

# Flow transmitter OMNIPLUS-HR2V



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

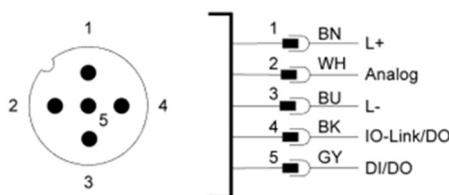
## Product description

The flow transmitters of the OMNIPLUS-HR2V 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 LCD display as well as an analog output and two switching outputs and can be easily configured by the user. In addition, it has an IO-Link interface that allows digital communication with the sensor.

## 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>	10 ... 160 l/min (see table „Ranges“)	
<b>Measurement uncertainty</b>	±10 % F.S.	
<b>Media</b>	Oils or other viscous media (30 ... 330 mm²/s)	
<b>Pressure loss</b>	~ 4 ... 7 bar @ Q <sub>max</sub> (see table „Ranges“)	
<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>	< 130 mA (SIO mode, unloaded outputs)	
<b>IO-Link specification</b>	IO-Link revision	V1.1
	Bit rate	COM2 (38400 bit/s)
	Minimum cycle time	20 ms
	SIO mode	yes
	Port class	A compatible
	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 outputs</b>	2 transistor outputs 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	
	<ul style="list-style-type: none"> <li>• Limit switch</li> <li>• Frequency output</li> <li>• Pulse output</li> <li>• Signal output for preset counter</li> </ul>	
<b>Display</b>	1.2" graphic LCD (transflective) 128 x 64 pixels backlight white, red on alarm message	
<b>Electr. connection</b>	M12x1 circular connector, 5-pin	
<b>Protection class</b>	IP65 / IP67	
<b>Conformity</b>	CE	

## Product information

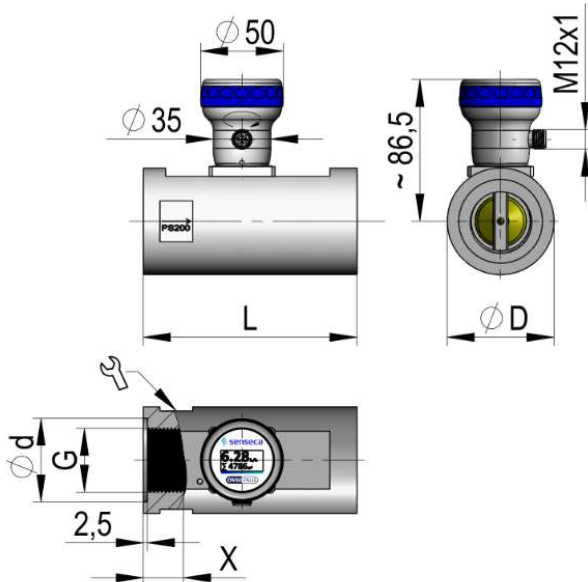
## OMNIPLUS-HR2V

### Ranges

Range l/min (oil 30 ... 330 mm <sup>2</sup> /s)	Q <sub>max</sub> l/min	Pressure loss bar @ Q <sub>max</sub> .
10 ... 80	100	4
20 ... 120	120	5
30 ... 140	140	5
50 ... 160	160	7

### Dimensions and weights

Type OMNIPLUS-	G	L mm	ØD mm	Ød mm	X mm	AF mm	Weight appr. kg
HR2V-032	G 1 1/4	130	65	51	23	60	2.8
HR2V-040	G 1 1/2	170	65	56	24	60	3.3
HR2V-050	G 2	185	80	70	26	70	5.5



### Order code

1. 2. 3. 4. 5. 6.  
**OMNIPLUS-HR2V** -  **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>	
080	● 10 ... 80 l/min
120	● 20 ... 120 l/min
140	● 30 ... 140 l/min
160	● 50 ... 160 l/min
<b>5. Option 1</b>	
H	○ Extended temperature range 120 °C (with spacers)
<b>6. Option 2</b>	
T	○ Electronics fully potted, for increased climatic stress (high humidity and/or strongly changing temperatures)

### Accessories

Cable with circular connector M12x1 / 5pole (not included)