure peak damping element ø 0.4 mm (for pressure connections 17 and 30)	**44**
Seal FPM, -18°C ... +125°C	**61**
Seal EPDM, -40°C ... +125°C	**63**
Female electrical plug M12x1, 5-pole [5]	**33**
Parametrisation standard (see table Parameter)	**ZS**
Parametrisation according to customer specifications (see table Parameter)	**ZC**

[1] Extended overpressure as well as customized pressure ranges upon request
[3] Absolute ranges max. 40 bar
[4] Please ask us
[5] For electrical connections 32 and 35

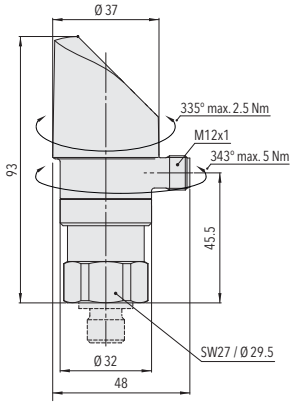
DPS 8381

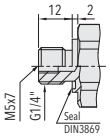
Display Pressure Switch

Features

- Analogue output switchable mA or V
- 2 Switching outputs PNP
- Parametrisation also via NFC-smartphone App (Android)
- Threefold overpressure resistance, measuring principle thin film on steel
- Display and electrical connection are independently rotatable 335°/343°

Technical Data			
Measuring principle	Thin film on steel	Media temperature	-25°C ... +85°C
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi adjustable 50 ... 100 % FS	Ambient temperature	-25°C ... +85°C
Output signal	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V	Pressure unit for display	bar, psi, MPa, kPa, m WC, mm WC
Switching output	2 transistors PNP	Logger	Ring buffer: 3518 data points Sampling time: 0.1 ... 999.9 s, Off (0)
Accuracy @ 25°C typ.	± 0.5 % FS typ.		





Pressure peak damping element: see 'Accessories' or data sheet H72258

Data sheet H72321
Instructions H73320

Additional dimensions see data sheet

Ordering information/type code

8381 . XX XX XX XX XX XX

Measuring range [1]	Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [psi]	Over pressure [psi]	Burst pressure [psi]	
	0 ... 2.5	7.5	50	**75**	0 ... 30	90	700	**G5**
	0 ... 4	12	60	**76**	0 ... 50	150	850	**G6**
	0 ... 6	18	100	**77**	0 ... 100	300	1450	**G7**
	0 ... 10	30	200	**78**	0 ... 150	450	2500	**G8**
	0 ... 16	48	200	**79**	0 ... 200	600	2500	**GA**
	0 ... 25	75	300	**80**	0 ... 250	750	2500	**G9**
	0 ... 40	120	300	**81**	0 ... 300	900	4000	**HA**
	0 ... 60	180	400	**82**	0 ... 400	1200	4000	**H0**
	0 ... 100	300	500	**83**	0 ... 500	1500	4000	**H1**
	0 ... 160	480	750	**85**	0 ... 1000	3000	5000	**H2**
	0 ... 250	750	1000	**74**	0 ... 1500	4500	7000	**H3**
	0 ... 400	1000	2000	**84**	0 ... 2000	6000	10000	**H5**
	0 ... 600	1500	2500	**86**	0 ... 3000	9000	14500	**G4**
					0 ... 5000	12500	21750	**H4**
					0 ... 7500	18750	29000	**H6**

Sensor	Relative pressure, accuracy: 0.5 %	**25**
Pressure connection	G1/4" male	**17**
Electrical connection	Male electrical plug M12x1, 4-pole, Mat. PA (Accessories P3, P4)	**32**
	Male electrical plug M12x1, 5-pole, Mat. PA (Accessories P1, P2)	**35**
Output signal	Switching output PNP, current output 4 ... 20 mA; output detail see accessories P1, P2, P3	**PA**
	Switching output PNP, voltage output 1 ... 6 VDC; output detail see accessories P1, P2, P3	**PU**
	Switching output PNP, voltage output 0 ... 10 VDC; output detail see accessories P1, P2, P3	**PV**
	Switching output PNP, voltage output 0 ... 5 VDC; output detail see accessories P1, P2, P3	**PW**
	Switching output PNP; output detail see accessory P4	**PS**
Accessories	Pin configuration 5-pole.; 1: U+, 2: analogue, 3: U-, 4: SP1, 5: SP2	**P1**
	Pin configuration 5-pole.; 1: U+, 2: SP2 , 3: U-, 4: SP1, 5: analogue	**P2**
	Pin configuration 4-pole.; 1: U+, 2: analogue, 3: U-, 4: SP1	**P3**
	Pin configuration 4-pole.; 1: U+, 2: SP2 , 3: U-, 4: SP1	**P4**
	Pressure peak damping element ø 1.0 mm (for pressure connections 17 and 30)	**40**
	Pressure peak damping element ø 0.4 mm (for pressure connections 17 and 30)	**44**
	Seal FPM, -18°C ... +125°C	**61**
	Seal EPDM, -40°C ... +125°C	**63**
	Seal NBR, -25°C ... +100°C	**83**
	Female electrical plug M12x1, 5-pole [3]	**33**
	Parametrisation standard (see table Parameter)	**ZS**
	Parametrisation according to customer specifications (see table Parameter)	**ZC**

[1] Extended overpressure as well as customized pressure ranges upon request
[3] For electrical connections 32 and 35

DCS 8864

Display Control Switch

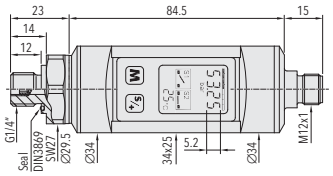
Features

- Simple adjustment of switchpoints
- Back-lit LCD-Display
- Measurement and indication of pressure (incl. switch state) and sensor temperature in various units
- High resistance to pressure cycling
- Output signal 2 relays, electrically isolated

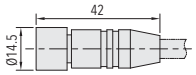
Technical Data			
Measuring principle	Thin film on steel	Media temperature	-25°C ... +125°C
Measuring range	0 ... 1 to 0 ... 600 bar	Ambient temperature	-25°C ... +80°C (LCD display active -10°C ... +70°C)
Output signal	4 ... 20 mA, 0 ... 10 VDC 2 Relays, electrically isolated 30W (max.1A), 36 VAC/ DC	Approval / conformity	GL
Accuracy @ 25°C typ.	± 0.5 % FS typ.		

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Signal output
DCS2.5AR	8864 75 2315 38 0000 0000 19 23	0...2.5	6	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCS4.0AR	8864 76 2315 38 0000 0000 19 23	0...4	10	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCS6.0AR	8864 77 2315 38 0000 0000 19 23	0...6	15	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCS10.0AR	8864 78 2315 38 0000 0000 19 23	0...10	20	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCS16.0AR	8864 79 2315 38 0000 0000 19 23	0...16	32	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCS25.0AR	8864 80 2315 38 0000 0000 19 23	0...25	80	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCS40.0AR	8864 81 2315 38 0000 0000 19 23	0...40	80	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCS100.0AR	8864 83 2315 38 0000 0000 19 23	0...100	200	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCS250.0AR	8864 74 2315 38 0000 0000 19 23	0...250	500	4...20 mA; 2 relays 30 W (max. 1 A)/36 VAC/DC
DCSCON2	Female electrical connector, cable included, length 2 m (PUR)			
DCSCON5	Female electrical connector, cable included, length 5 m (PUR)			
DCSCON10	Female electrical connector, cable included, length 10 m (PUR)			

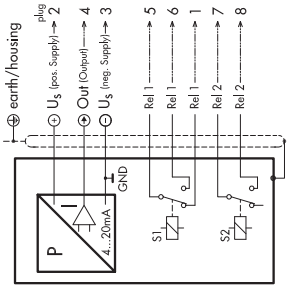


DCS ... AR



DCSCON ...

