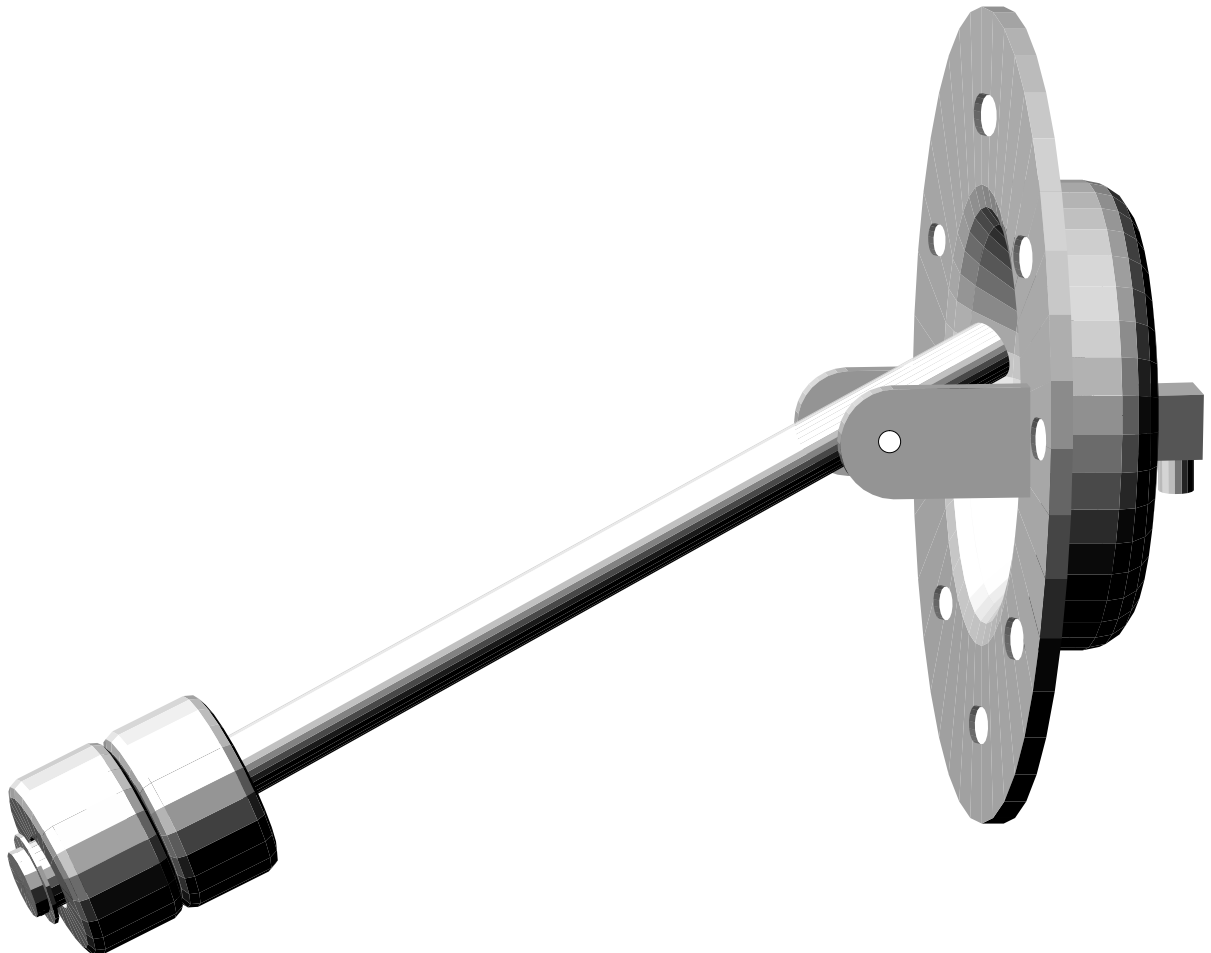


# Filling Level Sensor

for lateral mounting



## MWA 3

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# MWA 3 Filling Level Sensor

## Description

KROMA MWA 3 filling level sensors are designed to continuously measure liquid levels of tanks by means of a float for lateral mounting. The flange is made of stainless steel or copper, the lever of stainless steel or brass. The float is of polyamide or polyethylene.

The length L of the lever arm (order information) is dependent on the diameter of the tank. A magnet inside the float pipe serves to switch reed contacts which are potentiometer taps provided in the enclosure of the MWA. The signal available at the electrical output is an analogous resistance signal proportional to the filling level. The MWA 3 level sensor can be furnished with two integral limit switches for minimum or maximum levels. The limit switches are two electrically isolated make contacts with a common terminal (refer to terminal assignment).

