

# Flow transmitter LABOPLUS-HR2



- Robust industrial-grade flowmeter
- To be used with water
- No inlet and outlet sections required
- One analog output (10V or 20 mA switchable)
- One switching output
- IO-Link interface

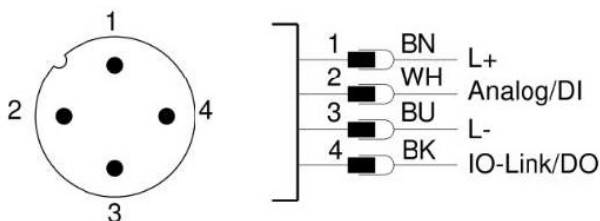
## Product description

The flow transmitters of the LABOPLUS-HR2 series work according to the principle of the spring-supported piston. A magnetically equipped piston is deflected by the flowing medium against the force of a spring. Deflection is a measure of flow rate. The position of the floating body is recorded outside the flow chamber with the help of magnetic field sensors.

The integrated electronics have an analog output and a switching output that alternatively can be used as a frequency output. In addition, it has an IO-Link interface, which enables digital communication with the sensor for configuration and to read out measured values.

## Connection diagram

Connector M12 x 1 pin assignment



## Specifications

<b>Measuring principle</b>	Spring-supported piston	
<b>Nominal size</b>	DN 32 / DN 40 / DN 50	
<b>Mechanical connection</b>	Female thread G 1¼ ... G 2 (other connections on request)	
<b>Measurement ranges</b>	5 ... 300 l/min (see table „Ranges“)	
<b>Measurement uncertainty</b>	±8 % F.S.	
<b>Media</b>	Water	
<b>Pressure loss</b>	~ 1 bar @ Q <sub>max</sub>	
<b>Compressive strength</b>	PS 200	
<b>Media temperature</b>	-20 ... +85 °C optional -20 ... +120 °C (with spacers)	
<b>Storage temperature</b>	-20 ... +80 °C	
<b>Materials (wetted)</b>	<u>Brass version</u>	<u>Stainl. steel version</u>
	CW614N nickelled	1.4571
	CW614N	1.4404
	1.4310	1.4310
	1.4305	
	Hard ferrite	Hart ferrite (PTFE coated)
<b>Supply voltage</b>	18 ... 30 V DC	
<b>Current consumption</b>	< 50 mA (SIO mode, unloaded outputs)	
<b>IO-Link specification</b>	IO-Link revision	V1.1.4
	Bit rate	COM2 (38400 bit/s)
	Minimum cycle time	20 ms
	SIO mode	yes
	Port class	A
	Block parameterization	yes
	Data storage	yes
<b>Analog output</b>	Current:	4 ... 20 mA 0 ... 20 mA
	Voltage:	0 ... 10 V 2 ... 10 V 0 ... 5 V 1 ... 5 V 0.5 ... 4.5 V
<b>Switching output</b>	transistor output push-pull, parameterizable as NPN o.C. Short-circuit and reverse polarity resistant I <sub>out</sub> = 100 mA max per output	
	Configurable on the device as	
	• Limit switch	
	• Frequency output	
	• Pulse output	
	• Signal output for preset counter	
<b>Electr. connection</b>	M12x1 circular connector, 4-pin	
<b>Protection class</b>	IP65 / IP67	
<b>Conformity</b>	CE	

## Product information

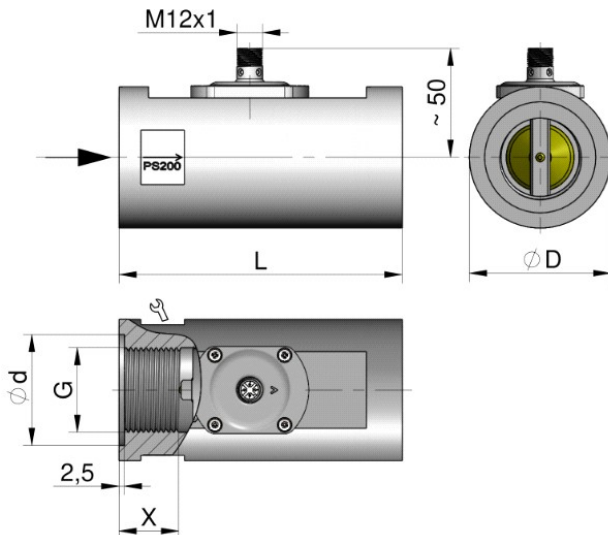
## LABOPLUS-HR2

### Ranges

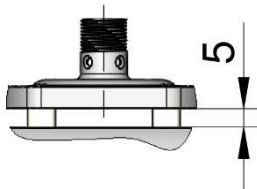
Range l/min (H <sub>2</sub> O)	Q <sub>max</sub> l/min (H <sub>2</sub> O)
5 ... 60	300
10 ... 100	300
15 ... 200	300
25 ... 300	300

### Dimensions and weights

Type LABOPLUS-	G	L mm	ØD mm	Ød mm	X mm	AF mm	Weight appr. kg
HR2-032	G 1 1/4	130	65	51	23	60	2.7
HR2-040	G 1 1/2	170	65	56	24	60	3.2
HR2-050	G 2	185	80	70	26	70	5.4



For the "Extended temperature range" option, PEEK spacers and mounting screws are used for thermal insulation of the body and electronics:



### Order code

LABOPLUS-HR2 -  1.  2.  3.  4.  5.  
**G**

● = standard ○ = option

<b>1. Nominal size</b>	
032	● DN 32
040	● DN 40
050	● DN 50
<b>2. Mechanical connection</b>	
G	● Female thread
<b>3. Housing material</b>	
M	● Brass
K	● Stainless steel
<b>4. Measurement range</b>	
060	● 5 ... 60 l/min
100	● 10 ... 100 l/min
200	● 15 ... 200 l/min
300	● 25 ... 300 l/min
<b>5. Option 1</b>	
H	○ Extended temperature range 120 °C (with spacers)

### Accessories

Cable with circular connector M12x1 / 4-pin (not included)