# Senseca Germany GmbH

Tenter Weg 2-8 | 42897 Remscheid | GERMANY Phone +49 2191 9672-0 | Fax +49 2191 9672-40 www.senseca.com | info@senseca.com | WEEE Reg. No. DE 93889386



# **Product Information**

# RRI-032RMH

# 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

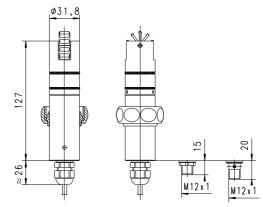
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Measuring principle	Paddle wheel
Nominal widths	DN32 and larger
Mechanical	Insertion probe with union nut
Connection	(welded-on nozzle and tapping clamps
	available as accessories)
Measuring range	0.36 m/s
Reproducibility	± 1 %
Media temperature	0+60 °C
Pressure resistance	PN 10
Electrical	2 m cable or for
connection	round plug connector M12x1, 4-pin
Wetted materials	
Housing	PVC
Rotor	PVDF / 1.4310 or titanium
Bearing	Iglidur X
Axis	Ceramics Zr02-TZP
Seal	Fluororubber FKM
Weight	approx. 0.250 kg
Protection rating	IP 67
Conformity	CE

## **Electrical data**

Signal outputs P and N	Output signal PNP/NPN o.C. Auxiliary voltage 1030 V DC Quiescent current consumption 10 mA Output current max. 200 mA resistant to short-circuit proof, reverse polarity protected
Signal output A	NAMUR output circuit (2-wire) Voltage 712 V DC Current consumption max. 7 mA reverse polarity protected
Signal output I	Current output 420 mA Auxiliary voltage 1030 V DC Quiescent current consumption max. 50 mA resistant to short-circuit proof, reverse polarity protected
Signal output U	Voltage output 010 V Auxiliary voltage 1530 V DC Quiescent current consumption max. 50 mA Output current max. 20 mA short-circuit proof, reverse polarity protected

Signal output F	Frequency output programmable up to 2 kHz Auxiliary voltage 1030 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
Signal output S	Limit switch Auxiliary voltage 1030 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  $0.3 \dots 6$  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				
DN	l/min	m³/h			
32	15 300	18			
40	23 460	27			
50	35 700	42			
65	601200	72			
80	901800	108			
100	1402800	168			
125	2204400	264			
150	3156300	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).

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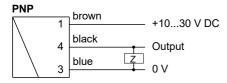


## **Product Information**

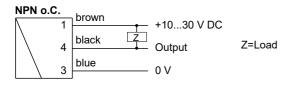
# RRI-032RMH

## Connection diagram

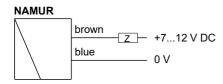
## Signal output P



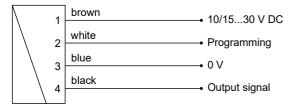
## Signal output N



## Signal output A



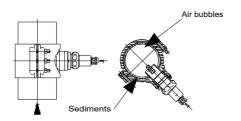
## Signal output I/U/F/S





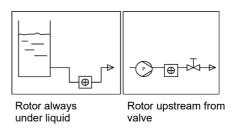
## Installation notice

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

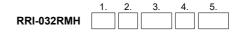


The best installation position (low contamination, good venting) is with the direction of flow from bottom to top, or in horizontal piping with the sensor at an angle of 45° downwards. The union nut must be tightened to a torque of 30 Nm.

#### Installation method:



## Ordering code



1.	Measuring range								
	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							
2.	Seal ma	Seal material							
	V	Fluororubber FKM	1						
	E	EPDM	1						
	N	NBR	1						
3.	Rotor		1						
	10K	with 10 stainless steel	1						
		clamps							
	10T	with 10 titanium clamps							
4.	Signal o	utput							
	Р	PNP	•					•	•
	N	NPN o.C.	•					•	•
	Α	NAMUR	•					•	
	I	Current output 420 mA	•	•	•	•	•		•
	U	Voltage output 010 V	•	•	•	•	•		•
	F	Frequency output				•			_
	ļ ·	programmable up to 2 kHz	_		_		_		Ľ
	S	Limit switch					•		•
5.	Electrica	al connection							
	K	2 m cable							
	S	For round plug connector M1	2x	1, 4	-pir	1			

## 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