

Type UDS 7 - Ex



Pressure control in hazardous locations with internal stainless steel diaphragm, digital display, 2 solid state outputs acc. Namur DIN 19234 and 1 analog output accuracy class 0,5% f. s.

Features

Intrinsically safe EExia IIC T4, alphanumeric 4-digit LCD display, microprocessor-controlled, self monitoring with error display, all parameters are configured by keypad, adjustable keypad lock, interface with simple operating menu, various access levels, rugged stainless steel construction

Measuring Ranges

0...1 bar to 0...10 bar, absolute pressure
-1...0 bar to 0...600 bar, gauge


Applications

Gas compressors, injection moulding machines, test bed and instrumentation industry

Technical Data

Sensor Element	: Piezoresistive measuring cell
Materials :	
Wetted Parts	: Stainless steel 1.4301
Housing (Electronics)	: Stainless steel 1.4571
Seals	: Viton (Standard), EPDM
Operating Elements	: Easy response pushbuttons
Protection Class	: IP65 (plug)
Pressure Connection	: G1/4 M
Dimensions	: 32 mm x 163 mm
Weight	: appr. 250 g
Measuring Ranges (bar)	: 10 50 100 200 400
Proof Pressure (bar)	: 15 75 150 300 600
Linearity Error	: $\pm 0,5\%$ f. s. at 25 °C
A/D-Converter	
Resolution	: 12 bit (4096 steps for measuring span)
Scanning Rate	: 100/s (for peak value memory)
Electrical Connection	: 2 plugs M12 x 1, 4-pin male / female
Temperature Influence	: $\pm 0,2\%$ f. s. / 10K (ref. 20 °C)
Temperature Range:	
Operating / Media	: 0 °C ...+60 °C
Storage	: -10 °C...+65 °C

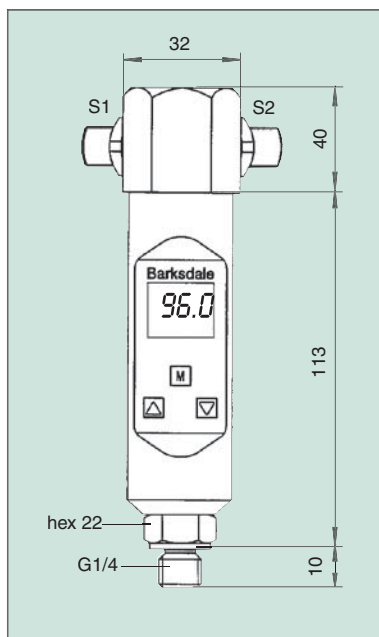


Power Supply	: 18 ... 28 V DC intrinsically safe acc. to ATEX, reversed polarity protected
Operating Display	: 4-digit LCD display, height 10 mm
Display Rate	: 5/s
Delay	: 0,0...9,9 s adjustable
Error Display	: on LCD display
Power Consumption	: appr. 40 mA at $U_b = 24$ V DC
Analog Output	
Current Output	: 4... 20 mA
Load	: max. $RI = (U_b - 12 \text{ V}) / 20 \text{ mA}$ $RI = 600 \text{ Ohm}$ at $U_b = 24 \text{ V DC}$
Load Influence	: 0,3% / 100 Ohm
Adjustment Range	: 25%...100% f. s.
Solid State Output(s) acc. Namur DIN 19234	
Adjustment Range	: 0%...125% f. s.
Hysteresis	: 0%...125% f. s.
Switching Frequency	: max. 100 Hz
Delay	: 0,0... 9,9 s adjustable
Status Display	: on LCD display
Approval	:  II 1 / 2 G EEx ia IIC T4 Category 1, 2
Certificate-No.	: TÜV 02 ATEX 1879X
Max. Ambient Temperature	: -20 °C...+80 °C

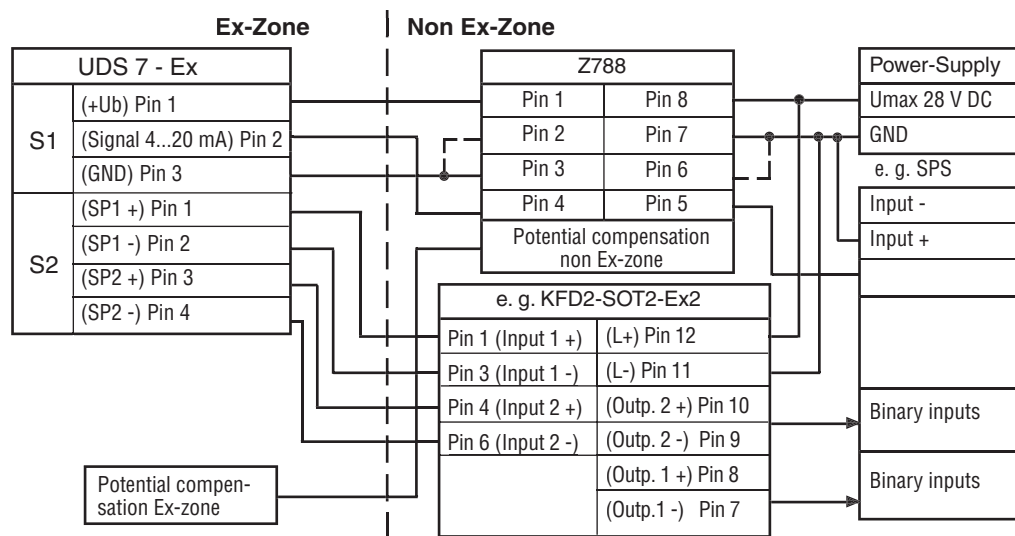
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Dimensions (in mm)



Electrical connections



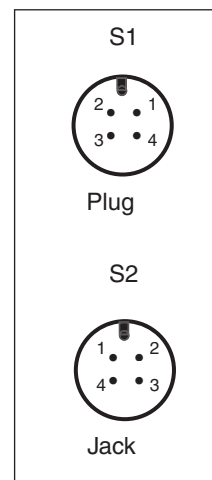
Note: Power supply and analog output must run via the Zener barrier type Z788 from Pepperl & Fuchs.

Order Numbers

**All UDS 7-Ex-models: acc. Namur DIN 19234
2 solid state outputs and 1 analog output 4...20 mA
plug M12 x 1, 4 pin M / F**

Pressure Ranges	LCD-display, pressure connection: G1/4	LCD-display, pressure connection: G1/2
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



Other measuring ranges on request.

Accessories

Order Number	Description
0499-016	Adaptor G1/4 F - G1/4 M for optimum alignment of pressure switch
906-0052	Adaptor G1/4 F - G1/2 M manometer connection
0499-002	Wall mounting brackets
901-0677	Damping screw with 0,2 mm restriction against quick pressure changes and high pulsation rate
907-0357	S1 plug connector M12 x 1, 4-pin, male, with screw terminal
907-0418	S2 plug connector M12 x 1, 4-pin, female, with screw terminal
909-0482	Zener barrier type Z788 with potential compensation
909-0483	Isolation amplifier type KFD2-SOT2-Ex2



TR Automatyka Sp. z o.o.
ul. Lechicka 14
02-156 Warszawa
tel. +48 (22) 886 10 16, fax. +48 (22) 846 50 37
NIP: 522-27-58-993
http://www.trautomatyka.pl
e-mail: biuro@trautomatyka.pl

09 / 04 KDE US 01 / 1 Barksdale Electronic Pressure Transducers and Pressure Switches Specifications are subject to changes without notice.