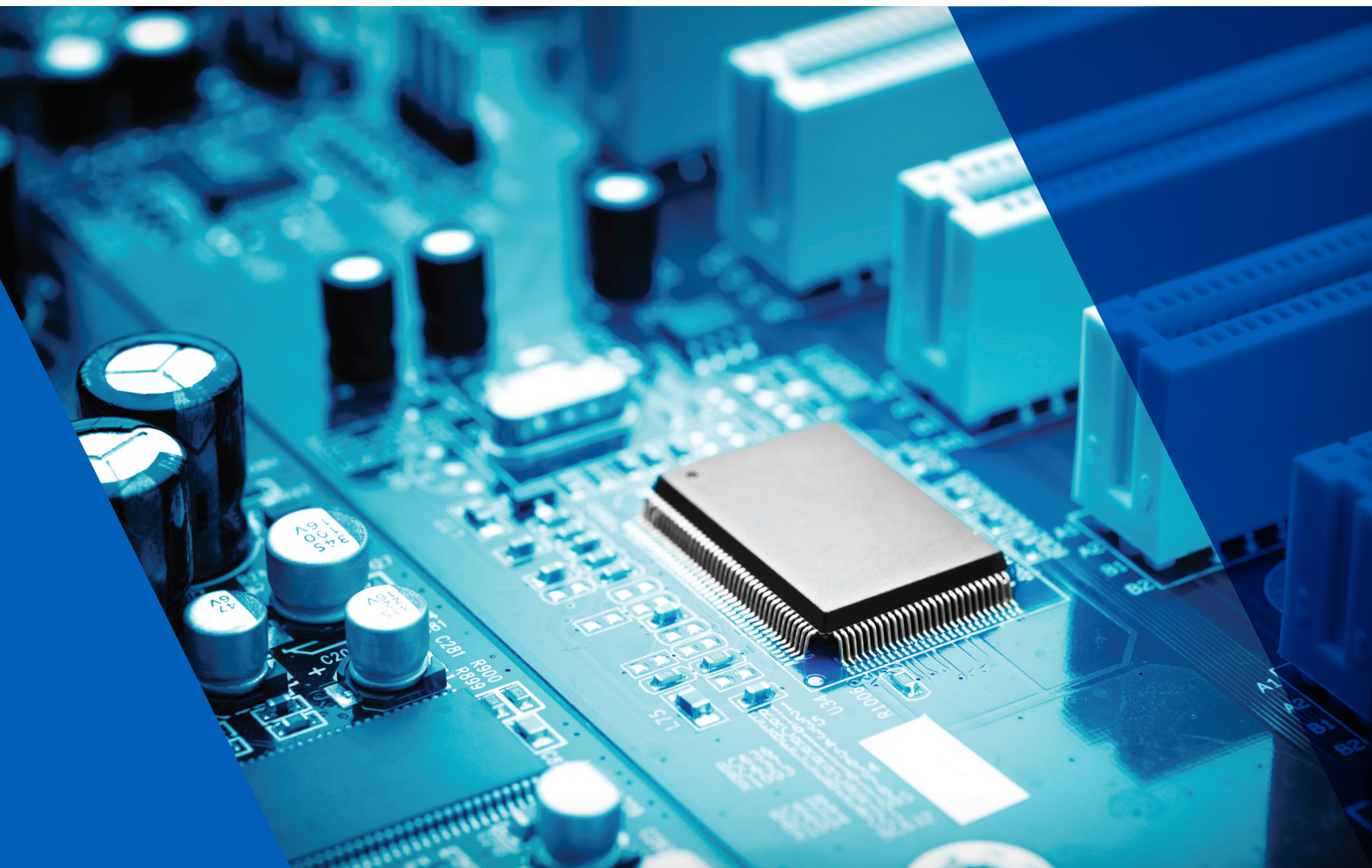


Electro Controls

Pressure - 2017

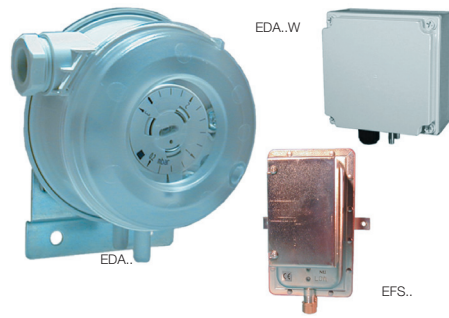


PRESSURE

AIR DIFFERENTIAL PRESSURE SWITCHES

EDA.. EFS..

