SINCE 1893

Pressure Switch MDR-N

FOR VACUUM, PNEUMATIC AND HYDRAULIC SYSTEMS

www.condor-cpc.com

Druckschalter MDR-N ... with rectangular connector

Control pressure switch with rectangular connector for vacuum, pneumatic and hydraulic systems. The electro-mechanical pressure switch has been designed for use in plant construction.

Used for monitoring plants and for connecting/disconnecting electronic circuits by means of pressure. The MDR-N converts pneumatic and hydraulic pressures into electric signals.

The robust and hard-wearing design of the MDR-N ensures a long service life, also under high loads. Thanks to the compact design, the standardised device coupling, and the high IP protection class, the pressure switch is particularly suited for use in series production of vacuum, pneumatic, and hydraulic systems.

MDR-N Pressure adjustment (precisely as required) / switching point is continuously adjustable

Pressure adjustment is done by the customer (precisely as required) and the switching point is continuously adjustable via a screw. The MDR-N with rectangular connector ensures a reliable connection for industrial applications.

Applications:
The Pressure switch is for a wide range of industrial and technical processes, e. g. use in series production of vacuum, pneumatic, and hydraulic systems.

Because of the wide range of pressure switch versions, please contact us if you have questions on a special application or have technical requirements.
As a manufacturer of pressure switches and controls, we offer a wide range of services, including standard and customer-specific solutions for individual applications.

Highlights & Features

- Control pressure switch for AC and DC voltage
- for pneumatic & hydraulic applications
- Media: compressed air, hydraulic oil
- max. media temperature 80°C
- **Voltage ≤ 250 V AC / ≤ 110 V DC**
- 1-pole (SPDT)
- Pressure range -0,9 ≤ 16 bar
- simple manual adjustment of switching point via adjusting screw
- **Rectangular connector (electric connection)**
- die-cast aluminium housing
- **robust and hard-wearing design - long service life**
- **Degree of Protection (acc. to EN 60529) IP 65**

Type overview MDR-N

Pressure switch made of die-cast aluminium, up to 16 bar, 1 changer, PI diaphragm, die-cast aluminium flange; Pressure connection: G 1/4" inner thread, or flange with O-ring Ø 5x1.5; **Rectangular connector - ISO 175301 (ISO 4400)** (Mating Plug see accessories), Silver contacts (gold-plated contacts on request)

Type	Matchcode VE = 1 pcs.	Pressure range P_{AUS} in bar	Tolerance	Pressure coupling	Weight (in g)	Part no.
MDR-N / 0 - G 1/4"	MDR-N 00 RAS F004V MXXX	-0,9 ... 0 bar	± 0,1 bar	Inner thread G 1/4" Alu	130	292692
MDR-N / 0 - Flange	MDR-N 00 TAS F004V MXXX	-0,9 ... 0 bar	± 0,1 bar	Flange with O-Ring **Ø 5x1,5**	130	292708
MDR-N /16 - G1/4"	MDR-N 16 RAS S030A MXXX	0,2 ...16 bar	± 0,3 bar	Inner thread G 1/4" Alu	130	295860
MDR-N /16 - Flange	**MDR-N 16 TAS S030A MXXX**	0,2 ...16 bar	± 0,3 bar	Flange with O-Ring **Ø 5x1,5**	130	296522

Accessories

Type	Description		Part no.
MDR-RV (LD)	Rectangular plug connector (cable socket, 3 pole + pe, DIN EN 175301-803) 10pcs. box		on request
MDR-RV (LD)	Rectangular plug connector (cable socket, 3 pole + pe, DIN EN 175301-803), Individual packaging		297598

Pressure Switch MDR-N ...with M12 connector

MDR-N Pressure adjustment (precisely as required) / switching point is continuously adjustable

Applications:
The Pressure switch is for a wide range of industrial and technical processes, e. g. use in series production of vacuum, pneumatic, and hydraulic systems.

Control pressure switch with M12 connector for vacuum, pneumatic and hydraulic systems. The electro-mechanical pressure switch has been designed for use in plant construction.

Used for monitoring plants and for connecting/disconnecting electronic circuits by means of pressure. The MDR-N converts pneumatic and hydraulic pressures into electric signals.

Its robust and hard-wearing design ensures a long service life, also under high loads. Thanks to the compact design, the standardised device coupling, and the high IP protection class, the pressure switch is particularly suited for use in series production of vacuum, pneumatic, and hydraulic systems.

