

Coriolis Coriolis Flow Meters

RCT1000 with RCS018...300 Sensors

DESCRIPTION

The RCT1000 Coriolis mass flow meter identifies flow rate by directly measuring mass flow and density of fluids over a wide range of process temperatures with a high degree of accuracy. The unobstructed, open flow design makes it suitable for a variety of fluids such as slurries and other viscous, nonconductive fluids that are difficult to measure with other technologies.

APPLICATIONS

The Coriolis design and measurement principle allows the meter to be an exceptional device in measuring:

- Oil and fuels
- Homogeneous suspensions and slurries
- Adhesives, glues or binding materials
- Coatings and hardeners
- Dyes, fragrances, vitamins and other additives
- Vegetable oils and fats

OPERATION

Coriolis flow meters simultaneously measure mass flow rate, density and temperature. As fluid flows through the vibrating sensor tube, forces induced by the flow cause the tube to twist slightly. These small deflections are measured by carefully placed detectors. A phase shift occurs between detector signals that is directly proportional to mass flow rate. As the fluid density varies, the resonant frequency at which the tube vibrates changes, which is also measured by the detectors. These larger sensors have two tubes that are vibrated in opposing directions in order to reduce the effect of process vibration on the flow measurement. Temperature is measured by an internal RTD in order to calculate thermal effects on the tube vibrating frequency and can be used as a measurement output.

CONTROLS SYSTEM INTEGRATION

RCT1000 transmitters provide a variety of means to integrate the meter's output into new and existing operations. The batch and PID functionality enables direct control of devices, such as valves, by use of digital or analog outputs. Additionally, programmable digital outputs can indicate low and high alarm conditions. Network options are available including EtherNet/IP, Modbus TCP/IP and Modbus RTU.



MAINTENANCE

With no internal moving parts, the vibrating tube design has little impact on mechanical wear, resulting in a longer life expectancy and in fewer repairs than many other flow technologies.

FLUID DIAGNOSTICS

RCT Console software offers much more than configuration features. Users can obtain advanced data logging and performance trending analysis, as well as system verification provided by the unique HealthTrack feature, which captures critical operation parameters.

ADVANTAGES

- Highly accurate direct measurement of:
 - ♦ Mass flow
 - ♦ Density
- Derive concentration of homogenous liquids containing two components
- Open flow path
- No straight-run requirements
- Low maintenance operation
- Flexible integration options
- Advanced fluid diagnostic software



Product Data Sheet

SPECIFICATIONS

The complete remote mount metering system consists of a sensor, a transmitter, and a cable assembly. Each component must be purchased separately:

System Specifications

		RCS018, RCS025, RCS05	0 (option 2)	$\pm 0.2\%$ of reading $\pm 0.05\%$ of full scale	
Uncertainty Density Repeatability Zero Stability Safety Certifications	Mass Flow Rate (Liquids)	RCS100, RCS200, RCS30	0 (option 1)	±0.1% of reading ±0.025% of full scale	
		RCS018300 (option 6)		±0.1% of reading*	
Density	RCS018, RCS025, RCS050	±0.12486 lb/ft3 (0.002 g/	/cm³)		
Density	RCS100, RCS200, RCS300	±0.03121 lb/ft3 (0.0005 g	g/cm³)		
Repeatability	RCS018, RCS025, RCS050, RCS100, RCS200, RCS300	$\pm 0.05\%$ of reading \pm zer	o stability		
	RCS018, RCS025, RCS050	±0.05% of full scale			
Uncertainty Mass Flow Rate (Liquids) RCS018, RCS025 Density RCS018, RCS025, RCS050 ±0.12486 lb/ft ³ Repeatability RCS018, RCS025, RCS050 ±0.03121 lb/ft ³ Repeatability RCS018, RCS025, RCS050, RCS050, RCS100, RCS200, RCS100, RCS200, RCS100, RCS200, RCS100, RCS200, RCS100 ±0.05% of readi Zero Stability RCS018, RCS025, RCS050 ±0.05% of full st RCS100, RCS200, RCS200, RCS300 (option 1) ±0.025% of full st RCS100, RCS200, RCS300 (option 1) ±0.025% of full st RCS100, RCS200, RCS300 (option 1) ±0.025% of full st RCS100, RCS200, RCS300 (option 1) ±0.025% of full st RCS100, RCS200, RCS300 (option 1) ±0.025% of full st RCS100, RCS200, RCS300 (option 6) ±0.360 lb/min (theorem theorem	RCS100, RCS200, RCS300 (option 1)	±0.025% of full scale			
	±0.123 lb/min (3.35 kg/ł	g/hr)			
	RCS200 (option 6)	±0.360 lb/min (9.79 kg/hr)			
	RCS300 (option 6)	±0.356 lb/min (9.68 kg/hr)			
	Ordinary Location	Remote mount	CAN/CSA C	22.2 No. 61010–1-12	
		$ \begin{array}{llllllllllllllllllllllllllllllllllll$	x/Ex db ia IIB T4 Gb proof for Cl I Div 1 Grp CD with Safe Sensor for Cl I Div 1 Grp CD		
Safety Certifications	cCSAus		x/Ex db [ia Ga] IIB T6T3 Gb roof for Cl I Div 1 Grp CD		
Incertainty Mass Flow Rate (Liquids) RCS018, RCS02 RCS100, RCS20 RCS100, RCS20 Density RCS018, RCS025, RCS050 ±0.12486 lb/fti RCS100, RCS200, RCS300 Density RCS018, RCS025, RCS050, RCS100, RCS200, RCS300 ±0.03121 lb/fti ±0.05% of read Repeatability RCS018, RCS025, RCS050, RCS100, RCS200, RCS300 ±0.05% of full RCS018, RCS025, RCS050 ±0.05% of full ±0.05% of full RCS100, RCS200, RCS300 (option 1) ±0.025% of full ±0.025% of full RCS100, RCS200, RCS300 (option 6) ±0.123 lb/min RCS300 (option 6) ±0.356 lb/min RCS300 (option 6) ±0.356 lb/min RCS300 (option 6) ±0.356 lb/min Remote moun Grade CCSAus Remote transm Remote transm Remote transm ATEX / IECEx Integral moun Remote transm Remote sensoi Density Measurement Elowing, referenced API, Brix, Baume and pet oil Remote sensoi	Remote sensor	CI I, Zn 0 AEx/Ex ia IIB T6T3 Ga Intrinsically Safe for CI I Div 1 Grp CD			
		Integral mount	ll 2 G Ex db	ia IIB T4 Gb	
Uncertainty Mass Flow F Density RCS018, RC: Repeatability RCS018, RC: Zero Stability RCS100, RC: RCS100, RC: RCS018, RC: RCS100, RC: RCS018, RC: RCS100, RC: RCS100, RC: RCS100, RC: RCS100, RC: RCS200 (op RCS300 (op Safety Certifications Ordinary Lo ATEX / IECE Density Measurement	ATEX / IECEx	Remote transmitter	II 2 (1) G Ex db [ia Ga] IIB T6T3 Gb		
		Remote sensor	ll 1 G Ex ia ll	B T6T3 Ga	
Density Measurement	Flowing referenced API Brix Baume	and net oil			

 Density Measurement
 Howing, referenced, API, Brix, Baume and net oil

 *
 When flow rate is less than zero stability (lb/min) * 1000, accuracy = zero stability / flow rate.

Flow Rate Specifications

Model	Nominal Line and	Number of Flow	Flow	Range	Volumetric Equivalent 1g/cm ³		
	Equivalent Pipe Size	Tubes	lb/min	kg/hr	gal/min	l/h	
RCS018	1/2 in., 3/16 in.	2	020	0544	2.4	544	
RCS025	1/2 in., 1/4 in.	2	040	01088	4.8	1088	
RCS050	1/2 in., 1/2 in.	2	0220	05987	26	5987	
RCS100	1 in.	2	01000	027,216	120	27,716	
RCS200	2 in.	2	01700	046,266	204	46,266	
RCS300	3 in.	2	05200	0141,520	623	141,520	