To monitor air flow, dirty filters, flue draught, frost on coils & level. For positive, negative, vacuum & differential pressure. Suitable for non-corrosive, non-combustible air/gases.

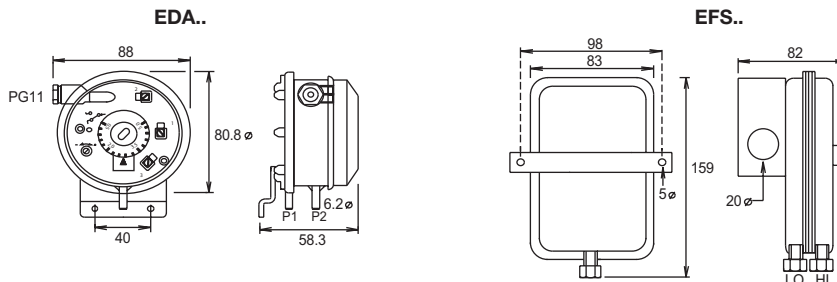


Adjustment under cover Volt free contacts
 Enclosure:
 EDA.. : Glass filled polycarbonate
 EFS.. : Steel zinc plated
 EFS-02HT - High Temperature model includes -
 2 x Brass Duct Adaptors for 6mm OD metal tube.
 Ensure that the pressure line is at least 1m long.
 Conversion: 1 mbar = 100 Pa Max. ambient 70°C
 Enclosure Flammability:
 EDA.. = UL94-V0
 W = UL94-V2

Type	Range mb	Diff mbar approx	Max Press. mbar	230VAC SPDT	Media Temp °C	Diaphragm Material	Pressure Connections	Enclosure
EDA-22	0.2/3	0.1/0.4	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP54
EDA-33	0.5/5	0.2/0.7	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP54
EDA-44	1/10	0.3/1	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP54
EDA-55	5/20	0.5/2	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP54
EDA-22/IP65	0.2/3	0.1/0.4	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP65
EDA-33/IP65	0.5/5	0.2/0.7	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP65
EDA-44/IP65	1/10	0.3/1	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP65
EDA-55/IP65	5/20	0.5/2	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP65
EDA-22W	0.2/3	0.1/0.4	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP65
EDA-33W	0.5/5	0.2/0.7	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP65
EDA-44W	1/10	0.3/1	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP65
EDA-55W	5/20	0.5/2	50	1(0.5)A	-20/+85	Silicone	6mm push-on	IP65
EFS-02	0.13/30	0.05/2	35	10(2)A	80	Nitrile	6mm comp	IP30
EFS-02HT*	0.13/30	0.05/2	35	10(2)A	>80	Nitrile	6mm comp	IP30

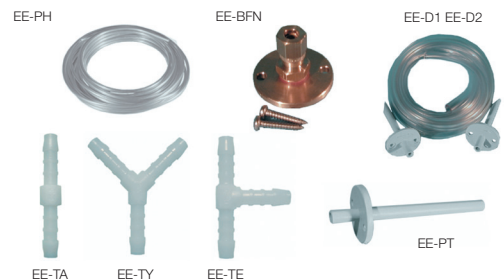
* includes 2x EE-BFN and 2x 2m long 10mm copper tube

DIMENSIONS

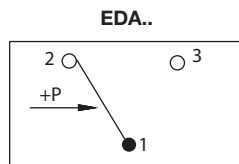


ACCESSORIES:

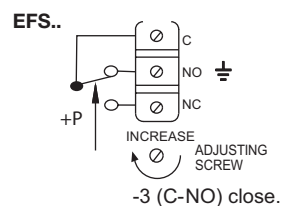
- EE-BFN** Brass duct flange for 6mm OD metal tube
- EE-CT6** Copper tube 6mm OD x 10m for EFS..
- EE-D1** Duct kit 2m EE-PH + 2xEE-PT for EFS-02
- EE-D2** Duct kit 2m EE-PH + 2xEE-PT for EDA..
- EE-PH15** PVC hose 5x8mm. x 15 metres
- EE-PT** 70mm Plastic duct adaptor for use with PVC hose
- EE-TE** Plastic T connector for use with PVC hose
- EE-TA** Plastic straight connector for use with PVC hose
- EE-TY** Plastic Y connector for use with PVC hose



WIRING:



On pressure rise to scale setting (range) contacts 1
 On pressure fall (diff.) contacts 1-2 (C-NC) close.



