

Multiple Output Electronic Switch

UDS3 Series

Features

- ▶ Pressure control with internal stainless steel diaphragm
- ▶ 4 switching outputs and 1 analog output
- ▶ High accuracy with fully adjustable deadband
- ▶ Easy-to-read LED display with scalable bar graph
- ▶ Capable of switching both AC and DC loads
- ▶ Fully configurable via keypad

Applications

- ▶ OEM-applications in hydraulics and pneumatics
- ▶ Test bench
- ▶ Industrial machinery



General Specifications*

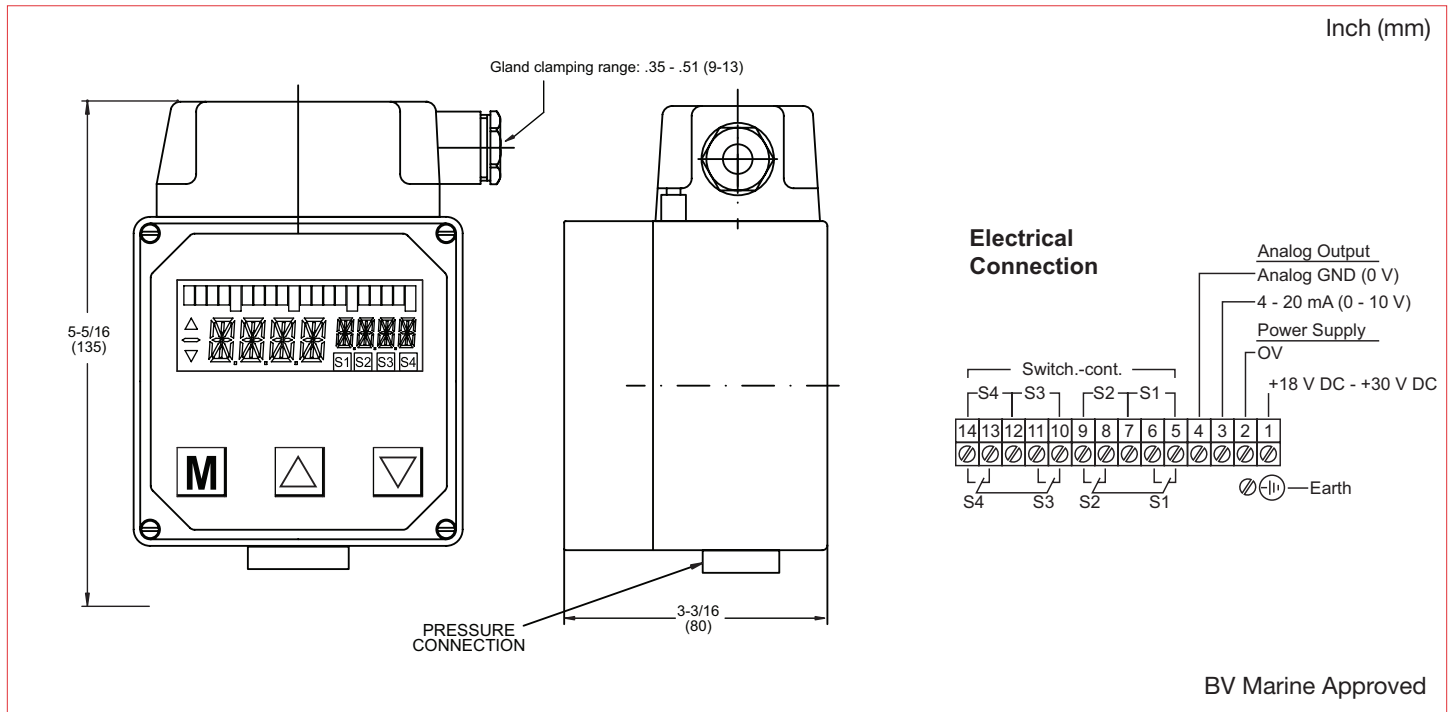
| | | | | | | | |
|-----------------------------------|---|------|------|------|------|--------|--|
| Accuracy: | 0.5% f. s. | | | | | | |
| Linearity Error: | ±0.5% f. s. at 77°F (25°C) | | | | | | |
| Repeatability: | ±0.1% f. s. | | | | | | |
| Sensor Element: | Piezoresistive silicon measuring cell | | | | | | |
| Wetted Parts: | 304 stainless steel | | | | | | |
| Process: | Cast aluminum FKM | | | | | | |
| Seals: | Polyester film | | | | | | |
| Keypad: | | | | | | | |
| Measuring Ranges: | 0 - 9,000 psi, gauge | | | | | | |
| Pressure Ranges (psi): | 150 | 750 | 1500 | 3000 | 6000 | 9000 | |
| Proof Pressure (psi): | 220 | 1100 | 2175 | 4400 | 9000 | 11,600 | |
| Process Connection: | 1/4" NPT F Option : G1/4 F, bottom entry | | | | | | |
| Electrical Connection: | Plug-in, terminal strip with 14 slots for 1.5 mm ² , 14 AWG slots | | | | | | |
| Power Supply: | 18 - 32 VDC, reversed polarity protected | | | | | | |
| A/D-Converter: | 12 bit (4096 steps per span) | | | | | | |
| Resolution: | 1000 / s | | | | | | |
| Scanning Rate: | | | | | | | |
| Time Constant: | Approx. 40s | | | | | | |
| Analog Output: | 4-20 mA | | | | | | |
| Current Output: | max. RI = (Ub-12 V) / 20 mA | | | | | | |
| Load: | RI= 600 Ohm at Ub = 24 VDC | | | | | | |
| Load Influence: | 0.3% / 100 Ohm | | | | | | |
| Scanning Rate: | 1 ms | | | | | | |
| Voltage Output: | 0 - 10 VDC | | | | | | |
| Rating: | max. 10 mA, short circuit-proof | | | | | | |
| Adjustment Range | 25% to 100% f. s. | | | | | | |
| Switching Output(s): | Normally open / normally closed, analog output, standard-/windows-mode | | | | | | |
| Switching Function: | max. 120 VDC / 250 V AC | | | | | | |
| Contact Rating: | max. 120 W / 1250 VA | | | | | | |
| Switching Output(s) Cont.: | Cycles: 1 million @ 24 VDC/2A | | | | | | |
