

## Analog Transmitter + Switch output

# MONITOR 4.0



## OVERVIEW

### Operation

- The position of a magnetic float / piston is detected by means of Hall sensors and converted into an analog signal.

### Application

- Use in combination with float-type sensors for various flow media (see table on page 2)

### Features

- Non-volatile switch-point storage (retained after power interruption)
- Analog output (4-20 mA)
- Switch output (0/24 V, programmable via button press)
- Power-On- and Status-LED
- Stainless steel body

### Installation information

- The operating instructions for MONITOR 4.0 must be observed!
- Refer also to the applicable data sheets and operating instructions of the flow sensor!
- **Download: [www.meister-flow.com](http://www.meister-flow.com)**

## ■ OPERATING DATA

<b>Accuracy:</b>	± 1 % <sup>(1)</sup>
<b>Operating temperature:</b>	-20 °C - 70 °C
<b>Storage temperature:</b>	-20 °C - 70 °C

<sup>(1)</sup> The actual accuracy depends on the flow sensor used. On request the accuracy of the flow sensor used can be significantly increased by a customized calibration.

## ■ POSSIBLE COMBINATIONS\*

<b>Sensor</b>	<b>Transmitter</b>	<b>Combination</b>
DUM	+ MONITOR 4.0	= DUM/MONITOR 4.0
DUM/A	+ MONITOR 4.0	= DUM/A/MONITOR 4.0
DWM	+ MONITOR 4.0	= DWM/MONITOR 4.0
DWM/A	+ MONITOR 4.0	= DWM/A/MONITOR 4.0
RVM/U-1	+ MONITOR 4.0	= RVM/U-1/MONITOR 4.0
RVM/UA-1	+ MONITOR 4.0	= RVM/UA-1/MONITOR 4.0
RVM/U-2	+ MONITOR 4.0	= RVM/U-2/MONITOR 4.0
RVM/UA-2	+ MONITOR 4.0	= RVM/UA-2/MONITOR 4.0
RVM/U-4	+ MONITOR 4.0	= RVM/U-4/MONITOR 4.0
WY	+ MONITOR 4.0	= WY/MONITOR 4.0
DKM-1	+ MONITOR 4.0	= DKM-1/MONITOR 4.0
DKM/A-1	+ MONITOR 4.0	= DKM/A-1/MONITOR 4.0
DKM-2	+ MONITOR 4.0	= DKM-2/MONITOR 4.0
DKM/A-2	+ MONITOR 4.0	= DKM/A-2/MONITOR 4.0
DKME-1	+ MONITOR 4.0	= DKME-1/MONITOR 4.0
DKME/A-1	+ MONITOR 4.0	= DKME/A-1/MONITOR 4.0
DWM-L	+ MONITOR 4.0	= DWM-L/MONITOR 4.0
DWM/A-L	+ MONITOR 4.0	= DWM/A-L/MONITOR 4.0
RVM/U-L1	+ MONITOR 4.0	= RVM/U-L1/MONITOR 4.0
RVM/U-L2	+ MONITOR 4.0	= RVM/U-L2/MONITOR 4.0
RVM/U-L4	+ MONITOR 4.0	= RVM/U-L4/MONITOR 4.0

\* Further combinations are listed in the operating instructions.

## ■ MATERIALS

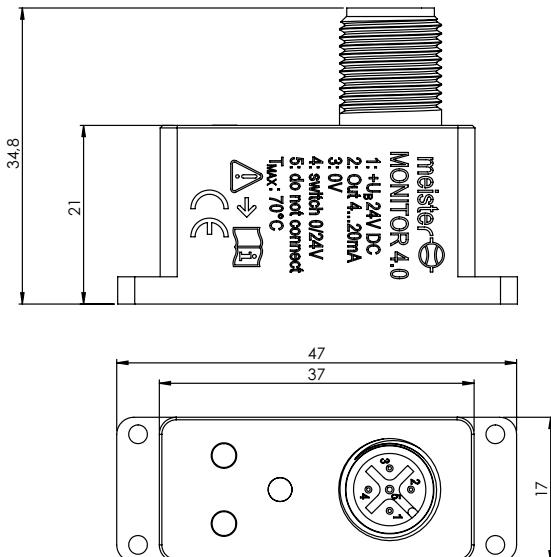
### **Stainless steel version, non-wetted parts**