INSTALLATION:

Port + P1 HI = High Pressure .. connect to fan discharge or high pressure side of filter.
 Port - P2 LO = Low Pressure .. connect to fan suction or low pressure side of filter.
 The LP Port can be left open for fan/air flow monitoring. To monitor vacuum - connect the low pressure port to high vacuum side.
 Mount vertically as shown. Units can be mounted in other positions but may need a slightly higher pressure to operate.

PRESSURE SWITCHES GAS - AIR - LIQUID

EPG..

■ Suitable to monitor the pressure of water, gas, air or oil and switch in the event of high or low pressure conditions. Two switches must be used if both high and low pressures are to be monitored.

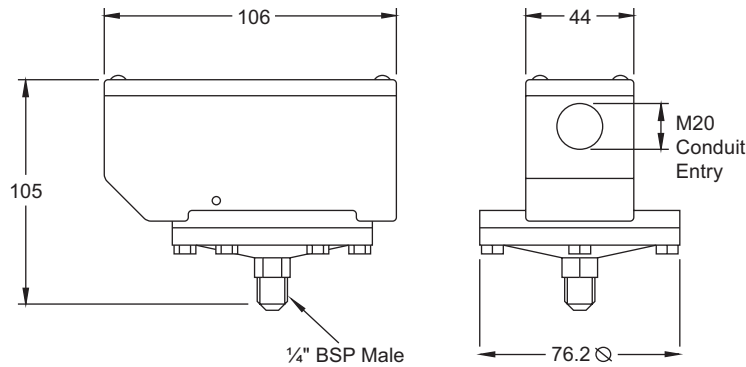


Volt free contacts
 A filter fitted before the switch is highly recommended.
 Adjustment under the cover
 The pressure line can be formed into a U shape/syphon for media temperatures up to 300°C.
 Not suitable for dirty, heavy or aggressive fluids.
 Ambient -20/+85 °C mbar x 100 = Pa
 Enclosure: Zinc diecast with glass filled nylon lid
 All settings/differentials are approximately +/-2% due to mechanical tolerances.

Type	Range mbar	Diff mbar	Max Press mbar	230VAC SPDT	Media Contact Materials	Max Media Temp °C	Pressure Connections	Enclosure
EPG-125	5/125	2.5	500	5(2)A	Brass Beryllium Copper Nitrile Rubber	85	1/4" BSP Male	IP65
EPG-250	15/250	4	500	5(2)A	Brass Beryllium Copper Nitrile Rubber	85	1/4" BSP Male	IP65

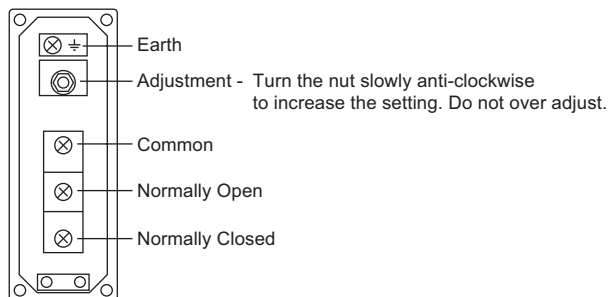
DIMENSIONS

EPG..



WIRING:

EPG..

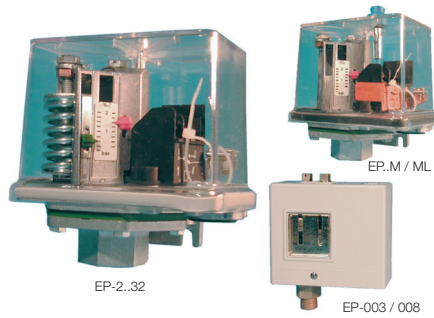


PRESSURE

LIQUID PRESSURE SWITCHES

EP.

