

# Diaphragm Seal Piston Press. Switches

**E1S**

Mechanical single switch  
Repeatability  $\pm 2.0$  % at constant temperature

## Features

Diaphragm seal piston pressure switch,  
scale for setpoint reference

## Adjustment ranges

-0.28 ... -0.9 bar, vacuum  
0.1 ... 34 bar, pressure

## Applications

Machine and tool engineering,  
Dosing machines,  
Plant engineering,  
Lubricant monitoring



## Technical Data

<b>Wetted parts:</b> Diaphragm:	NBR Optional: FKM, PTFE, EPDM, CR anodized aluminium
Process connection:	Optional: brass, polysulfone, aluminium nickel-plated
Repeatability:	$\pm 1$ % at constant temperature
Switching rate:	max. 20/min
Temperature range:	-30 °C... +70 °C
Protection class:	IP00
Housing:	Without housing for installation in control panels
Process connection: Pressure switches:	1/4" NPT female Optional: 1/8" NPT female + 1/2" NPT male (P6) G1/4 female (P7)
Vacuum switches (VAC):	1/4" NPT female (P4) 1/8" NPT female +1/2" NPT male (P6)

<b>Electrical connection:</b>	Screw terminals
<b>Electrical rating and hysteresis:</b>	Many micro switch versions with different switching powers and hysteresis are applicable and make it possible to make customized changes.
<b>Weight:</b>	E1S-...: approx. 0.35 kg
<b>Set point adjustment:</b> Pressure switches:	Turn the adjustment screw clockwise to increase the set point.
Vacuum switches:	Switching point lowers by turning the adjustment screw clockwise.
<b>Intrinsically safe:</b>	on request
<b>Approval:</b>	---

## Pressure Ranges

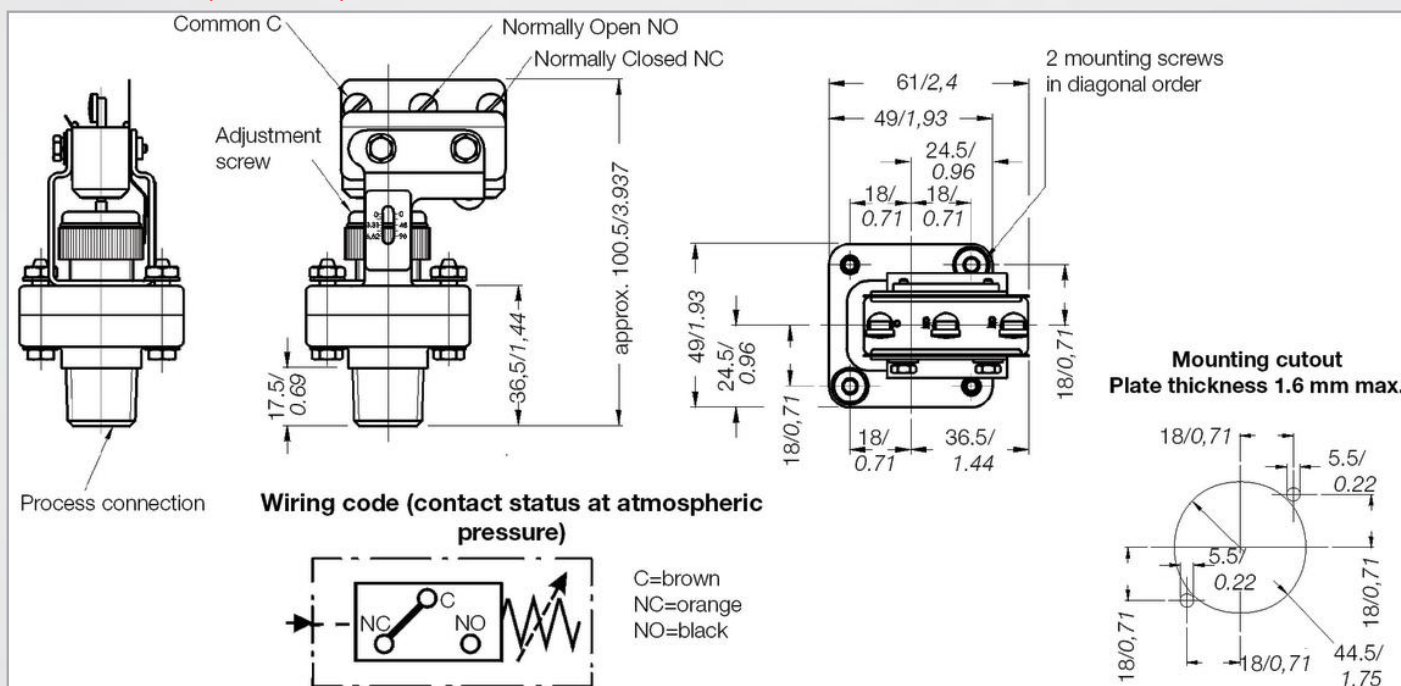
\* Designed for 70 bar proof pressure, for practical production reasons, however, the standard proofing pressure is 30 bar.

Pressure range code	Adjustment range [bar]		Max. operating pressure [bar]	Proof pressure [bar] * (short term)	Max. hysteresis of switch types in bar (end of range)	
	Increasing press.	Decreasing press.			H, GH [bar]	M, [bar]
Pressure switches						
15	0.10 ... 1.0	0.04 ... 1.0	46	30 / 70	0.08	0.080
90	0.80 ... 6.0	0.20 ... 5.0	46	30 / 70	0.55	0.680
250	2.10 ... 17.0	0.70 ... 16.0	46	30 / 70	1.37	1.440
500	3.70 ... 34.0	1.72... 32.0	46	30 / 70	1,93	2.750
Vacuum switches						
VAC	-0.28 ... -0.9	-0.20... -0.82	2.0	-1.0	0.08	0.077

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### Dimensions (mm / inch)



### Electrical Ratings

Micro switch	Special features	Volt AC 50/60 Hz	Ind. load A	Res. load A	Volt DC	Ind. load A	Res. load A	Comments
H	Micro switch with silver contacts	125 250	10 10	10 10	6 to 24	0.50	0.50	Small hysteresis; High AC / low DC loads
M	Micro switch with silver contacts	125 250	10 10	10 10	12 24 250	5.00 1.00 0.25	15.0 2.0 0.4	Medium hysteresis; High AC and DC loads
GH	Micro switch with gold-plated contacts for low voltage and/or low current	125	1	1	24	1.00	1.00	Small hysteresis

### Process Connection / Diaphragm

Process connection		Diaphragm	
Pressure switches	Vacuum switches	VAC	not VAC
(P4) 1/4" NPT female	(P4) 1/4" NPT female	( ) NBR	( ) NBR
(P6) 1/8" NPT female + 1/2" NPT male	(P6) 1/8" NPT female + 1/2" NPT male	(V) FKM	(V) FKM
(P6-PLS) material PLS, up to 17 bar only			(T) PTFE
(P7) G1/4 female			(N) CR *
			(E) EPDM *

\* on request

### Order Code

Example for order number

Type	Micro switch	Pressure range code	Process connection	Diaphragm
E1S	H	250	P6	V

Your order number

Type	Micro switch	Pressure range code	Process connection	Diaphragm