Pressure peak damping element integrated

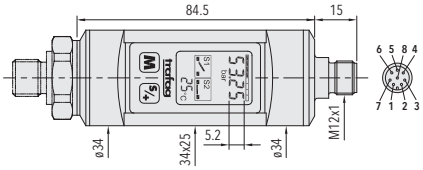


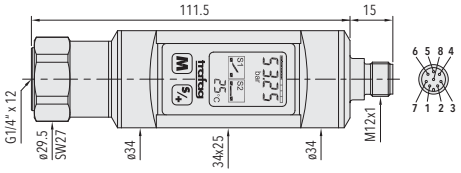
Data sheet	H72605
Instructions	H73605

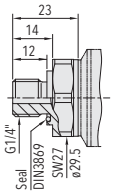
Ordering information/type code

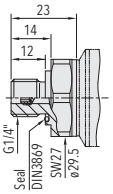
				8864 . XX	XX	XX	XX	XX	XX
Measuring range [1]	**Pressure measurement range [bar]**	**Over pressure [bar]**	**Burst pressure [bar]**						
	0 ... 1	2	30	71					
	0 ... 2.5	5	100	75					
	0 ... 4	8	100	76					
	0 ... 6	12	100	77					
	0 ... 10	20	200	78					
	0 ... 16	32	200	79					
	0 ... 25	50	300	80					
	0 ... 40	80	300	81					
	0 ... 60	120	500	82					
	0 ... 100	200	500	83					
	0 ... 250	500	1000	74					
	0 ... 400	800	1500	84					
	0 ... 600	1200	2000	86					
Sensor	Relative pressure				23				
Pressure connection	G1/4" male (Seal DIN3869 and pressure peak damping element)					15			
	G1/4" male (seal DIN3869)					17			
	G1/4" female					10			
	G1/2" male DIN16288-B (Manometer)					11			
	Flange connection					41			
Electrical connection	Male electrical plug M12x1, 8-poles						38		
Output signal	**Signal output**	**Load resistance**	**U (supply)**						
	4 ... 20mA	≤ 250W	11 ... 32 VDC					19	
	0 ... 10 VDC	≥ 5.0 kW	15 ... 30 VDC					17	
Accessories	2 Relays								23
	Female electrical connector: M12x1, 8-pol., incl. 2m PUR-cable Ordering code: DCS CON								

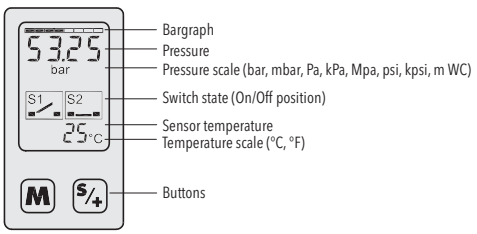
[1] Customized pressure ranges upon request

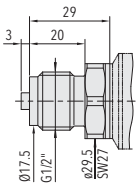


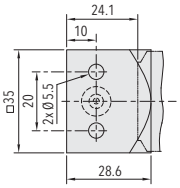












N 8202

Navitrag

Features

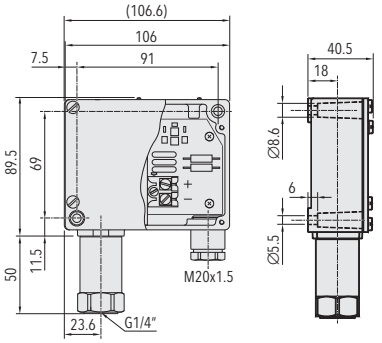
- Excellent long-term stability
- Protection IP65
- EMC protection, IEC 61000
- Excellent resistance to pressure peaks and dynamic pressure changes

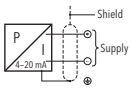
Technical Data			
Measuring principle	Thin film on steel	Media temperature	-25°C ... +125°C
Measuring range	0 ... 1.0 to 0 ... 600 bar	Ambient temperature	-25°C ... +85°C
Output signal	4 ... 20 mA	Approval / conformity	ABS, BV, CCS, DNV, GL, KRS, LRS, RINA
Accuracy @ 25°C typ.	± 0.5 % FS typ.		

Data sheet H72206
Instructions H70722

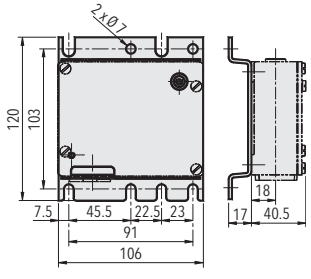
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
N1.0	8202 71 2210	0 ... 1	3	12 ... 34	± 0.5
N2.5	8202 75 2210	0 ... 2.5	6	12 ... 34	± 0.5
N4.0	8202 76 2210	0 ... 4	10	12 ... 34	± 0.5
N6.0	8202 77 2210	0 ... 6	15	12 ... 34	± 0.5
N10.0	8202 78 2210	0 ... 10	20	12 ... 34	± 0.5
N16.0	8202 79 2210	0 ... 16	32	12 ... 34	± 0.5
N25.0	8202 80 2210	0 ... 25	80	12 ... 34	± 0.5
N40.0	8202 81 2210	0 ... 40	80	12 ... 34	± 0.5
N100.0	8202 83 2210	0 ... 100	200	12 ... 34	± 0.5
N250.0	8202 74 2210	0 ... 250	500	12 ... 34	± 0.5
N400.0	8202 84 2210	0 ... 400	800	12 ... 34	± 0.5





N ... (4 ... 20 mA)



Mounting plate MB31 see chapter 'Accessories'

ND 8204

Differential Pressure Transmitter

Features

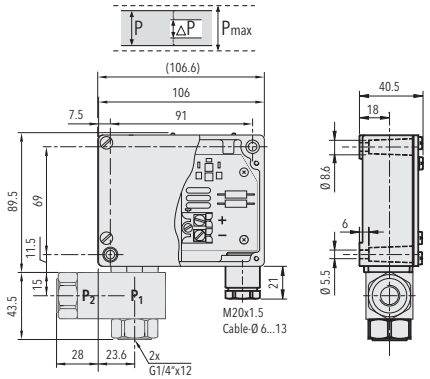
- High zero point stability
- High resistance to pressure cycling
- EMC protection, IEC 61000

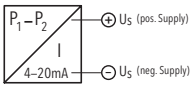
Technical Data			
Measuring principle	Thin film on steel	Media temperature	-25°C ... +125°C
Measuring range	0 ... 1 to 0 ... 16 bar	Ambient temperature	-25°C ... +85°C
Output signal	4 ... 20 mA (P1–P2)	Approval / conformity	BV, DNV, RINA
Accuracy @ 25°C typ.	± 0.8 % FS typ		

Data sheet H72218
Instructions H73218

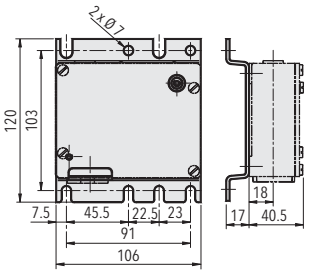
Standard products (extra short lead time)

Product No.	Type Code	Differential pressure (measuring range) [bar]	Maximum system pressure [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
ND1.0	8204 71 2210	0 ... 1.0	2.5	6	12 ... 34	± 0.8
ND1.5	8204 55 2210	-1 ... 1.5	6	15	12 ... 34	± 0.8
ND2.5	8204 75 2210	0 ... 2.5	6	32	12 ... 34	± 0.8
ND5	8204 58 2210	-1 ... 5.0	16	32	12 ... 34	± 0.8
ND6	8204 77 2210	0 ... 6.0	16	32	12 ... 34	± 0.8





N ... (4 ... 20 mA)



Mounting plate MB31 see chapter 'Accessories'

Potentially hazardous areas: Ex-approved products for pressure measurement

Trafag offers a wide range of EX-, ATEX- and IECE approved products for pressure and temperature monitoring.

