

Thank you for choosing a NIVELCO instrument!

1. APPLICATION

The NIVOPOINT magnetic float level switches operate using the interaction of the magnet built into the float and the reed switches located in the probe shaft. Following the movement of the magnetic float, the reed switch opens or closes. The probe contains one or more reed switches, each with a magnetic float. The reed switch's default open or closed state can be changed by inverting the float. There are one or more switches in the level switch, each with a float. The level switch is also suitable for lower or upper-level switching.

2. TECHNICAL DATA

MZS-□□□-3, MZC-□□□-3, MZG-□□□-3	
Insertion length	0.1...1.5 m (3.9...59")
Material of wetted parts	Titanium / 1.4404 / 1.4435 float; 1.4571 probe tube
Max. process pressure	25 bar (2.5 MPa, 362.6 psi)
Min. medium density (Specific gravity)	0.55...0.8 kg/dm ³ (see: 2.4 Floats)
Nominal float sizes	see: 2.4 Floats
Medium temperature	-40...+120 °C (-40...+248 °F)
Ambient temperature	-20...+70 °C (-4...+158 °F)
Output	1...3 reed-switches, NO/NC depending on float orientation
Switching rate	120 W / VA; 250 V AC / DC; max. 3 A
Switching point	max. 3 (according to user specification)
Switching hysteresis	max. Δ8 mm
Distance between reed-switches	At least 90 mm
Electrical connection	0.5 m long ⁽¹⁾ 2x0.75 mm ² , cable with silicon insulation
Seal	Klingerit (only for BSP)
Process connection	As per order code, (see 2.2 Order code)
Electrical protection	Class II, reinforced insulation
Ingress protection	IP68 (20 m [787.4"])
Weight	~0.15...2.5 kg (~0.33...5.5 lbs) (depending on type) + cable: 0.03 kg/m (0.0017 lbs/inch)

⁽¹⁾ Available with different cable length

2.1 ACCESSORIES

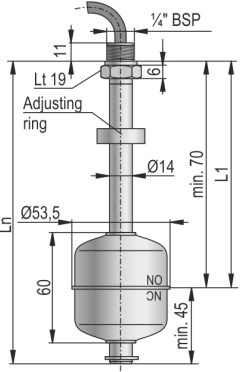
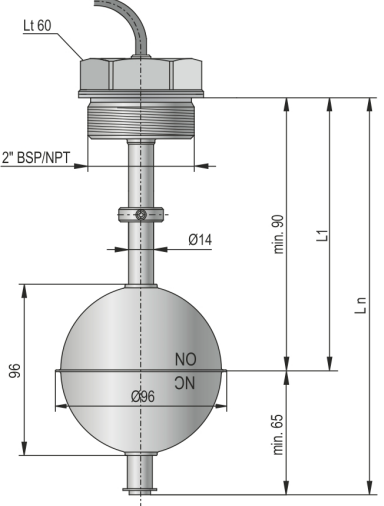
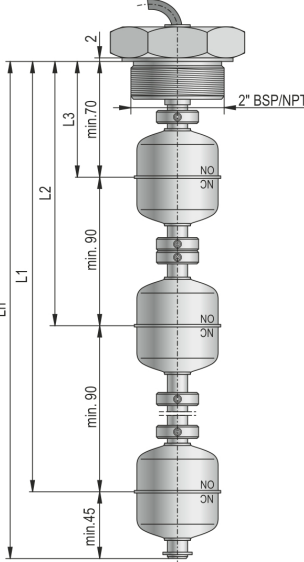
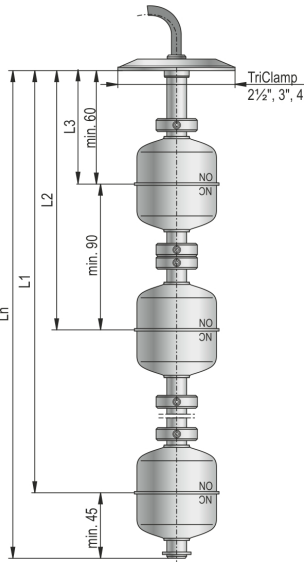
- User's manual
- Warranty Card
- EU Declaration of Conformity
- 1 seal (threaded version only)

2.2. ORDER CODE (NOT ALL COMBINATIONS AVAILABLE!)

NIVOPOINT M □ □ - □ □ - 3									
TYPE	CODE	PROCESS CONNECTION	CODE	SWITCHES	CODE	PROBE LENGTH	CODE	PROBE LENGTH	CODE
Standard	Z	2" BSP	C	1 db NO/NC	1	0 m	0	0 m	0
		¼" BSP (inner thread)	S	2 db NO/NC	2	1 m	1	0.1 m	1
		2" NPT	G	3 db NO/NC	3			:	:
		2½" TriClamp	O					0.8 m	8
		3" TriClamp	P					0.9 m	9
		4" TriClamp	R						

Note: max. 1.5 m (59") probe length

2.3 DIMENSIONS⁽¹⁾

 MZS-1□□-3	 MZC/MZG-1□□-3⁽²⁾	 MZC/MZG-3□□-3	 MZO/MZP/MZR-3□□-3
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⁽¹⁾ Dimensions L1, L2, L3 determine the distance between the switching points according to the user specification specified when ordering.

⁽²⁾ In the case of a Ø96 mm (Ø3.8") float, the distance between the switching points is min. 130 mm (5.1").

NIVOPOINT

MZ

MAGNETIC FLOAT LEVEL SWITCH

USER'S MANUAL



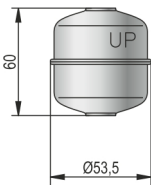
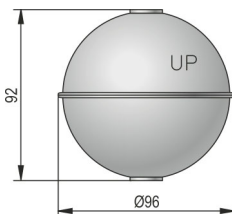
Manufacturer:

NIVELCO Process Control Co.
H-1043 Budapest, Dugonics u. 11.
Phone: (36-1) 889-0100

E-mail: sales@nivelco.com ■ www.nivelco.com



2.4 FLOATS

	MZS-101-3M-900-00 ⁽¹⁾	MZS-101-3M-700-00 ⁽²⁾	MZS-101-3M-800-00 ⁽³⁾
Dimensions			
Min. medium density (Specific gravity)	0.55 kg/dm ³	0.8 kg/dm ³	0.55 kg/dm ³
Material	Titanium	1.4404	1.4435
Medium pressure	25 bar (2.5 MPa, 362.6 psi)		

(1) Titanium float

(2) Standard float

(3) from min. 200 mm (7.8") inches insertion length

3. INSTALLATION

The technological connection is defined by the order code, and it is used for the mechanical connection of the device.

The diameter of the opening for passing through the floats must be at least 3 mm (0.12") larger than the diameter of the float! If the device has a protective tube (to prevent corrugation or foaming), the tube's internal diameter must be 75 mm (2.95") for a 53.5 mm (2.1") float and 130 mm (5.1") for a 96 mm (3.8") float.

ATTENTION!

The device must be installed in the tank in a vertical position! Protect the device from any mechanical damage, bending, and tension during installation and transport!

4. WIRING

The electrical connection is made via the built-in cable of the device. The default normally closed (NC) or normally open (NO) state of the reed-switch can be modified by inverting the float. The NO/NC switching mode is marked on the float.

When the instrument is installed the correctly readable sign marks the operation mode of the switch.

5. MAINTENANCE, REPAIR

The instrument does not require regular maintenance but may need to be cleaned of deposits in some cases! The warranty card contains the terms and conditions. Before returning the device for repairs, it must be cleaned thoroughly. The parts in contact with the medium may contain harmful substances; therefore, they must be decontaminated. Our official form ([Returned Equipment Handling Form](#)) must be filled and enclosed in the parcel. Download it from our website www.nivelco.com. The device must be sent back with a declaration of decontamination. A statement must be provided in the declaration that the decontamination process was successfully completed and that the device is clean from any hazardous substances.

6. STORAGE CONDITIONS

Ambient temperature: -20...+60 °C (-4...+140 °F)

Relative humidity: max. 98% non-condensing!

mzs101en2205h

January 2022

NIVELCO reserves the right to change anything in this manual without notice!