

# Pressure Sensors

## P-E Pressure Switch, G1/8

### Pneumatic-Electric Pressure Switch

#### Type PE-1/8

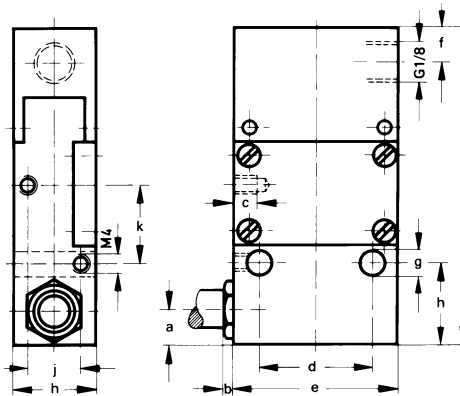
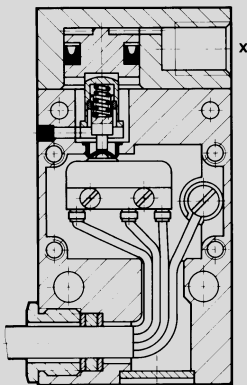


A pneumatic signal at the pilot port X applies pressure to a diaphragm, that actuates an electrical switch.

#### Permissible electrical load

Voltage, VDC	Direct Current		Alternating Current		
	Resistance Load, A	Inductance Load, A	Voltage, VAC	Resistance Load, A	Inductance Load, A
up to 15	10	10	125	5	5
30	5	3	250	5	5
50	1	1			
75	0.75	0.25			
125	0.5	0.03			
250	0.25	0.02			

These are standard values based on a switching frequency of 60 switch cycles per minute.



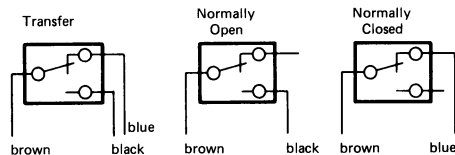
#### Dimensions

a	0.31 in / 8 mm	g	0.21 in / 5.3 mm
b	0.08 in / 2 mm	h	0.71 in / 18 mm
c	0.19 in / 5 mm	i	2.76 in / 70 mm
d	0.98 in / 25 mm	j	0.45 in / 11.5 mm
e	1.42 in / 36 mm	k	0.45 in / 11.5 mm
f	0.29 in / 7.5 mm		

At high switching frequencies or when large inductances are switched, an RC spark-suppression circuit must be provided for DC operation. Ideally, the circuit should be arranged in parallel to the switch or load with R and C being connected in series.

The following relationship should be observed for spark-suppression elements: Capacitor C should be as large in  $\mu\text{F}$  as load current I is in A and should be rated for an operating voltage of at least 630 to 1000 V. Resistance R should equal load resistance with a rating of approximately one-half to one watt.

#### Connection diagrams:



Order Number	Part No./Type	3344 PE-1/8
Medium		Compressed air (filtered, lubricated or unlubricated)
Mounting		2 holes through housing
Connection	Pneumatic	G1/8 ISO
	Electrical	4-wire cable with ground 40 in / 1 m long
Pressure Range*		12 to 150 psi / 0.8 to 10 bar
Switch On Pressure, min.		12 psi / 0.8 bar
Switch Off Pressure, min.		5.3 psi / 0.35 bar
Electrical Load		See table above
Switching Frequency at Max. Load		200/min
Type of Protection per DIN 40050		IP 65
Design		Pneumatically actuated electrical microswitch (transfer switch)
Material		Housing: Zinc, diecast
Weight		0.0496 lb / 0.225 kg

\*14 to 140°F / -10 to +60°C

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