A three-core cable permits direct connection of several KROMA BAZ level indicators, KROMA GWS limit switches or KROMA MWU measuring transformers to the resistor output of one KROMA MWA 3 level sensor.

## Special Features

- Completely made of stainless steel or copper
- Lateral mounting
- High degree of protection IP 65
- Integral limit switch
- Six-chamber safety float of polyamide or polyethylene (for drinking water)
- Tested according to German railways' standard BN 411002/EN 50155 (approved for use on rail vehicles)

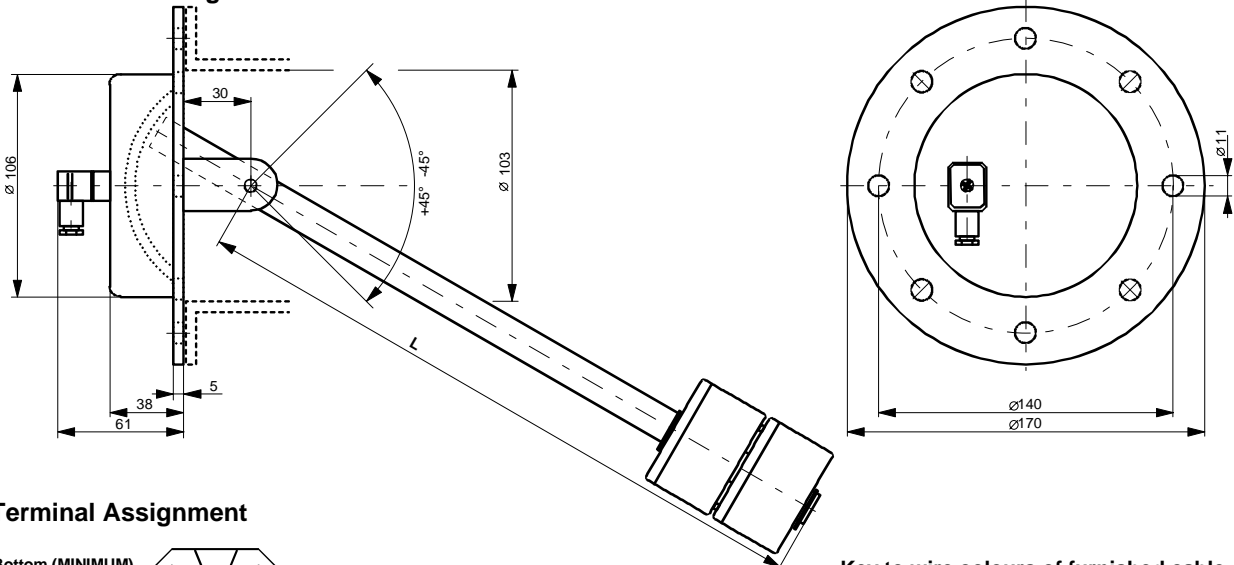
## Technical Data

Resistance transducer:	Approx. 2.5 k $\Omega$ in total
Supply current:	< 5 mA
Circuit:	Three-wire potentiometer
Limit switch:	Max. 48V ; 0.5A ; 20VA / W
Degree of protection:	IP 65
Lever arm:	Pipe $\varnothing$ = 16 mm, L <sub>max</sub> = 1 m ,
Connection:	Refer to outline drawings.
Liquid temperature range:	-30°C to 55°C
Storage temperature range:	-55°C to 55°C
Operating pressure:	Unpressurized (0.8 to 1.1 bar)
Density:	$\geq$ 800 kg/m <sup>3</sup>
Vibratory strength:	9.9 m/s <sup>2</sup> (2.3 – 100 Hz); 30 m/s <sup>2</sup> (50 Hz)
Shock resistance:	50 m/s <sup>2</sup>
Weight:	Approx. 1.5 kg

## Information required with order (typical order)

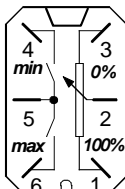
KROMA MWA 3 filling level sensor	<b>MWA 3 . 1 0 – 500 Ed</b>
Connecting elements	„1“ = round flange $\varnothing$ 170mm „2“ = flange plate 430x310mm
Limit switch	„0“ none ; „1“ min. and max. „2“ only min. ; „3“ only max.
length of float lever arm	L = <b>500</b> mm
material	„Ed“=stainless steel ; „Cu“=copper

## Outline Drawings



## Terminal Assignment

**Bottom (MINIMUM)**  
make contact 2  
for falling levels



resistance  
transducer in  
three-wire  
potentiometer  
circuit

total resistance  
about 2.5 k  $\Omega$

**Top (MAXIMUM)**  
make contact 1  
for increasing levels

## Key to wire colours of furnished cable:

1 - YELLOW	4 - GREY
2 - BROWN	5 - BLUE
3 - GREEN	6 - PINK

Subject to technical modifications.