

# Pressure switch MDR 5



## Pressure switch MDR 5

3-phase  
 Switching capacity 5.5 kW  
 Available with overload relay  
 Max. cut-out pressure 16 bar  
 3-pole (N.C.)  
 Acc. to EN 60947

## Type overview MDR 5

Order reference	ON / OFF buttons	Pressure range P <sub>OFF</sub> in bar	Flange	Weight in g	Part No.
MDR-5 CAA BAAA 015A030 XXX XXX	-	1.5 - 5	G 1/2"	820	212850
MDR-5 CAA AAAA 015A030 XXX XXX	K*	1.5 - 5	G 1/2"	860	212867
MDR-5 COA BAAA 015A030 XXX XXX	-	1.5 - 5	G 1/2" + 1/4"	860	212874
MDR-5 COA AAAA 015A030 XXX XXX	K*	1.5 - 5	G 1/2" + 1/4"	900	212881
MDR-5 EAA BAAA 070A080 XXX XXX	-	2 - 8	G 1/2"	820	212898
MDR-5 EAA AAAA 070A080 XXX XXX	K*	2 - 8	G 1/2"	860	212904
MDR-5 EOA BAAA 070A080 XXX XXX	-	2 - 8	G 1/2" + 1/4"	860	212911
MDR-5 EOA AAAA 070A080 XXX XXX	K*	2 - 8	G 1/2" + 1/4"	900	212928
MDR 5 GAA BAAA 090A110 XXX XXX	-	2 - 11	G 1/2"	820	212935
MDR-5 GAA AAAA 090A110 XXX XXX	K*	2 - 11	G 1/2"	860	212942
MDR-5 GOA BAAA 090A110 XXX XXX	-	2 - 11	G 1/2" + 1/4"	860	212959
MDR-5 GOA AAAA 090A110 XXX XXX	K*	2 - 11	G 1/2" + 1/4"	900	212966
MDR-5 HAA BAAA 130A160 XXX XXX	-	2.5 - 16	G 1/2"	820	212973
MDR-5 HAA AAAA 130A160 XXX XXX	K*	2.5 - 16	G 1/2"	860	212980
MDR 5 HOA BAAA 130A160 XXX XXX	-	2.5 - 16	G 1/2" + 1/4"	860	212997
MDR-5 HOA AAAA 130A160 XXX XXX	K*	2.5 - 16	G 1/2" + 1/4"	900	213000

\* For these switches, a thermal, 3-pole overload relay has to be ordered separately, otherwise the ON/OFF switching mechanism will not function.

Unloader valves and cable glands for retrofitting see Accessories!

## Technical Data

Technical Data MDR 5 acc. to EN 60947	
Rated insulation voltage U <sub>i</sub>	500 V
Motor switching capacity (AC 3) U <sub>e</sub> =240 V (1~)	2.5 kW
Motor switching capacity (AC 3) U <sub>e</sub> =230 V (3~)	4.0 kW
Motor switching capacity (AC 3) U <sub>e</sub> =400 V (3~)	5.5 kW
Motor switching capacity (AC 3) U <sub>e</sub> =500 V (1~)	4.0 kW
Electrical life (AC 3) Cycles	> 1 x 10 <sup>5</sup>
Mechanical life Cycles	> 5 x 10 <sup>5</sup>
Max. electrical cycles Cycles/h	120
Max. mechanical cycles Cycles/h	600
Rated operational current I <sub>e</sub> at 240 V AC	25 A

Technical Data MDR 5 acc. to EN 60947	
Bursting strength P <sub>z</sub>	> 40 bar
Permissible medium temperature Air	- 5...+ 80 °C
Permissible medium temperature Water	+ 80 °C
Degree of Protection acc. to EN 60529	IP 54
Conductor cross-section 1 ... fine stranded cable 1 x / 2 x	2.5 / 2.5mm <sup>2</sup>
Conductor cross-section 1 ... rigid cable 1 x / 2 x	4 / 4mm <sup>2</sup>

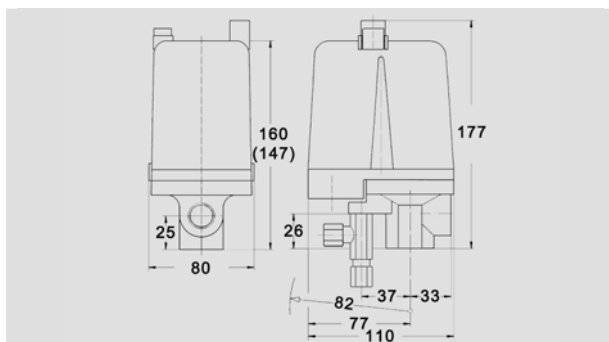
Diaphragm media resistance MDR 5	
Acetylene, Gasoline, Butane, Diesel, Natural gas, Petroleum, Ethylene glycol, Glycerol, Fuel oil, Urine, Carbon dioxide, Carbonic acid, Air, Mineral oils, Vegetable oil, Propane, Silicon oil, Nitrogen, Synthetic oils, Water, Distilled water, Hydrogen, Sea water, Water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

