UK Flowtechnik

Specialists in flow metering, pumps, couplings and process measurement equipment

PRODUCT DATASHEET

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RN3, 6/10/15/20,000 PSI Axial Turbines

The RN3 series high pressure axial turbine flow meters are ideal for high pressure hydraulic applications with either mineral, synthetic or water based fluids. They are machined from a solid billet with either BSPP female for 420 Bar, NPT female for 690 Bar or MP connections for 1034 Bar & 1380 Bar pressure ratings.

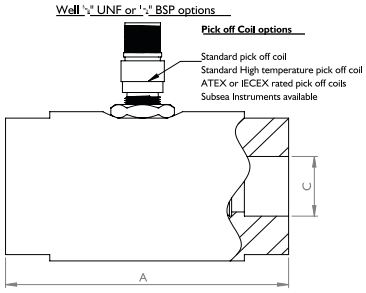
Features & Benefits

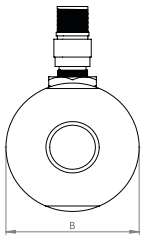
- BSPP, NPT or MP connections
- Safe Area, Intrinsically Safe and Flame Proof designs
- Tungsten bearings for reliability and long life
- Options for Super Duplex rotor and Nickel/Tungsten bearings for sea water operation
- Options for directly mounted amplified pulse, signal converter or displays

Technical Data

	15/0.7	15/1	15/2	20/5	10/8	25/11	25/15	25	32	40	50
Flow Range l/min	0.7-7	1-10	2-20	5-50	8-80	11-110	15-150	25-250	45-450	67-670	110-1,100
Connection Size (SP585 BSPP female)	½"			¾"		not available	1"		1.1/4"	1.1/2"	not available
Connection Size (SP317 NPT female)	½"			¾"		1"			1.1/4"	1.1/2"	2"
Connection Size (SP555 & SP555A, MP female)	9/16"	9/16" or ¾"	¾"		1"	1" (not available for SP555A model)	not available				
Meter Factor (Pulses per litre)	10,600	6,000	3,000	1,080	1,080	655	520	362	102	72	41
Body & Turbine Hangars Material	316 Stainless Steel (SP5858, SP317 model), 316 CW Stainless Steel with 316 Stainless Steel Hangars (SP555 & SP555A models)										
Rotor Material	431 Stainless Steel (option for Ferralium 255/Super Duplex)										
Shaft/Bearing Material	Tungsten (Seawater resistant version with Ferralium rotor)										
Linearity	+/- 2% of Reading	+/- 1% of Reading		+/- 0.5% of Reading							
Max Pressure	420 Bar (SP585), 690 Bar (SP317), 1034 Bar (SP555), 1380 bar (SP555A model)										
Max Temperature	110°C, 232°C high temperature version (SP555 & SP555A consult connection rating for max temperature)										
Output	mV Sine-Wave inductive pick-up (options for high temperature, ATEX/IECEx Intrinsically safe or ATEX Intrinsically Safe/Flame Proof dual certified pick-ups)										
Options	Amplified pulse output, 4-20 mA output, directly mounted battery powered displays (ATEX/IECEx versions)										

Dimensional Data





	A (SP585 & SP317)	A (SP555 & SP555A)	B (SP585 & SP317)	B (SP555 & SP555A)	C (SP585)	C (SP317)	C (SP555 & SP555A)
RN3/15/0.7	100	101.6	50	50	½"BSPP	½" NPT	9/16" MP
RN3/15/1	100	101.6	50	50	½"BSPP	½"NPT	9/16"MP
RN3/15/1	/	110	/	50	/	/	¾" MP
RN3/15/2	100	110	50	50	½"BSPP	½"NPT	¾" MP
RN3/20/5	100	130	63.5	50	¾"BSPP	¾" NPT	¾" MP
RN3/20/8	100	130	63.5	54	¾"BSPP	¾" NPT	1" MP
RN3/25/11	128	143	70	54	1"BSPP	1" NPT	1"MP
RN3/25/15	128	/	70	/	1"BSPP	1" NPT	/
RN3/25	128	/	70	/	1"BSPP	1" NPT	/
RN3/32	170	/	80	/	1.1/4"BSPP	1.1/4" NPT	/
RN3/40	170	/	90	/	1.1/2"BSPP	1.1/2" NPT	/
RN3/50	180	/	114	/	/	2" NPT	/

Ordering Information

RN3	/	25	/	SP585	/	R5	-	

Product Identifier

316 Stainless Steel Turbine Flowmeter	RN3

Rotor Options

431 Stainless Steel Rotor	- -
Ferralium 255 (super Duplex) Rotor	A

Flow Range l/min

0.7-7	15/0.7
1-10 (available in 9/16" or ¾" MP for SP555 & SP555A models)	15/1
2-20	15/2
3-30	15/3
5-50	20/5
8-80	20/8
10-110 (not for SP555A)	25/11
15-150 (not for SP555 or SP555A)	25/15
25-250 (not for SP555 or SP555A)	25
45-450 (not for SP555 or SP555A)	32
67-670 (not for SP555 or SP555A)	40
110-1,100 (not for SP585, SP555 or SP555A)	50

Pressure Rating

Max 420 Bar (BSPP female connections)	SP585
Max 690 Bar (with NPT female connections)	SP317
Max 1034 Bar (with MP female connections)	SP555
Max 1380 Bar (with MP female connections)	SP555A

Pick-up & Integral Options

Standard Pick-up (mV sine-wave output, Mil-plug, Max 110°C)	- -
ATEX EEx ia Pick-up (mV sine-wave output, 300mm flying lead [consult factory for longer lengths] Max 110oC)	EX
ATEX dual EEx d/EEx ia Pick-up (C/W EEx d enclosure with ½" NPT cable entry)	EXD
High Temperature Pick-up, max 232°C (mV sine-wave output, Mil-plug, Max 110oC)	HT
Amplified Pulsed Output (12-24 Vdc, square-wave output with 4m cable)	PPW
4-20 mA Output (2 wire output, enclosure and bracket mount directly on the meter)	FC7
RT14 backlit rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight]*	R5
Intrinsically safe RT14 backlit rate totaliser with all outputs (GRN housing) [scaled pulse, alarms, 4-20mA, backlight][IECEx & ATEX approved]*	R6
RT40 backlit rate totaliser with all outputs (GRN housing) [scalable pulse output, backlight]*	R7