Pressure adjustment is done by the customer (precisely as required), and the switching point is continuously adjustable via a screw.

Because of the wide range of pressure switch versions, please contact us if you have questions on a special application or have technical requirements. As a manufacturer of pressure switches and controls, we offer a wide range of services, including standard and customer-specific solutions for individual applications.

Highlights & Features

- Control pressure switch for AC and DC voltage
- for pneumatic & hydraulic applications
- Media: compressed air, hydraulic oil
- max. media temperature 80°C
- **Voltage ≤30 V**
- **1-pole (SPDT)**
- Pressure range -0,9 ≤ 16 bar
- simple manual adjustment of switching point via adjusting screw
- **M12 connector (electric connection)**
- die-cast aluminium housing
- **robust and hard-wearing design - long service life**
- **Degree of Protection (acc. to EN 60529) IP 67**

Type overview MDR-N

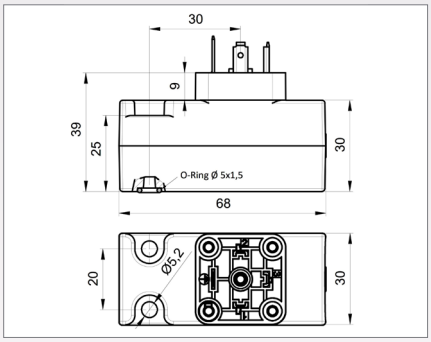
Pressure switch made of die-cast aluminium, up to 16 bar, 1 changer, PI diaphragm, die-cast aluminium flange;
Pressure connection: G 1/4" inner thread, or flange with O-ring Ø 5x1.5;
Electric connection: **M12x1 connector** (Plug see accessories)*2, Silver contacts (gold-plated contacts on request)

Type	Matchcode VE = 1 pcs.	Pressure range P_{AUS} in bar	Tolerance	Pressure coupling	Weight (in g)	Part no.
MDR-N / 0 - G 1/4"	MDR-N 00 RMS F004V MXXX	-0,9 ... 0 bar	± 0,1 bar	Inner threat G 1/4" Alu	130	292739
MDR-N / 0 - Flange	MDR-N 00 TMS F004V MXXX	-0,9 ... 0 bar	± 0,1 bar	Flange with O-Ring **Ø 5x1,5**	130	292746
MDR-N /16 - G1/4"	MDR-N 16 RMS S030A MXXX	0,2 ...16 bar	± 0,3 bar	Inner thread G 1/4" Alu	130	292753
MDR-N /16 - Flange	**MDR-N 16 TMS S030A MXXX**	0,2 ...16 bar	± 0,3 bar	Flange with O-Ring **Ø 5x1,5**	130	292760

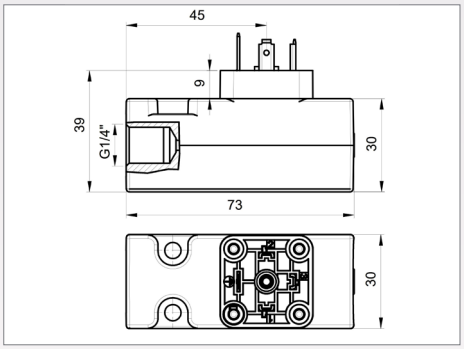
Accessories

Type	Description		Part no.
MDR-M12x1	Plug connector M12x1	on request	

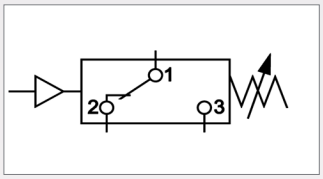
Pressure switch MDR-N — Dimensions / Circuit Diagrams



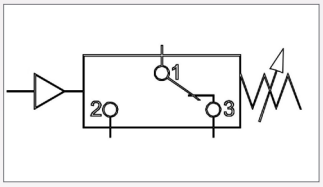
MDR-N - Version with Rectangular connector,
ISO 175301 (ISO 4400);
pneumatic connection - flange with O-Ring



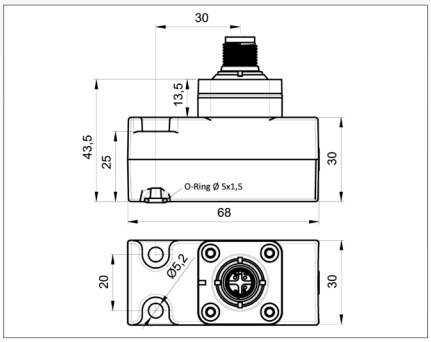
MDR-N - Version with Rectangular connector,
ISO 175301 (ISO 4400);
pneumatic connection - internal thread G1/4"



