



## Electronic Pressure Switch EDS 601

### Description:

The EDS 601 is an electronic two-way pressure switch with display and analogue output. Its digitally adjustable switching points and switching hystereses, make it ideally suited to applications which require frequent change-overs or accurate switch point setting. The variety of setting parameters ensures versatility for use in all control and monitoring tasks in hydraulics, pneumatics, process control and general test and control technology.

### Special features:

- Two-channel pressure switch with change-over contacts
- Accuracy  $\leq \pm 1\%$  FS
- 4-digit LED display
- Signal output 4 .. 20 mA or 0 .. 10 V selectable
- Can be installed as a pressure gauge or as a front panel mounted unit
- Digitally adjustable parameters
- Optional permanent display of the switching point or of the pressure peak value
- Can be set to display values in any unit of measurement e.g.: kN, kg, psi, ...

### Technical data:

| Input data   |   |
|--|---|
| Measuring ranges   | 16; 40; 100; 250; 400; 600 bar  |
| Overload pressures   | 24; 60; 200; 500; 800; 1000 bar   |
| Burst pressures  | 200; 200; 500; 1000; 2000; 2000 bar   |
| Mechanical connection  | Threaded port G1/4 DIN 3852   |
| Torque value   | 20 Nm   |
| Parts in contact with medium                                   | Mech. connection: Stainless steel   |
| Output data  |   |
| Accuracy to DIN 16086, Max. setting (display, analogue output) | $\leq \pm 0.5\%$ FS typ.<br>$\leq \pm 1\%$ FS max.  |
| Repeatability  | $\leq \pm 0.5\%$ FS max.  |
| Temperature drift  | $\leq \pm 0.05\%$ FS / °C max. zero point<br>$\leq \pm 0.05\%$ FS / °C max. range                             |
| Analogue output (optional)                                     |   |
| Signal   | selectable:<br>4 .. 20 mA ohmic resistance $\leq 400\ \Omega$<br>0 .. 10 V ohmic resistance $\geq 2\ k\Omega$ |
| Switch outputs   |   |
| Type   | 2 relay outputs with change-over contacts   |
| Switching voltage  | max. 250 V  |
| Switching current  | max. 2 A per switch output  |
| Switching capacity   | max. 50 W / 400 VA  |
| Switching cycles   | 10 million without load<br>1 million with load  |
| Reaction time  | approx. 10 ms including electronics   |
| Environmental conditions                                       |   |
| Compensated temperature range                                  | -10 .. +70 °C   |
| Operating temperature range                                    | -25 .. +70 °C   |
| Storage temperature range                                      | -25 .. +80 °C   |
| Fluid temperature range  | -25 .. +80 °C   |
| CE mark  | EN 61000-6-1 / 2 / 3 / 4  |
| Vibration resistance to DIN EN 60068-2-6 (0 .. 500 Hz)         | $\leq 25\ g$  |
| Shock resistance to DIN EN 60068-2-29 (1 ms)                   | $\leq 100\ g$   |
| Protection class to IEC 60529                                  | IP 65   |
| Other data   |   |
| Supply voltage   | 20 .. 32 V DC   |
| Current consumption  | approx. 120 mA  |
| Switch-on current  | approx. 1.5 A (100 ms)  |
| Display  | 4-digit, LED, 7 segment, red, height of digits 13 mm  |
| Connection supply voltage / analogue output                    | EN175301-803 (DIN 43650) / ISO 4400 (3 pole + PE)   |
| Connection relay outputs                                       | DIN 43651 (6 pole + PE)   |
| Housing material   | aluminium, anodised   |
| Weight   | ~ 300 g   |

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.  
FS (Full Scale) = relative to the full measuring range

## Setting options:

The EDS 601 combines a multitude of functions with easy operation so that frequently-used parameters can be changed quickly.

