EDS 300

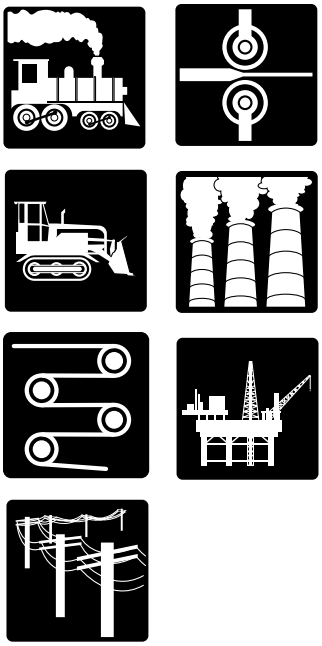
About EDS Pressure Switches:

The EDS 300 is a compact unit which combines a pressure transducer, digital display, 2 switches, and analog output for controlling pressure in hydraulic and pneumatic systems. The transducer converts system pressure into an electrical signal for the display and analog output. External adjustments allow the user to set the pressure switch points and switchback points. The 3 way functionality of this device offers a large cost savings to purchasing a gauge, transducer, and switch individually.

Technical Details:

Input Data	
Measuring Ranges	-14 to 75 psi; 0 to 150, 1000, 3000, 6000, 9000 psi
Overload Pressures	150% FS
Burst Pressure	300% FS
Output Data	
Accuracy *(display, analog output)*	≤ ±1.0% FS max.
Repeatability	≤ ±0.5% FS max.
Temperature Drift	zero point max:≤ ±0.016% / °F (≤ ±0.03% / °C) range max: ≤ ±0.016% / °F (≤ ±0.03% / °C)
Analog Output	4 to 20 mA, ohmic resistance ≤ 400 Ω
Switching Outputs	
Type	PNP transistor output
Switching Current	max. 1.2 A
Switching Cycles	≥ 100 million
Reaction Time	approx. 10 ms
Ambient Conditions	
Temperature Range of Medium	-13 to 176 °F (-25 to 80 °C)
Ambient Temperature Range	-13 to 176 °F (-25 to 80 °C)
Storage Temperature Range	-40 to 176 °F (-40 to 80 °C)
Nominal Temperature Range	14 to 158 °F (-10 to 70 °C)
CE mark	EN 50081-1 and -2, EN 50082-1 and -2
Vibration Resistance	approx. 10 g / 0 to 500 Hz
Shock Resistance	approx. 50 g / 1ms
Other Data	
Supply Voltage: EDS 356-1 EDS 356-2, EDS 356-3	12 to 32 VDC 20 to 32 VDC
Electrical Connection	4 pole plug M12x1
Current Consumption	approx. 100 mA *(without switching output)*
Safety Type	IP65
Hydraulic Connection	SAE 4 female
Parts in Contact with Medium	Stainless Steel
Material of Housing Gf30	Tube: Stainless Steel Keypad Housing PA6.6
Display	4-digit, 7-segment LED, red
Weight	approx. 300 g

Applications:



Approvals:

CE

Model Code:

EDS 3 5 6 - X - XXXX - XXX

Series
EDS 3 = 300 Series Electronic Pressure Switch

Mechanical Connection
5 = SAE-4 female thread (7/16-20 UNF2B)

Electrical Connection
6 = M12x1 plug, 4 pole *(connector not included)*

Output
1 = 1 Switching output
2 = 2 Switching outputs
3 = 1 Switching output and 1 analog output

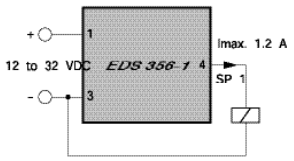
Pressure Ranges
0089 = -14 to 75 psi (-1 to 5 bar) *(vacuum version see also modification number)*
0150 = 0 to 150 psi (10.3 bar)
1000 = 0 to 1000 psi (69 bar)
3000 = 0 to 3000 psi (207 bar)
6000 = 0 to 6000 psi (414 bar)
9000 = 0 to 9000 psi (620 bar)

Modification Number
400 = standard
401 = vacuum version

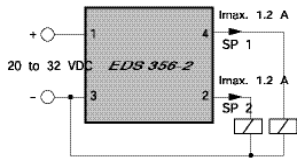
Note: Refer to Standard Stock list for popular model code combinations.

Circuit Connection:

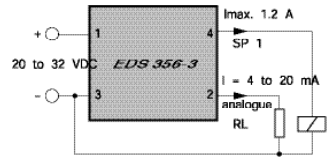
Model EDS 356-1
1 switching output



Model EDS 356-2
2 switching outputs

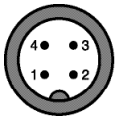


Model EDS 356-3
1 switching output 1 analogue output

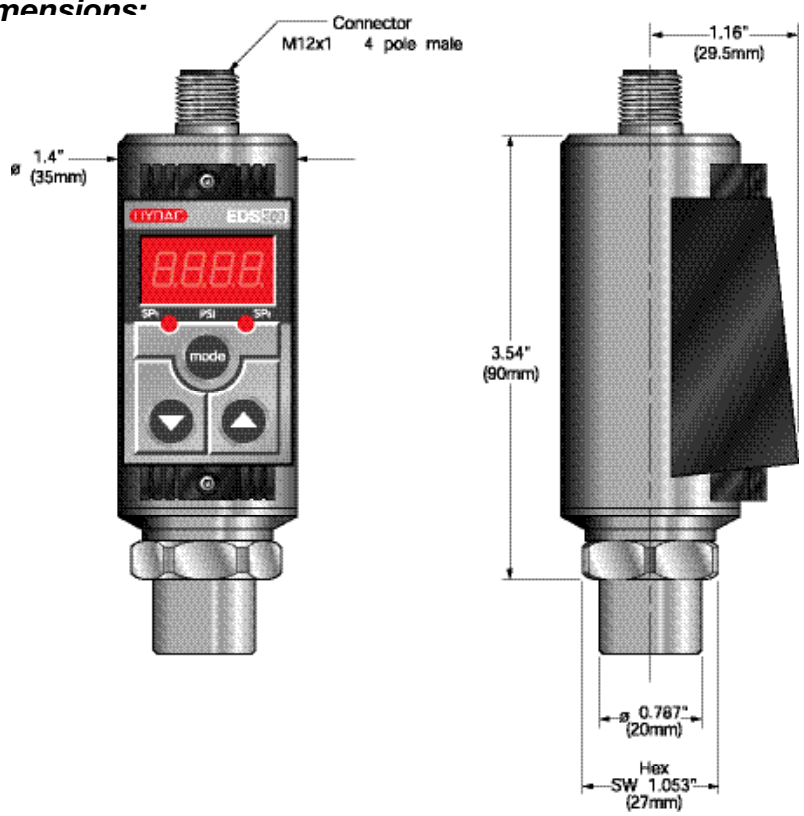


Plug Connection:

EDS 300 use with ZBE 06 (see page 54)



Dimensions:



EDS 300 - Shipbuilding

About EDS 300 Pressure Switches:

The EDS 300 is a compact, electronic pressure switch with digital display. The pressure measurement is based on a thin film strain gauge sensor cell in stainless steel. All parts in contact with the fluid are in stainless steel, and are welded together. Since no seals are required in the sensor chamber, leakage is eliminated.

Two relay switching outputs with N/O function and an additional analog output signal (4 to 20 mA) enable the pressure switch to be incorporated into the most modern control concepts. The switching points and the corresponding hysteresis can easily be adjusted via the keypad.

For optimum adaptation to a particular application, the unit has many additional adjustment parameters, e.g. switching direction of the relays, switching delay times.

Areas of application are pressure or maximum value monitoring on marine transmissions, diesel engines, pumps and general hydraulic and pneumatic systems.

Technical Details:

Measuring ranges	-14 to 75, 150, 1000, 3000, 6000, 9000 psi -1 to 5, 006, 016, 040, 100, 250, 400, 600 bar
Overload pressure	200, 300, 3000, 7000, 11000, 13000 psi 15, 15, 32, 80, 200, 500, 800, 900 bar
Burst pressure	400% FS
Accuracy *(display, analog output)*	≤ ±1% FS max.
Repeatability	≤ ±0.5% FS max.
Temperature drift	≤ ±0.3% / 10 K zero point max. ≤ ±0.3% / 10 K range max.
Analog output	4 to 20 mA, ohmic resistance ≤ 400 Ω
Type	2 relay contacts (N/O)
Switching voltage	10 mV to 60 V (AC or DC)
Switching current	0.01 mA to 1A
Maximum switching output	30 W / 30 VA *(for inductive load, use varistors)*
Life expectancy	20 million *(min. load)* 0.5 million *(max. load)*
Reaction time	approx. 10 ms
Temperature range of medium	-13° to 176°F (-25° to 80°C)
Ambient temperature range	-13° to 176°F (-25° to 80°C)
Storage temperature range	-40° to 176°F (-40° to 80°C)
Nominal temperature range	-14° to 158°F (-10° to 70°C)
CE mark	EN 50081-1, EN 50081-2 EN 50082-1, EN 50082-2
Vibration resistance	5 to 25 Hz: 3.2 mm 25 to 500 Hz: 4 g
Supply voltage	20 to 32 VDC
Electrical connection	plug to DIN 43651 *(6 pole + earth)*
Current consumption	approx. 100 mA
Safety type	IP 65
Hydraulic connection	G 1/4 A male, *(torque rating approx. 15 lb-ft)* SAE 4 female thread *(torque rating approx. 6 lb-ft)*
Parts in contact with fluid	stainless steel, FPM seal
Material of housing	tube: stainless steel keypad housing: PA6.6 Gf30
Display	4-digit, 7 segment LED, red
Weight	approx. 300 g

Applications:

Approvals:

CE

ABS
American Bureau of Shipping
No.: 00-ES 19976-X

Lloyds Register of Shipping
No.: 00/20048

DNV
Det Norske Veritas
No.: A-7710 (895.10)

GL
Germanischer Lloyd
No.: 15519-00HH

Bureau Veritas
No.: 10343 /A0 BV

Model Code:

EDS 3 X 7 - 4 - XXX - S00 (PSI)

Series
EDS 3 = 300 Series Electronic Pressure Switch for Shipbuilding

Mechanical Connection
4 = G 1/4 A DIN 3852
5 = SAE-4 7/16-20 UNF2B female

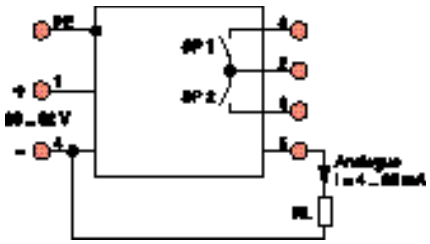
Electrical Connection
7 = DIN43651 plug, 6 pole + ground *(connector ZBE 10 not included)*

Output
4 = 2 switching outputs and 1 analog output

Measuring Ranges
bar version: only in conjunction with connection thread G 1/4 A:
XXX = 006, 016, 040, 100, 250, 400, 600 with modification no. S00
for -1 to 5 bar use “006” and modification no. S13
psi version: only in conjunction with connection thread SAE 4:
XXXX = 0150, 1000, 3000, 6000 with modification no. S40
for -14 to 75 psi use “0089” and modification no. S41

Modification Numbers
S00 = bar version *(except for -1 to 5 bar)*
S13 = vacuum version -1 to 5 bar
S40 = psi version *(except for -14 to 75 psi)*
S41 = vacuum version -14 to 75 psi
PSI = Additional code for psi version *(not required for bar versions)*

Circuit Connection:



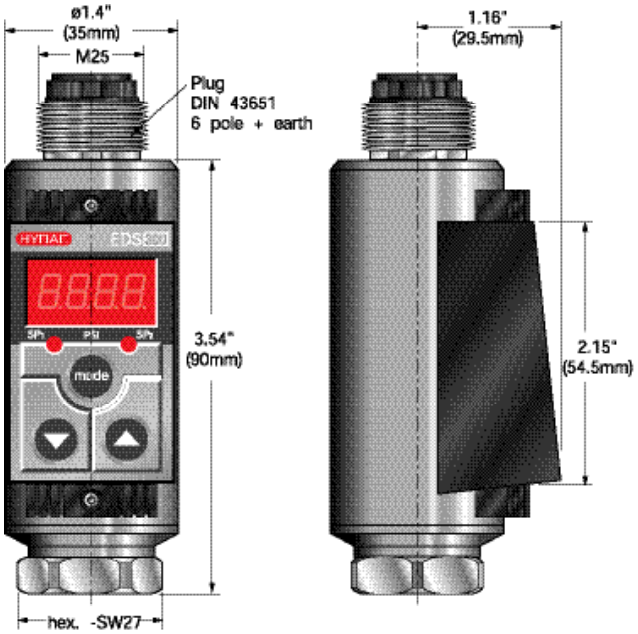
Plug Connection:

