

# Elniva

## Level guards for dry goods



- Diaphragm guards for all types of granular and powdery products.

## Elniva membrane guards - general description

#### **Application**

Elniva membrane guards are used for remote monitoring of the degree of filling in silos and containers. They are also very suitable for overflow or overfilling protection in transportation systems, cleaning machines, dries, scales etc.

#### **Function**

The guards act as membrane actuating switches. A microcontroller is controlled by a rubber membrane, which is connected between an attachment and a back plate (pressure plate). The diaphragm is pressed by the material in the container, against the disc and the microswitch-lever.

### Protection against overload

The diaphragm movement is limited to about 3-4 mm. Therefore, the internal parts of the protection cannot be affected or damaged when the membrane is exposed to high material pressure in the container.

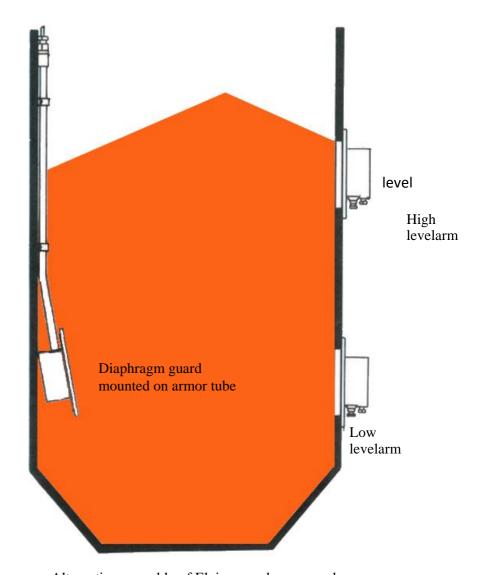
#### Pressure compensation

All guards are equipped with a device for compensating change in the guard's internal air pressure. Pressure changes occur in the space behind the membrane at its intrusion and backward. A filter cartridge of sintered bronze (1/8 "gas thread) is mounted on the guard to purge intake air when compensating. The air intake is replaced by a compensation membrane when the guard is to be mounted inside the container.

Excess pressure in the container cannot be compensated. The diaphragm guards can therefore not be used for pressure vessels.

## Mounting

Elniva membrane level guards can be mounted both outside and inside the container. Alternative placements of the guards are described by the sketches on this page.



Alternative assembly of Elniva membrane guards

## Elniva membrane guard series NV 14

## - For heavier grain material

Art no: 181-0509 Membrane level monitor NV14P

181-0511 Membrane Level Monitor with Compensation Membrane NV14P-KM

### **Examples of materials**

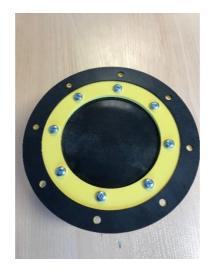
Series NV14 is primarily intended for heavier grain materials such as cereals, seeds, sand, single, coal, pellets, granules, beans, etc.

## Model NV 14P for mounting in container wall

This diaphragm guard is fitted with a flange with fastening holes and wall storage. The model is intended for recessed mounting in thin-walled containers. The guard is accessible from the inside of the container. An air intake with filter compensates pressure changes within the guard.



NV 14P with open lid. Article number: 181-0509



NV 14P / NV14P-KM membrane and fastening



NV 14P-KM. With compensation membrane. Article number: 181-0511

## Model NV 10P overflow protection

Item No: 181-0507 Diaphragm Level Monitor NV10P

This diaphragm guard is a mini version of the NV 14P model. The diaphragm has a small diameter and requires a distinct force to affect the microswitch. Model NV 10Pair therefore only intended for assembly in conveyors as overflow protection.





NV10, top.

NV10, bottom.

### Technical data

Material cover: Oven-made press-cast alloy.

Screws and party details: Nickel-plated brass

**Membrane:** Oil resistant nitrile rubber

Max temp:  $+60 \degree C$ Min temperature:  $+1 \degree C$ 

Micro Switch: 1-pole switching switch for max 15A at 440V AC or max 0.5A at 125V DC.

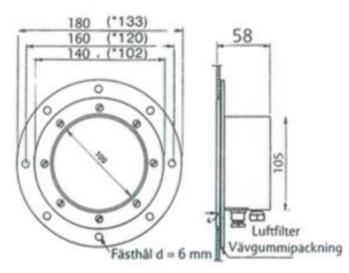
Cable input: 18.6 mm threaded connection. Model NV 14P is equipped with cable

gland, type PG11.

Enclosure: IP 54

IP 65 - version KM NV 14P - 0.8 kg

Weight with package: NV 14P - 0.8 kg NV 10P - 0.8 kg



#### Modell NV 14P with a flange

\*Building dimensions in brackets apply to NV10P

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