



- \* flow switch/transmitter of low flow rates
- \* flow indicator without moving parts
- \* medium in contact with only one material
- \* analogue output, switching outputs
- \* clear, easily readable, backlit LCD display
- \* changeable units in the display
- \* low pressure loss
- \* different nominal diameter
- \* very fast reaction times for a calorimetric system
- \* linearized and temperature-compensated

### PRINCIPLE

The calorimetric sensor measures the flow velocity in liquids (see also the general description for calorimetric sensors 10.1.EF.)

The measurement is supported in temperature compensation and in signal processing (linearisation, filtering) by the use of a microcontroller.

Please take into account though that a probe measurement system does not always give very high accuracy! Here, a point measurement is taken as representing the complete flow cross-section in a pipe!

Please take all additional data from the omni-sensor-family 51.1.omni and data sheet 51.1.omni2. Sensor Range for all the other characteristics.

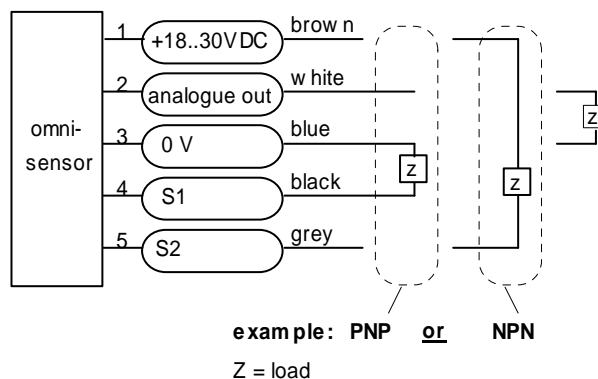
### TECHNICAL DATA

<b>range (water)</b>	6 mm-pipe	(0.001) 0.01..2 l/min
	8 mm-pipe	0.025..5 l/min
	10 mm-pipe	0.05..10 l/min
		( ) = special range on request
<b>temperature gradient</b>		4°C/s
<b>measurement range temperature</b>		0..70°C
<b>storage temperature</b>		(-20..100°C on request on request)
<b>pressure</b>		max. 10 bar (other on request)
<b>pressure loss</b>		max. 0.3 bar at max. flow
<b>connection</b>		at locking plug M 12x1, 5-pole

<b>protection class</b>	IP67
<b>weight</b>	appr. 200 g
<b>supply voltage</b>	24 VDC ±10%
<b>power consumption</b>	max. 100 mA
<b>limit values</b>	2 as minimum or maximum alarm adjustable limit values
<b>switching output S1 and S2</b>	2 push-pull-output (short circuit proof/ reverse polarity protected) $I_{out} = 100mA$ max.
<b>hysteresis</b>	adjustable
<b>display</b>	graphical LCD display (32x16 Pixel) backlit
<b>analogue output</b>	4..20 mA, max. load 500 Ohm or 0..10V. min load 1 kOhm
<b>materials</b>	media contact stainless steel 1.4305 other: PPS, PA66, brass nickel plated

### TERMINAL ASSIGNMENT

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



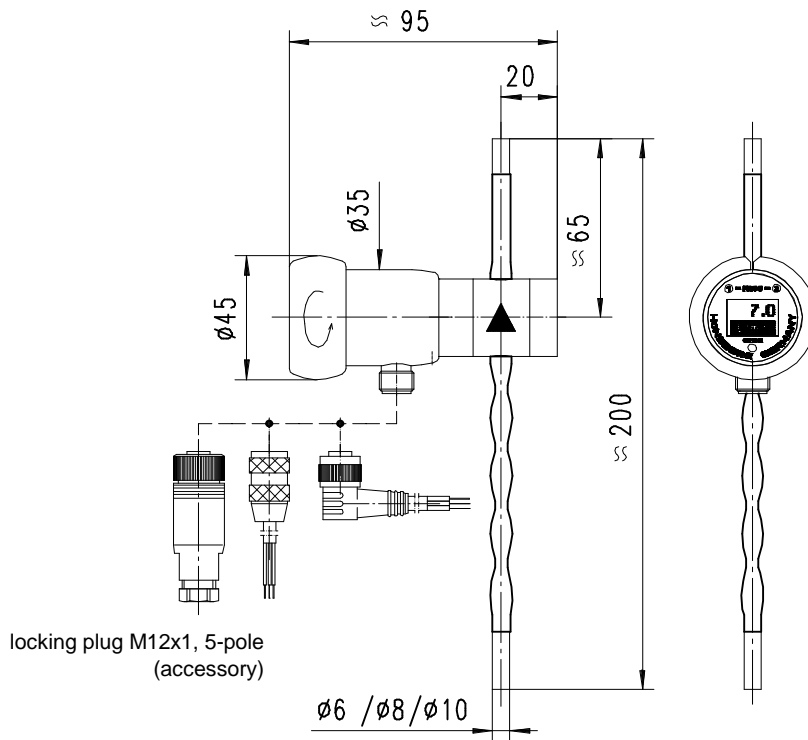
The switchpoints are changing to PNP or NPN depending to your interface automatically (push-pull).

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

### MOUNTING

To maintain the greatest possible interference insensitivity of the sensor, the flow should be from the bottom to the top (best ventilation even in case of the lowest flow velocity). For the connection, conventional crimp connectors, hoses with crimp fasteners, or Honsberg's own crimp connectors can be used. For the best possible insulation from the outside environment, insulating hoses that may not be removed can be used.

**DIMENSIONS**



**NOMENCLATURE**

omni-FIN	006	R	K	U	S	basic type specification
	006					● pipe Ø 6 mm / 0.5 mm wall thickness
	008					● pipe Ø 8 mm / 0.5 mm wall thickness
	010					● pipe Ø 10 mm / 0.5 mm wall thickness
		R				● pipe
			K			● stainless steel 1.4571
				U		● voltage output 0..10V
				I		● current output 4..20mA
					S	● connection for locking plug M12x1 , 5-pole

**INFORMATION**

flow sensor without display please see product information 10.2.EFIN.

**ACCESSORY**

Locking plug M12x1

K5	PU-	02	S	G	S	basic type specification
K5						● ready-made cable 5-pole
KB05						● self makable cable 5-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