Pin 1: + Supply
Pin 2: SP Common Pole
Pin 3: SP1 Contact
Pin 4: 0V
Pin 5: 4 to 20 mA Signal
Pin 6: SP2 Contact

Plug Connection:

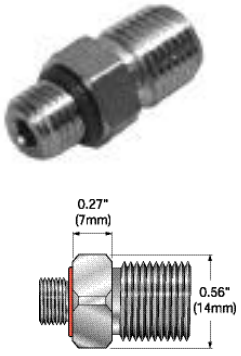
ZBE 10 (see page 54)

Dimensions:



Adapter Available:

Adapter SAE-4 (m) to 1/4 NPT (m) Stainless
Part Number - 02701426



EDS 410

About EDS 410 Pressure Switches:

The electronic pressure switch EDS 410 was specially developed for use in industrial, mobile, and transit applications.

The small, compact unit has a very robust pressure sensor with thin film on a stainless steel membrane. The transistor switching output (PNP) is designed so that switching valves can be controlled directly, up to a current consumption of 1.2 Amps. The switching point and switch-back point of the EDS 410 is set by the manufacturer according to customer specification.

Various pressure ranges are available between 0 to 10 bar and 0 to 600 bar. The EDS 410 offers great flexibility with various options for electrical connections.

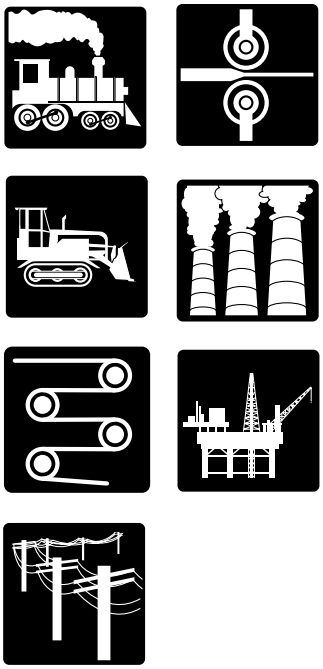
Standard connections such as the DIN 43650 are available, as well as flying leads if necessary.

A minimum order of 50 pieces is needed.

Technical Details:

Input Data	
Measuring ranges	232 to 8700 PSI (16 to 600 bar)
Overload pressure	150% FS
Burst pressure	300% FS
Mechanical Connection	SAE 6 9/16-18 UNF2A male
Tightening torque	approx. 15 lb-ft (20 Nm)
Parts in contact with media	stainless steel, FPM seal
Output Data	
Type	1 PNP transistor output
Maximum output load	1.2 A
Switch point	to define
Switch-back point	to define
Accuracy (B.F.S.L) including linearity, hysteresis, and repeatability	±0.5 %FS
Temperature compensation zero point	≤ ±0.03%FS/°C ≤ ±0.017%FS/°F
Temperature compensation over range	≤ ±0.03%FS/°C ≤ ±0.017%FS/°F
Long-term drift	≤ ±0.3%FS typ. / year
Ambient Conditions	
Nominal temperature range	-13° to 185°F (-25° to 85°C)
Operating temperature range	-13° to 185°F (-25° to 85°C)
Storage temperature range	-40° to 212°F (-40° to 100°C)
Fluid temperature range	-40° to 212°F (-40° to 100°C)
CE mark, EMC	EN 50081-1 and EN 50081-2 EN 50082-1 and EN 50082-2
Vibration resistance to IEC 68-2-6 at 10 to 500Hz	< 20g (196.2m/s²)
Safety type to DIN 40050	IP 65
Other Data	
Supply voltage:	12 to 32 VDC fuse: 5 A normal blow or 5 A slow blow
Residual ripple supply voltage	≤ 5%
Electrical connection	Connector DIN 43650
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	standard
Life expectancy	>10 mil load cycles 0 to 100% FS
Weight	145 g

Applications:



Approvals:

CE

Model Code:

EDS 410 - XXX - X - XXX -(XXX/XXX bar or psi)

Series
EDS 410 = 410 Series Electronic Pressure Switch

Pressure Range
XXX = 232, 580, 1450, 3625, 5800, 8700 psi
= 016, 040, 100, 250, 400, 600 bar

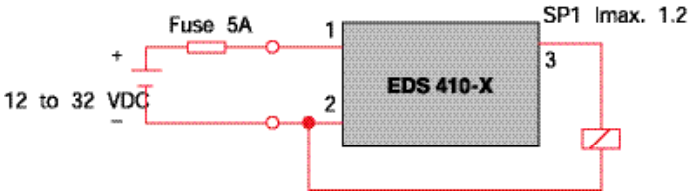
Switch Function
0 = normally open
1 = normally closed

Modification Numbers
XXX = defined by manufacturer

Switch Point
XXX = XXX

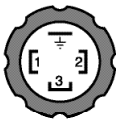
Switchback Point
XXX = XXX

Circuit Connection:

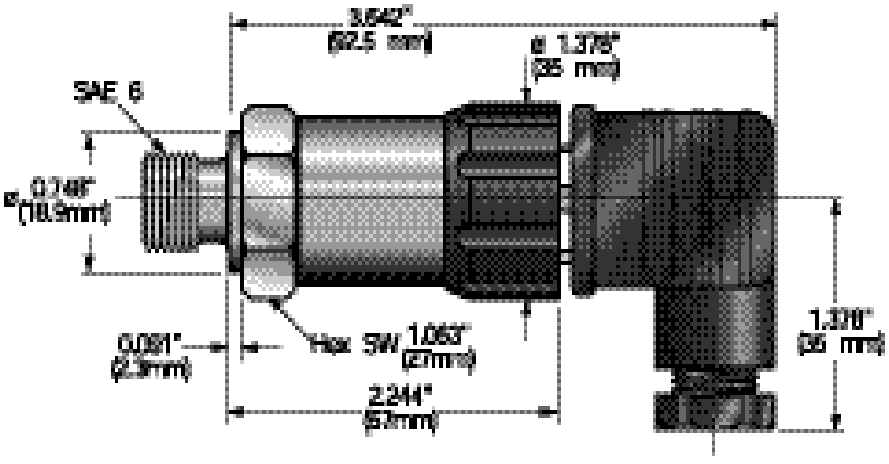


Plug Connection:

EDS 410 use with ZBE 01 (see page 54)



Dimensions:



EDS 505 Adjustable Pressure Switch

About EDS 505 Adjustable Pressure Switches:

The EDS 505 is robust and simple to operate. Essentially, it consists of a pressure measuring cell and evaluation electronics which convert the measuring cell signal into a switching signal.

