

# Membrane level indicator



# MF

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## ..... 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/m<sup>3</sup> to 2,5 t/m<sup>3</sup>



### Materials

- ▶ housing aluminium
- ▶ membrane NBR, VITON or stainless steel
- ▶ mounting ring aluminium or stainless steel

### Signal contact

change-over contact,  
potentialfree

### Capacity

of the contact 4 A / 250 V AC

**Ambient temperature** -20 °C ≤ Ta ≤ +80 °C

**Bulk temperature** -30 °C ≤ Ta ≤ +200 °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/m<sup>3</sup> to 2,5 t/m<sup>3</sup>



### 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 °C ≤ Ta ≤ +70 °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
-  II 1/2D Ex ta/tb IIIC T83°C
-  II 2G Ex ib IIC T6

## MFE

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



### Materials

- ▶ housing GRP
- ▶ membrane NBR, VITON or stainless steel
- ▶ 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 °C ≤ Ta ≤ +60 °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

## MFE-A

- ▶ for use in potentially explosive gas atmospheres



### Materials

- ▶ housing aluminium
- ▶ membrane stainless steel
- ▶ mounting ring stainless steel

### Signal contact

change-over contact,  
potentialfree

### Capacity

of the contact 4 A / 250 V AC

### Temperature range

-25 °C ≤ Ta ≤ +80 °C

### Type of protection

IP66

### Maintenance

none

### Sensitivity

60 g ... 200 g