#### **FEATURES**

The MDR-F process pressure switch is intended for managing pressure on fluid processes with stainless steel. The internal fitting and mechanism are of 303 SS, and the diaphragm is of 316 Ti stainless steel. It is suitable for operating on pumps, compressors, tanks, boilers and cooling units, etc.

The trip pressure and the differential are adjustable by a hex head slotted screw (P1 and P2) and can be viewed on a graduated scale. The compact construction of the MDR-F pressure switch makes it easy to install inside machines. IP65 code for operating indoors or outdoors under a shelter. It is also easy to attach it using the 1/2 oblong holes integrated to the support. Moreover, the MDR-F cover can be lead-sealed to prevent any change of adjustment on pressure.



#### **AVAILABLE MODELS**

MDR-F: MDR-F 12HE-S

G 1/4" female fluid process connection.

M20 packing gland electrical connection. (Supplied with the packing gland)

## **LIMITS OF USE**

Fluid	Usual compatible fluids
Electrical protection	IP 65
Fluid WP:	10 bar
Fluid WT°:	0° / +200°C
Ambient WT°:	-20°C / +70°C



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# DIRECTIVES AND MANUFACTURING STANDARDS

Pressure Equipment Directive 2014/68/EC	Not subject
Compliant with the EN 60947 standards	Low-voltage devices
DIN ISO 228/1	G threaded connection
DIN VDE 0660	Specifications on the circuit cutoffs under box

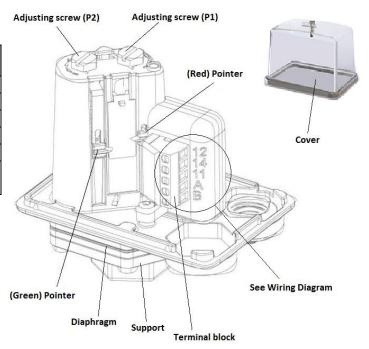
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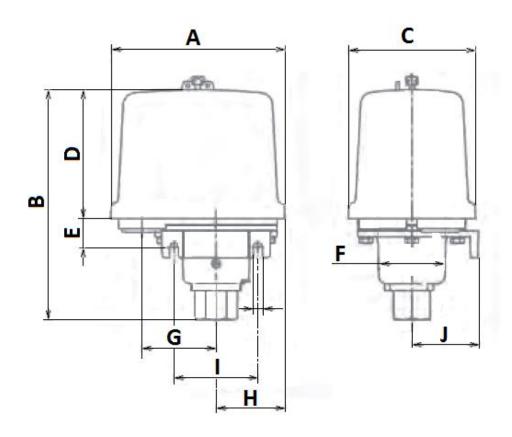
## **CONSTRUCTION**

Name	Material
Support	Aluminium
Cover	Polycarbonate
Diaphragm	316 Ti stainless steel
Internal mechanism	303 SS
Fitting	303 SS
Connection terminal box	
(5 wires)	



## **DIMENSIONS (mm) AND WEIGHT (kg))**

Туре	Connection	Α	В	С	D	E	F	G	Н	ı	J	Weight (kg)
MDR-F	Female G 1/4"	104	137	76	77	17	40	44	41	50	40	0.520



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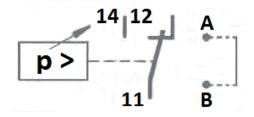
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## **FEATURES**

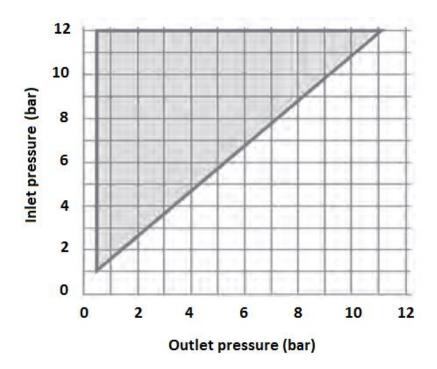
Туре	DN	Setting range (bar)	Inlet pressure (bar)	Differential pressure (bar)	Outlet pressure (bar)
MDR-F 12HE-S	Female G 1/4"	1 - 12	0.5 - 11.2	0.5 - 0.8	1 - 12

## **ELECTRICAL FEATURES**

Type of switch	2 SPDT switches
Resistive cut-off voltage	10 A at 240V AC
Inductive cut-off voltage	4 A at 240V AC / 0.1 A at 240V AC
Power (kW)	0.55
Precision scale	< 3% of the scale



## **PRESSURE DIAGRAM**



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#### IMPORTANT SAFETY INSTRUCTIONS



The pressure switches shall be mounted only by qualified professionals (electricity, hydraulics, mechanics) for this sector of application, following the instructions for use and the local legal requirements.

- Before mounting or removing the pressure switch, always relieve the pressure from and cut off the power on the element concerned
- Use the pressure switch exclusively within the power range indicated in the technical sheet of the pressure switch concerned.
- The pressure switch is not a critical part from a safety point of view. To avoid or prevent possible damage (as, e.g., a pump failure, an uninterrupted run, leaks, etc.) caused by imperfect operation, appropriate safety measures have to be taken (installing an alarm system, protective device for the motor, safety valve discharging fluids in case of inadmissible pressure).
- when using a liquid, comply with the electrochemical voltage range of metals and with the compatibility between fluids and the material of the pressure transmitter.
- Heavily clogged fluids can cause malfunctions of the pressure switch. Appropriate measures have to be taken to prevent this.
- The switch pressure shall be installed only using the hex fitting of the pipe under pressure.
- avoid strong pulsations and liquid jolts.
- avoid extreme vibrations.
- In case of narrow switch interval, as, e.g., for the alarm pressure switches, the switch function has to be inspected quarterly.
- The pressure switch does not require any servicing. However, we recommend inspecting the set switch points regularly.
- Once out of operation. The pressure switch has to be sent for recycling or scrapping according to the legal requirements. Scrapping has to comply with the legal requirements of the country concerned.
- We reserve our right on all technical modifications of the product within the framework of its operation features, and its development. The illustrations do not necessarily correspond to the supplied articles.

#### **INSTALLATION**

- The MDR-F pressure switch has to be installed by qualified personnel.
- The pressure switch can be installed in any position and on any type of support, due to its attachment support (oblong 1/2 holes).
- Make sure that the MDR-F is protected from liquid projections, strong pulsations and liquid jolts.
- Tighten the fitting with a spanner, not manually. (See diagram below)
- Carry out the electrical connections as shown. (See diagram above)
- Connect the pressure switch to the ground.



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#### - For setting:

- Remove the cover (screw loosening).
- Adjust the upper range pressure using the screw (P1), (Red) pointer.
- Adjust the lower range pressure using the screw (P2), (Green) pointer.
- Put the cover back (screw tightening and lead-sealing).

#### **SERVICING**

The MDR-F pressure switch does not require any periodic servicing. However, we recommend inspecting the set contact points (Red and Green pointers) regularly.

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