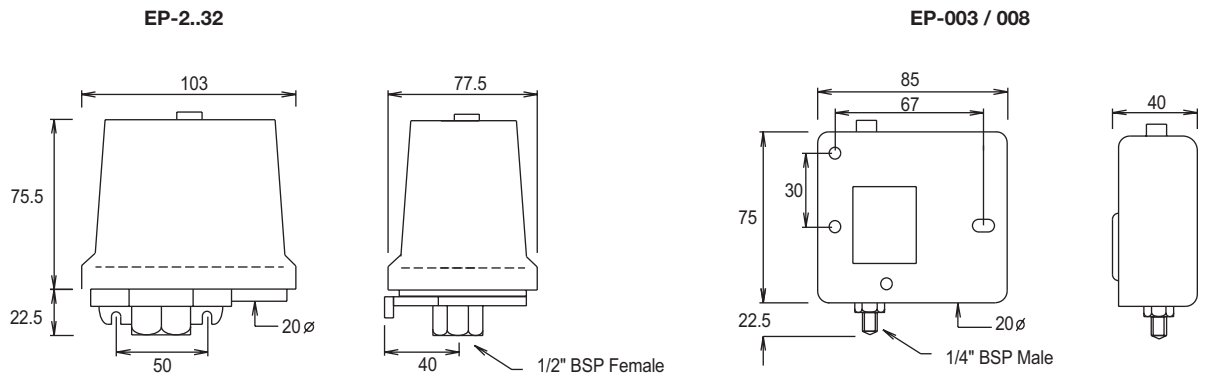
Suitable to monitor static or positive pressure of water, air, oil, diesel, steam** etc & switch in the event of high or low pressure conditions. Two switches must be used if both high and low pressures are to be controlled.



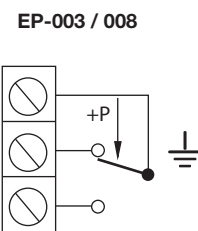
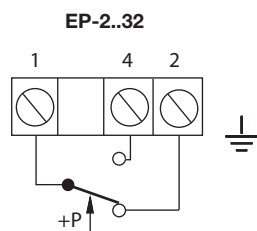
* The minimum differential will gradually increase by approx 60% as the switch setting is increased.
 Max. media temp. 80°C
 **The pressure line can be formed into a U shape/syphon for media temperatures up to 300°C.
 Tamper proof adjustment
 Volt free contacts
 Max. ambient 70°C
 Enclosure Flammability = UL94-V2

Type	Range Bar	Diff Bar	Max Press. Bar	230VAC SPDT	Media Contact Materials	Pressure Connections	Enclosure
EP-2	0.1/2	* 0.07/1.9	40	16(6)A	Cast Aluminium/Nitrile	½" BSP Female	IP65
EP-4	0.2/4	* 0.15/3.7	40	16(6)A	Cast Aluminium/Nitrile	½" BSP Female	IP65
EP-8	0.5/8	* 0.3/7.5	40	16(6)A	Cast Aluminium/Nitrile	½" BSP Female	IP65
EP-16	1/16	* 0.6/15	48	16(6)A	Cast Aluminium/Nitrile	½" BSP Female	IP65
EP-4M	0.2/4	hand reset open high	40	16(6)A	Cast Aluminium/Nitrile	½" BSP Female	IP65
EP-4ML	0.2/4	hand reset open low	40	16(6)A	Cast Aluminium/Nitrile	½" BSP Female	IP65
EP-003	0.3/3	0.25/2	12	24(10)A	Brass Tin Plated/Phosphor Bronze	¼" BSP Male	IP40
EP-008	0.5/8	0.5/5	12	24(10)A	Brass Tin Plated/Phosphor Bronze	¼" BSP Male	IP40

DIMENSIONS

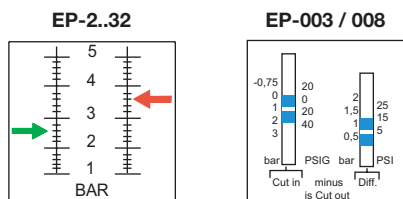


WIRING:



EP. On pressure rise to scale setting (range) 1-4 close .. On pressure fall (diff) contacts 1-2 close.
EP..M Open high = Contacts 1-2 open on pressure rise .. Pressure must fall to allow resetting.
EP..ML Open low = Contacts 1-4 open on pressure fall .. Pressure must rise to allow resetting.

SETTING:

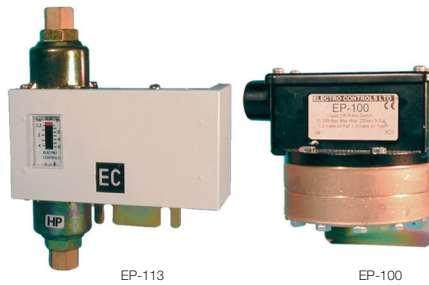


EP-2..32 : Set the RED arrow FIRST to the High switch point, then set the GREEN arrow to the Low switch point. The differential is RED minus GREEN setting.
EP-003 / 008 : Set the RANGE FIRST to the High switch point, then set the DIFF to the Low switch point, the differential is RANGE minus DIFF setting.

LIQUID DIFFERENTIAL PRESSURE SWITCHES

EP.

