



# **Membrane level indicator**

### Membrane level indicator.....

As occasion demands, the level indicators **type MF** can be used as full, empty or demand indicator for bulk goods. This indicators are detecting the filling level in silos, containers, discharge pipes and vessels. They can be used as jam indicator at drains of screw conveyors, feeders and also at the input and output facilities of elevators.

They are qualified for dusty, powdery and granulated as well as grained bulk goods.

Membrane level indicators guarantee in any mounting position an absolute reliability and safe function, even under extreme conditions.

## MFB .....

- ► grain size up to 100 mm
- ▶ bulk density from 0,3 t/m³ to 2,5 t/m³



#### Materials

► housing aluminium

▶ membrane▶ mounting ringNBR, VITON or stainless steel▶ aluminium or stainless steel

**Signal contact** change-over contact,

potentialfree

Capacity

of the contact 4 A / 250 V AC

**Ambient temperature**  $-20 \text{ °C} \leq \text{Ta} \leq +80 \text{ °C}$ 

**Bulk temperature**  $-30 \text{ °C} \leq \text{Ta} \leq +200 \text{ °C}$ 

Type of protection IP40

IP53 (if the mounting position of the compensating filter is downwards)

IP65 (with stainless steel membrane)

Maintenance none

**Sensitivity** 100 g ... 500 g

## MFD....

- grain size up to 30 mm
- ▶ bulk density from 0,3 t/m³ to 2,5 t/m³



#### Materials

► housing GRP

► membrane NBR or VITON

mounting ring galvanized steel or stainless steel

**Signal contact** change-over contact,

potentialfree

Capacity

of the contact 4 A / 250 V AC

**Temperature range**  $-20 \, ^{\circ}\text{C} \le \text{Ta} \le +70 \, ^{\circ}\text{C}$ 

Type of protection IP65

Maintenance none

**Sensitivity** 60 g ... 200 g

# **Membrane level indicator**

## ATEX-Options .....

#### **Function principle**

Utilization of the bulk goods gravity. As the bulk goods touches the membrane, a pressure will be caused at the membrane. A signal switch registers this pressure and interprets it.

Suitable for all industrial fields.

### Ex types of protection

II 3D Ex tc IIIC T80°C

II 1/3D Ex ta/tc IIIC T63°C

(Example 11/2D Example 11/2D E

II 2G Ex ib IIC T6

## MFE,.....MFE-A,.....

 for simple applications as for example plastic granulate or granular bulk materials



#### **Materials**

► housing GRP

membraneMBR, VITON or stainless steelmounting ringgalvanized steel or stainless steel

**Signal contact** change-over contact,

potentialfree

Capacity

of the contact 4 A / 250 V AC

**Temperature range**  $-20 \text{ °C} \leq \text{Ta} \leq +60 \text{ °C}$ 

Type of protection IP40

IP53 (if the mounting position of the compensating filter

is downwards)

IP65 (with stainless steel membrane)

**Maintenance** none

**Sensitivity** 60 g ... 200 g

for use in potentially explosive gas atmospheres



#### Materials

housing aluminiummembrane stainless steelmounting ring stainless steel

**Signal contact** change-over contact,

potentialfree

Capacity

of the contact 4 A / 250 V AC

**Temperature range**  $-25 \text{ °C} \leq \text{Ta} \leq +80 \text{ °C}$ 

Type of protection IP66

Maintenance none

**Sensitivity** 60 g ... 200 g