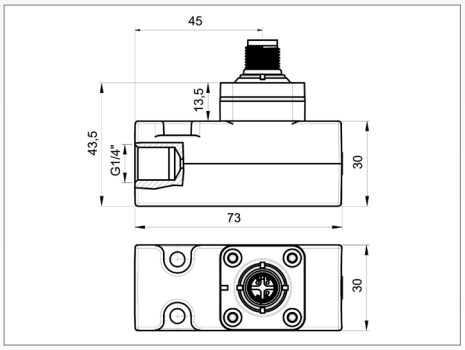
> 0 bar



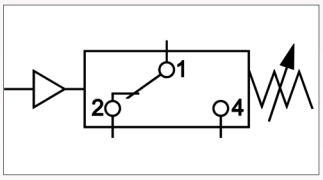
Vakuum



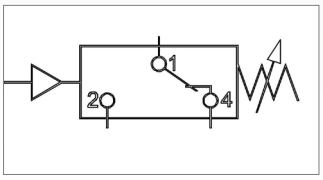
MDR-N Version with M12x1 connector;
pneumatic connection - flange with O-Ring



MDR-N Version with M12x1 connector;
pneumatic connection - internal thread G1/4"



> 0 bar



Vakuum

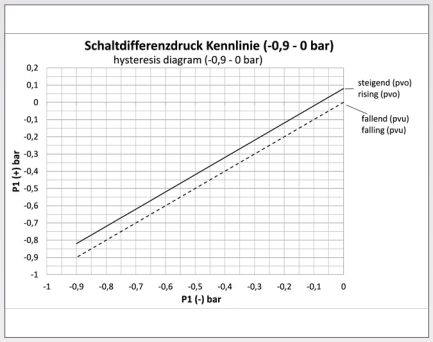
Technical Data / Switching capacity Version with Rectangular connector					
Max. permissible steady current I max. [A] on inductive load					
U [V]	30	48	60	125	250
I [A] AC	3	3	3	3	3
I [A] DC	2	0,55	0,4	0,05	
Max. permissible steady current I max. [A] on ohmic load					
U [V]	30	48	60	125	250
I [A] AC	5	5	5	5	5
I [A] DC	3	1,2	0,8	0,4	

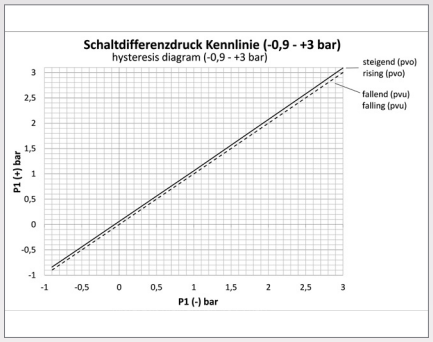
Technical Data / Switching capacity Version M12x1 connector					
Max. permissible steady current I max. [A] on inductive load					
U [V]	30				
I [A] AC	3				
I [A] DC	2				
Max. permissible steady current I max. [A] on ohmic load					
U [V]	30				
I [A] AC	4				
I [A] DC	3				

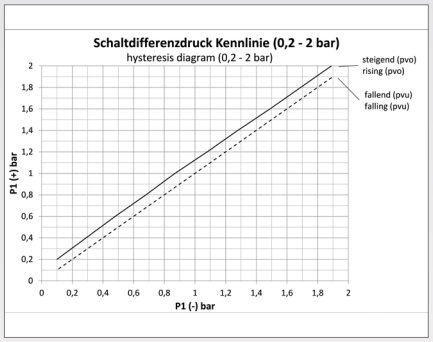
Technical Data MDR-N	
Ambient temperature min…max Ambient temperature max. UL	-20°C…+80°C Tab.3
Installation position	any
Mechanical durability operating cycles	> 1 x 10^7
Max. operating cycles	30 / min
Switching point repeatability (20°C	± 2 % FS (> ± 0,1 bar / > ± 0,3 bar)