| | Switching Rate: max. 20 / s | | | | | | |
| | Delay: 0.0 to 9.9 s adjustable | | | | | | |
| | Operation Time: 1 mS | | | | | | |
| | Status Display: S1 to S4 on LED display | | | | | | |
| Digital Display: | 8-digit 14-segment LED display | | | | | | |
| Height: | 0.5 in. (green) | | | | | | |
| Bargraph: | 20-segments | | | | | | |
| Trend Arrows: | Last value change | | | | | | |
| Display Range: | -9999 to 9999 | | | | | | |
| Display Rate: | 4 / s | | | | | | |
| Display Unit: | bar / psi / psi x 10 / hPa / mbar / °C / °F | | | | | | |
| Operating Elements: | Keypad with easy response push buttons | | | | | | |
| Temperature Range: | Media: -13° to 212°F (-25°C to +100°C) | | | | | | |
| | Electronics: 14° to 158°F (-10°C to + 70°C) | | | | | | |
| | Storage: -22° to 176°F (-30°C to + 80°C) | | | | | | |
| Temperature Influence: | ±0.2% f. s. /10K | | | | | | |
| Compensation Range: | 14° to 158°F (-10°C to +70°C) | | | | | | |
| Power Consumption: | appr. 350 mA at Ub = 24 V DC (without load) | | | | | | |
| Protection Class: | IP65 | | | | | | |
| Dimensions (Housing): | 3.9 (W) X 5.3 (H) X 3.1 (D) inches [100 (W) X 135 (H) X 80 (D) mm] | | | | | | |
| Cable Gland: | 1 x PG 13.5 side entry = standard | | | | | | |
| Additional Features: | 8-digit 14-segment LED display with bargraph and trend indication, microcontroller, self monitoring, all parameters are configured by keypad, selective keypad lock, high accuracy, quick scanning rate (1 ms). | | | | | | |
| Weight: | Approx. 2 lbs. | | | | | | |

* See product configurator for additional options.

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Technical Drawings



Product Configurator

Example **UDS3 -05 -N -4**

Base Model

UDS3 Multiple output electronic switch

Pressure Ranges

| | |
|-----|----------------------|
| -05 | 0 - 150 PSIG (gauge) |
| -31 | 0-750 PSIG (gauge) |
| -11 | 0-1500 PSIG (gauge) |
| -13 | 0-3000 PSIG (gauge) |
| -16 | 0-6000 PSIG (gauge) |
| -32 | 0-9000 PSIG (gauge) |

Options

| | |
|----|---------------------------------------|
| -4 | Four switches only (no analog output) |
| -5 | Four switches plus 4-20 mA output |
| -6 | Four switches plus 0-10 VDC output |

Process Connection

| | |
|----|---------|
| -N | 1/4 NPT |
| -G | G1/4 |