Body:	1.4571
Light guide:	Polycarbonate
Button:	PDMS

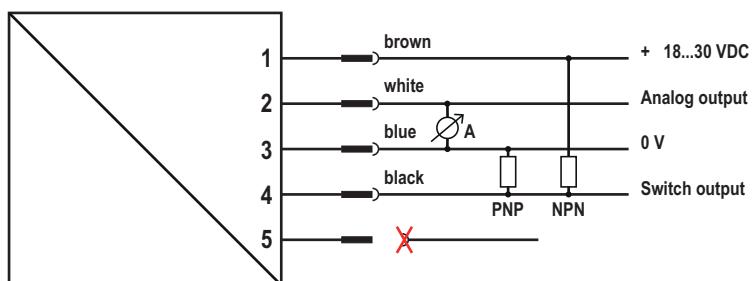
### **Aluminum version, non-wetted parts**

Body:	Aluminum, blue anodized
Light guide:	Polycarbonate
Button:	PDMS

## ■ TECHNICAL DRAWING



## ■ CONNECTION DIAGRAM



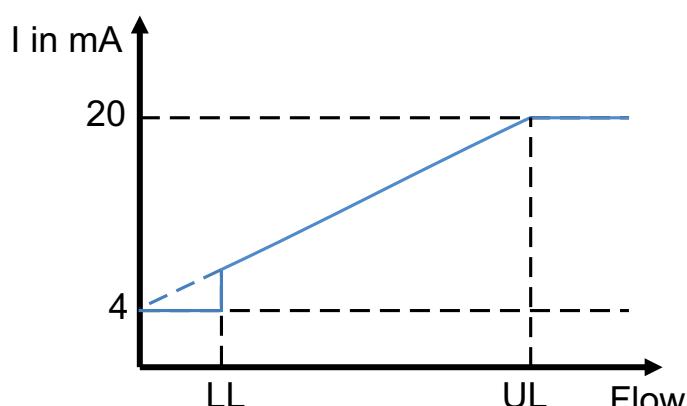
### Attention:

Pin 5 must not be electrically connected! We strongly recommend use of a four core cable.

The MONITOR 4.0 must not be removed from the basic unit. In case of a removal a loss of warranty is possible.

## ■ CHARACTERISTICS

### Current-Flow characteristic



LL: Lower limit of measuring range

UL: Upper limit of measuring range

# ELECTRICAL DATA

## Power supply

24 VDC (18...30 VDC)

## Power consumption (without load)

< 1 W

## Analog output

4...20 mA, max. load 500  $\Omega$

## Switch output

Load: max. 100 mA

## Hysteresis (electronic)

The switching hysteresis is about 0,8 mA.

## Hysteresis (mechanical)

The hysteresis of the flow is about 5 % of the upper flow limit.

## LED

LED "green" on: Power on

LED "yellow" on: Flow present

LED "yellow" off: No flow present

LED "yellow" blinking: Teaching / programming of the switch-point

## Switch point programming

"Teach-in" of the switch-off-point via button press (see operating instructions)

## Connection

For round plug M 12 x 1, 5 pin, A-Coded

## Ingress protection

IP 65/67

## Notes

The analog transmitter is configured to customer specifications. It is thus ready for immediate use without programming.

The switch output can be programmed via button press. Please refer to the operating instructions of the MONITOR 4.0.

Please note that the MONITOR 4.0-Electronics is calibrated to the flow sensor and cannot be replaced without recalibration!

For more information, please refer to the operating instructions for the analog transmitter MONITOR 4.0.

Also refer to the data sheets and operating instructions of the respective flow sensor!