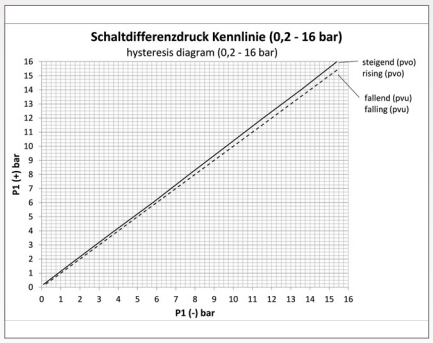
Technical Data / Electrical nominal Electrical nominal values according to UL 508 und CSA C22.2 NO. 14-18		
	MDR-N with Rectangular connector	**MDR-N with M12x1-connector**
Maximum switching current	5A, 250 VAC, GP	4A, 30 VAC, GP
Wiring in the field *	20-14 AWG Str. *	0,4min. 22 AWG Str.
Tightening torque [Nm]	0,4	-
Ambient temperature max. U	+75°C	+75°C
*cable- 6-8 mm		Tab.3

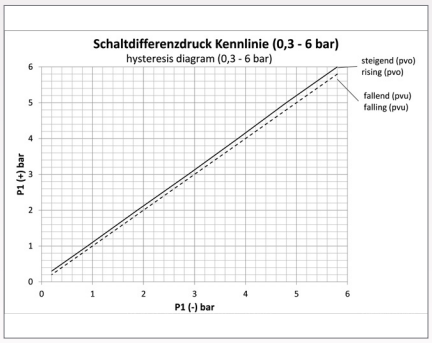
MDR-N — Technical Data / Hysteresis diagram

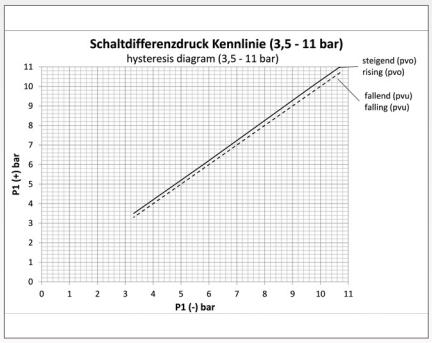








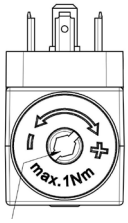




Technical Data MDR-N	
Medium	Air, Oil
Voltage type	Alternating current (AC) - single-phase
Type	Electro-mechanical
Rated frequency	50 Hz / 60 Hz
Voltage (U)	≤ 250 V / ≤ 30 V
Contact function	Wechsler
Gold-plated contacts	optional
Rated operating current (Ie)	5 A (Version with Rectangular connector) 4 A (Version with M12x1 connector)
Degree of protection	IP 65 (Version with Rectangular connector) IP 67 (Version with M12x1 connector)
Pressure adjustment	Yes
Pressure range (see table)	-0,9 ≤ 16 Bar
Pressure coupling	G 1/4" Inner thread; Flange connection

Technical Data MDR-N / Pressure ranges				Factory setting
0,2	-	16	bar	3 bar rising
3,5	-	11	bar	3 bar rising
0,3	-	6	bar	3 bar rising
0,2	-	2	bar	1 bar rising
-0,9	-	0	bar	-0,4 bar failing
-0,9	-	+3	bar	1 bar rising
Increase switching point:				Einstellschraube in „+" Richtung drehen
Reduce swithing point:				Einstellschraube in „-" Richtung drehen
Attention: Torque for adjusting screw max. 1Nm				

Adjusting screw



Media resistance of MDR-N

A detailed overview of the media resistance of all pressure switches in the form of a selection table is provided on our website.
Please observe the notes given for the table.

In case of damage or faults due to incorrect installation, the manufacturer cannot be held responsible and accepts no liability.

CONDOR - INVENTOR OF THE PRESSURE SWITCH

MDR-P Mini-sized pressure switch for OEM customers

MDR 2i Electronic pressure switch
for pressure monitoring and control of compressors and pumps

MDR 1 High-performance pressure switch - AC current

Condor riding ground controls for optimum grounds

Solving your problems is our business.

Our team consults you competently about every possibility for solving your specific problem. Simply contact us.
We provide professional, targeted, and solution-oriented support when implementing your project in accordance with your specifications.

Since four generations filled with passion, pioneering spirit, and innovative power, Condor has been developing market-oriented solutions in the fields of pressure and control technology, with a focus on the compressor and pump industries.

For further information please contact us,
or visit our website – www.condor-cpc.com.

YouTube

Condor 09.2022

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