These units can be used to monitor the flow of liquids across pumps, boilers, chillers, valves etc. They can also be used to monitor dirty filter conditions. Suitable for water, air, oil, diesel and up to 30% glycol etc. Type EP-099/100/101 are suitable for low pressure applications ie below 0.4 bar.



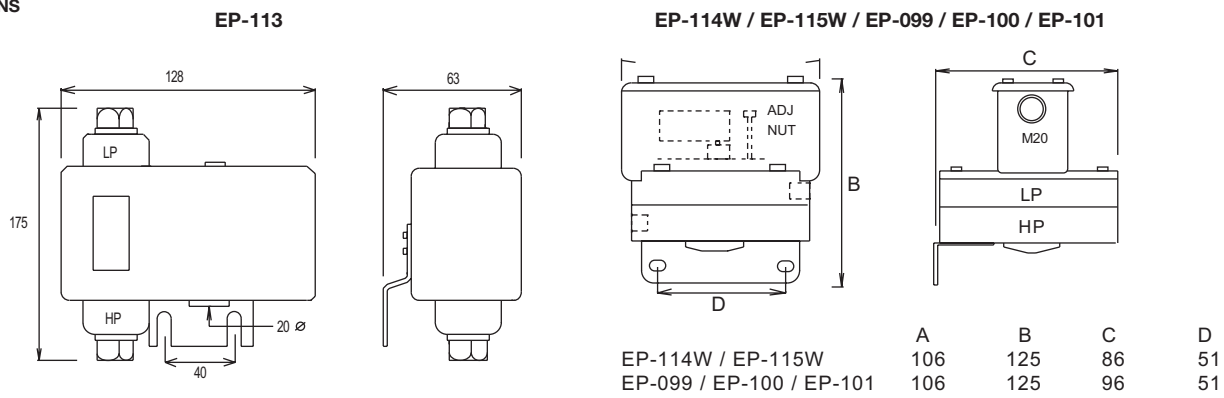
Max. media temp. 80°C
If the low pressure port is left open, these switches can then be used as normal standard pressure switches.
Volt free contacts
Max. ambient 70°C
Enclosure Flammability = UL94-V1

Type	Range	Diff	Max Press Press. Bar	230VAC SPDT	Media Contact Materials	Pressure Connections	Enclosure
EP-113	0.2/4 bar	0.1 bar	12	5(2)A	Brass/Phosphor Bronze	¼" BSP Female	IP40
EP-114W	0.07/1 bar	0.05 bar	34	5(3)A	Copper / Nitrile / Brass	" BSP Female	IP65
EP-115W	0.2/4 bar	0.1 bar	34	5(3)A	Copper / Nitrile / Brass	" BSP Female	IP65
EP-099	8/125 mbar	6 mbar	14	5(3)A	Copper / Nitrile / Brass	" BSP Female	IP65
EP-100	15/250 mbar	7 mbar	34	5(3)A	Copper / Nitrile / Brass	" BSP Female	IP65
EP-101	25/400 mbar	10 mbar	34	5(3)A	Copper / Nitrile / Brass	" BSP Female	IP65

SELECT A SWITCH WHICH CAN BE SET WELL BELOW THE SYSTEM DIFFERENTIAL PRESSURE.

For flow failure applications it is important to have a close switching differential as in our EP. range. Switches with a larger differential are generally unsuitable for this application.

DIMENSIONS



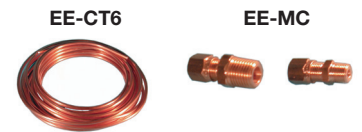
Mounting at any angle is possible.

HP = High Pressure bottom port

LP = Low Pressure top port

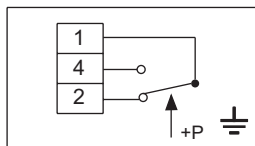
ACCESSORIES:

EE-CT6 Copper tube 6mm OD x 10m for Pressure Switches and Transmitters
EE-MC1 Brass Male Compression fitting for 6mm OD tube x ¼" BSP Brass Male
Compression fitting for 6mm OD tube x ¼" BSP Male



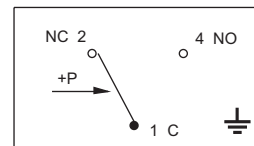
WIRING:

EP-113 / EP-113/ST



On pressure rise to scale setting (range) contacts 1-4 close
Pressure fall (diff) contacts 1-2 close

EP-114W / EP-115W / EP-099 / EP-100 / EP-101



On pressure rise to scale setting (range) contacts 1-4 close
Pressure fall (diff) contacts 1-2 close

ADJUSTMENT:

EP-113.. Remove cover & with a screwdriver, turn the slotted wheel above the scale to the left to increase the setting.
OTHER MODELS: The adjusting nut is under the cover - Turn it slowly anti-clockwise to increase setting. Do NOT over-adjust.

