

## Pressure switch MDR 5



- 3-phase
- Switching capacity 5.5 kW
- Available with overload relay
- Max. cut-out pressure 45 bar
- 3-pole (N.C.)
- Acc. to EN 60947

| Order reference | Type code                       | ON / OFF Rotary knob | Pressure range P <sub>OFF</sub> in bar | Flange      | Weight (in g) | Part No. |
|-----------------|---------------------------------|----------------------|--|-------------|---------------|----------|
| MDR 5/5         | MDR-5 CAA BAAA 015A030 XXX XXX  | -                    | 1,5 - 5                                | 1/2"        | 820           | 212850   |
| MDR 5/5-K       | MDR-5 CAA AAAA 015A030 XXX XXX  | K*                   | 1,5 - 5                                | 1/2"        | 860           | 212867   |
| MDR 5/5         | MDR-5 COA BAAA 015A030 XXX XXX  | -                    | 1,5 - 5                                | 1/2" + 1/4" | 860           | 212874   |
| MDR 5/5-K       | MDR-5 COA AAAA 015A030 XXX XXX  | K*                   | 1,5 - 5                                | 1/2" + 1/4" | 900           | 212881   |
| MDR 5/8         | MDR-5 EAA BAAA 070A080 XXX XXX  | -                    | 2 - 8                                  | 1/2"        | 820           | 212898   |
| MDR 5/8-K       | MDR-5 EAA AAAA 070A080 XXX XXX  | K*                   | 2 - 8                                  | 1/2"        | 860           | 212904   |
| MDR 5/8         | MDR-5 EOA BAAA 070A080 XXX XXX  | -                    | 2 - 8                                  | 1/2" + 1/4" | 860           | 212911   |
| MDR 5/8-K       | MDR-5 EOA AAAA 070A080 XXX XXX  | K*                   | 2 - 8                                  | 1/2" + 1/4" | 900           | 212928   |
| MDR 5/11        | MDR 5 GAA BAAA 090A110 XXX XXX  | -                    | 2 - 11                                 | 1/2"        | 820           | 212935   |
| MDR 5/11-K      | MDR-5 GAA AAAA 090A110 XXX XXX  | K*                   | 2 - 11                                 | 1/2"        | 860           | 212942   |
| MDR 5/11        | MDR-5 GOA BAAA 090A110 XXX XXX  | -                    | 2 - 11                                 | 1/2" + 1/4" | 860           | 212959   |
| MDR 5/11-K      | MDR-5 GOA AAAA 090A110 XXX XXX  | K*                   | 2 - 11                                 | 1/2" + 1/4" | 900           | 212966   |
| MDR 5/16        | MDR-5 HAA BAAA 130A160 XXX XXX  | -                    | 2,5 - 16                               | 1/2"        | 820           | 212973   |
| MDR 5/16-K      | MDR-5 HAA AAAA 130A160 XXX XXX  | K*                   | 2,5 - 16                               | 1/2"        | 860           | 212980   |
| MDR 5/16        | MDR 5 HOA BAAA 130A160 XXX XXX  | -                    | 2,5 - 16                               | 1/2" + 1/4" | 860           | 212997   |
| MDR 5/16-K      | MDR-5 HOA AAAA 130A160 XXX XXX  | K*                   | 2,5 - 16                               | 1/2" + 1/4" | 900           | 213000   |
| MDR 5/45        | MDR-5 KAA BAAA 300 A400 XXX XXX | -                    | 13 - 45                                | 1/2"        | 820           | 256182   |
| MDR 5/45-K      | MDR-5 KAA AAAA 300 A400 XXX XXX | K*                   | 13 - 45                                | 1/2"        | 860           | 258513   |

\*For these switches, a thermal, 3-pole overload relay has to be ordered separately, the ON/OFF mechanism will only work with an additional relay  
Unloader valves and cable glands for retrofitting, see accessories!

## Special execution IP 65



- Applications: e.g. pump shafts
- 3-phase
- Switching capacity 5.5 kW
- Max. cut-out pressure 16 bar
- Incl. cable glands PG 16/13,5 ZK
- 3-pole (N.C.)
- Acc. to EN 60947
- Degree of protection IP 65

| Order reference | Type code                      | ON / OFF Rotary knob | Pressure range P <sub>OFF</sub> in bar | Flange | Weight (in g) | Part No. |
|-----------------|--------------------------------|----------------------|--|--------|---------------|----------|
| MDR 5/5         | MDR-5 CAA BAAA 015A030 XNN XXZ | -                    | 1,5 - 5                                | 1/2"   | 783           | 258469   |
| MDR 5/8         | MDR-5 EAA BAAA 070A080 XNN XXZ | -                    | 2 - 8                                  | 1/2"   | 783           | 258476   |
| MDR 5/11        | MDR 5 GAA BAAA 090A110 XNN XXZ | -                    | 2 - 11                                 | 1/2"   | 783           | 258483   |
| MDR 5/16        | MDR-5 HAA BAAA 130A160 XNN XXZ | -                    | 2,5 - 16                               | 1/2"   | 783           | 258490   |

