

# Flow transmitter RRI-032RMH



- Simple and affordable flow transmitter for pipe diameters of DN32 or larger
- Plastic version
- Suitable for retrofitting in existing pipelines with tapping clamps or weld-on nozzles

### Technical data

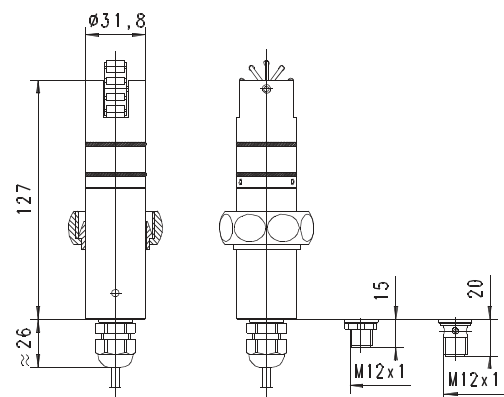
<b>Measuring principle</b>	Paddle wheel
<b>Nominal widths</b>	DN32 and larger
<b>Mechanical Connection</b>	Insertion probe with union nut (welded-on nozzle and tapping clamps available as accessories)
<b>Measuring range</b>	0.3...6 m/s
<b>Reproducibility</b>	± 1 %
<b>Media temperature</b>	0...+60 °C
<b>Pressure resistance</b>	PN 10
<b>Electrical connection</b>	2 m cable or for round plug connector M12x1, 4-pin
<b>Wetted materials</b>	
Housing	PVC
Rotor	PVDF / 1.4310 or titanium
Bearing	Iglidur X
Axis	Ceramics ZrO2-TZP
Seal	Fluororubber FKM
<b>Weight</b>	approx. 0.250 kg
<b>Protection rating</b>	IP 67
<b>Conformity</b>	CE

### Electrical data

<b>Signal outputs P and N</b>	Output signal PNP/NPN Auxiliary voltage 5...30 V DC Quiescent current consumption 10 mA Output current max. 200 mA resistant to short-circuit proof, reverse polarity protected
<b>Signal output A</b>	NAMUR output circuit (2-wire) Voltage 7...12 V DC Current consumption max. 7 mA reverse polarity protected
<b>Signal output I</b>	Current output 4...20 mA Auxiliary voltage 10...30 V DC Quiescent current consumption max. 50 mA resistant to short-circuit proof, reverse polarity protected
<b>Signal output U</b>	Voltage output 0...10 V Auxiliary voltage 15...30 V DC Quiescent current consumption max. 50 mA Output current max. 20 mA short-circuit proof, reverse polarity protected

<b>Signal output F</b>	Frequency output programmable up to 2 kHz Auxiliary voltage 10...30 V DC Quiescent current consumption max. 50 mA Push-Pull output circuit Output current max. 100 mA resistant to short-circuit proof, reverse polarity protected
<b>Signal output S</b>	Limit switch Auxiliary voltage 10...30 V DC Quiescent current consumption max. 50 mA Push-Pull output circuit Output current max. 100 mA resistant to short-circuit proof, reverse polarity protected

### Dimensions



Output signal	Cable 2 m	M12x1 without LED	M12x1 with LED
P/N	•	•	
A	•		
I/U/F/S			•

### Ranges

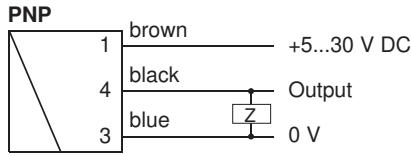
The measuring range of the flow transmitter is 0.3 ... 6 m/s. This results in approximated flow rates in pipes of various nominal widths according to the following table (not considering the flow profile).

DN	Measuring range	
	l/min	m³/h
32	15... 300	18
40	23... 460	27
50	35... 700	42
65	60...1200	72
80	90...1800	108
100	140...2800	168
125	220...4400	264
150	315...6300	378

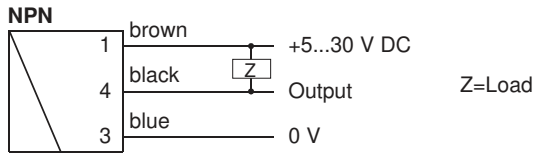
The output frequency of the non-adjustable frequency-producing sensors (version P, N or A) at full deflection is approx. 480 Hz. Versions with analog output (U or I) or adjustable frequency output (F) are available with limited measuring ranges (1, 2 and 4 m/s). The desired output frequency of the adjustable frequency output must be specified when placing an order (up to 2000 Hz).

**Connection diagram**

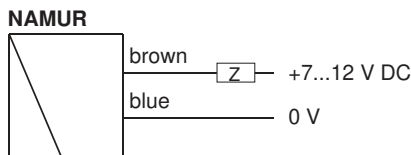
**Signal output P**



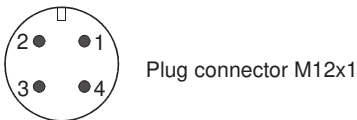
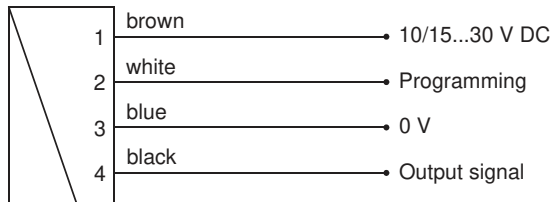
**Signal output N**



**Signal output A**

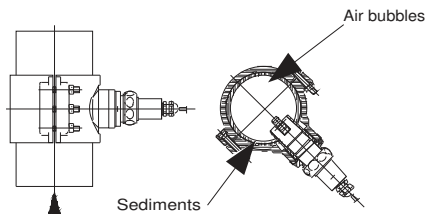


**Signal output I/U/F/S**



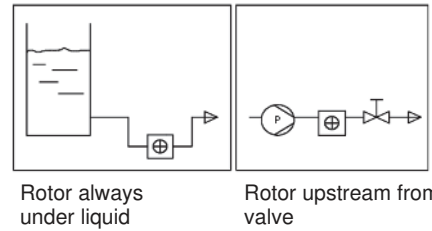
**Installation notice**

The sensor should be installed with run-in and run-out sections of 10 x D of the pipe diameter, in order to minimise the influence of vortices and turbulences.



The best installation position (low contamination, good venting) is with the direction of flow from bottom to top, or in horizontal piping with the sensor at an angle of 45° downwards. The union nut must be tightened to a torque of 30 Nm.

Installation method:



**Ordering code**

RRI-032RMH    1.   2.   3.   4.   5.

<b>1. Measuring range</b>					
000	Adjustable in the device				
001	fixed at 1 m/s				
002	fixed at 2 m/s				
004	fixed at 4 m/s				
006	fixed at 6 m/s				
<b>2. Seal material</b>					
V	Fluororubber FKM				
E	EPDM				
N	NBR				
<b>3. Rotor</b>					
10K	with 10 stainless steel clamps				
10T	with 10 titanium clamps				
<b>4. Signal output</b>					
P	PNP	•			•
N	NPN	•			•
A	NAMUR	•			•
I	Current output 4..20 mA	•	•	•	•
U	Voltage output 0..10 V	•	•	•	•
F	Frequency output programmable up to 2 kHz	•	•	•	•
S	Limit switch				•
<b>5. Electrical connection</b>					
K	2 m cable				
S	For round plug connector M12x1, 4-pin				

**Accessories**

- Round plug connector KB04 / cable K04PU
- Weld-on nozzle VKI-032K
- Tapping clamps BBI-032H
- Measuring tubes MH-032H
- Device configurator ECI-3

**Options**

- Special versions available on request