EDS 8000 is an electronic pressure switch in compact design which is simple to adjust. Models with one or two transistor switch outputs (PNP) are available. The switch points are set using the two keys and a four-digit display. During operation the switch position is indicated by either a red or a green backlight in the display. For optimum adaptation to a particular application, the instrument has many additional adjustment parameters, e.g. switching delay times, N/O / N/C function of the outputs.

EDS 8000 is available in various pressure ranges between 0..500 psi and 0..9000 psi. The main applications of the EDS 8000 are to indicate pressures and limits in hydraulics and pneumatics, or any application where high switching frequency or consistent switching accuracy would overburden a mechanical pressure switch.

Special features:
- Menu navigation according to VDMA
- 2 PNP transistor switching outputs
- Robust stainless steel measurement cell
- Accuracy class ≤ ± 0.5% FS B.F.S.L.
- 4-digit display
- Multi-color switch display
- Protection class IP 67
- Simple operation with key programming
- Many useful additional functions

Technical data:

**Input data**
- Measurement range 500, 1000, 3000, 6000, 9000 psi
- Overload pressures 1160, 2900, 7250, 11600, 14500 psi
- Burst pressures 2900, 7250, 14500, 29000, 29000 psi

**Mechanical connection**
- 9/16-18 UNF 2A (SAE 6 male)
- Torque value 15lb-ft (20Nm)
- Parts in contact with medium: Mech. conn.: Stainless steel
- Sensor cell: Thin-film strain gauge
- Seal: FPM

**Output data**
- Accuracy to DIN 16086 ≤ ± 0.5% FS typ.
- Max. setting ≤ ± 1% FS max. (display)
- Repeatability ≤ ± 0.5% FS max.
- Temperature drift (environment) ≤ ± 0.017% FS/°F max.
- Zero point ≤ ± 0.017% FS/°F max.
- Range ≤ ± 0.25% FS/year max.

**Switch outputs**
- Type: 2 transistor switching outputs PNP
- Switching current max. 250 mA per output
- Switching cycles > 100 million
- Reaction time < 10 ms

**Environmental conditions**
- Compensated temperature range -13..+185°F
- Ambient temperature range -40..+212°F/-13..+212°F
- Storage temperature range -40..+185°F
- Fluid temperature range -40..+257°F/-13..+257°F
- Nominal temperature range of display 5..158°F (read-out)

**Mark EN 61000-6-1 / 2 / 3 / 4 -mark 2)**
- Certificate No. E318391
- Vibration resistance to approx. 10 g DIN EN 60068-2-6 (0..500 Hz)
- Shock resistance to approx. 50 g DIN EN 60068-2-29 (11 ms)
- Protection class to IEC 60529 IP 67 (when an IP 67 connector is used)
- Other data
  - Supply voltage 9.6 .. 32 V DC
  - for use acc. to UL spec. - limited energy - according to 9.3 UL 61010; Class 2; UL 1310/1585; LPS UL 60950
  - Current consumption max. 0.535 A total
  - max. 35 mA (with inactive switch output)
  - Display 4-digit, LED, 7-segment, height of digits 4.5 mm
  - Life expectancy > 10 million cycles (0..100 %)
  - Weight ~ 70 g

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.

FS (Full Scale) = relative to the complete measurement range

1) -13°F with FPM seal, -40°F on request
2) Environmental conditions according to 1.4.2 UL 61010-1; C22.2 No 61010-1
**Setting options:**
All the terms and symbols used for setting the EDS 8000 as well as menu structure comply with the specifications of the German Engineering Federation Standard (VDMA 24574-1) for pressure switches. The EDS 8000 is easy and convenient to set up using the two buttons.

**Setting ranges for the switch outputs:**

<table>
<thead>
<tr>
<th>Meas. range in psi</th>
<th>Lower limit of RP / FL in psi</th>
<th>Upper limit of SP / FH in psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 .. 500</td>
<td>5</td>
<td>500</td>
</tr>
<tr>
<td>0 .. 1000</td>
<td>10</td>
<td>1000</td>
</tr>
<tr>
<td>0 .. 3000</td>
<td>30</td>
<td>3000</td>
</tr>
<tr>
<td>0 .. 6000</td>
<td>60</td>
<td>6000</td>
</tr>
<tr>
<td>0 .. 9000</td>
<td>90</td>
<td>9000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meas. range in psi</th>
<th>Min. difference between RP &amp; SP and FL &amp; FH in psi</th>
<th>Increment* in psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 .. 500</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>0 .. 1000</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>0 .. 3000</td>
<td>30</td>
<td>5</td>
</tr>
<tr>
<td>0 .. 6000</td>
<td>60</td>
<td>10</td>
</tr>
<tr>
<td>0 .. 9000</td>
<td>90</td>
<td>20</td>
</tr>
</tbody>
</table>

* All ranges given in the table are adjustable by the increments shown.

**SP = Switching point**

**RP = Switch-back point**

**FL = Pressure window lower value**

**FH = Pressure window upper value**

**Additional functions:**
- Switching mode of the switching outputs adjustable (switching point function or window function)
- Switching direction of the switching outputs adjustable (N/C or N/O function)
- Switch-on and switch-off delay adjustable from 0.00 .. 99.99 seconds
- Display filter for smoothing the display value during pressure pulsations
- Pressure can be displayed in bar, psi, MPa

**Pin connections:**

**M12x1, 4 pole**

<table>
<thead>
<tr>
<th>Pin</th>
<th>EDS 8476-1</th>
<th>EDS 8476-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+U_b</td>
<td>+U_b</td>
</tr>
<tr>
<td>2</td>
<td>n.c.</td>
<td>SP 2</td>
</tr>
<tr>
<td>3</td>
<td>0 V</td>
<td>0 V</td>
</tr>
<tr>
<td>4</td>
<td>SP 1</td>
<td>SP 1</td>
</tr>
</tbody>
</table>

**Model code:**

<table>
<thead>
<tr>
<th>EDS 8 4 7 6 - 2 - XXXX – 400</th>
</tr>
</thead>
</table>

**Mechanical connection**

| 7 = 9/16-18 UNF 2A (SAE 6 male) |

**Electrical connection**

| 6 = Male M12x1, 4 pole |

*(connector not supplied)*

**Output**

| 2 = 2 switching outputs |

**Pressure ranges in psi**

| 0500, 1000, 3000, 6000, 9000 |

**Modification number**

| 400 = Standard in psi |

**Accessories:**

Appropriate accessories, such as electrical connectors, mechanical adapters, etc, can be found in the Accessories brochure.

**Dimensions:**

- Male M12X14 pole connector
- 9/16-18 UNF 2A SAE-6 PORT

**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.

For European mechanical connection and psi ranges see European Catalog.

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