- universal flowmeter with dynamic flap
- switching output and/or analogue output (4 - 20 mA/0 - 10 V)
- IP67 type of protection
- infinitely rotatable cable outlet for precise alignment
- robust stainless-steel housing

## PRINCIPLE

The circuitry of the omni is able to detect, display and convert the measuring values of the flow meter (3.5.XF.1). The output signal can be an analog signal (4..20 mA or 0..10 V) plus a programmable electronic max. or a min. switch. Analog output and programmable switch point is also available separate. A flow-proportional frequency output is also available. More options see page 2. The design of the devices totally in metal makes them applicable in almost any industrial measurement task.

## TECHNICAL DATA

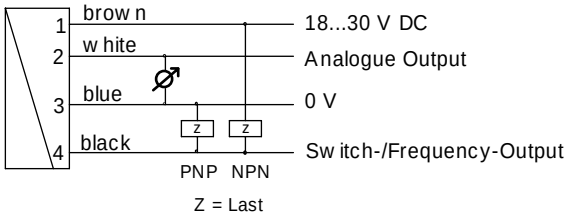
| | |
|---|---|
| **measurement range** | in different types 1..80 l/min (please see product information 3.5.XF.1 |
| **accuracy** | see product information 3.5.XF.1 |
| **operating pressure** | |
| **reproducibility** | 1% |
| **operating temperature** | 0…70°C with goose-neck 0...80°C |
| **storage temperature** | -20..80°C |
| **supply voltage** | 18..30 VDC |
| **power consumption** | <1 W |
| **analogue output** | 4(0)..20mA, 2(0)..10V across 500 Ohm resistor to 0V. |
| **switching output** | transistor output "push pull" short circuit proof, reverse polarity protected, $I_{out}$ = 100 mA max. |
| **display (only in case of switching output)** | yellow LED (ON = OK /OFF = alarm) |
| **connection** | at locking plug M 12x1, 4-pole |
| **protection class** | IP 67 |
| **materials** | |
| **in contact with media** | see product information 3.5.XF.1 |
| **electronic housing** | stainless steel 1.4305 |

## MOUNTING

The electronics housing is attached to the primary sensor. After installation the electronic head can be rotated so that the cable outlet can be aligned as desired.
For installation of the device in the pipeline the installation instruction of the XF-flow meter is to be observed (see data sheet 3.5.XF.1).

## TERMINAL ASSIGNMENT

Before the electrical installation, make sure that the supply voltage corresponds to the data provided!

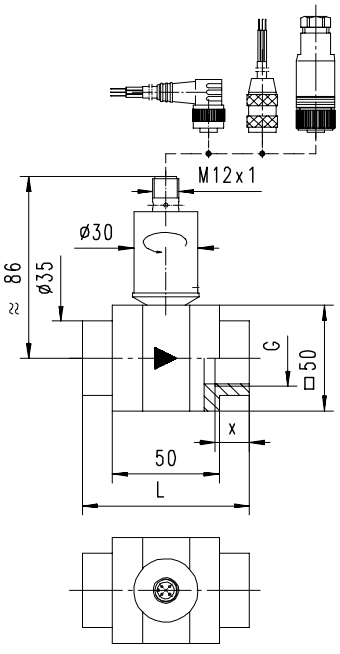



Please you use shielded cable, signal lines < 30m and power supply lines < 10m.

## PROGRAMMING

Designs with a limit switch have a magnetic contact by means of which the current measurement value can be assumed as a limit value. It is programmed by applying a magnet to the marking on the type plate for 0.5 to 2 seconds. If the contact time is too short or too long, no programming will take place (protection against magnetic fields). Immediately after programming, the switching output enters the OK state (LED on).

## DIMENSIONS




locking plug M12x1, 4-pole (accessory)

assembly dimensions see product information 3.5.XF.1

## NOMENCLATURE

| Example: | Flex- | XF | I | U | R | I |
|---|---|---|---|---|---|---|
| | A | B | C | D | E | F |

**A** sensor family:

| | | |
|---|---|---|
| Flex- | Flex-system | ● |

**B** for flowmeter

| | | |
|---|---|---|
| XF | flowmeter XF | ● |

**C** analogue output:

| | | |
|---|---|---|
| I | current output 4 - 20 mA | ● |
| U | voltage output 0 - 10 V | ● |
| K | no analogue output | ● |

**D** switsch output

| | | |
|---|---|---|
| U | push pull PNP and NPN | ● |
| K | no switching output | ● |

**E** switching signal:

| | | |
|---|---|---|
| L | minimum switch | ● |
| H | maximum switch | ❍ |
| R | frequency output | ● |
| K | no switching output | ● |

**F** inversion of output:

| | | |
|---|---|---|
| O | standard output | ● |
| I | inverted output | ● |

**Options:**

**working range analogue output:** ☐☐☐ l/min
(< measurement range of piston flow meter)

**working range frequency output:** ☐☐☐ l/min
(< measurement range of piston flow meter)

**end frequency (max. 2000 Hz)** ☐☐☐☐ Hz

**turn-on delay** (from alarm to OK) ☐☐ s

**turn-off delay** (von OK zu Alarm) ☐☐ s

**power-on delay** ☐☐ s
(time after the supply is created; in this time the switching output is not activated)

**switching output with permanent setting** ☐☐☐ l/min

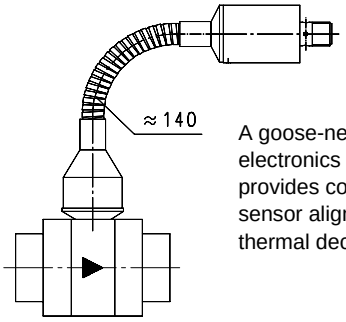
**special hysteresis** ☐☐ %
(standard = 2% F.S.)

**gooseneck** ☐

*In case of empty fields, the standard setting will be selected automatically.*

## RELATED PRODUCTS

**omni-XF**
Electronic with backlit LCD, current output and two electronic limit switches, parametrisable via setting ring gauge.




A goose-neck (optional) between the electronics head and the primary sensor provides complete freedom in the sensor alignment. This option also gives thermal decoupling between both units.

## ACCESSORIES

**Locking plug M12x1**

| K | PU- | 02 | S | G | S | | basic type / specification |
|---|---|---|---|---|---|---|---|
| K | | | | | | ● | assembled |
| KB04 | | | | | | ● | self makable cable 4-pole |
| | PU- | | | | | ● | material PUR |
| | | 02 | | | | ● | length 2 m |
| | | 05 | | | | ● | length 5 m |
| | | 10 | | | | ● | length 10 m |
| | | | S | | | ● | moulded-on plug |
| | | | | G | | ● | straight plug |
| | | | | W | | ● | angled plug 90° |
| | | | | | S | ● | shielded |

All technical changes reserved

●BASIC Standard ❍BASIC Programme option ❑VARIO Special option ⊕ PLUS Accessories ✕ not recommendable