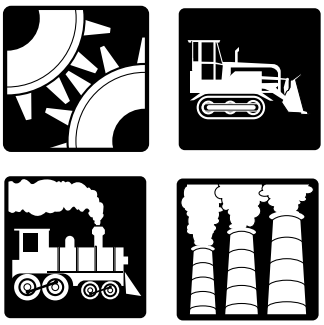
Long life and vibration resistance are guaranteed because the unit is constructed without moving parts. The EDS 505 is used in hydraulic systems, process engineering and mobile applications as a pressure monitor and two-position controller.

Accumulator charging, pressure control in chucks and compressor controls are a few examples where the mechanical pressure switch has a limited use and can be replaced by the EDS 505. An LED light on the end of the switch gives an immediate visual indication when the switches been activated.

Technical Details:

Input Data	
Measuring ranges	16, 40, 100, 250, 400, 600 bar
Overload pressure	32, 80, 200, 500, 800, 900 bar
Burst pressure	200, 200, 500, 1000, 2000, 2000 bar
Mechanical Connection	G 1/4 A male
Tightening torque	approx. 15 lb-ft (20 Nm)
Parts in contact with media	stainless steel, FPM seal
Output Data	
Accuracy including linearity, hysteresis	≤ ±0.5%FS BFSL
Temp. comp. zero point	≤ ±0.017%FS/°F
Temp. comp. over range	≤ ±0.017%FS/°F
Rise time	approx. 1 ms
Long-term drift	≤ ±0.3%FS typ. / year
Switching Output	
Type	1 PNP transistor output
Maximum output load	1.2 A
Repeatability	≤ ±0.5%FS max.
Switching cycles	> 100 million
Reaction time	20 ms
Field adjustable setting ranges of the switch point	16 bar: 1 to 16 bar 40 bar: 3 to 40 bar 100 bar: 8 to 100 bar 250 bar: 15 to 250 bar 400 bar: 30 to 400 bar 600 bar: 40 to 600 bar
Setting range of the hysteresis	1.5 to 20% FS
Ambient Conditions	
Nominal temperature range	14° to 158°F (-10° to 70°C)
Operating temperature range	-13° to 185°F (-25° to 85°C)
Storage temperature range	-40° to 212°F (-40° to 100°C)
Fluid temperature range	-40° to 212°F (-40° to 100°C)
CE mark	EN 50081-1 and EN 50081-2 EN 50082-1 and EN 61000-6-2
Vibration resistance to IEC 68-2-6 at 10 to 500Hz	20 g
Shock resistance	50 g/ms
Safety type to DIN 40050	IP 65
Other Data	
Supply voltage:	12 to 32 VDC
Current consumption	approx. 50 mA
Electrical connection	DIN 43650 (3 pole + ground)
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	standard
Weight	260 g

Applications:



Approvals:

CE

Model Code:

EDS 505 - XXX - 4 X - 000

Series

Pressure Range

016 = 16 bar (232 psi)
040 = 40 bar (580 psi)
100 = 100 bar (1450 psi)
250 = 250 bar (3625 psi)
400 = 400 bar (5800 psi)
600 = 600 bar (8700 psi)

Mechanical Connection

4 = G 1/4 A male

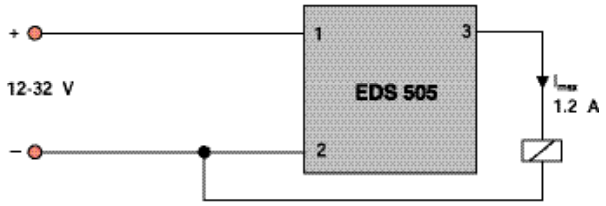
Switch Function

0 = normally open
1 = normally closed

Modification Numbers

000 = standard

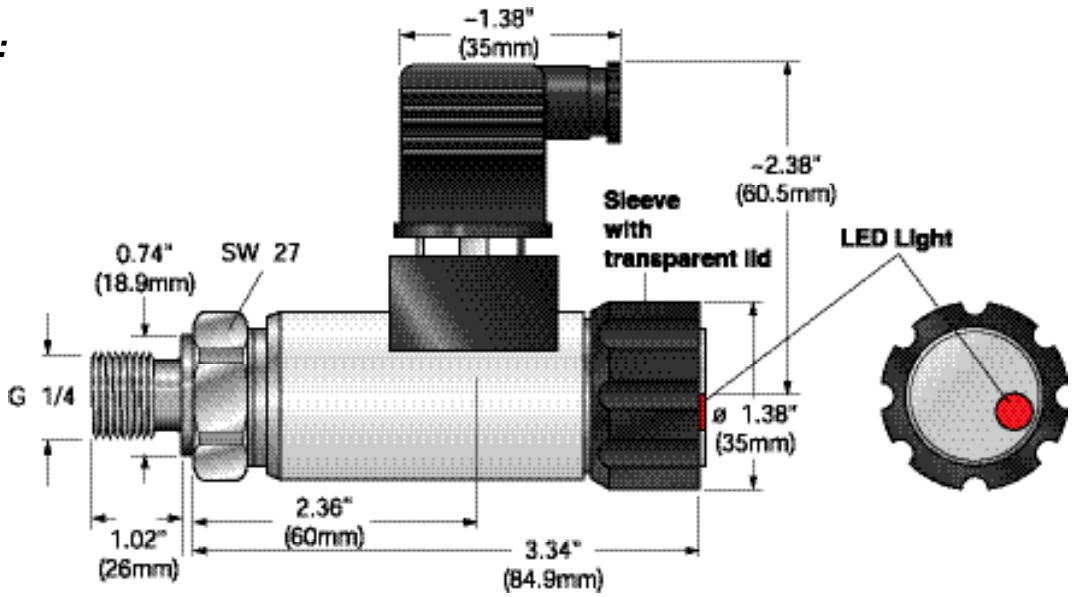
Circuit Connection:



Plug Connection:

1 = 12V - 32 V DC
2 = 0V
3 = output (PNP)I_{max} = 1.2 A
PE = ground

Dimensions:



EDS 601

About EDS 601 Pressure Switches:

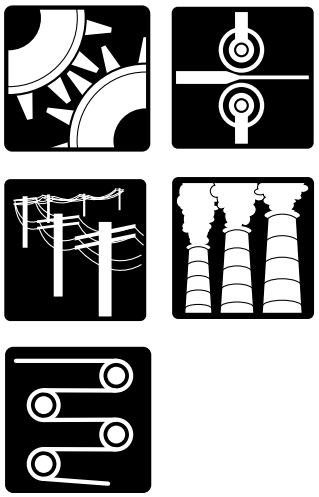
The EDS 601 is an electronic two-channel pressure switch with display and analog output. Its digitally adjustable switching points and switching hysteresis make it particularly suitable for applications requiring frequent change-overs or accurate switching point settings.

The variety of setting parameters ensures versatility for use in all control and monitoring tasks in hydraulics, pneumatics, process controls and in general test and control engineering applications.

Technical Details:

Input Data	
Measuring ranges	16, 40, 100, 250, 400, 600 bar
Overload pressure	24, 60, 150, 375, 600, 900 bar
Burst pressure	300% FS
Mechanical Connection	female port DIN 3852-G1/4
Tightening torque	approx. 15 lb-ft (20 Nm)
Parts in contact with media	stainless steel
Output Data	
Accuracy including linearity, hysteresis	≤ 0.5% FS B.F.S.L
Temp. comp. zero point	≤ ±0.014%FS/°F max.
Temp. comp. over range	≤ ±0.014%FS/°F max.
Long-term drift	≤ ±0.3%FS typ. / year
Signal signal	0 to 10 V ohmic resistance: min 2 kΩ 4 to 20 mA ohmic resistance: max. 400Ω
Max. frequency signal output	20 Hz
Relay Outputs	
Number / function	2 relays with change-over contacts
Repeatability	≤ 0.5% FS max.
Switching voltage	0.1 to 250 V
Switching current	0.025 to 2 A
Switching capacity	50 W / 400 VA
Life expectancy	10 million without load / 1 million at nominal load
Reaction time	approx. 10 ms incl. electronics
Ambient Conditions	
Nominal temperature range	-13° to 158°F (-25° to 70°C)
Operating temperature range	-13° to 158°F (-25° to 70°C)
Storage temperature range	-40° to 185°F (-40° to 85°C)
Fluid temperature range	-40° to 185°F (-40° to 85°C)
CE mark	EN 50081-1 and -2, EN 50082-1 -2
Vibration resistance	25 g / 0 to 500 Hz
Shock resistance	50 g/ms
Safety type to DIN 40050	IP 65
Other Data	
Display	7 segment LED display, 4 digits, 13 mm high
Housing material	aluminum, anodized
Dimensions	approx. 72 x 72 x 110 mm (WxHxD)
Connection supply voltage	plug to DIN 43650 / ISO 4400 (3 pole + ground)
Connection relay	plug to DIN 43651 (6 pole + ground)
Supply voltage	18 to 32 VDC
Current consumption	approx. 120 mA
Switch on Current	approx. 1.5 A (0.1 sec)
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	standard
Weight	200 g

Applications:



Approvals:

CE

Model Code:

EDS 601 - XXX - 000

Series

Pressure Range

016 = 16 bar (232 psi)
040 = 40 bar (580 psi)
100 = 100 bar (1450 psi)
250 = 250 bar (3625 psi)
400 = 400 bar (5800 psi)
600 = 600 bar (8700 psi)

Modification Numbers

000 = standard

Accessories Included:

Mating plug to DIN 43650 *(supply voltage)*
Mating plug to DIN 43651 *(relay contacts)*

Other Accessories:

Assembly set for front panel mounting

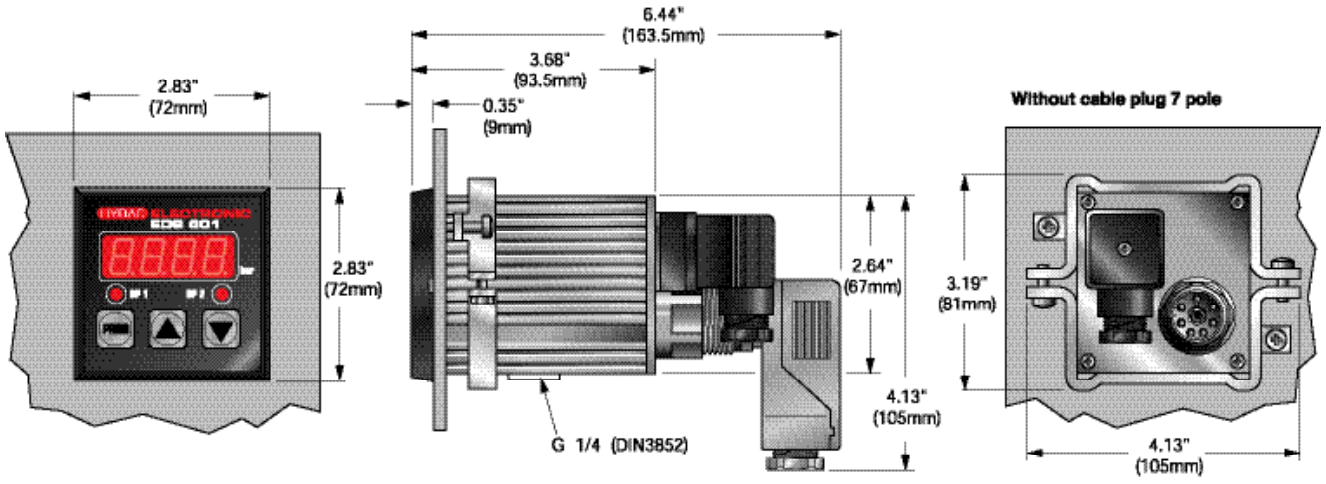
Circuit Connection:

1 = relay 1 N/C contact
2 = relay 1 N/O contact
3 = relay 1 common supply
4 = relay 2 N/C contact
5 = relay 2 N/O contact
6 = relay common supply

Plug Connection:

1 = supply
2 = 0V
3 = analog output
PE = ground

Dimensions:



EDS 710

About EDS 710 Pressure Switches:

Specifically for OEM applications in mobile industry, the EDS 710 was developed as one of the smallest electronic pressure switches in the world. Switch and switch-back points are factory set as NO or NC according to customer requirements. Output load capacity of 400 mA enables connection to control units (e.g. PLC) as well as small electronic devices (e.g. relays). Featuring an M12x1 connector or flying leads alternatively as electric connection, enables flexibility regarding various wiring systems. Class of protection is IP 67 standard. In order to protect in more harsh applications, a special protective rubber cover was developed. When used, the protection class is extended to IP 69K.

A minimum order of 250 pieces per model is usually required.

Technical Details:

Input Data	
Measuring ranges	232 to 8700 PSI (16 to 600 bar)
Overload pressure	150% FS
Burst pressure	300% FS
Mechanical Connection	SAE 6 9/16-18 UNF2A male
Tightening torque	approx. 15 lb-ft (20 Nm)
Parts in contact with media	stainless steel, FPM seal
Output Data	
Type	1 PNP transistor output
Maximum output load	400 mA
Switch point	to define
Switch-back point	to define
Accuracy (B.F.S.L) including linearity, hysteresis, and repeatability	±0.5 %FS
Temp. comp. zero point	≤ ±0.017%FS/°F
Temp. comp. over range	≤ ±0.017%FS/°F
Long-term drift	≤ ±0.3%FS typ. / year
Ambient Conditions	
Nominal temperature range	-13° to 185°F (-25° to 85°C)
Operating temperature range	-13° to 185°F (-25° to 85°C)
Storage temperature range	-40° to 212°F (-40° to 100°C)
Fluid temperature range	-40° to 212°F (-40° to 100°C)
CE mark, EMC	EN 50081-1 and EN 50081-2 EN 50082-1 and EN 50082-2
Vibration resistance to IEC 68-2-6 at 10 to 500Hz	<20g (196.2 m/s²) g
Safety type to DIN 40050	IP 67 (w/ ZBE 06 molded cable or flying lead)
Other Data	
Supply Voltage	12 to 32 D VC
Residual ripple supply voltage	≤ 5%
Electrical connection	flying leads or M12x1
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	standard
Life expectancy	>10 mil. load cycles, 0 to 100%FS
Weight	145 g

Applications:

Approvals:

CE

Model Code:

EDS 710 - XXX - X - XXX -(XXX/XXX bar or psi)

Series
EDS 710 = 710 Series Electronic Pressure Switch

Pressure Range
XXX = 232, 580, 1450, 3625, 5800, 8700 psi
= 016, 040, 100, 250, 400, 600 bar

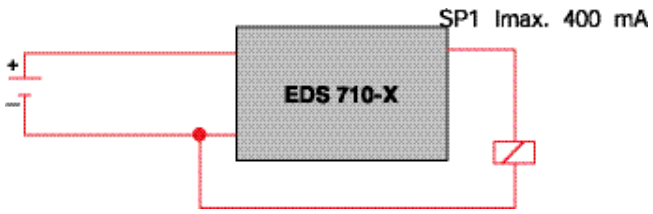
Switch Function
0 = normally open
1 = normally closed

Modification Numbers
XXX = defined by manufacturer

Switch Point
XXX = XXX

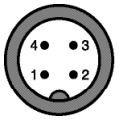
Switchback Point
XXX = XXX

Circuit Connection:

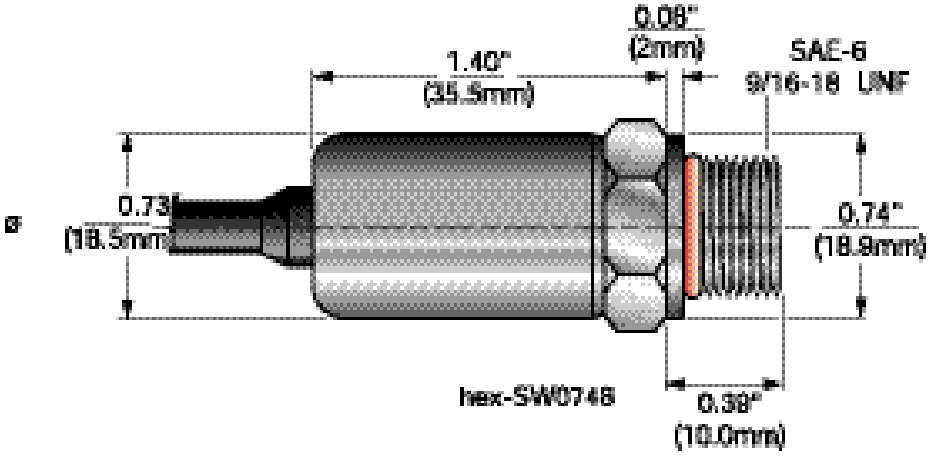


Plug Connection:

EDS 710 use with ZBE 06 (see page 54)



Dimensions:



EDS 1700

About EDS 1700 Pressure Switches :

The EDS 1700, with its built-in pressure measuring cell, a 4-digit display and the 4 switching outputs, offers the user all the advantages of a modern electronic pressure switch.

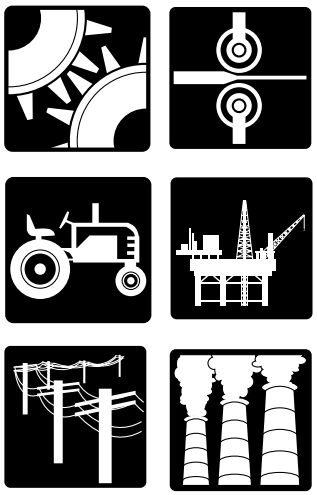
4 switching points and switch-back points can be adjusted very simply and independently of each other via a membrane keypad. For optimum incorporation into monitoring systems *(eg with PLC)* an analog output is also available *(4 to 20 mA or 0 to10 V.)*

The main applications of the EDS 1700 are in hydraulics and pneumatics. The instrument is ideal for use where frequent switching cycles *(several million)* require permanent switching point accuracy or simple and precise adjustment.

