

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

Wetted parts:	
Diaphragm:	NBR
Process connection:	Optional: FKM, PTFE, EPDM, CR anodized aluminium 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)

Electrical connection:	Screw terminals
Electrical rating and hysteresis:	Many micro switch versions with different switching powers and hysteresis are applicable and make it possible to make customized changes.
Weight:	E1S-...: approx. 0.35 kg
Set point adjustment:	
Pressure switches:	Turn the adjustment screw clockwise to increase the set point. Switching point lowers by turning the adjustment screw clockwise.
Vacuum switches:	
Intrinsically safe:	The switches are designed for intrinsically safe applications. Please add "Exi" to your ordering details when placing an order. To comply with the intrinsically safe approval following max. ratings must not be exceeded: Umax = 28 V Imax = 50 mA
Approval:	---

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] *	Max. hysteresis of switch types in bar (end of range)		
	Increasing press.	Decreasing press.			(short term)	H, GH [bar]	M, GM [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	

Type E1S-...

Art. no. 923-1503 Index: D



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	0.5	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	125	1	1	24	1.00	1.0	Small hysteresis
GM	and/or low current	30	0.1	0.1	30	0.10	0.1	Medium hysteresis

Process connection / diaphragm / option

Process connection		Diaphragm	
Pressure 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

Ordering

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
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