Further information see "Terminology"

Ex brochure H70659

EXNA 8854

Ex Pressure Transmitter

Features

- Ex ATEX / IECEx
- Pressure ranges from 100 mbar
- Versions with frontal flush diaphragm
- Media temperature to 150°C
- EMC protection, IEC 61000

Technical Data	
Measuring principle	Piezoresistive
Measuring range	0 ... 0.1 to 0 ... 1000 bar
Output signal	4 ... 20 mA
Media temperature	T3: -40°C ... +150°C T4: -40°C ... +100°C T6: -40°C ... +50°C
Approval / conformity	Ex according to standards, IEC/EN 60079-0 /-11/-26, EN 50303
Type of protection	Ex II 1G Ex ia IIC T3 ... T6 Ga II 1D Ex ia IIIC IP6x T145 ... T70°C I M1 Ex ia I

Data sheet H72334

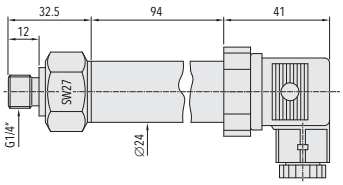
EXNA 8852/8853

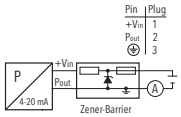
Ex Pressure Transmitter

Features

- Explosion-proof Ex ia IIC T3 ... T6
- Pressure ranges from 100 mbar
- Versions with frontal flush diaphragm
- Media temperature to 150°C
- Option: Lightning protection (IEC 61000-4-5), 10kA (8/20 µs)

Technical Data	
Measuring principle	Piezoresistive
Measuring range	0 ... 0.1 to 0 ... 1000 bar
Output signal	4 ... 20 mA
Media temperature	T3: -25°C ... +150°C T4: -25°C ... +100°C T6: -25°C ... +55°C
Approval / conformity	GL, KRS





EXNA ... A (4 ... 20 mA)

Data sheet H72227

Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
EXNA0.2A	8852 68 P515 04 0000 0000 19 58 T4	0 ... 0.2	3	10 ... 30	±0.5

EXNAL 8858

Ex Tauchdrucktransmitter

Features

- Pressure ranges from 100 mbar
- PUR or Teflon cables
- Chemical resistant material, e.g. titanium
- Explosion-proof Ex ia IIC T3 ... T6
- Option: Lightning protection (IEC 61000-4-5), 10kA (8/20 µs)

Technical Data	
Measuring principle	Piezoresistive
Measuring range	0 ... 0.1 to 0 ... 25 bar
Output signal	4 ... 20 mA
Media temperature	T4/T6: -5°C ... +50°C
Approval / conformity	GL, KRS
Type of protection	Ex Ex ia IIC T3 ... T6

Data sheet H72231

EXNT 8292

Ex Pressure Transmitter

Features

- Ex
  II 1G Ex ia IIC T4/T6 Ga
  II 1 D Ex ia IIIC IP6x T130° Da
  I M1 Ex ia I Ma
  II 1/2G Ex ia IIC T4/T6 Ga/Gb (with plastic-type connector)
- Pressure ranges from 0.4 to 2000 bar
- Completely welded sensor system
- Optional with hydrogen-compatible sensor
- ATEX and IECEx

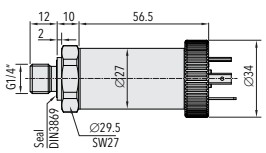
Technical Data

Measuring principle	Thin film on steel	Media temperature	Max. –40°C ... +120°C (see electrical connection)
Measuring range	0 ... 0.4 to 0 ... 2000 bar	Ambient temperature	Max. –40°C ... +120°C (see electrical connection)
Output signal	4 ... 20 mA	Approval / conformity	GL, KRS ATEX / IECEx, according to the norm EN/IEC 60079-0/EN 60079-11/ EN 60079-26/ EN 50303
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.		

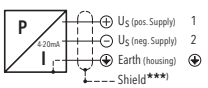
Standard products (extra short lead time)

Product No.	Type Code	Pressure range [bar]	Over pressure max. [bar]	Supply [VDC]	Accuracy @ 25°C typ. [%]
EXNT0.4A	8292 69 2617 05 0000 0000 19 58 92	0 ... 0.4	1.2	10 ... 30	± 0.5
EXNT0.6A	8292 70 2617 05 0000 0000 19 58 92	0 ... 0.6	1.5	10 ... 30	± 0.5
EXNT1.0A	8292 71 2617 05 0000 0000 19 58 92	0 ... 1	2	10 ... 30	± 0.5
EXNT2.5A	8292 75 2517 05 0000 0000 19 58 92	0 ... 2.5	5	10 ... 30	± 0.5
EXNT4.0A	8292 76 2517 05 0000 0000 19 58 92	0 ... 4	8	10 ... 30	± 0.5
EXNT6.0A	8292 77 2517 05 0000 0000 19 58 92	0 ... 6	12	10 ... 30	± 0.5
EXNT10.0A	8292 78 2517 05 0000 0000 19 58 92	0 ... 10	20	10 ... 30	± 0.5
EXNT16.0A	8292 79 2517 05 0000 0000 19 58 92	0 ... 16	32	10 ... 30	± 0.5
EXNT25.0A	8292 80 2517 05 0000 0000 19 58 92	0 ... 25	50	10 ... 30	± 0.5
EXNT40.0A	8292 81 2517 05 0000 0000 19 58 92	0 ... 40	80	10 ... 30	± 0.5
EXNT100.0A	8292 83 2517 05 0000 0000 19 58 92	0 ... 100	200	10 ... 30	± 0.5
EXNT250.0A	8292 74 2517 05 0000 0000 19 58 92	0 ... 250	500	10 ... 30	± 0.5

Pressure peak damping element: see 'Accessories' or data sheet H72258



EXNT ... A



EXNT ... A (4 ... 20 mA)

Data sheet	H72329
Instructions	H73329

Ordering information/type code

8292 . XX XX XX XX XX XX

Measuring range [1]

Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]		Pressure measurement range [bar]	Over pressure [bar]	Burst pressure [bar]	
0 ... 0.4 [2]	1.2	25	**69**	0 ... 40	80	300	**81**
0 ... 0.6 [2]	1.5	25	**70**	0 ... 60	120	500	**82**
0 ... 1.0 [2]	2.0	25	**71**	0 ... 100	200	500	**83**
0 ... 1.6	3.5	80	**73**	0 ... 160	320	1000	**85**
0 ... 2.5	5	100	**75**	0 ... 250	500	1000	**74**
0 ... 4	8	100	**76**	0 ... 400	800	1500	**84**
0 ... 6	12	100	**77**	0 ... 600	1000	2000	**86**
0 ... 10	20	200	**78**	0 ... 1000	1600	3000	**88**
0 ... 16	32	200	**79**	0 ... 1600	3000	4000	**89**
0 ... 25	50	300	**80**	0 ... 2000	3000	4000	**90**

Sensor

Relative pressure, accuracy: 0.3% (> 1 bar)	**23**
Relative pressure, accuracy: 0.5% (> 1 bar)	**25**
Relative pressure, accuracy: 0.5% (≤ 1 bar)	**26**
Relative pressure, accuracy: 0.5 %, wetted parts hydrogen compatible [7]	**35**
Relative pressure, accuracy: 0.3 %, wetted parts hydrogen compatible [7]	**33**

Pressure connection

G1/4" male [3]	**17**	R1/4" male [3]	**19**
G1/4" female [3]	**10**	1/4" NPT male [3]	**30**
G1/2" male [3]	**21**	M18x1.5 male (conical seal: 58°) [4]	**29**
G1/2" male DIN16288-8 (Manometer) [3]	**11**		

Electrical connection

Male electrical plug EN 175301-803-A, plastic (only zones 1, 2 (gas) and 20, 21 (dust)	**05**
Male electrical plug M12x1, 5-pole, metal	**35**
Male electrical plug MIL-C 26482, 6-pole, metal [5]	**02**
Male electrical plug Binder 723, 5-pole, metal	**14**
Cable with shield, material FDR 25 (Raychem), 4 x 0.5mm² (cable length see "Accessories") - not ship approved	**78**
Cable intrinsically safe with shield, material PVC, 2 x 0.75mm² (-40...+80°C), (cable length see "Accessories") - not ship approved	**80**

Output signal

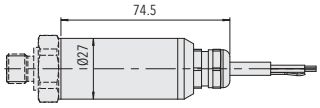
Signal output	Load resistance	I (supply)	U (supply)	
4 ... 20mA	(Usupply-10 V) / 20 mA		10 ... 30 VDC	**19**

Accessories

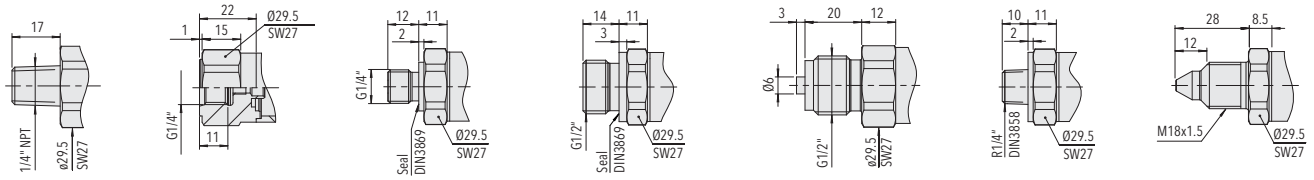
Female electrical connector EN 175301-803-A (DIN43650-A), plastic (only zones 1, 2 (gas) and 20, 21 (dust)	**58**
Female electrical plug M12x1, 5-pole, plastic (only zones 1, 2 (gas) and 20, 21 (dust)	**33**
Female electrical plug M12x1, 5-pole, metal	**35**
Female electrical connector MIL-C 26482, 6-pole, metal	**32**
Female electrical connector Binder 723, 5-pole, metal	**37**
Pressure peak damping element ø 0.4 mm	**44**
Pressure peak damping element ø 1.0 mm	**40**

Cable length 1.5 m [6]	**1M**
Cable length 3.0 m [6]	**3M**
Cable length 5.0 m [6]	**5M**
Special electrical connection: Pin 1 + , Pin 2 - (only for output signal 4...20mA and male electrical plug EN175301-803-A / DIN43650-A)	**92**
Zener barrier 28V/93mA; R ≈300Ω: Ordering no ZEN28VDC	
Damping elements and snubber see data sheet H72258	

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Only with sensor 26 (0.5%)
[3] For pressure ranges ≤ 600 bar
[4] For pressure ranges > 600 bar
[5] For pressure ranges < 40 bar upon request
[6] Other cable lengths upon request
[7] Pressure ranges 0 ... 40 to 0 ... 1000 bar



Additional dimensions see data sheet



trafag sensors controls

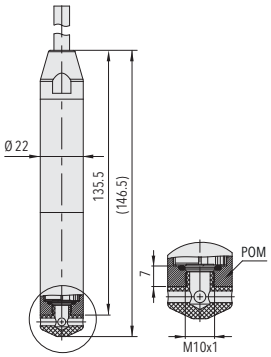
EXL 8432

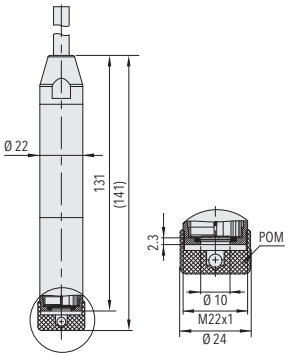
Ex Submersible Pressure Transmitter

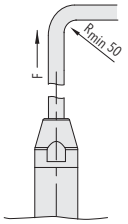
Features

- II 1G Ex ia IIC T4/T6 Ga
  I M1 Ex ia I Ma
- Good media compatibility
- Cable PUR/PE or FEP
- EMC protection, IEC 61000

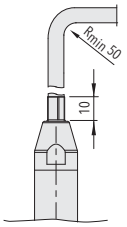
Technical Data			
Measuring principle	Thick film on ceramic	Media temperature	T4: -20°C ... +70°C T6: -20°C ... +65°C
Measuring range	0 ... 0.2 to 0 ... 10 bar	Ambient temperature	T4: -20°C ... +70°C T6: -20°C ... +65°C
Output signal	4 ... 20 mA	Approval / conformity	GL, KRS Ex ATEX/IECEx, EN 60079-0/ EN 60079-11/EN 60079-26/ EN 50303
Accuracy @ 25°C typ.	± 0.3 % FS typ. ± 0.5 % FS typ.		







