

Electr. Dual Pressure Switch (Ex)

Type UDS7 Ex

Electronic pressure switch for pressure control in explosion-proof areas with internal stainless steel diaphragm, digital display, 2 solid state contacts accord. to Namur DIN 19234 and 1 analog output, linearity error 0.5 % f. s.

Features

Intrinsically safe accord. to ATEX, alphanumeric 4-digit LCD display, microprocessor controlled, self monitoring with error display, all parameters are configured by keypad, adjustable keypad lock, various access levels, rugged stainless steel construction

Measuring ranges

0...1 bar 0...10 bar, absolute pressure
-1... 0 bar; 0...0.2 bar to 0... 600 bar; relative pressure

Applications

Gas compressors, process / chemical technology
test bed and apparatus engineering,
injection moulding machines



Technical Data

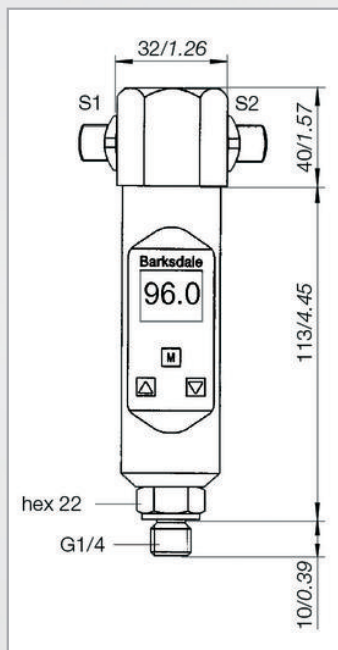
Sensor element:	Piezoresistive silicon measuring cell				
Materials:	Wetted parts: Stainless steel, mat. no. 1.4301 Electronics housing: Stainless steel, mat. no. 1.4571 Seals: FKM (standard), EPDM				
Operating elements:	3 easy-response pushbuttons				
System of protection:	IP65 plug				
Protection class:	---				
Process connection:	G1/4 M				
Dimensions:	32 x 163 mm				
Weight:	approx. 250 g				
Measuring ranges [bar]:	10	50	100	200	400
Proof pressure [bar]:	15	75	150	300	600
Linearity error:	±0.5 % v. f. s. at 25 °C				
A/D converter:	Resolution: 12 bit (4096 steps per meas. span) Scanning rate: 100 / s (for peak value memory)				
Electrical connection:	Plug M12 x 1; 4-pin, female / male thread				
Temperature influence:	±0.2 % f. s. /10K (20 °C)				
Compensation range:	-10 °C... +70 °C				
Repeatability:	±0.1 % v. f. s.				
Temperature range:	Medium: 0 °C... +60 °C Operating range: 0 °C... +60 °C Storage: -10 °C... +65 °C				

Max. ambient temperature	-20 °C... +80 °C
Power supply:	18... 28 V DC, intrinsically safe acc. to ATEX
On-status display:	4-digit LCD display, digit height 10 mm Display rate: 5 / s Delay: 0.0 s ... 9.9 s adjustable Error display: on LCD display
Power consumption:	approx. 40 mA at Ub = 24 V DC
Analog output:	Current output: 4...20 mA Load: max. RI = (Ub-12 V) / 20 mA RI = 600 Ohm at Ub = 24 V DC Load influence: 0.3 % / 100 Ohm Adjustment range: 25 %... 100 % f. s.
Transistor switching outputs:	Switching function: acc. to Namur DIN 19234 Normally open / normally closed, standard / window mode and diagnosis function adjustable Adjustment range: 0 %... 125 % f. s. Switching frequency: max. 100 Hz Delay: 0.0... 9.9 s adjustable Status display: on LCD display
Item designation	II 1 / 2 G EEx ia IIC T4 category 1, 2
Certificate no.:	TÜV 02 ATEX 1879X

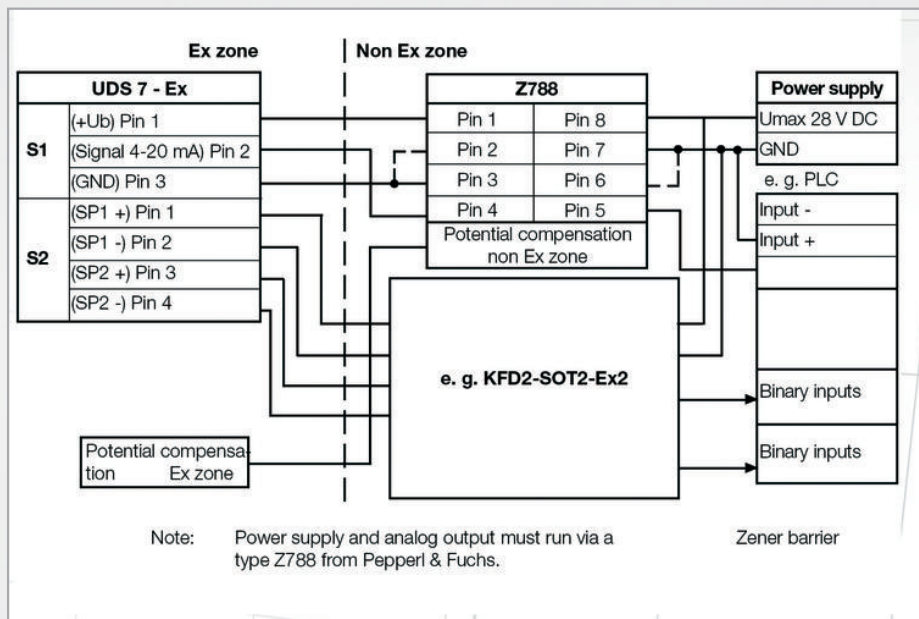
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Dimensions (mm / inch)



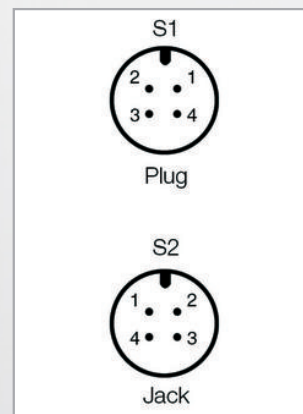
Electronic connections



Order Numbers

2 solid state outputs acc. to Namur DIN 19234, analog output 4... 20 mA, plug /load M12 x 1, 4-pin		
Measuring ranges	Process connection: G1/4 M	Process connection: G1/2 M
0... 10 bar relative	0427-818	0427-879
0... 50 bar relative	0427-819	0427-880
0... 100 bar relative	0427-820	0427-881
0... 200 bar relative	0427-821	0427-882
0... 400 bar relative	0427-822	0427-883
0... 600 bar relative	0427-866	0427-884

Plug UDS7-Ex



Accessories

Order Number	Description
0499-016	Adapter G1/4 IG - G1/4 male thread for optimum alignment of pressure switch
0499-002	Wall mounting brackets, stainless steel
901-0677	Damping screw with 0.2 mm restriction against quick pressure changes and high pulsation rate
907-0357	S1 plug M12 x 1, 4-pin, female thread, with screw terminals
907-0418	S2 plug M12 x 1, 4-pin, male thread, with screw terminals
909-0482	Zener barrier type Z788 with potential compensation
909-0483	Isolation amplifier type KFD2-SOT2-Ex2