Technical Details:

Input Data	
Measuring Ranges	232, 580, 1450, 3625, 5800, 8700 psi
Overload Pressures	200%, max. 1300 psi
Burst Pressure	300% FS
Hydraulic Connection	female port DIN 3852-G1/4
Torque rating	15 lb-ft (20 Nm)
Parts in contact with media	Stainless Steel
Output Data	
Accuracy *(display, analog output) max.*	P = 0.5% / N = 1.0% or P = 0.25%FS / N = 0.5%FS both as B.F.S.L.
Temperature Drift EDS 1700...P	zero point max. ≤ ±0.2% / 10 K range max. ≤ ±0.2% / 10 K
EDS 1700...N	zero point max. ≤ ±0.3% / 10 K range max. ≤ ±0.3% / 10 K
Analog Output	4 to 20 mA, ohmic resistance ≤ 400 Ω 0 to 10 V ohmic resistance ≥ 2 kΩ
Switching Outputs	
Type	4 relays with change-over contacts in 2 groups *(common supply of each group connected)*
Repeatability	EDS 1700...P ≤ ±0.25% FS max. EDS 1700...N ≤ ±0.5% FS max.
Switching Voltage	0.1 to 250 VAC / VDC
Switching Current	0.009 to 2 A
Switching Capacity	400 VA, 50 W *(for inductive load use varistors)*
Life Expectancy of Contacts	≥ 20 million *(minimum load)* ≥ 1 million *(maximum load)*
Reaction Time	approx. 20 ms
Switching Point Setting Range	1.5 to 100% FS
Setting Range of Switch-back Hysteresis / Switch-back Points	1 to 99% FS
Ambient Conditions	
Temperature Range of Medium	-13 to 176 °F (-25 to 80°C)
Ambient Temperature Range	-13 to 140 °F (-25 to 60°C)
Storage Temperature Range	-40 to 176 °F (-40 to 80°C)
Nominal Temperature Range	50 to 158 °F (10 to 70°C)
CE mark	EN 50081-1 and -2, EN 50082-1 and -2
Vibration Resistance	approx. 5 g
Shock Resistance	approx. 10 g
Safety Type	IP65
Other Data	
Supply Voltage	22 to 32 VDC *(residual ripple ≤ 10%)*
Electrical Connection	14 pole terminal block *(cross-section of connection max. 1.5 mm²)*
Current Consumption	approx. 200 mA
Display	4-digit, 7-segment LED, red *(digits 13mm high)*
Weight	approx. 800 g

Applications:



Approvals:

CE

Model Code:

EDS 17 9 X - X - XXX - 000

Series
EDS 17 = 1700 Series Electronic Pressure Switch

Mechanical Connection
9 = female port DIN 3852-G1/4

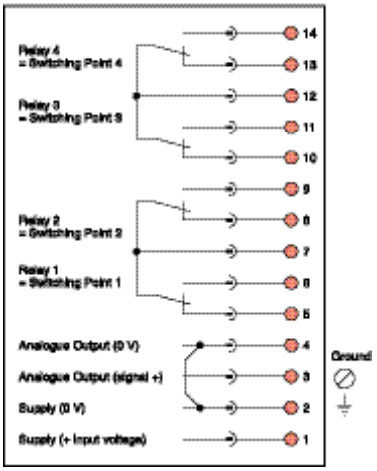
Display *(units of pressure)*
1 = 4 digit bar
2 = 4 digit psi

Accuracy
P = 0.25% BFSL
N = 0.50% BFSL

Pressure Ranges
016 = 16 bar (232 psi)
040 = 40 bar (580 psi)
100 = 100 bar (1450 psi)
250 = 250 bar (3625 psi)
400 = 400 bar (5800 psi)
600 = 600 bar (8700 psi)
note: vacuum version on request

Modification Number
000 = standard

Circuit Connection:

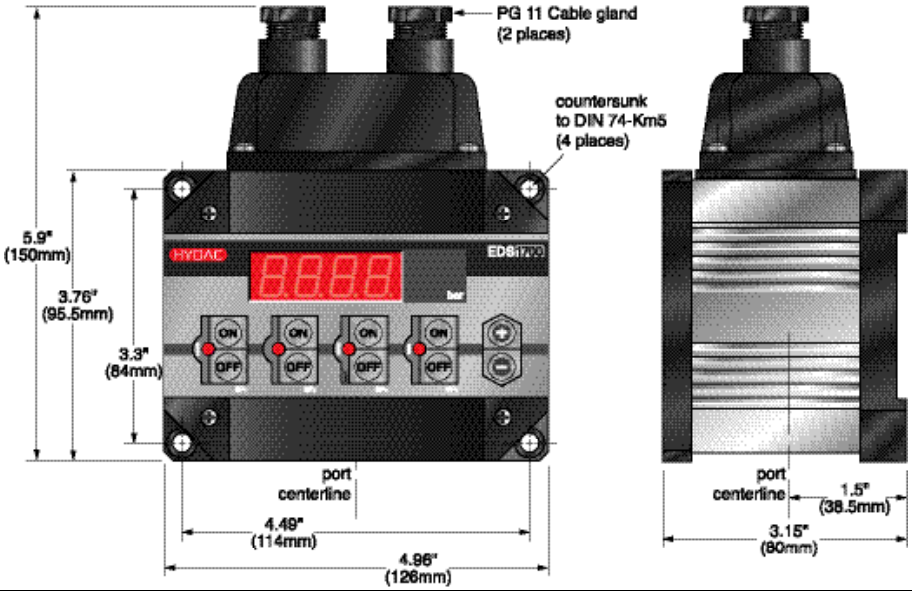


Mechanical Connection:

For other mechanical connections, refer to our 1620 series testpoint and hose accessories.