PUR



PE/FEP

Data sheet H72330
Instructions H73329

Ordering information/type code

					8432 . XX	XX	XX	XX	XX	XX
Measuring range [1]	**Pressure measurement range [bar]**	**Over pressure [bar]**	**Burst pressure [bar]**							
	0 ... 0.2	1.2	2	**68**						
	0 ... 0.4	1.2	2	**69**						
	0 ... 0.6	2	3	**70**						
	0 ... 1.0	3.2	4.8	**71**						
	0 ... 1.6	3.2	4.8	**73**						
	0 ... 2.5	5	7.5	**75**						
	0 ... 4	8	12	**76**						
	0 ... 6	12	15	**77**						
	0 ... 10	20	25	**78**						
Sensor	Relative pressure > 400 mbar, Accuracy: 0.3%					**23**				
	Relative pressure ≤ 400 mbar, Accuracy: 0.5%					**26**				
Pressure connection	Type 1, female, M 10x1, 1.4404/1.4435						**46**			
	Type 2, male, M 22x1, 1.4404/1.4435						**48**			
Electrical connection	Cable with shield: PUR ø 6 mm, 5x0.22mm² [2] [3]							**22**		
	Cable with shield: FEP ø 6 mm, 5x0.22mm² [2] [3]							**32**		
	Cable with shield: PE ø 6 mm, 5x0.22mm² [2] [3]							**42**		
Output signal	**Signal output**	**Load resistance**	**I (supply)**	**U (supply)**						
	4 ... 20mA	(Usupply-10 V) / 20 mA		10 ... 30 VDC					**19**	
Accessories	Seal FKM									**61**
	Seal EPDM									**63**
	Zener barrier 28V/93mA; R ≈300Ω: Ordering no ZEN28VDC									

[1] Extended overpressure as well as customized pressure ranges upon request
[2] Please specify cable length when ordering (cable lengths >50 m up to 120 m upon request)
[3] For level measurement applications on ships under certification GL (German Lloyd), the cable of such transmitters must be installed inside the tank only

Pressure sensors

Pressure sensors provide the basis for the outstanding reliability and durability of Trafag pressure transmitters. Developed and produced by Trafag, these pressure sensors are also available to third parties for special OEM solutions. Trafag pressure sensors lend themselves extremely well to adaptation, providing the basis for seamless integration into OEM applications. Trafag's specialists work together with customers to develop tailor-made solutions. Success is assured by combining professional project management – from drafting the requirements specification right through to start of production – with a team of experienced application engineers.

OEM Pressure sensor 8810

Features

- Thin-film-on-steel sensor technology
- Excellent long-term stability
- Further versions available

Technical Data	
Sensor material	1.4542/630
Output signal (10 VDC supply)	1.2 ... 2.8 mV/V
Media temperature	-25°C ... +125°C
Ambient temperature	-25°C ... +100°C

Product description

Range [bar]	Max. working pressure [bar]	U-supply [VDC]	Accuracy NLH (BSL) [± % d.S. typ.]	Range [bar]	Max. working pressure [bar]	U-supply [VDC]	Accuracy NLH (BSL) [± % d.S. typ.]
0 ... 40	80	10 ... 15	0.07	0 ... 400	800	10 ... 15	0.07
0 ... 100	200	10 ... 15	0.07	0 ... 600	1000	10 ... 15	0.07
0 ... 250	500	10 ... 15	0.07				

Data sheet H72205

OEM Pressure sensor 8421

Features

- Thick film on ceramic sensor technology
- Excellent long-term stability

Technical Data	
Sensor material	Al_2O_3, 316L (1.4435, 1.4404)
Output signal (10 VDC supply)	2.3 ... 3.5 mV/V
Media temperature	-25°C ... +125°C
Ambient temperature	-25°C ... +100°C

Product description

Range [bar]	Max. working pressure [bar]	U-supply [VDC]	Accuracy NLH (BSL) [± % d.S. typ.]	Range [bar]	Max. working pressure [bar]	U-supply [VDC]	Accuracy NLH (BSL) [± % d.S. typ.]
0 ... 1.6	3.2	20	0.25	0 ... 25	50	20	0.25
0 ... 4	10	20	0.25	0 ... 40	80	20	0.25
0 ... 6	12	20	0.25	0 ... 60	120	20	0.25
0 ... 10	20	20	0.25	0 ... 100	200	20	0.25
0 ... 16	32	20	0.25				

Data sheet H72233

Transducer 8822

Features

- Thin-film-on-steel sensor technology
- Smallest design
- Excellent long-term stability

Technical Data	
Sensor material	1.4542/630
Output signal (ratiometric)	1.7 ... 2 mV/V
Media temperature	-25°C ... +125°C
Ambient temperature	-25°C ... +125°C

Product description

Range [bar]	Max. working pressure [bar]	U-supply [VDC]	Accuracy NLH (BSL) [± % FS typ.]	Range [bar]	Max. working pressure [bar]	U-supply [VDC]	Accuracy NLH (BSL) [± % FS typ.]
0 ... 6	12	10 ... 15	0.5	0 ...100	200	10 ... 15	0.5
0 ... 10	20	10 ... 15	0.5	0 ... 160	320	10 ... 15	0.5
0 ... 16	32	10 ... 15	0.5	0 ... 250	500	10 ... 15	0.5
0 ... 25	50	10 ... 15	0.5	0 ... 400	800	10 ... 15	0.5
0 ... 40	80	10 ... 15	0.5	0 ... 600	1000	10 ... 15	0.5
0 ... 60	120	10 ... 15	0.5				

Data sheet H72315

Customer specific design for OEMs

If the requirements of an application cannot be met with an existing product, Trafag is able to efficiently adapt its standard products to the specific needs of customers and to develop special OEM solutions. Thanks to their modular design, Trafag products can be efficiently customized to fit seamless into the targeted environment, providing the high performance and reliability of all Trafag products which are based on the proprietary sensor technologies.

A team of experienced and highly skilled engineers in development and production guarantees excellent products. An efficient project management minimizes risks and ensures a short time to market.

Tank pressure transmitter with temperature sensor

Features

- For fuel density measurement
- Based on established thick-film-on ceramic technology

Technical Data	
Pressure range	-100 ... 900 mbar
Output signal	Digital signal
Electrical connection	PCB connector
Media temperature	-25°C ... +85°C

To determine the fuel density in petrol tanks, the pressure signal from a ceramics sensor element and the signal from an integrated PTC temperature sensor are processed in the Trafag ASIC electronics to calculate the density. The digital output signal used in a chip-to-chip communication with the control unit. The key advantages of this cost-effective solution are the very compact design and the low project risk due to the use of well-proven sensing elements.

Crank case pressure transmitter

Features

- For low pressure measurement
- Crank case on large diesel engines

Technical Data	
Pressure range (relative)	0 ... 124 mbar
Output signal (ratiometric)	0.5 ... 4.5 VDC
Electrical connection	DIN72585
Ambient temperature	-25°C ... +105°C

In large diesel engines the crank case pressure is important indicator for the condition (wear) of the piston rings of diesel engines. Alternative technologies to detect the wear of piston rings only react after the piston ring is already defective while the small pressure changes give early indication of possible increased wear. A pressure transmitter in this application must withstand harsh conditions in terms of vibration and temperature and must maintain a high accuracy over a long lifetime. Trafag developed a new transmitter based on the well-tried EPN series, but extending the measurement range the thin-film-on-steel technology way beyond state-of-the-art towards low pressure down to 0...124 mbar. Due to the experience and expertise of Trafag in this field, the accuracy of the transmitter is high and stable over a long time in operational conditions.

Transmitter 8 x overpressure safety, 0.3 % accuracy

Features

- For low pressure measurement
- Overpressure max. 80 bar

Technical Data	
Temperature range	-40°C ... +125°C
Pressure range (relative)	0 ... 10 bar
Burst pressure min.	300 bar
Accuracy @ +25°C	± 0.3 % FS typ.

In water pump applications extreme pressure peaks often occur and can damage pressure transmitters. To avoid failures due to these pressure peaks, Trafag developed a transmitter with 8x overpressure safety and an accuracy of 0.3 % through extended calibration, selection of sensor elements and using high-performance electronics.

