

Pneumatic Level Switch NP-25x Mounting and Startup Instructions

Important safety instructions please read and note

A precondition for perfect, safe operation of the electrode relay modules is proper transport, storage, mounting, correct installation and commissioning. Only persons with the necessary technical knowledge and qualification may carry out this work. The pertinent safety regulations for the installation and operation of electrical devices must be observed.

When installing or if maintenance work be carried out disconnect the device before beginning. Operate the device only under the conditions which are defined in the technical data. If the information in these instructions should prove insufficient, the manufacturer should be contacted.

Application

The pressure switches are suitable for the control of filling levels **only for unpressurised containers**. Used as Min./Max., filling contact sensor, emptying contact sensor, overflow protection, and dry running protection. The switching process is triggered by the increase pressure inside the sealed pipe. The medium will never touch the membrane switch (Viton). The pressure switch are suitable for aggressive, viscous, heavily contaminated or crystallizing liquids.

Mounting

The devices can be mounted on the container or respectively screwed on it. The connection between the pressure tube (Pitot tube) and the housing of the switch must be absolutely tight! A leak in the connection is to be avoided. Air escapes so shifts the switching point, in the most unfavorable case, the triggering of the switching process can not be initiated.

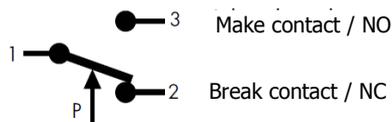
Technical data

See datasheet of the desired device section 7, 07-01-01 / 07-01-02

Electrical connection

If voltage >50 V, the container or/and the medium must be grounded or the pressure switch is to operate with low protective voltage.

Connection housing / Contact arrangement All electrical connections must be made without power !!



Contact protection

To ensure secure operation of float switches with contacts and to achieve a long life, one of the following protective circuit examples should be applied:

Protection circuit		Values AC			
For inductive load on DC	For inductive load on AC	Permissible values for RC elements			
		Voltage	Capacity	Resistor	Art.No.:
		24 V AC	0,1 µF	100 Ohm	ebe00450
		48 V AC	0,1 µF	220 Ohm	ebe00451
		115 V AC	0,1 µF	330 Ohm	ebe00452
		230 V AC	0,1 µF	470 Ohm	ebe00453

For capacitive load on DC (PLC Input)	Declaration
	<p>C_i = internal capacitance of a PLC, ect.</p>
	<p>R_s = protective resistor = 47 Ohm</p>

For capacitive load on AC (for electronic relays)	Declaration
	<p>C_i = internal capacitance of an electronic relay, ect.</p>
	<p>R_s = protective resistor: 220 Ohm for 230 V AC Relais</p>

Handling / Repair / Maintenance

The filling level sensors are measuring instruments and accordingly handled with care! Before using the pressure switch it must be ensured that the materials of the switch remain sufficiently resistant against the liquids to be monitored and all external influences, both chemically and mechanically. Generally, major forces such as impacts, knocks, bending or similar should be avoided. The only maintenance required is the overall inspection and functional check of the electrical system.