PRESSURE

AIR DIFFERENTIAL PRESSURE TRANSMITTERS 0-10 VDC / 4-20mA

EDT..

These devices measure vacuum, pressure or differential pressure of air and non-combustible, non-aggressive gases across fans, filters, air flow devices etc and give a 0-10vdc output signal linear across the range. Suitable for air conditioning, ventilation and building management systems. Models with square root extracted output are available on request. The duct kit EE-D2 is included.

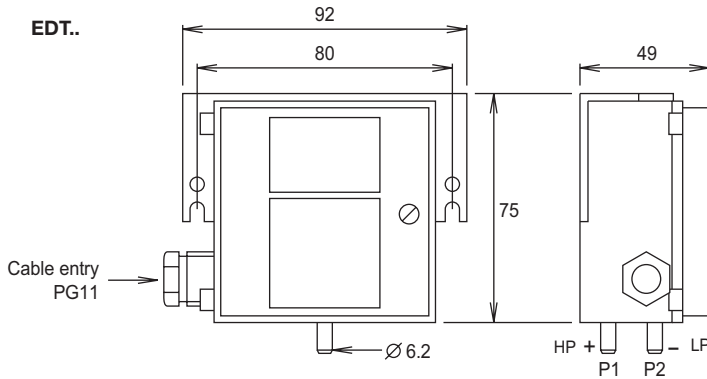


Accuracy		<1%
Max ambient		70°C
Consumption at nom pressure	0-10VDC	10mA
Load	4-20mA	20mA
	0-10VDC	10KΩ
	4-20mA at 24VDC	0.8KΩ
Response time		<20ms
Media contact materials		Ceramic/Silicon
Max media temp		70°C
Max pressure one side	< 3mb	50mb
	> 3mb	100mb
Enclosure polycarbonate	lid	UL94-HB
	hsng	UL94-V2
1 mbar = 100Pa		

Type	Range mb	Max press mb	Supply +/- 15%	Output Signal	Pressure Connections	Enclosure
EDT+-0.3/0.5/1	+0-0.3/0-0.5/0-1 selectable	50	24VAC/DC	0-10VDC	6.2mm Push on	IP65
EDT-1/3/5	0-1/0-3/0-5 selectable	50	24VAC/DC	0-10VDC	6.2mm Push on	IP65
EDT-10/16/25	0-10/0-16/0-25 selectable	100	24VAC/DC	0-10VDC	6.2mm Push on	IP65
EDT-...MA	As above but 2 wire loop powered 4-20mA output					
EDT-...V	as above but with digital display					

Other variants on request

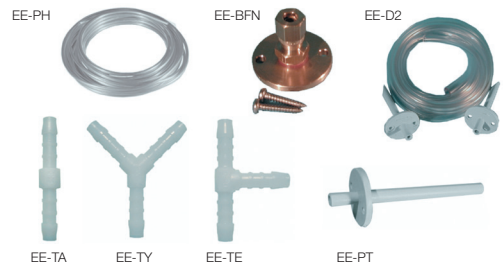
DIMENSIONS



SETTING RANGES	EDT-selectable	
		1
		0
Pressure range		
High	0	0
Medium	0	1
Low	1	0
For the EDT..V follow the instructions inside the lid		

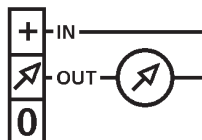
ACCESSORIES:

- EE-BFN** Brass duct flange for 6mm OD metal tube
- EE-D2** Duct kit 2m EE-PH + 2xEE-PT for EDA..
- EE-PH15** PVC hose 5x8mm x 15 metres
- EE-PT** 70mm Plastic duct adaptor for use with PVC hose
- EE-TE** Plastic T connector for use with PVC hose
- EE-TA** Plastic straight connector for use with PVC hose
- EE-TY** Plastic Y connector for use with PVC hose

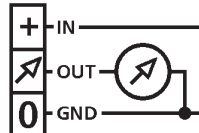


WIRING:

EDT..

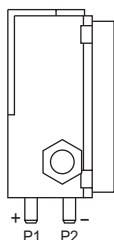


EDT..MA



Use minimum cable size of 7/0.2mm
 Max cable length 100m / 0-10vdc 300m / 4-20mA
 Screened cable is recommended.
 The screen should be earthed at controller end only.
 Keep away from power cables/units which may cause Interference.