On-board pressure transmitter OPT

Features

- Miniatur pressure transmitter
- Completely welded sensor system
- Stainless steel

Technical Data	
Sensor material	1.4542/630
Ambient temperature	-25°C ... +100°C
Sensor temperature max.	-25°C ... +100°C
Output signal (ratiometric)	0.5 ... 4.5 VDC

The on-board transmitter for applications requiring a very compact solution directly applied to the pcb offers a wide media temperature and the excellent long-term stability of the thin-film-on-steel sensor technology. The high overpressure safety and the fully welded design allow the use in critical and very demanding applications.

Technical data pressure transmitters

	NAT 8252	NAH 8253	NAH 8254	NAE 8256	NSL 8257	
Main characteristics						
Measuring principle	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel	
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 10 to 0 ... 600 bar 0 ... 150 to 0 ... 7500 psi	0 ... 0.2 to 0 ... 2.5 bar 0 ... 3 to 0 ... 30 psi	
Accuracy						
TEB typ. @ -25 ... +85°C	± 1.75 % FS typ.	± 1.0 % FS typ. ± 0.5 % FS typ.	± 1.0 % FS typ.	0.5 %: ± 1.75 % FS typ. 0.3 %: ± 1.0 % FS typ.	0.5 ... 2 % FS typ.	
Accuracy @ 25°C typ.	± 0.5 % FS typ.	± 0.3 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.	± 0.3 % FS typ.	0.5 %: ± 0.5 % FS typ. 0.3 %: ± 0.3 % FS typ.	0.15 ... 0.8 % FS typ.	
NLH @ 25°C (BSL) typ.	± 0.2 % FS typ.	± 0.2 % FS typ. ± 0.1 % FS typ.	± 0.2 % FS typ.	0.5 %: ± 0.2 % FS typ. 0.3 %: ± 0.2 % FS typ.	0.2 % FS typ.	
TC zero point and span typ.	± 0.03 % .FS/K typ.	± 0.01 % FS/K typ. ± 0.002 % FS/K typ.	± 0.01 % .FS/K typ.	0.5 %: ± 0.03 % FS/K typ. 0.3 %: ± 0.01 % FS/K typ.	0.002 ... 0.02 % FS typ./K	
Electrical data						
Output signal	4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric, Switching output: 1 or 2 PNP transistors	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric	4 ... 20 mA, 0.5 ... 4.5 VDC, 0 ... 5 VDC, 1 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.1 ... 10.1 VDC, 0.5 ... 4.5 VDC ratiometric, Switching output: 1 or 2 PNP transistors	4 ... 20 mA	4 ... 20 mA, 0 ... 5 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiometric	
Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	
Switch-on-delay	100 ms	1 s	100 ms	100 ms	1 s	
Environmental conditions						
Ambient temperature	–40°C ... +125°C	-40°C ... +125°C	–40°C ... +125°C	–40°C ... +125°C	-40°C ... +125°C	
Media temperature	–40°C ... +125°C	-40°C ... +125°C	–40°C ... +125°C	–40°C ... +125°C	-40°C ... +125°C	
Protection	IP65, IP67	Min. IP65	IP65, IP67	IP65, IP67	Min. IP65	
Vibration	15 g RMS (20...2000 Hz) 25 g sin (80...2000 Hz), 1 oct./min, (1x @ 25°C)	40 g (20...2000 Hz)	15 g RMS (20...2000 Hz) 25 g sin (80...2000 Hz), 1 oct./min, (1x @ 25°C)	15 g RMS (20...2000 Hz) 25 g sin (80...2000 Hz), 1 oct./min, (1x @ 25°C)	25 g (20...2000 Hz)	
Shock	50 g / 11 ms 100 g / 6 ms	100 g / 11 ms	50 g / 11 ms 100 g / 6 ms	50 g / 11 ms	100 g / 11 ms	
EMC Protection						
Emission	EN/IEC 61000-6-3	EN/IEC 61000-6-4	EN/IEC 61000-6-3	EN/IEC 61000-6-3	EN/IEC 61000-6-4	
Immunity	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	
Mechnical data						
Sensor (wetted parts)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	
Pressure connection (wetted parts)	1.4542 (AISI630)	1.4542 (AISI630) 1.4301 (AISI304)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	
Housing	1.4301 (AISI304)	1.4301 (AISI304)	1.4301 (AISI304)	1.4301 (AISI304)	1.4301 (AISI304)	
Sealing	FPM/EPDM/NBR	FKM 70 Sh	FPM/EPDM/NBR	FPM/NBR/EPDM	FKM 70 Sh	
Weight	~ 50 g	~ 50 g	~ 50 g	~ 50 g	~ 50 g	

	ECT 8472	ECT 0.3 % (0.5 %, 1.0 %) 8473	ECTR 8471	ECTN 8477	EPI 8287	EPN/EPNCR 8298
	Thick film on ceramic	Thick film on ceramic	Thick film on ceramic	Thick film on ceramic	Thin film on steel	Thin film on steel
	0 ... 1 to 0 ... 60 bar 0 ... 15 to 0 ... 1000 psi	0 ... 0.1 to 0 ... 40 bar 0 ... 1.5 to 0 ... 500 psi	-1 ... 9 to 0 ... 40 bar 0 ... 15 to 0 ... 500 psi	0 ... 1 to 0 ... 400 bar 0 ... 15 to 0 ... 5000 psi	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 2.5 to 0 ... 2500 bar
	± 3.0 % FS typ.	± 1.0 % FS typ. ± 2.0 % FS typ.	± 3.0 % FS typ.	± 3.0 % FS typ.	± 1.75 % FS typ.	± 2.0 % FS typ. ± 0.5 % FS typ.
	± 0.5 % FS typ.	± 0.3 % FS typ. (± 0.5 % FS typ., ± 1 % FS typ.)	± 0.5 % FS typ.	± 0.5 % FS typ.	± 0.5 % FS typ.	± 0.5 % FS typ. ± 0.3 % FS typ.
	± 0.2 % FS typ.	± 0.2 FS typ. (± 0.3 FS typ.)	± 0.2 % FS typ.	± 0.2 % FS typ.	± 0.2 % FS typ.	± 0.2 % FS typ. ± 0.1 % FS typ.
	± 0.03 % FS/K typ.	± 0.02 % FS/K typ.	± 0.03 % FS/K typ.	± 0.03 % FS/K typ.	± 0.03 % .FS/K typ.	± 0.03 % FS/K typ. ± 0.005 % FS/K typ.
	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	4 ... 20 mA	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC	4 ... 20 mA 0.5 ... 4.5 VDC ratiometric
	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure
	Max. 1.5 s	Max. 1.5 s	Max. 1.5 s	100 ms	100 ms	
	-25°C ... +85°C	-25°C ... +85°C	-25°C ... +85°C	-25°C ... +85°C	–40°C ... +125°C	-40°C ... +125°C
	-25°C ... +125°C	-25°C ... +125°C	-25°C ... +125°C	-25°C ... +85°C	–40°C ... +125°C	-40°C ... +125°C
	Min. IP65	Min. IP65	Min. IP65	min. IP65	IP65	IP65, IP67, IP69K
	4 g (10...2000 Hz)	4 g (10...2000 Hz)	4 g (10...2000 Hz)	20 g (10...2000 Hz)	15 g RMS (20...2000 Hz) 25 g sin (80...2000 Hz), 1 oct./min, (1x @ 25°C)	10 g (50...2000 Hz) 15 g (50...2000 Hz) 15 g RMS / 20 g RMS
	50 g / 8 ms	50 g / 8 ms	50 g / 8 ms	50 g / 3 ms	500 g / 1 ms acc. to EN 60068-2-27	50 g / 3 ms
	EN/IEC 61000-6-3	EN/IEC 61000-6-3	EN/IEC 61000-6-3	EN/IEC 61000-6-3	EN/IEC 61000-6-3	EN/IEC 61000-6-4
	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2
	Ceramic, Al_2O_3 (96 %)	Ceramic, Al_2O_3 (96 %)	Ceramic, Al_2O_3 (96 %)	Ceramic, Al_2O_3 (96 %)	1.4542 (AISI630)	1.4542 (AISI630)
	1.4305 (AISI303 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4305 (AISI303) 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4305 (AISI303)	1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4542 (AISI630)	1.4542 (AISI630) 1.4301 (AISI304)
	1.4305 (AISI303 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4305 (AISI303) 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4305 (AISI303)	1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4542 (AISI630)	1.4301 (AISI304)
	FKM 70 Sh, CR, EPDM	FKM 70 Sh, CR, EPDM	FKM 70 Sh, CR, EPDM	FKM 70 Sh, EPDM	FPM/EPDM/NBR	FKM 70 Sh
	~ 110 g	~ 110 g	~ 110 g	~ 110 g	~ 80 ... 110 g	~ 80...110 g

