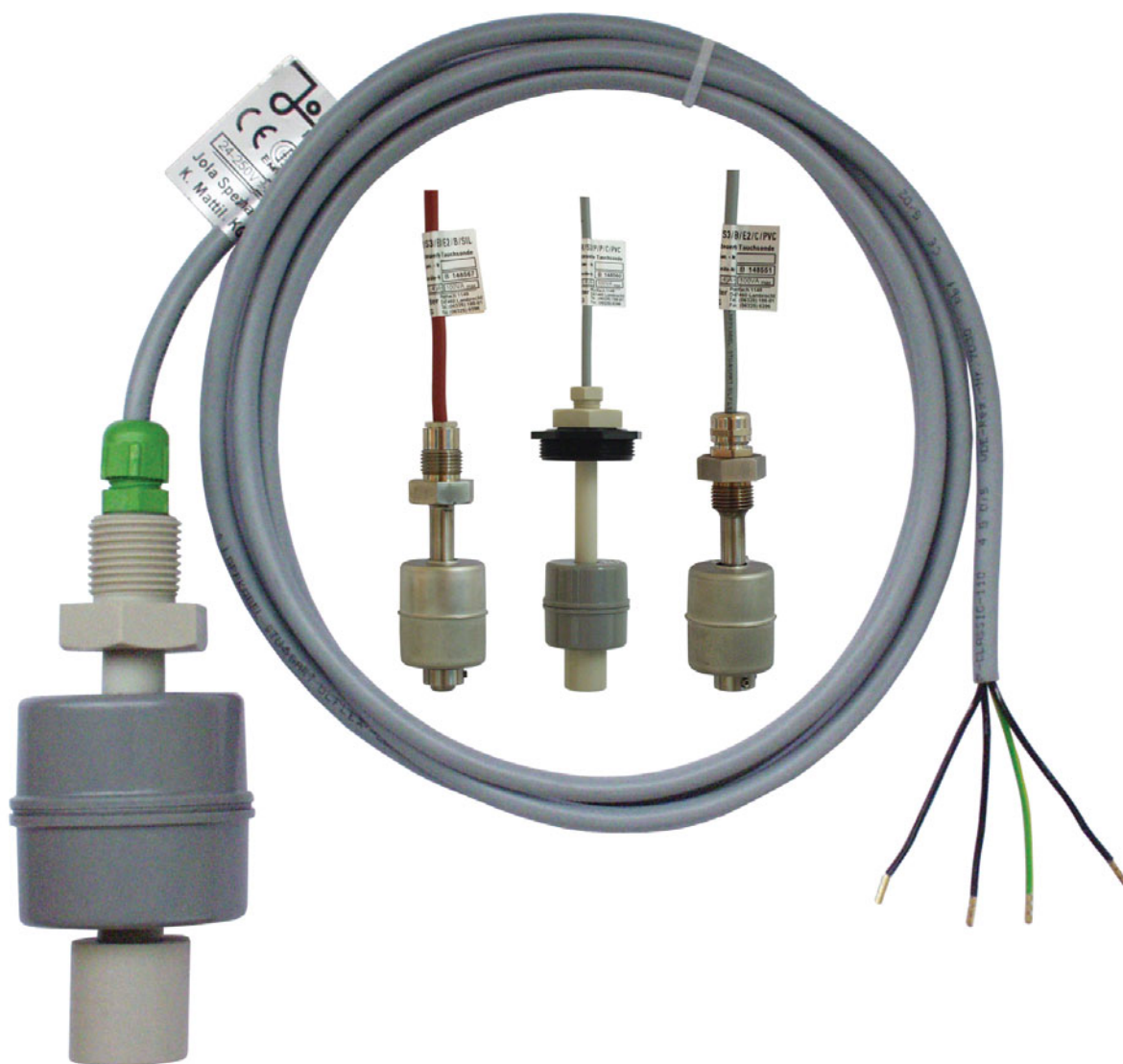




NTR/S3/... immersion probes

Controlling devices with magnetically operated
reed contact,
for signalling of liquid levels



Construction and operating principle of NTR/S3/... immersion probes

The NTR/S3/... immersion probes have a probe tube with a built-in reed contact and a float. The float is fitted with a permanent ring magnet and moves freely up and down the probe tube, activating the reed contact as it rises or falls.

The reed contact is a so-called “monostable” contact, i.e. it switches only for as long as it is influenced by the magnetic field.

Once the float passes beyond the contact upwards or downwards, the latter returns to its original position.

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NTR/S3/ED/E2/B/.. immersion probes with

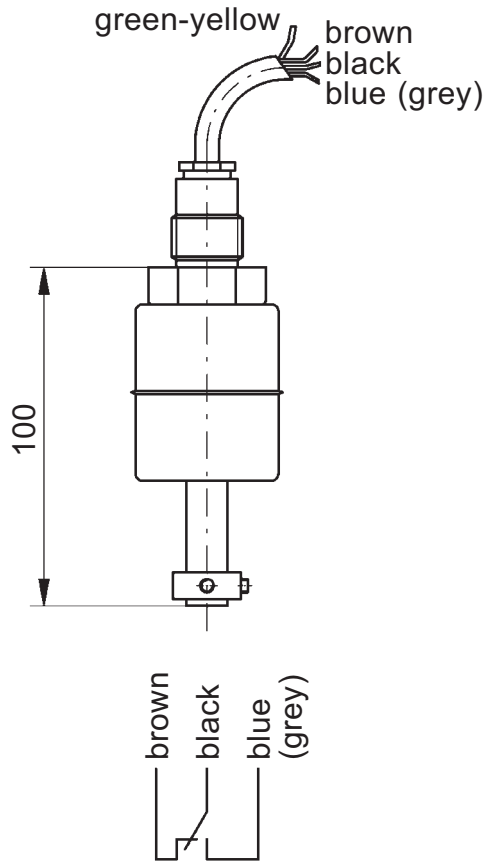
- probe tube made of stainless steel
- float made of stainless steel

Models	NTR/S3/ED/E2/B/..
Application Switching voltage Switching current Switching capacity	standard applications AC/DC 24 V - 250 V AC 100 mA - 2 A (0.4 A) max. 100 VA

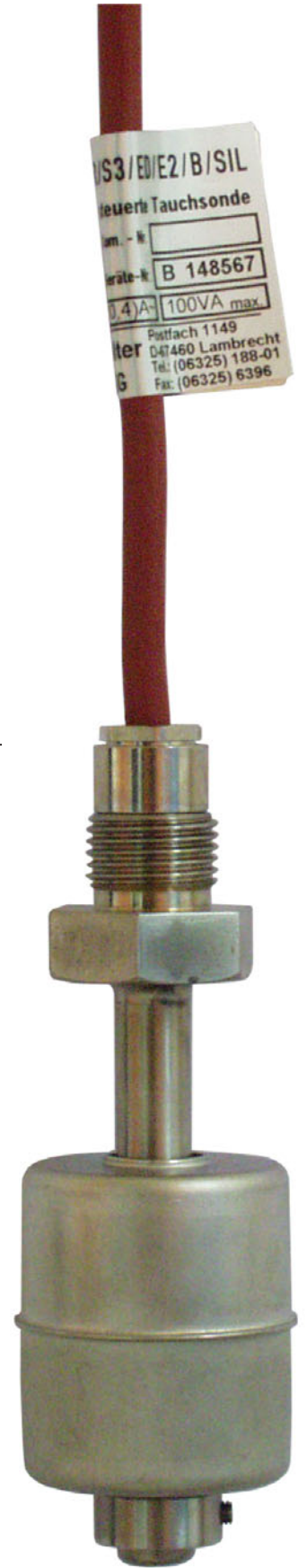
Technical data	NTR/S3/ED/E2/B/PVC with upward G $\frac{1}{2}$ nipple	NTR/S3/ED/E2/B/SIL with upward G $\frac{1}{2}$ nipple
Probe tube material	stainless steel 316 Ti	
Probe tube diameter	12 mm	
Probe tube length	100 mm, measured from the nipple sealing surface; other lengths on request	
Screw-in nipple	upward G $\frac{1}{2}$ (see adjacent pictures)	
Float	stainless steel 316 Ti, 44.5 mm \varnothing x 52 mm high	
Float suitable for use in media with a specific gravity	$\geq 0.95 \text{ g/cm}^3$	
Cable	PVC cable, 4G0.5 mm ² , length: 3 metres, other lengths on request	silicone cable, 4G0.75 mm ² , length: 3 metres, other lengths on request
Protection class	IP 54	
Mounting orientation	vertical	
Temperature application range	from 0°C to + 60°C	from - 20°C to + 100°C
Pressure resistance at + 20°C	max. 12 bar, higher pressure resistance on request	
Contact	reed contact: changeover contact (OC)	
Min. distances to be observed (based on liquids with a specific gravity of 1 g/cm ³)	from the nipple sealing surface to the upper contact: approx. 50 mm from the lower contact to the end of the probe tube: approx. 50 mm	
Option	G $\frac{1}{2}$ counter nut	



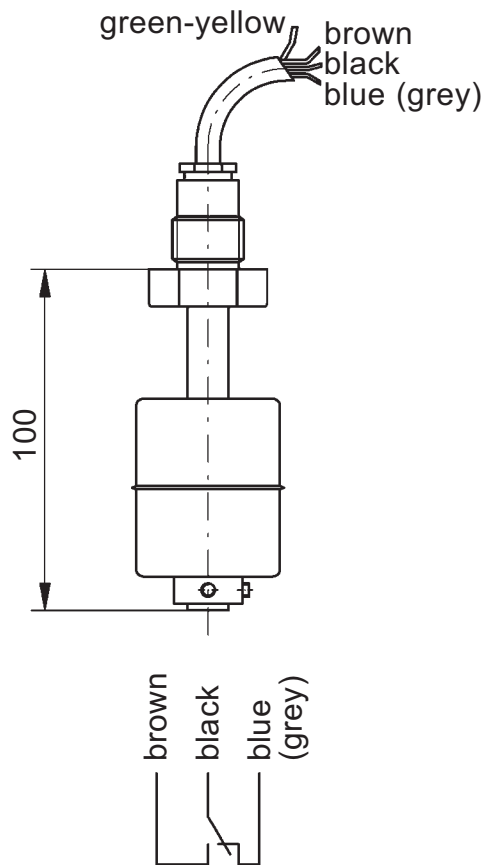
NTR/S3/ED/E2/B/PVC



Switching status when the tank is full



NTR/S3/ED/E2/B/SIL



Switching status when the tank is empty



NTR/S3/ED/E2/C/.. immersion probes with

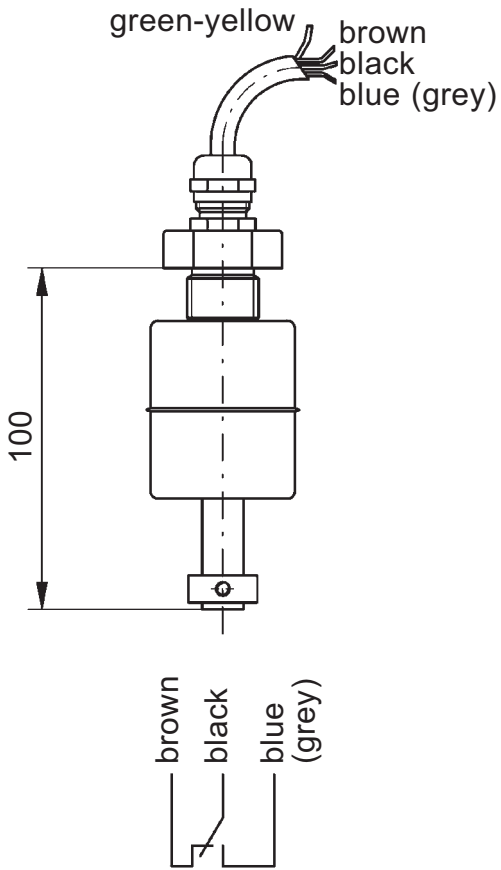
- probe tube made of stainless steel
- float made of stainless steel

Models	NTR/S3/ED/E2/C/..
Application Switching voltage Switching current Switching capacity	standard applications AC/DC 24 V - 250 V AC 100 mA - 2 A (0.4 A) max. 100 VA

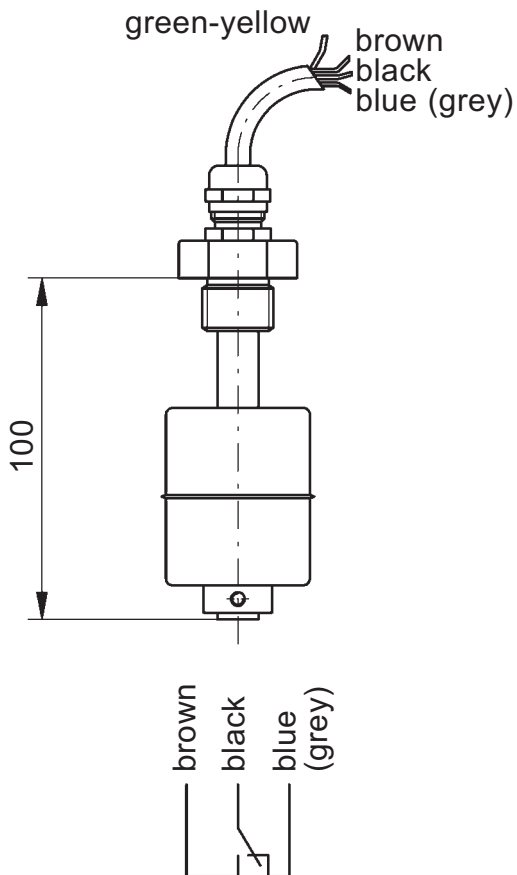
Technical data	NTR/S3/ED/E2/C/PVC with downward G $\frac{1}{2}$ nipple	NTR/S3/ED/E2/C/SIL with downward G $\frac{1}{2}$ nipple
Probe tube material	stainless steel 316 Ti	
Probe tube diameter	12 mm	
Probe tube length	100 mm, measured from the nipple sealing surface; other lengths on request	
Screw-in nipple	downward G $\frac{1}{2}$ (see adjacent pictures)	
Float	stainless steel 316 Ti, 44.5 mm \varnothing x 52 mm high	
Float suitable for use in media with a specific gravity	$\geq 0.95 \text{ g/cm}^3$	
Cable	PVC cable, 4G0.5 mm 2 , length: 3 metres, other lengths on request	silicone cable, 4G0.75 mm 2 , length: 3 metres, other lengths on request
Protection class	IP 54	
Mounting orientation	vertical	
Temperature application range	from 0°C to + 60°C	from - 20°C to + 100°C
Pressure resistance at + 20°C	max. 12 bar, higher pressure resistance on request	
Contact	reed contact: changeover contact (OC)	
Min. distances to be observed (based on liquids with a specific gravity of 1 g/cm 3)	from the nipple sealing surface to the upper contact: approx. 50 mm from the lower contact to the end of the probe tube: approx. 50 mm	
Option	G $\frac{1}{2}$ counter nut	



NTR/S3/ED/E2/C/PVC



Switching status when the tank is full



NTR/S3/ED/E2/C/SIL



NTR/S3/P/P/... immersion probes with

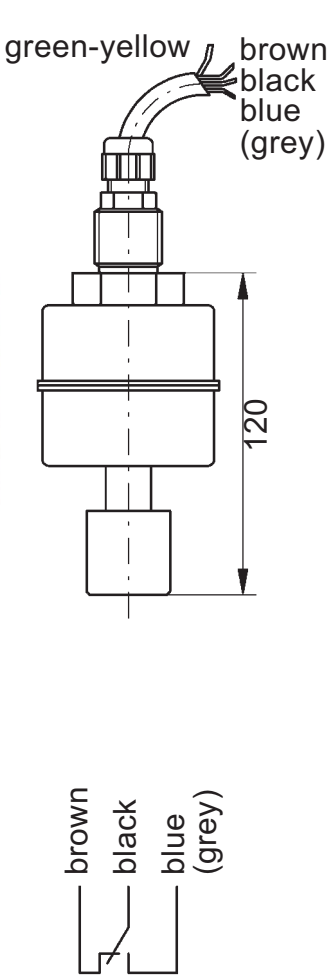
- probe tube made of PP
- float made of PP

Models	NTR/S3/P/P/...
Application Switching voltage Switching current Switching capacity	standard applications AC/DC 24 V - 250 V AC 100 mA - 2 A (0.4 A) max. 100 VA

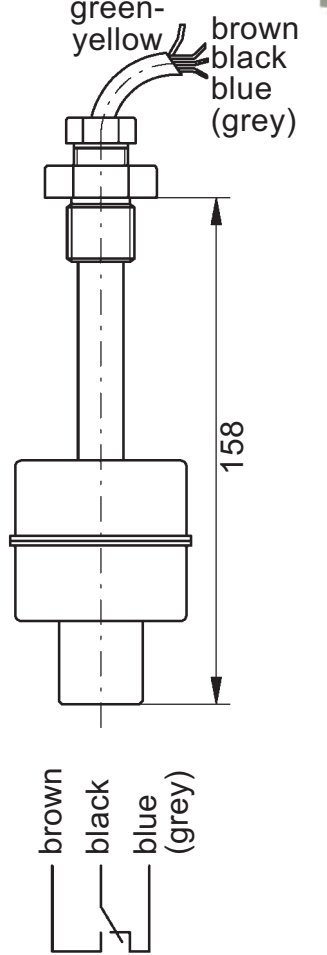
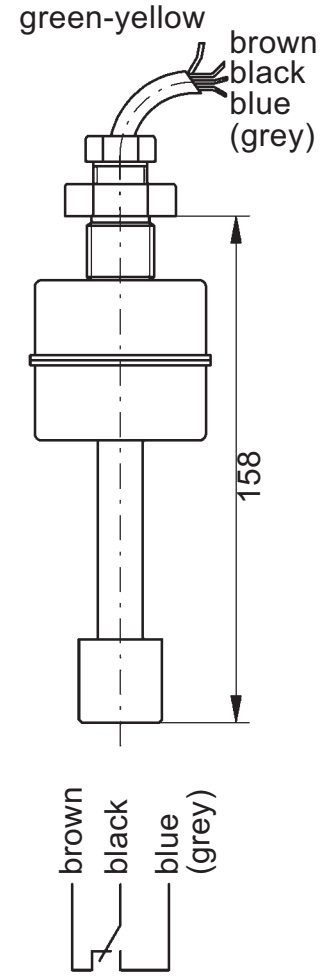
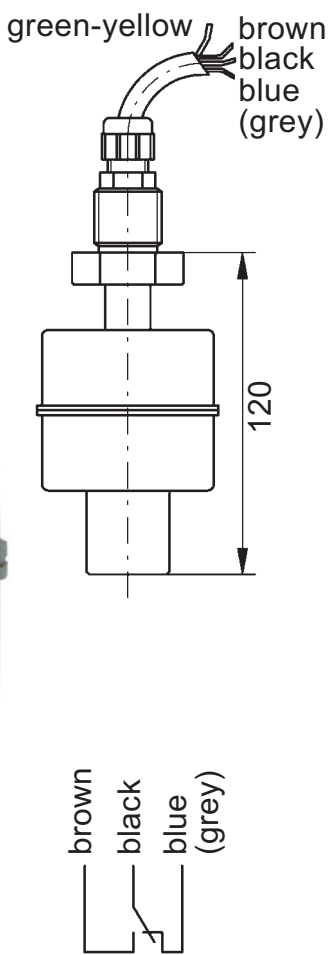
Technical data	NTR/S3/P/P/B/PVC with upward G $\frac{1}{2}$ nipple	NTR/S3/P/P/C/PVC with downward G1 nipple
Probe tube material	PP	
Probe tube diameter	14 mm	
Probe tube length <u>without</u> reducing nipple	120 mm, measured from the nipple sealing surface; other lengths on request	approx. 158 mm, measured from the nipple sealing surface; other lengths on request
Probe tube length <u>with</u> reducing nipple	—	150 mm, measured from the reducing nipple sealing surface; other lengths on request
Screw-in nipple	upward G $\frac{1}{2}$ (see adjacent left-hand side picture)	downward G1
Float	PP, 53 mm \varnothing x 50 mm high	
Float suitable for use in media with a specific gravity	$\geq 0.8 \text{ g/cm}^3$	
Cable	PVC cable, 4G0.5 mm ² , length: 3 metres, other lengths on request	
Protection class	IP 54	
Mounting orientation	vertical	
Temperature application range	from 0°C to + 60°C	
Pressure resistance at + 20°C	max. 2 bar	
Contact	reed contact: changeover contact (OC)	
Min. distances to be observed (based on liquids with a specific gravity of 1 g/cm ³):		
- from the nipple sealing surface to the upper contact:	approx. 60 mm	approx. 98 (90) mm
- from the lower contact to the end of the probe tube:	approx. 60 mm	approx. 60 mm
Option	G $\frac{1}{2}$ counter nut	G2 reducing nipple made of PP (see adjacent right-hand side picture)



NTR/S3/P/P/B/PVC



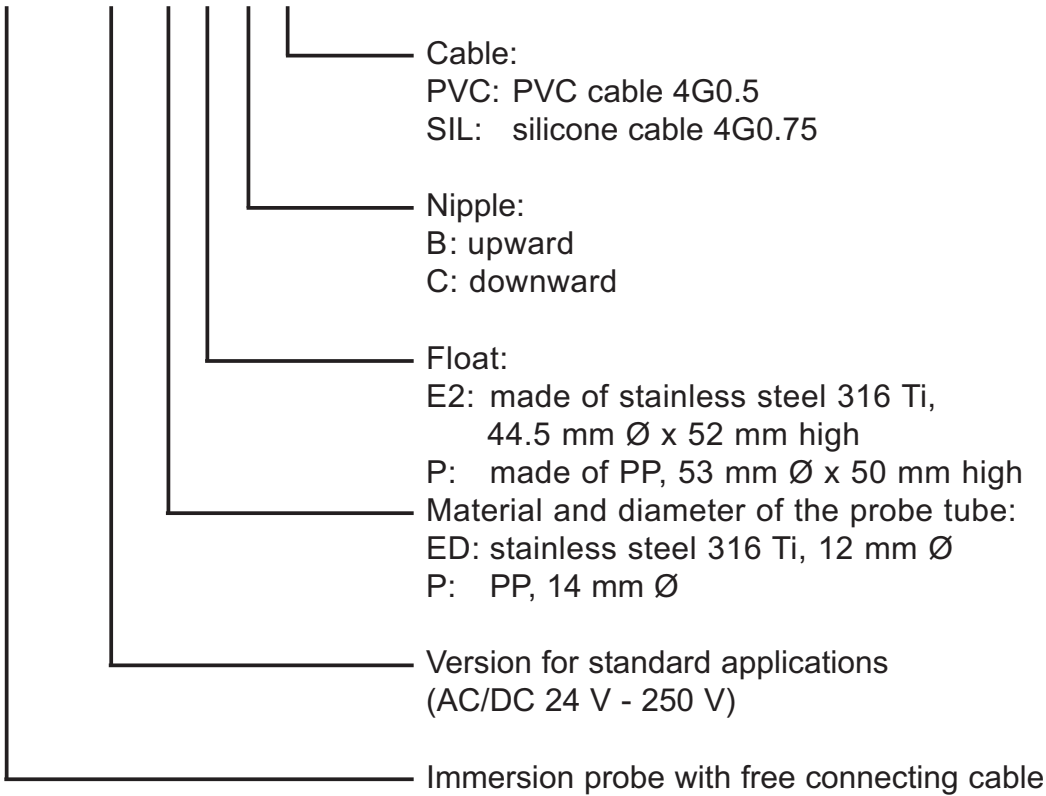
Switching status when the tank is full



NTR/S3/P/P/C/PVC
with G2 reducing nipple
made of PP (option)

Order reference

NTR/S3/./././.



Other versions on request:

- angled version for mounting from the side
- NTR/S1/... version for light current applications:

Models	NTR/S1/...
Application Switching voltage Switching current Switching capacity	light current applications AC/DC 1 V - 42 V AC 1 mA - 500 mA max. 20 VA

The units described in this documentation may only be installed, connected and started up by suitably qualified personnel!

Subject to deviations from the diagrams and technical data.

The details in this brochure are product specification descriptions and do not constitute assured properties in the legal sense.