INSTALLATION:



Mount vertically as shown. Mounting with lid facing down will increase the reading by approx. 0.1mbar.
 Mounting with lid facing up will decrease the reading by approx. 0.1mbar.

Always press the RESET button after installation to zero these errors.

Port P1 + = High Pressure .. connect to fan discharge or high pressure side of filter.
 Port P2 - = Low Pressure .. connect to fan suction or low pressure side of filter.

The low pressure port can be left open for fan/air flow monitoring
 To monitor vacuum - connect the low pressure port to the high vacuum side.

LIQUID PRESSURE TRANSMITTERS 0-10 VDC / 4-20MA

EWT..

■ These units can be used to measure static or positive pressure changes of water, air, oil, refrigerants, steam or other non-combustible fluids and give a 0-10vdc / 4-20mA output signal linear across the pressure range. Suitable for heating, air conditioning and building management systems.

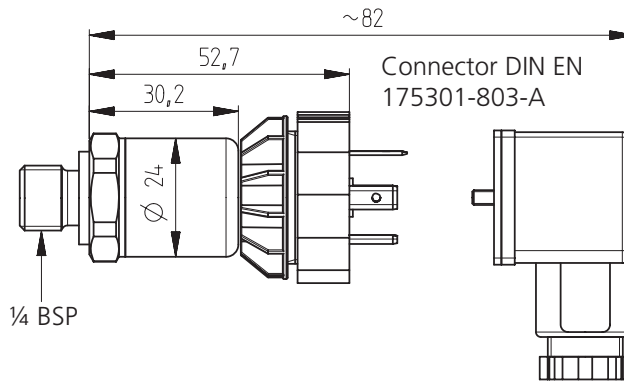


Accuracy	<0.5%
Max ambient	85°C
Consumption at nom pressure	
0-10VDC	7mA
4-20mA	23mA
Load	
0-10VDC	10KΩ
4-20mA at 24VDC	0.85KΩ
Response time	<10ms
1 mbar = 100Pa	

Type	Range Bar	Max Press. Bar	Supply ± 10%	Output Signal	Max Media Temp °C	Media Contact Materials	Pressure Connections	Enclosure
EWT- 006	0/0.6	1.8	24VAC/DC	0-10 vdc	-20/+100	Ceramic/Stainless Steel/EPDM	¼" BSP Male	IP65
EWT- 01.6	0/1.6	4.8	24VAC/DC	0-10 vdc	-20/+100		¼" BSP Male	IP65
EWT- 02.5	0/2.5	7.5	24VAC/DC	0-10 vdc	-20/+100		¼" BSP Male	IP65
EWT- 4	0/4	12	24VAC/DC	0-10 vdc	-20/+100		¼" BSP Male	IP65
EWT- 6	0/6	12	24VAC/DC	0-10 vdc	-20/+100		¼" BSP Male	IP65
EWT- 10	0/10	20	24VAC/DC	0-10 vdc	-20/+100		¼" BSP Male	IP65
EWT- 16	0/16	32	24VAC/DC	0-10 vdc	-20/+100		¼" BSP Male	IP65
EWT- 25	0/25	50	24VAC/DC	0-10 vdc	-20/+100		¼" BSP Male	IP65
EWT- 40	0/40	80	24VAC/DC	0-10 vdc	-20/+100		¼" BSP Male	IP65
EWT- 01.6/DMA	0/1.6	4.8	24VDC	4-20 mA loop	-20/+100		¼" BSP Male	IP65
EWT- 02.5/DMA	0/2.5	7.5	24VDC	4-20 mA loop	-20/+100		¼" BSP Male	IP65
EWT- 4/DMA	0/4	12	24VDC	4-20 mA loop	-20/+100		¼" BSP Male	IP65
EWT- 6/DMA	0/6	12	24VDC	4-20 mA loop	-20/+100		¼" BSP Male	IP65
EWT- 10/DMA	0/10	20	24VDC	4-20 mA loop	-20/+100		¼" BSP Male	IP65
EWT- 16/DMA	0/16	32	24VDC	4-20 mA loop	-20/+100		¼" BSP Male	IP65
EWT- 25/DMA	0/25	50	24VDC	4-20 mA loop	-20/+100		¼" BSP Male	IP65

DIMENSIONS

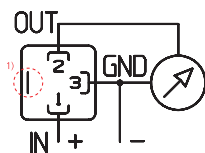
EWT..



