

HYDAC INTERNATIONAL



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. $\leq \pm 1\%$ FS max.
Repeatability	$\leq \pm 0.5\%$ FS max.
Temperature drift	$\leq \pm 0.05\%$ FS / °C max. zero point $\leq \pm 0.05\%$ FS / °C max. range
Analogue output (optional)	
Signal	selectable: 4 ... 20 mA ohmic resistance $\leq 400\ \Omega$ 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 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:

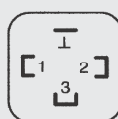
- Number of decimal places (0 .. 3; 4 digits in total)
- Lower measuring range limit (-995 .. 9995)
- Upper measuring range limit (-995 .. 9995)

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)

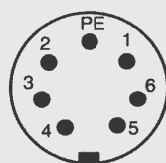
Pin connections:

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



Pin	
1	+U _B
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

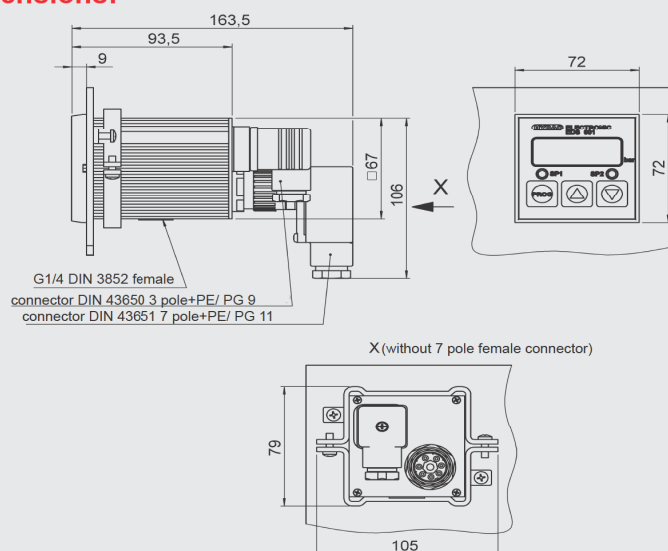
Note:

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.