

# Electr. Pressure Switch

## UDS3V3

Electronic pressure switch for pressure control with internal stainless steel diaphragm, digital display, 4 switching outputs and 1 analog output, linearity error f. s.

### Features

8-digit 14-segment LCD display with Bargraph and trend indication, microprocessor controlled, self monitoring, all parameters are configured by keypad, display unit selectable, adjustable keypad lock, high accuracy, quick scanning rate (1000/s)

### Measuring ranges

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

### Applications

OEM applications  
hydraulic and pneumatic systems,  
heavy industry and plant engineering,  
automobile industry



### Technical Data

<b>Sensor element:</b>	Piezoresistive silicon measuring cell					
<b>Materials:</b>	Stainless steel, material no. 1.4301					
Wetted parts:	Cast aluminum G AL SI 12					
Electronics housing:	FKM, optionally: EPDM					
Seals:	Polyester					
<b>Operating elements:</b>	Keypad with easy-response pushbuttons					
<b>System of protection:</b>	IP65					
<b>Protection class:</b>	I					
<b>Process connection:</b>	G1/4 female thread, bottom entry Option: 1/4" NPT female thread					
<b>Dimensions:</b>	100 x 135 x 80 mm (W x H x D)					
<b>Weight:</b>	approx. 1080 g					
<b>Measuring ranges [bar]:</b>	10	50	100	200	400	600
<b>Proof pressure [bar]:</b>	15	75	150	300	600	800
<b>Linearity error:</b>	±0.5 % f. s. at 25 °C					
<b>A/D converter:</b>	12 bit					
Resolution:	(4096 steps per measuring span)					
Scanning rate:	1000 / s					
<b>On-status display:</b>	8-digit 14-segment LCD display, digit height 12 mm, green					
Bargraph:	20-segment for current value					
Trend arrows:	last changes					
Display range:	-9999... 9999					
Display rate:	4 / s					
Display unit:	bar / psi / psi x 10 / hPa / mbar switchable					
<b>Electrical connection:</b>	14-pin screw terminal for 1.5 mm <sup>2</sup> AWG14, plug-in type					
<b>Cable gland:</b>	1 x PG13.5 side entry					

<b>Temperature influence:</b>	±0.2 % v. f. s. / 10K
<b>Compensation range:</b>	-10 °C... +70 °C
<b>Repeatability:</b>	±0.1 % v. f. s.
<b>Temperature range:</b>	
Medium:	-25 °C... +100 °C
Electronics:	-10 °C... +70 °C
Storage:	-30 °C... +80 °C
<b>Power supply:</b>	18... 32 V DC, reversed polarity protected (SELV, PELV)
<b>Power consumption:</b>	approx. 350 mA at Ub = 24 V DC (without load)
<b>Analog output:</b>	
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
Scanning rate:	1 ms
Voltage output:	0...10 V DC
Rating:	max. 10 mA, short-circuit proof
Adjustment range:	25 %... 100 % f. s.
<b>4x relay output(s) - change-over contacts (SPDT):</b>	
Switching voltage:	max. 120 V DC / 250 V AC
Switching power:	max. 12 W / 1250 VA
Cycles:	1 mio. at 24 V DC / 2 A
Switching rate:	max. 20 / s
Delay:	0.0 s ... 9.9 s adjustable
Operation time:	1 ms
Status display:	S1... S4 on LCD display
<b>Accessories:</b>	Damping screw 0.2 mm; mounting traverse; vibration damper
<b>Approval:</b>	cULus: file no. E42816