TestPoint with Hose Connection:

Dimensions:



EDS 3000

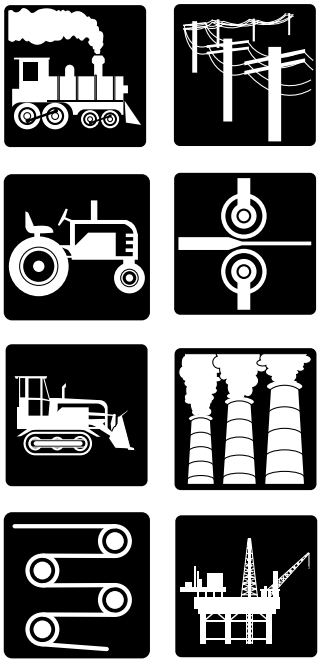
About EDS 3000 Pressure Switches:

The EDS 3000 electronic pressure switch is the result of joint development and innovation in the field of adjustable pressure switches with display. It is a compact unit which combines a pressure switch, digital display, and transducer for controlling pressure in hydraulic and pneumatic applications. The most noticeable innovation is the alignment of the serial four-digit display. After mounting, the switch may be turned as a whole. Additionally, the front panel with push buttons may be turned. This eliminates the need for mechanical adapters. Display units can be shown in bar, psi, or mpa. Pressure ranges from vacuum to 9000 psi are available. Switching outputs in one or two switch versions with or without analog output are available when choosing model code.

Technical Details:

Input Data	
Measuring ranges *(type 1)* *(type 3)* *(type 4)*	0 to 15, 50 psi 0 to 15, 30, 50, 150, 250, 500 psi -14 to 75 psi 0 to 1000, 3000, 6000, 9000 psi
Overload pressure	200%FS max. 900 bar (13000 psi)
Burst pressure	300%FS max. 2000 bar (29000 psi)
Mechanical Connection	G 1/4 A male, 1/4"-18 NPT male SAE 6 9/16-18 UNF2A male
Tightening torque	approx. 15 lb-ft (20 Nm)
Parts in contact with media	Stainless steel, FPM seal *(type 4)* brass, ceramic, FPM seal *(types 2 & 3)*
Output Data	
Accuracy (B.F.S.L) including linearity & hysteresis	≤ ±0.5 %FS
Temp. comp. zero point	≤ ±0.017%FS/°F max.
Temp. comp. over range	≤ ±0.017%FS/°F max.
Analog output signal, adjustable	4 to 20 mA, ohmic resistance ≤ 500Ω 0 to 10 V, ohmic resistance ≥ 1k Ω
Switching Outputs	
Type	PNP transistor output
Repeatability	≤ ±0.5%FS max.
Switching current	max. 1.2 A
Switching cycles	≥ 100 million
Reaction time	< 10 ms
Ambient Conditions	
Nominal temperature range	-13° to 185°F (-25° to 85°C)
Ambient Temperature range	-13° to 176°F (-25° to 80°C)
Storage temperature range	-40° to 176°F (-40° to 80°C)
Fluid temperature range	-13° to 176°F (-25° to 80°C)
CE mark	EN 50081-1, EN 50081-2 EN 50082-1, EN 61000-6-2
Vibration resistance to IEC 68-2-6 at 10 to 500Hz	ca. 10 g
Shock resistance	50 g/ms
Safety type to DIN 40050	IP 67 *(molded M12x1 connector is used)*
Other data	
Supply voltage	18 to 32 VDC
Electrical connection	M12x1 *(4 pin or 5 pin)*
Current consumption	approx. 100 mA *(without switching output)*
Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection	standard
Display	4 digit, 7 segment LED red
Weight	approx. 300 g

Applications:



Approvals:

CE

Model Code:

EDS 3 X X X - X - XXXX - 400

Series
EDS 3 = 3000 Series Electronic Sensor

Sensor Type
1 = Ceramic absolute
3 = Ceramic relative
4 = Thin-film relative

Mechanical Connection
6 = 1/4" - 18 NPT male thread *(brass types 1 and 3)*
7 = SAE-6 male thread (9/16-18 UNF2A *stainless steel type 4)*

Electrical Connection
6 = M12x1 plug, 4 pole for output codes 1, 2, and 3 *(connector not included)*
8 = M12x1 plug, 5 pole for output code 5 *(connector not included)*

Output
1 = 1 Switch output *(only with electrical connection 6)*
2 = 2 Switch outputs *(only with electrical connection 6)*
3 = 1 Switch with analog output *(only with electrical connection 6)*
5 = 2 Switch with analog output *(only with electrical connection 8)*

Pressure Ranges

Type 1 *(ceramic - absolute)*
0015 = 0 to 15 psi
0050 = 0 to 50 psi

Type 3 *(ceramic - relative)*
0015 = 0 to 15 psi
0030 = 0 to 30 psi
0050 = 0 to 50 psi
0150 = 0 to 150 psi
0250 = 0 to 250 psi
0500 = 0 to 500 psi
0089 = -14 to 75 psi

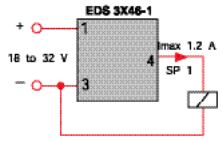
Type 4 *(thin-film, relative)*
1000 = 0 to 1000 psi
3000 = 0 to 3000 psi
6000 = 0 to 6000 psi
9000 = 0 to 9000 psi

Modification Number
400 = standard in psi

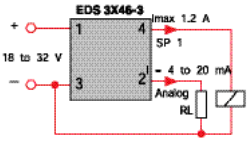
Note: G 1/4 port sizes are available upon request

Circuit Connection:

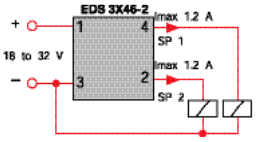
Model with 1 switch output
Plug 4-pol. M12x1



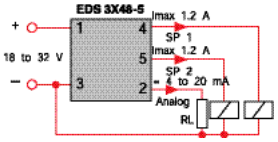
Model with 1 switch output and signal output
Plug 4-pol. M12x1



Model with 2 switch outputs
Plug 4-pol. M12x1



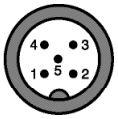
Model with 2 switch outputs and signal output
Plug 5-pol. M12x1



Plug Connection:

EDS 3XX6 *(4-pole)*

EDS 3XX8 *(5-pole)*



use with ZBE 06 *(4-pole)* & ZBE 08 *(5-pole)*
(see page 54)

Dimensions: