

Magnetic level controllers MNR6



USER MANUAL

BAMO INTERNATIONAL

22, Rue de la Voie des Bans · Z.I. de la gare · 95100 ARGENTEUIL

Tel +33 (0)1 30 25 83 20 Web www.bamo.eu

Fax +33 (0)1 34 10 16 05 E-mail export@bamo.fr

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MNR6

07-03-2022

M-551.01-EN-AB

LEV

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PRECAUTIONS - RECOMMENDATIONS

- Installation, commissioning and maintenance operations must only be performed by qualified personnel.
- Operate the device only in accordance with the conditions described in this manual
- In order to respect the switching power of Reed contacts and to protect them, it is mandatory to use a relay amplifier such as our Relay ES 2001 (data-sheet 530-01).
- Ensure the chemical compatibility of the fluid with the device materials.
- The installation and use of these MNR 6 detectors must be done without any magnetic induction.
- Use non-magnetic fittings (brass, stainless steel or plastic)
- All iron parts must be located at a minimum distance of 10 cm.

APPLICATIONS

The MNR 6 series is recommended for non-viscous, non-sticky liquids and without magnetic particles or suspended solids. Convenient for pumps and solenoid valves automation, low and high alarm signals, overflow detection, etc

DESCRIPTION

Reed contacts are adjusted at factory according requested trigger points on purchase order; They are actuated by the magnetic float. The MNR6 can contain up to 2 Reed contacts, made bistable by the positioning of stops. These stops block the float which magnetism maintains the contact status. When the float moves away from the stop, the contact returns to its initial status.

TECHNICAL FEATURES

Contact (Max. 2 contacts)	Change-over (by use of stops)
Switching power	60 VA
Gap between two contacts	Min. 100 mm
Accuracy	± 2 mm
Hysteresis	8 mm
High blind area	60 mm
Low blind area	50 mm

EC Conformity: The instrument meets the legal requirements of the current European Directives.

FLOAT FEATURES

PVC	+5 ... 50 °C	3 bar Max.*	Height = 29 mm	Ø 42 mm	Mass = 22 g	S.G. Min. = 0.75
PPH	-5 ... 105 °C	3 bar Max.*	Height = 36 mm	Ø 42 mm	Mass = 20 g	S.G. Min. = 0.65
PVDF	-10 ... 110 °C	3 bar Max.*	Height = 49 mm	Ø 41 mm	Mass = 40 g	S.G. Min. = 0.90
AISI 316	-20 ... 110 °C	20 bar Max.*	Height = 43 mm	Ø 43 mm	Mass = 24 g	S.G. Min. = 0.70

* : Pressure Max. at 20 °C

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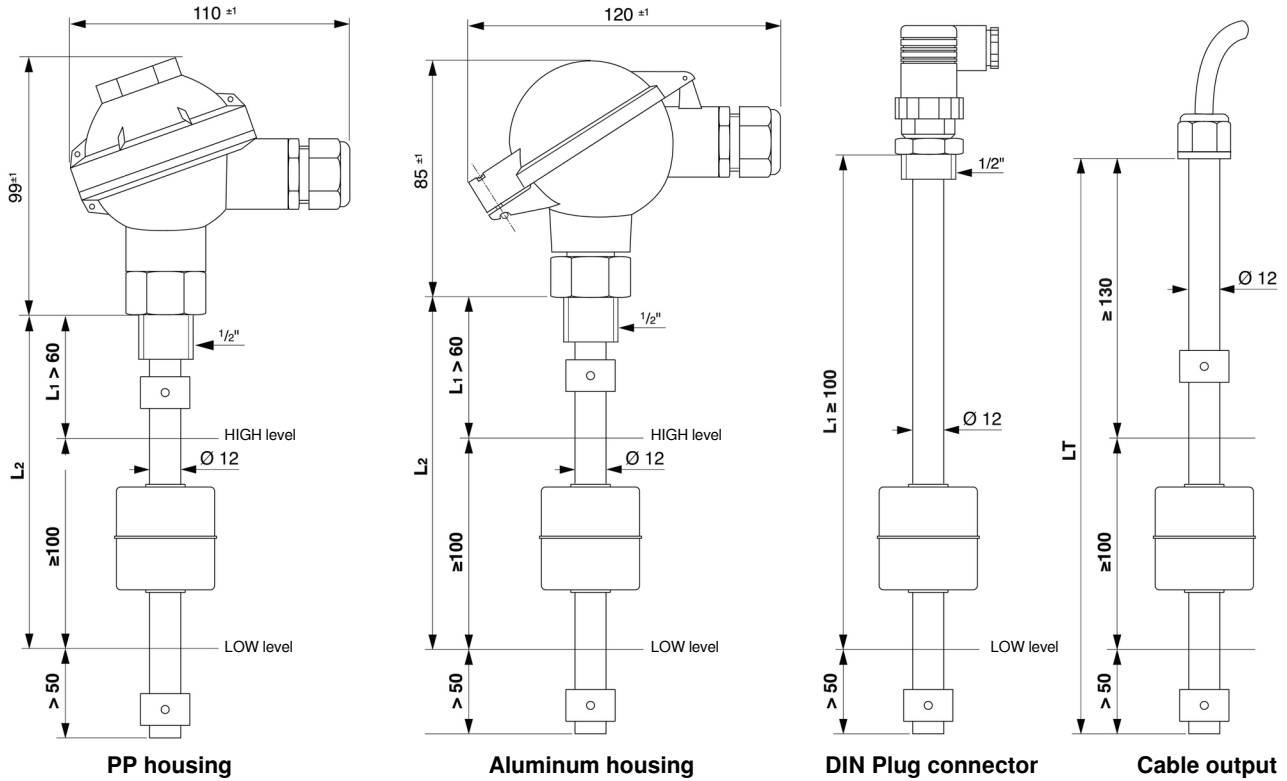
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DIMENSIONS



INSTALLATION

The MNR6 is mounted vertically on the top of the tank, it is necessary to remove the stops, taking care to mark their positions, as well as the float.

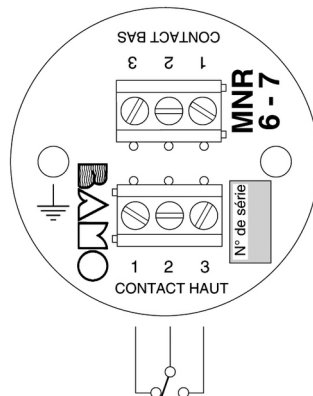
- Mark the position of the stops
- Unscrew the locking screws on the stops (taking care not to lose them)
- Dismantle the stops and the float from the stem, screw the MNR6 in the tank fitting
- Fit back the float and stops, respecting the marks and tightening the locking screws
- Check the correct operation of the contacts, which will only be bistable if the stops are correctly positioned

ELECTRICAL CONNECTIONS

Head housing with terminal blocks:

Wiring is carried out on 1 or 2 terminal blocks.

Contact status is "Closed" between 1 and 2 without float (that means "Open contact" between 2 and 3, without float).



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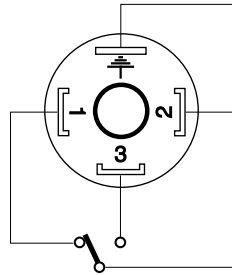
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DIN 43650 plug connector:

Available only for MNR6 with 1 contact; Terminal block has 3 terminals marked 1, 2 and 3.

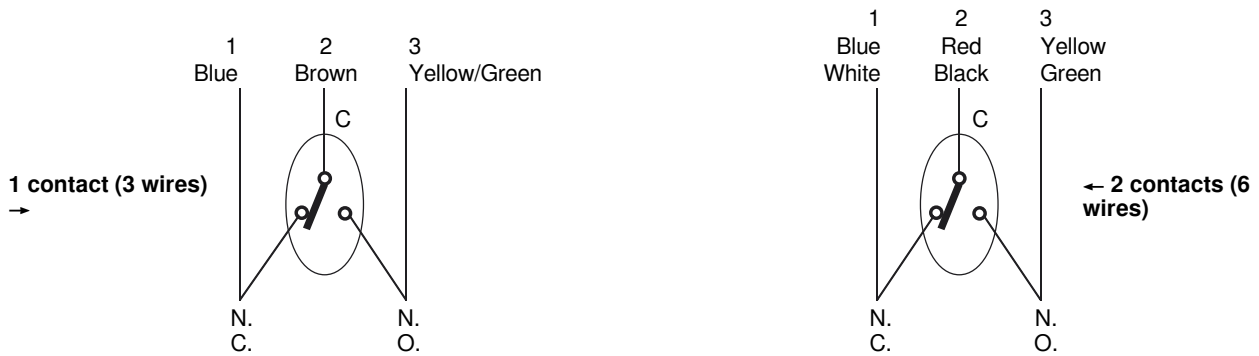


Cable output MNR 6 with 1 contact (3-wire)

Common -> BROWN	Closed status -> Between brown and blue	Open status -> Between brown and yellow/green
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Cable output MNR 6 with 2 contacts (6-wire):

1st contact	Common -> RED	Closed -> Blue	Open -> Yellow
2nd contact	Common -> Black	Closed -> White	Open -> Green



MAINTENANCE

Make sure that the float always slides freely over time and activates the contacts correctly.