A detailed overview of diaphragm media resistance for all pressure switches can be found in the table on page 2.11

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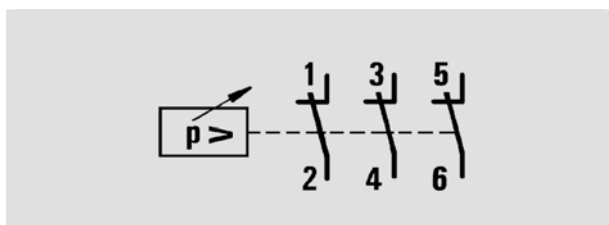


## Dimensions MDR 5

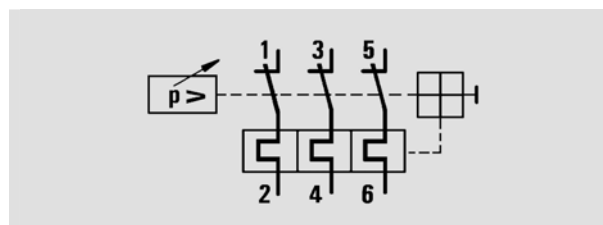


Pressure switch **MDR-5**

## Circuit Diagrams 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 5	Grommet	6	201953
PG 16 V-5	Cable glands complete	12	201960
PG 16 Z-5	With strain relief	12	201977
PG 16 ZK-5	With strain relief and cable support	12	201984
PG 16/13.5 Z	Reduced to PG 13.5 with strain relief	12	202004
PG 16/13.5 ZK	Reduced to PG 13.5 with strain relief and cable support	12	202011
PG 16/11 V-5	Reduced to PG 11	12	201991
MW 5	Mounting bracket	120	230045
<b>Cover</b>			
H5 (Cover 5)	Cover without push-buttons	130	230052
H5-K (Cover 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

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## Unloader valves / Unloader valves for difficult motor starting conditions



EV 5, EV 5i



EV 5E / EV 5 Ei



AEV 5 / AEV 5i

## Cable glands MDR 5



WN 5



PG 16 V-5



PG 16 Z-5



PG 16 ZK-5



PG 16/11 V-5

## Accessories, Miscellaneous



MW 5



H5

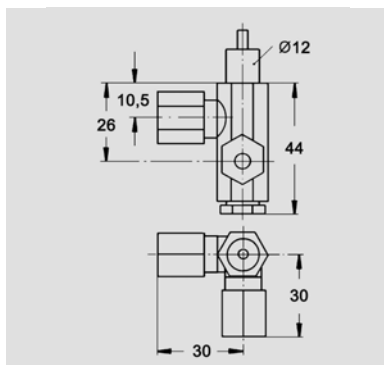


H5-K

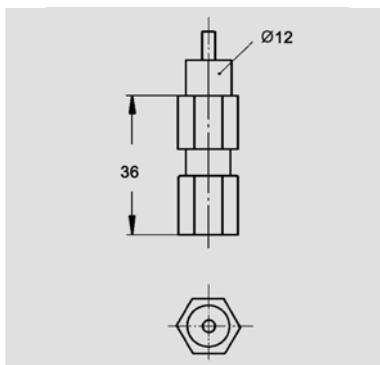


R 5/ ..

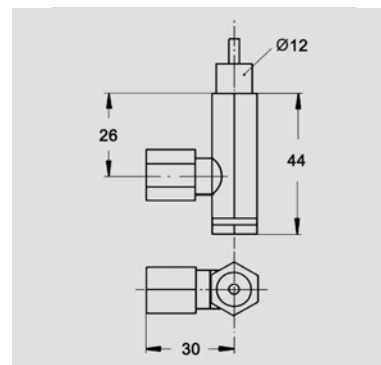
## Dimensions, Accessories



EV 5, EV 5i



EV 5E / EV 5 Ei

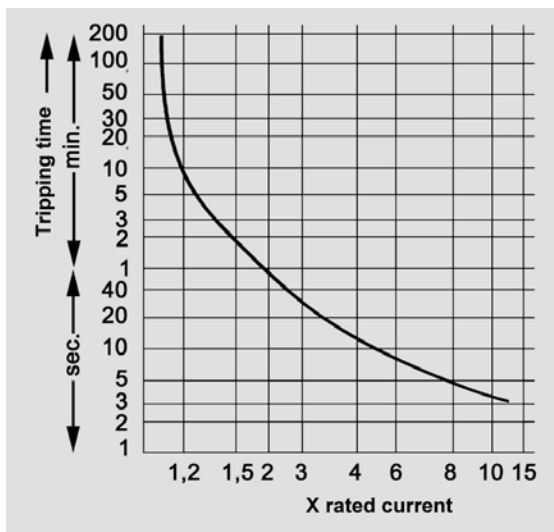


AEV 5 / AEV 5i

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## Tripping curves R5 (average)



## Pressure Diagrams MDR 5