### Switch point settings:

- Switching point relay 1 and 2 (1 % .. 100 % FS)
- Switching hysteresis 1 and 2 (0.5 % .. 99 % FS)

### Basic settings:

- Switching direction relay 1 and 2 (pull-in/release)
- Switching delay relay 1 and 2 (0.00 .. 90 seconds)
- Switch-off delay relay 1 and 2 (0.00 .. 90 seconds)
- Primary display (pressure / switch point / peak value)
- Display filter (slow / medium / fast)
- Output signal (current / voltage)

### Measuring range setting:

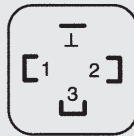
- Number of decimal places (0 .. 3; 4 digits in total)
- Lower measuring range limit (-995 .. 9995)
- Upper measuring range limit (-995 .. 9995)

### Calibration options:

- Zero point of internal sensor
- Final value of internal sensor
- Zero point voltage output (approx. 0 .. 3 V)
- Final value voltage output (approx. 3.5 .. 10 V)
- Zero point current output (approx. 0 .. 7 mA)
- Final value current output (approx. 7.5 .. 24 mA)

## Pin connections:

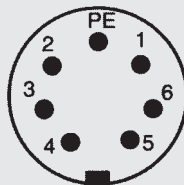
EN175301-803 (DIN 43650)  
(voltage supply / analogue output)



Pin

|   |                 |
|---|-----------------|
| 1 | +U <sub>B</sub> |
| 2 | 0 V             |
| 3 | Analogue        |
| ⊥ | Housing         |

DIN 43651 (relay outputs)



Pin

|    |                |
|----|----------------|
| 1  | Relay 1 N/C    |
| 2  | Relay 1 N/O    |
| 3  | Centre relay 1 |
| 4  | Relay 2 N/C    |
| 5  | Relay 2 N/O    |
| 6  | Centre relay 2 |
| PE | Housing        |

## Model code:

EDS 6 0 1 - XXX - 000

### Pressure ranges in bar

016; 040; 100; 250; 400; 600

### Modification number

000 = Standard

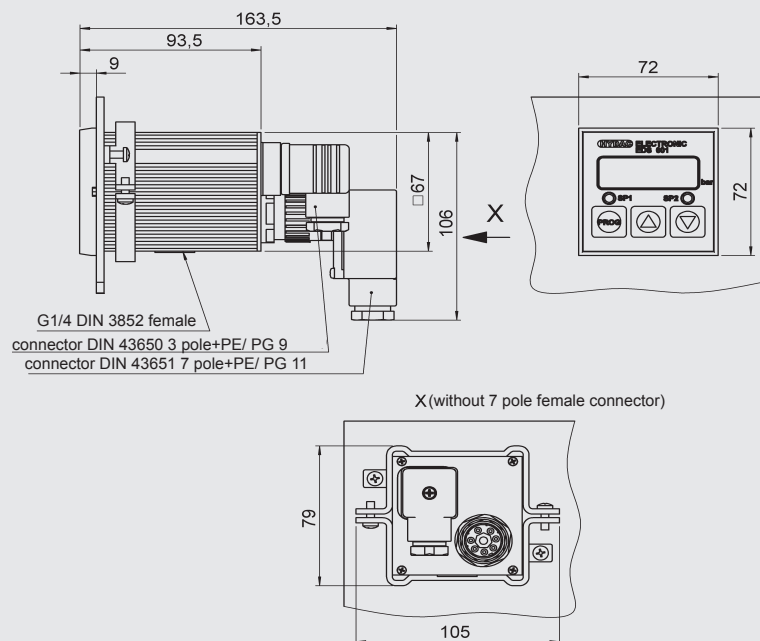
### Note:

Special models on request.  
On instruments with a different modification number, please read the label or the technical amendment details supplied with the instrument.

### Accessories:

Female electrical connectors EN175301-803 (DIN 43650) and DIN 43651 are supplied with the unit. Additional accessories, such as mechanical adapters, installation kits, etc. can be found in the Accessories brochure.

## Dimensions:



### Note:

The information in this brochure relates to the operating conditions and applications described.  
For applications or operating conditions not described, please contact the relevant technical department.  
Subject to technical modifications.

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