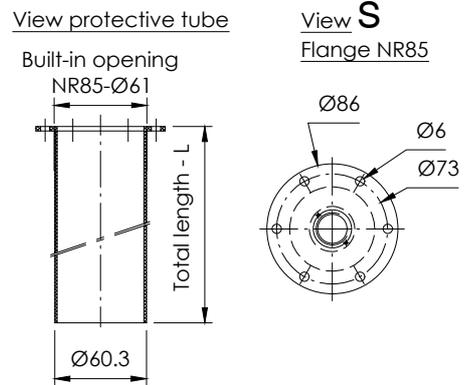
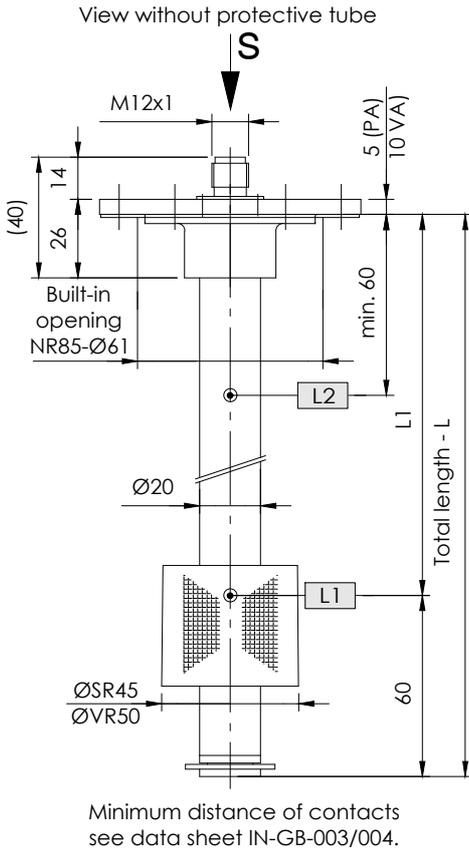


# NR 85 - TMA

Level - temperature regulator for tank insert  
Temperature output 4-20mA

serial No. Date  
MA - GB - 301 - 06/24



## Specimen order NR85-TMA - SR45 - L300 - 03 - L1/200/S -MS-M12-24V

Order code

Tank-connection: Flange NR85

TMA = without Protective tube  
TMAS=Protective tube

Float-Type SR45 VR50

Total Length-L switching tube (mm)

Level contact type OK=cordless contact (max.500mm)

01 = fixed, plain  
02 = fixed, changeover  
03 = adjustable, plain  
04 = adjustable, changeover

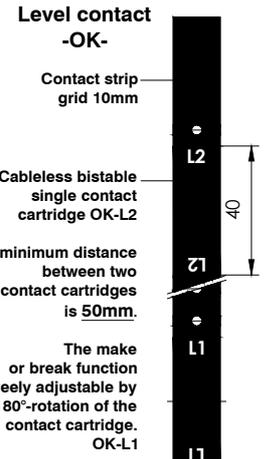
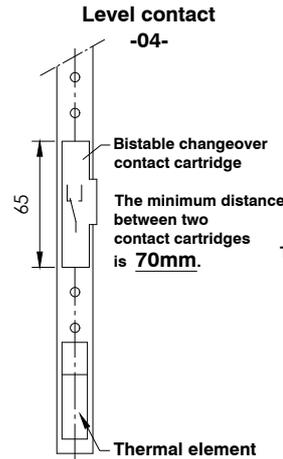
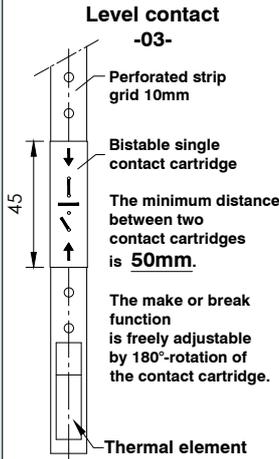
Switching point L1-L3/ mm from sealing edge

Ö = break  
S = make  
W = changeover  
Function with increasing level

Plug socket connector: M12 - 24V 6+PE-DIN 43651

Execution: MS - Brass  
VA - Stainless steel  
Switching tube, Flange VAPA  
VA - Switching tube  
PA - Flange  
(PA - Polyamide)

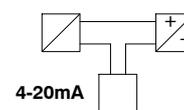
Plug assignment



### Plug assignment power supply

- 1 = Temperature
- 2 = +24VDC
- 3 = combined L1-L3
- 4 = L1
- 5 = L2
- 6 = L3

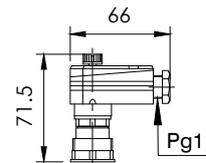
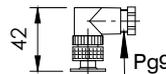
### Temperature



Connector variants

Plug connection M12 IP67 5-polig

Plug connection 6+PE IP65 EN 175201-804 (DIN 43651)



## Description

The type NR 85 TMA level controller for installation in tanks is a contactless - operating magnetic switch and is used for monitoring and controlling liquid levels and temperatures.

Bistable protective gas contacts are installed in the switch tube as contact cartridges adjustable on a contact strip.

The contact cartridges can be retrospectively adjusted in height in increments of 10 mm.

In the case of fixed contacts, the contact distances and their function must be specified. Contact cartridges can be adjusted in height at a later date.

The break or make function can be changed by rotating the cartridge 180°. The permanent magnet fitted in the float switches the contacts if the level changes. The switching difference (hysteresis) is 4 mm.

For temperature monitoring, the temperature-dependent signal emitted by a Pt100 resistor mounted in the switching tube is converted into a temperature-linear current change of 4-20mA using the built-in transmitter.

The level controller is maintenance - free when nondeposit media are used. For inductive loads, a protective circuit must be provided (free-wheeling diode/RC element). The device must only be installed by specialists.

Max. viscosity 320mm<sup>2</sup>/S

## Technical data

Protective tube	Stainless steel (VA)
Switch tube	Brass (MS), Stainless steel (VA) max. L = 2000mm
Connecting flange	NR85, (PA) Polyamide or (VA) Stainless steel with flat seal
Nominal pressure	1 bar max. - Float SR45, Hart PU 10 bar max. - Float VR50, VA
Temperature of medium	100°C max.
Float	Hart-PU, Type: SR45 VA, Type: VR50
Level contacts	OK - bistabil, make / break max. 2 adjustable make / break / changeover Datasheet IN-GB-003/004
Switching current	Datasheet IN-GB-003/004
Switching capacity	Datasheet IN-GB-003/004
Operating voltage	12V ... 30V DC
Measuring range	4-20 mA = 0-100°C
Thermal element	Pt100
Load	RB = U-12V 20mA
Number of functions	max. 3 adjustable
Installed position	vertical ± 30°

Other temperature ranges on request.

Technical data



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