# Pressure switch MDR 5

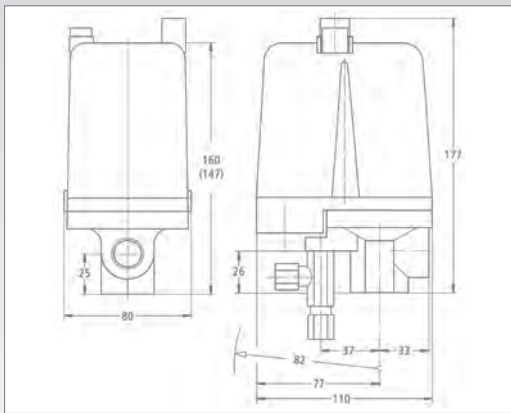
| Technical Data MDR 5 acc. to EN 60947                         |                   |
|---|-------------------|
| Rated insulation voltage<br>$U_i$                             | 500 V             |
| Motor switching capacity (AC 3)<br>$U_e=240$ V (1~)           | 2,5 kW            |
| Motor switching capacity (AC 3)<br>$U_e=230$ V (3~)           | 4,0 kW            |
| Motor switching capacity (AC 3)<br>$U_e=400$ V (3~)           | 5,5 kW            |
| Motor switching capacity (AC 3)<br>$U_e=500$ V (3~)           | 4,0 kW            |
| Electrical life (AC 3)<br>Cycles                              | $> 1 \times 10^5$ |
| Mechanical life<br>Cycles                                     | $> 5 \times 10^5$ |
| Max. electrical cycles<br>Cycles/h                            | 120               |
| Max. mechanical cycles<br>Cycles/h                            | 600               |
| Rated operational current $I_e$<br>at 400 V AC 3 / 500 V AC 3 | 16 A / 12 A       |

| Technical Data MDR 5 acc. to EN 60947                          |                              |                           |
|--|------------------------------|---------------------------|
| Bursting strength $P_z$  | up to 16 bar<br>up to 45 bar | $> 40$ bar<br>$> 60$ bar  |
| Permissible medium temperature<br>Air                          |                              | - 5...+ 80 °C             |
| Permissible medium temperature<br>Water                        |                              | + 80 °C                   |
| Degree of Protection<br>acc. to EN 60529                       |                              | IP 54 / IP 65             |
| Conductor cross-section 1 ...<br>fine stranded cable 1 x / 2 x |                              | 2,5 / 2,5 mm <sup>2</sup> |
| Conductor cross-section 1 ...<br>rigid cable 1 x / 2 x         |                              | 4 / 4 mm <sup>2</sup>     |

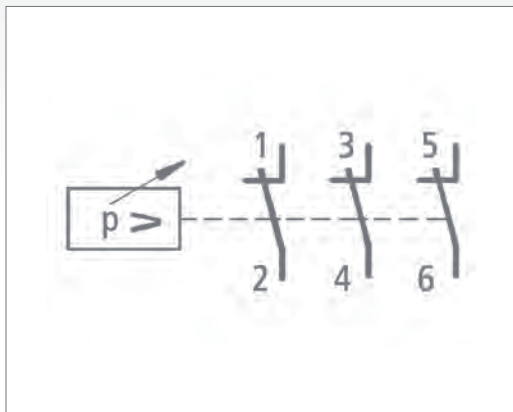
| Diaphragm media resistance MDR 5   |           |
|--|-----------|
| Acetylene, Gasoline, Butane, Diesel, Natural gas, Petroleum, Ethylene glycol, Glycerol, Fuel oil, Urine, Carbon dioxide, Carbonic acid, Air, Mineral oils, Vegetable oil, Propane, Silicon oil, Nitrogen, Synthetic oils, Water, Distilled water, Hydrogen, Sea water, Water steam | resistant |

A detailed overview of diaphragm media resistance for all pressure switches can be found in the table on page 22.

