

GENERAL CHARACTERISTICS

The sensor consists of a rotor vane that is rotated by the speed of the flowing medium. The speed of rotation is proportional to the volume flow per unit time. The rotation of the rotor is dedektiert by a inductive sensor.

- * no magnet parts
- * large wear liberty by high-quality ceramic axle and ceramic bearings
- * output circuit PNP, NPN or Namur
- * no straight line in-out necessary
- * easy measurement of flow rates
- * inherently safe properties
- * modular construction with the most versatile connection systems
- * connections can be plugged and rotated

Female- / male thread G3/8 / G1, nozzle Ø11 PVDF



RRI-025GVQ

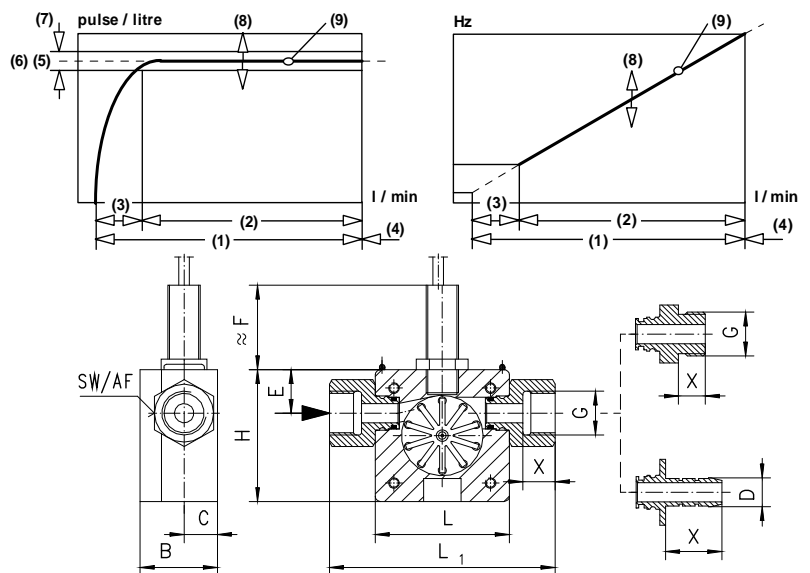
RRI-010GVQ

TECHNICAL DATA

	G	Type	PN bar	Qmax. recom. l/min H ₂ O	metering range l/min H ₂ O			pulse/ litre (6)	frequency Hz of full scale (10)	weight kg
					(1)	(2)	(3)			
DN10	G3/8	RRI-010...020	16	1.8	0.1- 1.5	0.5- 1.5	0.1-0.5	10200	255	0.20
		RRI-010...050	16	12	0.2-10	2.0-10	0.2-2	3345	558	0.20
		RRI-010...070	16	16.8	0.4-12	2.0-12	0.4-2	1755	351	0.20
DN25	G1	RRI-025...080	16	36	2- 30	3- 30	2- 3	1216	608	0.55
		RRI-025...120	16	72	3- 60	5- 60	3- 5	607	607	0.55
		RRI-025...160	16	120	4-100	6-100	4- 6	252	420	0.55

The measurements were taken from left to right with the sensor stationary using water at 25°C.

- (1) **measuring range total**
- (2) **measuring range specified**
- (3) **measuring range non linear**
- (4) **extended operating range**
increase abrasion, Δp > 0.5 bar
- (5) **pulse/litre** (specification on the identification plate on each sensor)
- (6) **average pulse/litre**
- (7) **tolerance ±3%** of the measured value
- (8) **variation ±10%** of pulse/litre data (5) in the charge
- (9) **reproducibility (±1% of full scale)**
is the repetitive accuracy of frequency related to l/min
- (10) **frequency max.** related to the applicable measuring range up to approx 0.5 bar pressure loss over the Sensor