Technical data electronic pressure switches

	EPN-S 8320	DPC 8380	DPS 8381	DCS 8864		
Main characteristics						
Measuring principle	Thin film on steel	Thick film on ceramic	Thin film on steel	Thin film on steel		
Measuring range	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi	0 ... 1 to 0 ... 100 bar 0 ... 15 to 0 ... 1500 psi adjustable 50 ... 100 % FS	0 ... 2.5 to 0 ... 600 bar 0 ... 30 to 0 ... 7500 psi adjustable 50 ... 100 % FS	0 ... 1 to 0 ... 600 bar		
Accuracy						
TEB typ. @ -25 ... +85°C		± 2.0 % FS typ.	± 1.75 % FS typ.	± 1.0 % FS typ.		
Accuracy @ 25°C typ.	± 0.5 % FS typ. (Switchpoint)	± 0.5 % FS typ.	± 0.5 % FS typ.	± 0.5 % FS typ.		
NLH @ 25°C (BSL) typ.		± 0.2 % FS typ.	± 0.2 % FS typ.	± 0.25% FS typ.		
TC zero point and span typ.		± 0.03 % FS/K typ.	± 0.03 % FS/K typ.	± 0.01% FS/K typ.		
Electrical data						
Output signal	Transistor (open source)	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, switchable mA or V	4 ... 20 mA, 0 ... 10 VDC 2 Relays, electrically isolated 30W (max.1A), 36 VAC/ DC		
Rise time				Typ. 1 ms / 10 ... 90 % nominal pressure		
Switch-on-delay		Typ. 200 ms	Typ. 200 ms			
Environmental conditions						
Ambient temperature	Standard: -25°C ... +85°C Option: -40°C ... +125°C	-25°C ... +85°C	-25°C ... +85°C	-25°C ... +80°C (LCD display -10°C ... +70°C)		
Media temperature	-40°C ... +125°C	-25°C ... +85°C	-25°C ... +85°C	-25°C ... +125°C		
Protection	IP65 (IP67), IP69K	IP65	IP65	IP65		
Vibration	15 g (50...2000 Hz)	10 g (10 ... 2000 Hz)	10 g (10 ... 2000 Hz)	10 g (25...2000 Hz)		
Shock	50 g / 11 ms	50 g / 3 ms	50 g / 3 ms	50 g / 1 ms		
EMC Protection						
Emission	EN/IEC 61000-6-3	EN/IEC 61000-6-3	EN/IEC 61000-6-3	EN/IEC 61000-6-3		
Immunity	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2		
Mechnical data						
Sensor (wetted parts)	1.4542 (AISI630)	Ceramic, Al_2O_3 (96 %)	1.4542 (AISI630)	1.4542 (AISI630)		
Pressure connection (wetted parts)	1.4542 (AISI630) 1.4301 (AISI304)	1.4305 (AISI303 1.4404/1.4435 (AISI316L) 1.4462 (AISI318LN) Titanium Grade 5	1.4542 (AISI630)	1.4542 (AISI630) 1.4404 (AISI316L)		
Housing	1.4301 (AISI304)	Steel, die cast metal galvanised display housing plastic	Steel, die cast metal galvanised display housing plastic	1.4301 (AISI304)		
Sealing	FKM 70 Sh	FPM, EPDM	FPM, NBR, EPDM	NBR 70 Sh		
Weight	~ 85 ... 110 g	~ 189 g	~ 189 g	~ 200 g		

Technical data pressure transmitters

	EPR 8293	NPN 8264	FPT 8235	CMP 8270	N 8202	ND 8204
	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel	Thin film on steel
	0 ... 2.5 to 0 ... 600 bar	0 ... 2.5 to 0 ... 250 bar	0 ... 1 to 0 ... 100 bar 0 ... 15 to 0 ... 1500 psi	0 ... 1 to 0 ... 600 bar	0 ... 1.0 to 0 ... 600 bar	0 ... 1 to 0 ... 16 bar
	± 2.0 % FS typ. ± 0.5 % FS typ.	± 2.0 % FS typ. ± 0.5 % FS typ.	± 0.5 % FS typ.	± 2.0 % FS typ. ± 0.2 % FS typ. ± 0.1 % FS typ.	± 2 % FS typ.	± 3.5 % FS typ.
	± 0.5 % FS typ. ± 0.3 % FS typ.	± 0.5 % FS typ. ± 0.3 % FS typ.	± 0.4 % FS	± 0.5 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.	± 0.5 % FS typ.	± 0.8 % FS typ
	± 0.2 % FS typ. ± 0.1 % FS typ.	± 0.3 % FS typ. ± 0.1 % FS typ.	± 0.1 % FS typ.	± 0.3 % FS typ. ± 0.15 % FS typ. ± 0.1 % FS typ.	± 0.3 % FS typ.	± 0.5 % FS typ.
	± 0.03 % FS/K typ. ± 0.005 % FS/K typ.	± 0.03 % FS/K typ. ± 0.005 % FS/K typ.	± 0.005 % FS/K typ.	± 0.03 % FS/K typ. ± 0.002 % FS/K typ.	± 0.02 % FS/K typ.	± 0.04 % FS/K typ.
	4 ... 20 mA	4 ... 20 mA	4 ... 20 mA, 0 ... 5 VDC, 1 ... 6 VDC, 0 ... 10 VDC, 0.5 ... 4.5 VDC ratiom.	Bus protocol CANopen DS404	4 ... 20 mA	4 ... 20 mA (P1–P2)
	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms/10...90 % nominal pressure	Typ. 1 ms/10...90 % nominal pressure
			max. 1.5 s			
	-40°C ... +125°C	-40°C ... +100°C	-40°C ... +85°C	-40°C ... +125°C	-25°C ... +85°C	-25°C ... +85°C
	-40°C ... +125°C	-40°C ... +100°C	-40°C ... +125°C	-50°C ... +135°C	-25°C ... +125°C	-25°C ... +125°C
	IP65, IP67	IP65, IP69K	Min. IP65	Min. IP67	Min. IP65	Min. IP65
	10 g (20...2000 Hz)/ 5 g RMS 15 g (20...2000 Hz)	10 g (50...2000 Hz) 15 g (50...2000 Hz) 15 g RMS	15 g (50...2000 Hz)	40 g (20...2000 Hz)	6 g (25...2000 Hz)	6 g (25...2000 Hz)
	50 g / 11 ms	50 g / 3 ms	50 g / 3 ms	100 g / 11 ms	50 g / 11 ms	50 g / 1 ms
	EN/IEC 61000-6-4	EN/IEC 61000-6-4	EN/IEC 61000-6-3	EN/IEC 61000-6-4	EN/IEC 61000-6-3	EN/IEC 61000-6-3
	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2	EN/IEC 61000-6-2
	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630)
	1.4542 (AISI630) 1.4301 (AISI304)	1.4542 (AISI630)	1.4542 (AISI630)	1.4542 (AISI630) 1.4301 (AISI304)	1.4542 (AISI630)	1.4542 (AISI630)
	1.4301 (AISI304) 1.4542 (AISI630)	1.4301 (AISI304)	1.4301 (AISI304)	1.4301 (AISI304)	AlSi10Mg/ Epoxy coated	AlSi10Mg/ Epoxy coated
	FKM 70 Sh	NBR	FPM (FKM) NBR	FKM 70 Sh	NBR 70 Sh	NBR 70 Sh
	~ 80...110 g	~ 190...220 g	~ 80 ... 110 g (without cable)	~ 60 g	~ 520 g	~ 720 g