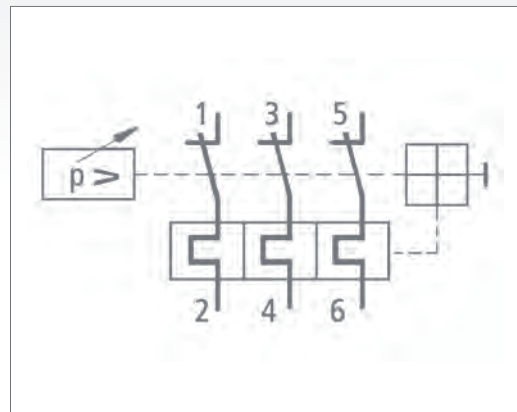
## Dimensions MDR 5



Pressure switch MDR-5



MDR 5



MDR 5K - R5

## Accessories MDR 5

| Order reference                       | Description  | Weight (in g) | Part No. |
|---------------------------------------|--|---------------|----------|
| <b>Unloader valves</b>                |  |               |          |
| EV 5                                  | With screw connection for 6 mm plastic or copper discharge tubes, screw connection for vent port | 30            | 201878   |
| EV 5i                                 | With screw connection for 1/4" plastic or copper discharge tubes                                 | 30            | 201885   |
| EV 5E                                 | With screw connection for 6 mm plastic or copper discharge tubes                                 | 25            | 201892   |
| EV 5Ei                                | With screw connection for 1/4" plastic or copper discharge tubes                                 | 25            | 201908   |
| <b>Delayed unloader valves</b>        |  |               |          |
| AEV 5                                 | With screw connection for 6 mm plastic or copper discharge tubes                                 | 25            | 201939   |
| AEV 5i                                | With screw connection for 1/4" plastic or copper discharge tubes                                 | 25            | 201946   |
| <b>Cable glands</b>                   |  |               |          |
| WN M20                                | Grommet  | 6             | 269496   |
| VS-M20                                | Screw plug M20   |               | 269502   |
| M20 Z                                 | With strain relief, clamping range 6-12 mm   | 12            | 269533   |
| M20 ZK                                | With strain relief and cable support, clamping range 6-12 mm                                     | 12            | 269540   |
| M20 L                                 | With strain relief, clamping range 10-14 mm  | 12            | 269519   |
| M20 LK                                | With strain relief and cable support, clamping range 10-14 mm                                    | 12            | 269526   |
| MW 5                                  | Mounting bracket   | 120           | 230045   |
| <b>Cover</b>                          |  |               |          |
| H5<br>(Cover MDR 5)                   | Cover without push-buttons   | 130           | 230052   |
| H5-K<br>(Cover MDR 5+K)               | Cover with On/Off push-buttons (Only functions together with the thermal R5 overload relay)      | 150           | 217527   |
| <b>Thermal, 3-pole overload relay</b> |  |               |          |
| R 5/1,5                               | 0,86 - 1,50 A  | 150           | 202028   |
| R 5/2,45                              | 1,50 - 2,45 A  | 150           | 202035   |
| R 5/4,2                               | 2,40 - 4,20 A  | 150           | 202042   |
| R 5/7,0                               | 4,00 - 7,00 A  | 150           | 202059   |
| R 5/10,3                              | 6,10 - 10,3 A  | 150           | 202066   |
| R 5/14,0                              | 9,00 - 14,0 A  | 150           | 202073   |
| R 5/18,0                              | 11,0 - 18,0 A  | 150           | 202080   |

## Unloader valves / Delayed unloader valves



EV 5, EV 5i



EV 5E / EV 5 Ei



AEV 5 / AEV 5i

## Cable glands MDR 5



WN-M 20



VS - M 20



M 20 Z / M 20 L



M 20 ZK / M 20 LK

Accessories, Miscellaneous MDR 5



MW 5



H5



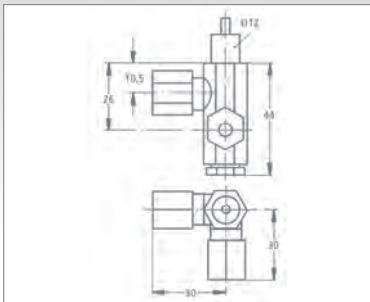
H5-K



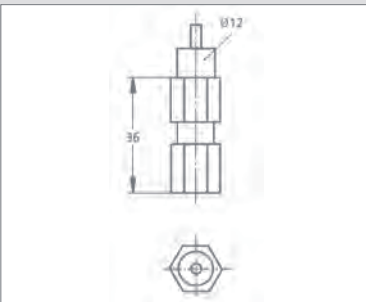
R 5/..

High performance Pressure switches

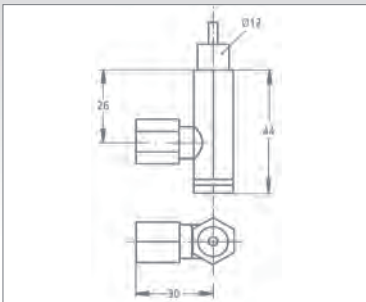
Dimensions, Accessories



EV 4

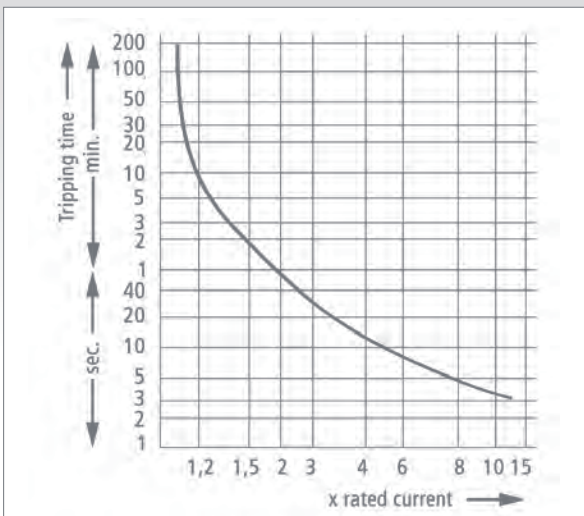


EV 4S



AEV 4S

Tripping curves R5 (average)



## Pressure Diagrams MDR 5

