

Diaphragm Seal Piston Press. Switches

E1H

Mechanical single switch
Repeatability ± 2.0 % at constant temperature

Features

Diaphragm seal piston pressure switch,
scale for setpoint reference

Adjustment ranges

-0.28 ... -0.9 bar and
0.1 ... 34 bar

Applications

Machine and tool engineering,
Dosing machines,
Plant engineering,
Sprinkler control



Technical Data

| | |
|--|---|
| Wetted parts: Diaphragm: | NBR Optional: FKM, PTFE, EPDM, CR anodized aluminium |
| Process connection: | Optional: brass, polysulfone, aluminium nickel-plated |
| Repeatability: | ± 1 % at constant temperature |
| Switching rate: | max. 20/min |
| Temperature range: | -30 °C... +70 °C |
| Protection class: | IP65 |
| Housing: | Aluminium, anodized Top cover: Polycarbonate (PC) |
| Process connection: Pressure switches: | 1/4" NPT female (P4) 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 and cable gland M20x1.5 mm |

| | |
|--|---|
| Electrical ratings and hysteresis: | A large variety of micro switches offers different electrical ratings and hysteresis for many applications. |
| Weight: | E1H-...: approx. 0.7 kg |
| Set point adjustment: Pressure switches: Vacuum switches: | Turn the adjustment screw clockwise to increase the set point. Turn the adjustment screw clockwise to decrease the set point. |
| Intrinsically safe: | The switches are designed for intrinsically safe applications. In this case we recommend gold contacts. 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

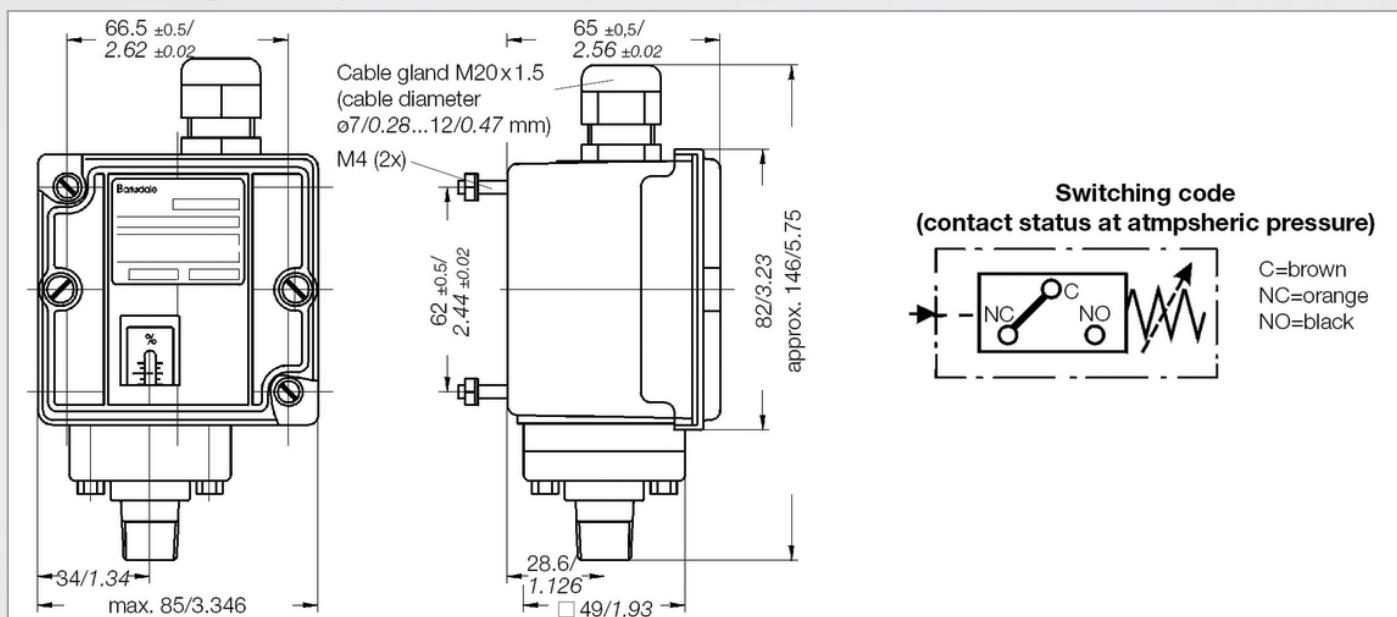
* Designed for 70 bar proof pressure, for practical production reasons, however, the standard proofing pressure is 30 bar.

| Pressure range code | Adjustment range [bar] | | Max. operating pressure [bar] | Proof pressure [bar] * (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 | 0.5 | 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 and/or low current (e.g. "Exi") | 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

Options

| | |
|-----|---|
| ST1 | Plug, 3-pin + E, DIN EN 175 301-801-A (prev. DIN 43650) |
| ST2 | Amphenol plug 4-pin + E |
| EXI | for intrinsically safe application |
| RD | Manual reset with G-Micro switch |

Order Code

Example for order number

| Type | Micro switch | Pressure range code | Process connection | Diaphragm | Option |
|------|--------------|---------------------|--------------------|-----------|--------|
| E1H | GH | 250 | P6 | V | EXI |

Your order number

| Type | Micro switch | Pressure range code | Process connection | Diaphragm | Option |
|------|--------------|---------------------|--------------------|-----------|--------|
| | | | | | |