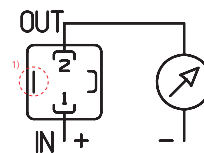
Mounting at any angle is possible.

WIRING:

EWT..



EWT../DMA



Min sensor / control signal cable size 7/0.2mm
Keep sensor/control signal wires away from power cables/units which may cause interference.

Max length 100m.

The screen should be earthed at controller end only.
Screened cable is recommended.

PRESSURE

LIQUID DIFFERENTIAL PRESSURE TRANSMITTERS 0-10 VDC / 4-20MA

EWDT..

These units can be used to measure pressure or differential pressure of water, up to 30% glycol or other neutral fluids across pumps, boilers, chillers, valves etc. The 0-10Vdc output signal is linear across the range. Suitable for heating, air conditioning and building management systems. For liquid levels 1m depth of water = 100mbar



Accuracy	up to 2.5 bar	1.25%
	up to 4 bar	0.75%
	up to 10bar	0.5%
Max ambient		85°C
Consumption at nom press		20mA
Load	0-10VDC	10KΩ
	4-20mA at 24VDC	0.65KΩ
Response time		<10ms
System pressure	up to 6bar	25bar
	>10bar	50bar
1mbar = 100Pa		

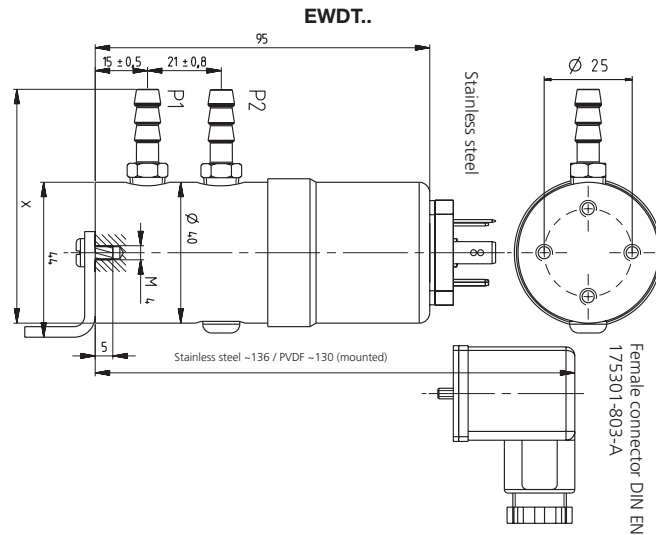
Type	Range	Max * Press.	Supply ± 10%	Output Signal	Max Media Temp °C	Media Contact Materials	Pressure Connections	Enclosure
EWDT-001	0/100 mbar	0.6 Bar	24VAC/DC	0-10 vdc	-15/+80*	Ceramic/Stainless Steel/EPDM	6mm Compression	IP65
EWDT-002	0/200 mbar	1.2 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-025	0/250 mbar	1.2 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-004	0/400 mbar	2 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-005	0/500 mbar	3 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-006	0/600 mbar	3 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-1	0/1 bar	5 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-1.6	0/1.6 bar	12 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-2.5	0/2.5 bar	12 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-4	0/4 bar	12 Bar	24VAC/DC	0-10 vdc	-15/+80*		6mm Compression	IP65
EWDT-6	0/6 bar	12 Bar	24VAC/DC	0-10 vdc	-15/+80*	6mm Compression	IP65	
EWDT-10	0/10 bar	20 Bar	24VAC/DC	0-10 vdc	-15/+80*	6mm Compression	IP65	

* Tolerable overload one side

Other variants on request

OPTIONAL: EWDT..MA 4-20m output 2 wire loop

DIMENSIONS

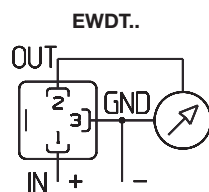


ACCESSORIES:

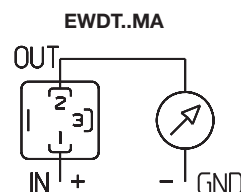
- EE-CT6** Copper tube 6mm OD x 10m for Pressure Switches and Transmitters
- EE-MC1** Brass Male Compression fitting for 6mm OD tube x " BSP Male
- EE-MC2** Brass Male Compression fitting for 6mm OD tube x 1/4" BSP Male



WIRING:



Min sensor / control signal cable size 7/0.2mm
Screened cable is recommended. Max cable length 100m.



Keep away from power cables/units which may cause interference. The screen should be earthed at controller end only.

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 **WATTS**[®]