

Electronic level relay ENR

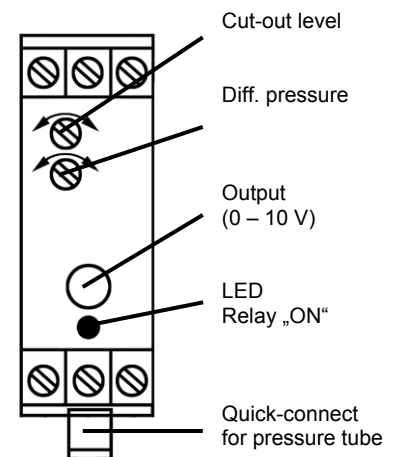
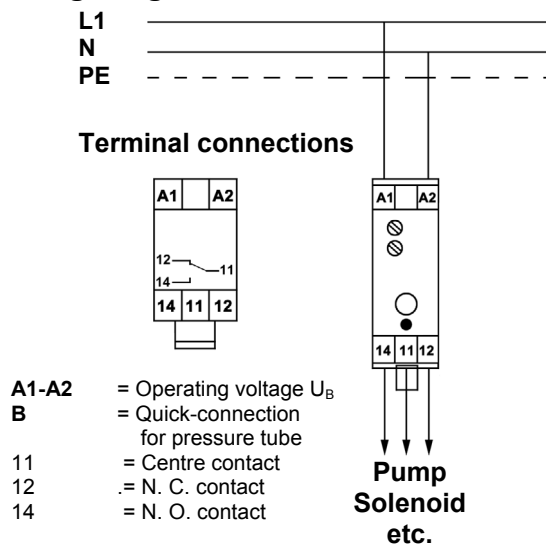
Electronic level relay with integrated relative pressure transformer for panel board mounting, quick-connect for pneumatic tube, two adjustable thresholds, relay output and isolating transformer according to VDE 0550.

Function: The device evaluates the pressure applied to the sensor. Should a pump for emptying a tank be connected to terminals 11 and 12, then the pump is switched on when the upper threshold is exceeded. The pump is switched off when falling below the lower threshold. Both thresholds are adjustable. The LED illuminates when the pump is running, whereby the relay is deactivated.



The connection, commissioning and maintenance of the electronic level relay must be under the guidance of appropriate personnel. Please note that for the construction and commissioning of electrical equipment relevant prevailing standards.

Wiring Diagram ENR



Technical Data ENR

Technical operating data	
Operating voltage U_B V-DC	230
Permissible operating voltage range	± 10 %
Operating voltage influence at ± 10 % operating voltage fluctuation	< 0,1 %
Duty factor ED	100 %
Measuring range	0,1 – 2 m
Setting range	0,01 m
Max. perm. level	10 m
Max.inaccuracy at 25°C	2,5 %
Permissible ambient humidity rel. humidity, non-condensing	10 % up to 90 %
Permissible storage temperature	-40°C up to 80°C
Clearance and creepage distances	VDE 0110
Working position	any position
Power consumption	max. 1 VA

Enclosure	
Material	RABS flameproof, UL-approved
Mounting	snap on 35 mm DIN-rail connector acc. to EN 50 035
Enclosure protection	IP 40
Protection against shock	acc. VBG 4
Terminals	Cage clamps
Cross section	2,5 mm ²
Weight	135 g
Male jack plug Jack 2.5 mm	2,5 mm

Pressure connection	
Quick connect suitable pneumatic tube e.g.	6 x 1 mm Festo PAN

Analogue output	
Analogue voltage signal max. 5 mA short-circuit proof	0 - 10 V

Power section	
Series voltage acc. to VDE 0660 and VDE 0110 Group C	250 V-AC
Maximum continuous current per contact	6 A-AC
Maximum switching capacity per contact	1.500 VA (AC) 50 W (DC)
Mechanical life Cycles	approx. 1×10^7
Electrical life (max. load) Cycles	approx. 2×10^5

Assembly and Adjustment

- 1.) For the correct function of the measurement system in the tightness of the connection significantly. Therefore, the tube must be cut straight and may not have scratches at the end. The tube must be inserted fully into the connector. Thereby unplug the ring! It should be noted that the tube has to be pushed over the first resistance of the plug connection. Only then the tube is completely connected.
- 2.) A closed wet bell with adequate volume must be attached to the measuring end if the system is operated as a closed measuring system. The following volumes are acceptable:
Pneumatic tube length: 5 m ► Volume 0.5 l
Pneumatic tube length: 20 m ► Volume 1.5 l
This will ensure a fully operational measuring system.
If the system is operated as an open measuring system, i.e. with an open wet ball, a suitable aeration or bubbler operation is recommended.
- 3.) If the system is operated with a suitable submersible bell instead of a bubbler system, it is advisable that the following be performed once a year:
 - a) Lower the fluid level below that of the bell, i.e. by activating the sip mode,
 - b) Pull the pneumatic tube together with the wet ball completely out of the fluid and submerge again
- 4.) Recommended tube Festo PAN 6 x 1



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