Technical data Ex pressure transmitters

	EXNT 8292	EXNA 8854	EXL 8432	EXNAL 8858	
Main characteristics					
Measuring principle	Thin film on steel	Piezoresistive	Thick film on ceramic	Piezoresistive	
Measuring range	0 ... 0.4 to 0 ... 2000 bar	0 ... 0.1 to 0 ... 1000 bar	0 ... 0.2 to 0 ... 10 bar	0 ... 0.1 to 0 ... 25 bar	
Accuracy					
TEB typ. @ -25 ... +85°C	± 2.0 % FS typ. ± 0.5 % FS typ.		± 0.75 % FS typ. ± 1.5 % FS typ.		
Accuracy @ 25°C typ.	± 0.5 % FS typ. ± 0.3 % FS typ.		± 0.3 % FS typ. ± 0.5 % FS typ.		
NLH @ 25°C (BSL) typ.	± 0.3 % FS typ. ± 0.1 % FS typ.		± 0.2 % FS typ. ± 0.3 % FS typ.		
TC zero point and span typ.	± 0.03 % FS/K typ. ± 0.005 % FS/K typ.		± 0.02 % FS /K typ. ± 0.02 % FS /K typ.		
Electrical data					
Output signal	4 ... 20 mA	4 ... 20 mA	4 ... 20 mA	4 ... 20 mA	
Rise time	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	
Switch-on-delay	Max. 1.5 s		max. 1.5 s		
Environmental conditions					
Ambient temperature	Max. –40°C ... +120°C	-40°C ... +125°C	-20°C ... +70°C	-5°C ... +50°C	
Media temperature	Max. –40°C ... +120°C	-40°C ... +150°C	-20°C ... +70°C	-5°C ... +50°C	
Protection	Min. IP65, IP67	Min. IP65	IP68 (25 bar; 250m)	Min. IP68	
Vibration	10 g (50...2000 Hz)	EN 60068-2-6: 10 g (4...2000 Hz)	10 g (50...2000 Hz)	6 g (25...2000 Hz)	
Shock	50 g / 3 ms	EN 60068-2-27: 100 g/ 6 ms	50 g / 3 ms	50 g / 1 ms	
EMC Protection					
Emission	IEC 61000–6–4	EN 61000-4-3: 10 V/m	IEC 61000–6–4	EN/IEC 61000-6-3	
Immunity	IEC 61000–6–2	IEC 61000-4-2: 8 kV K./15 kV L.	IEC 61000–6–2	EN/IEC 61000-6-2	
Mechnical data					
Sensor (wetted parts)	1.4542 (AISI630), optional hydrogen-compatible steel	1.4435 (AISI316L) or titanium	Ceramic, Al_2O_3 (96 %)	1.4435 (AISI316L)	
Pressure connection (wetted parts)	1.4542 (AISI630) 1.4301 (AISI304) optional hydrogen-compatible steel	1.4435 (AISI316L) or titanium	1.4404/1.4435 (AISI316L)	1.4435 (AISI316L) or titanium	
Housing	1.4301 (AISI304)	1.4435 (AISI316L) or titanium	1.4404/1.4435 (AISI316L)	1.4435 (AISI316L) or titanium	
Sealing	FKM 70 Sh	FKM 70 Sh; EPDM / Kalrez	FKM 70 Sh	FKM	
Weight	~ 165 g	~ 220 g	~ 200 g	~ 200 g	

Technical data submersible pressure transmitters

	ECL 8438	ECL 8439	NAL 8838	
	Thick film on ceramic	Thick film on ceramic	Piezoresistive	
	0 ... 0.1 to 0 ... 10 bar	0 ... 0.1 to 0 ... 2.0 bar 0 ... 1.5 to 0 ... 30 psi	0 ... 0.1 to 0 ... 25 bar	
	± 1.0 % FS typ. ± 2.0 % FS typ.	± 1.0 % FS typ. ± 2.0 % FS typ.		
	± 0.3 % FS typ. ± 0.5 % FS typ.	± 0.3 % FS typ. ± 0.5 % FS typ.		
	± 0.2 % FS typ. ± 0.3 % FS typ.	± 0.2 % FS typ. ± 0.3 % FS typ.		
	± 0.02 % FS/K typ.	± 0.02 % FS/K typ.		
	4 ... 20 mA	4 ... 20 mA	4 ... 20 mA 0 ... 10 VDC	
	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	Typ. 1 ms / 10 ... 90 % nominal pressure	
	Max. 1.5 s	100 ms		
	-25°C ... +80°C (+70°C)	-10°C ... +70°C	-5°C ... +50°C	
	-25°C ... +80°C (+70°C)	-10°C ... +70°C	-5°C ... +50°C	
	IP68 (25 bar; 250m)	IP68 (2.0 bar; 20m)	Min. IP68	
	6 g (25...2000 Hz)	6 g (25...2000 Hz)	6 g (25...2000 Hz)	
	50 g / 8 ms	50 g / 8 ms	50 g / 11 ms	
	EN/IEC 61000-6-3	EN/IEC 61000-6-3 / GL 2012, IV, Part 7	EN/IEC 61000-6-3	
	EN/IEC 61000-6-2	EN/IEC 61000-6-2 / GL 2012, IV, Part 7	EN/IEC 61000-6-2	
	Ceramic, Al_2O_3 (96 %)	Ceramic, Al_2O_3 (96%)	1.4435 (AISI316L)	
	1.4404/1.4435 (AISI316L)	1.4404 (AISI316L) or 1.4462 (AISI318LN)	1.4435 (AISI316L) or titanium	
	1.4404/1.4435 (AISI316L)	1.4404 (AISI316L) or 1.4462 (AISI318LN)	1.4435 (AISI316L) or titanium	
	FKM 70 Sh CR, EPDM	FKM / FPM / Viton / EPDM / TPE	FKM	
	~ 200 g	~ 200 g (without cable) / OEM ~ 150 g	~ 220 g	