media temperature max. 60 °C

MATERIALS

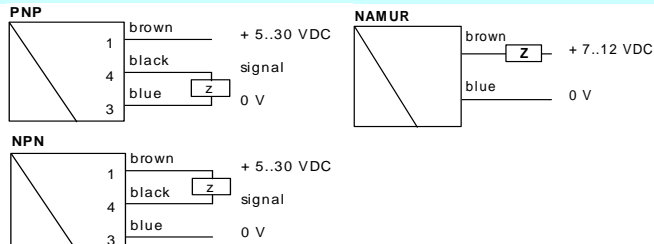
	G	Type	H mm	L mm	L1 mm	B mm	C mm	D mm	E mm	F* mm	SW mm	X mm	
housing		Questra / PPS (Fortron 1140L4)											
rotor		PVDF / 1.4310											
bearings		Iglidur X											
axle		ceramic ZrO ₂ -TZP											
seal		viton											
no medium contact		PVC cable 1.4305, 1.4301											
	DN10	G3/8	RRI-010G	50	50	84	29	12,5	-	16,5	38	22	12
			RRI-010A	50	50	84	29	12,5	-	16,5	38	22	14
			RRI-010T	50	50	96	29	12,5	11	16,5	38	-	21
	DN25	G1	RRI-025G	70	70	110	53	23	-	27,5	33	38	18
			RRI-025A	70	70	122	53	23	-	27,5	33	38	18
			RRI-025T	70	70	176	53	23	30	27,5	33	38	45

material options see nomenclature

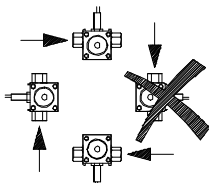
* dimension F at Namur 8 mm cancel!

ELECTRICAL DATA

quiescent current consumption 10mA / Namur max. 7mA
 max. output current 200mA / Namur max. 7mA
 sensor connection 2m cable or conection at locking plugs M12x1, 4-pole
 short-circuit proof yes
 reverse polarity proof yes
 protection class IP67



MOUNTING POSITION



METERING SUBSTANCES



NOMENCLATURE

For combinations see table "technical data"

RRI-	010	G	V	Q	020	V	10	K	P	K	basic type specification
	010										● DN 010
	025										● DN 025
		G									● female thread
		A									○ male thread
		T									○ hose nozzle
			V								● connection material PVDF
			M								○ connection material brass Ms58 nickel plated
			K								○ connection material stainless steel 1.4305
				Q							● housing material Questra/PPS
				V							● housing material PVDF
				A							○ DN 10 housing material PPS with transparent cover PSU
					020						● flow diameter Ø 2
					050						● flow diameter Ø 5
					070						● flow diameter Ø 7
					080						● flow diameter Ø 8
					120						● flow diameter Ø12
					160						● flow diameter Ø16
						V					● seal viton
						E					○ seal EPDM
						N					○ seal NBR
							10				● rotor with 10 clamp
							02				○ rotor with 2 clamp
							05				○ rotor with 5 clamp
								K			● clamp materal stainless steal 1.4310
								T			○ clamp materal titanium
									P		● PNP output
									N		● NPN output
									A		○ Namur output
									E		● ouput at suburb electronics (e.g. omni-RR)
										K	● 2 m cable
										S	○ connection at locking plugs M12x1, 4-pole

special applications: Switching output, frequency converter, current output and omni/flex processor

COMBINATIONS

omni-RR

local electronic unit,
 2xNPN and PNP switch
 4(0)..20mA output
 graphical LCD display
 with flashing LED
 program ring



further transformers

Flex switching and frequency exit, 0..10V or 4..20mA, pnp, npn
 ESA1 electronic monitoring unit
 ESK2 2 switchpoints - supply 24 V DC
 ESK3 1 switchpoint - supply 230 V AC
 conceived for safety-relevant applications
 EFFS switch output
 EFFI current output 4(0)..20mA
 EFFF frequency output



All technical changes reserved

●BASIC Standard ○BASIC Programme option □VARIO Special option ⊕ PLUS Accessories ✗not recommendable