Sensor Specificati	ons	Maximum Allowable Pressure (by Connection Type)							
	Model	NPT	Class 150 Flange	Class 300 Flange	Class 600 Flange	DN PN40	Tri-Clamp		
	RCS018	3450 psi (238 bar)	275 psi (19 bar)	720 psi (49.6 bar)	995 psi (68.6 bar)	40 bar (580 psi)	200 psi (14 bar)		
Sensor Specifica Pressure Wetted Materials	RCS025	3450 psi (238 bar)	275 psi (19 bar)	720 psi (49.6 bar)	995 psi (68.6 bar)	40 bar (580 psi)	200 psi (14 bar)		
Pressure	RCS050	3320 psi (229 bar)	275 psi (19 bar)	720 psi (49.6 bar)	995 psi (68.6 bar)	40 bar (580 psi)	200 psi (14 bar)		
	RCS100	2150 psi (148 bar)	275 psi (19 bar)	720 psi (49.6 bar)	995 psi (68.6 bar)	40 bar (580 psi)	200 psi (14 bar)		
	RCS200	2200 psi (152 bar)	275 psi (19 bar)	720 psi (49.6 bar)	995 psi (68.6 bar)	40 bar (580 psi)	200 psi (14 bar)		
	RCS300	—	275 psi (19 bar)	720 psi (49.6 bar)	—	40 bar (580 psi)	200 psi (14 bar)		
Wetted Materials	Standard			316L stainl	ess steel				
Temperature	Fluid Range	Hazard	C Hazardous Location Se lous Location Sensor v	General Safety: -403 ensor with Integral Mo with Remote Mount Tra TEMP CODE T6 (85° C) T5 (100° C) T4 (135° C) T3 (200° C)	92° F (-40200° C) unt Transmitter: -4 ansmitter: -4359° F FLUID TEMP (MAX) 67° C 82° C 117° C 182°C	140° F (–2060° C) (–20182° C) as fc	llows:		
	Accuracy			±1.8° F	(1° C)				
	Repeat- ability			±0.54° F ((0.3° C)				
Process Connections	NPT (RCS0	18200), Class 150	Flange, Class 300 Flar	nge, DN PN40, Tri-Clar	np				
Conformance	NACE MR0	175/ISO 15156							
Pressure Standards/Approvals	Canadian F sizes 2 in. (Registration Number 60.3mm) and up, an	· (CRN); ATEX and ger d Sound Engineering	eral area sensors: PEL Practice (SEP) for oth	D 2014/68/EU, Group ler sizes	1, Category II, Mod	ule D1 for line		

Transmitters

		Model					
Feature		RCTN	RCTX	RCTX with Display			
Enclosure		NEMA 4 (IP65); powder coated aluminum, polycarbonate, urethane and stainless steel	NEMA 4X (IP66); powder coated aluminum, polycarbonate, urethane and stainless steel without glass window	NEMA 4X (IP66); powder coated aluminum, polycarbonate, urethane and stainless steel with glass window			
Power Requirements		115/230V AC; ±15% 50/60 Hz 25W maximum		_			
Ambient Tempera		2020V DC; 13VV IIIdXIIIIUIII		4 140° E (20 60° C)			
Amplent lempera	llure	14138 F (-1070 C)	- 4140 F (-2080 C)	- 4140 F (-2060 C)			
Configuration		configuration	RCT Console configuration	Console configuration			
Display		4 line × 20 character; alpha-numeric; dot matrix; LED backlighting	_	4 line × 20 character; alpha-numeric; dot matrix; LED backlighting			
	Standard (1 input)	Built–in 100 Ohm Platinum RTD within the	sensor body				
RTD Input	Optional (1 auxiliary input)	Additional 100 Ohm 3-wire Platinum RTD input for the secondary RTD is used by customers who want to be able to calibrate their RTD	_	_			
Analog I/O	Outputs	Three 420 mA (022 mA capable), maximum load 500 Ohms, approximately 16 bit resolution outputs; assignable to mass flow, volume, density, temperature, concentration, PID and similar measurements. User defined fault condition output value anywhere in the 022 mA range	Two (three with HART Option) 420 mA (022 mA capable), maximur load 500 Ohms, approximately 16 bit resolution outputs; assignable to mass flow, volume, density, temperature, concentration, PID and similar measurements. User defined fault condition output value anywhere in the 022 mA range				
	Inputs	Two 05V DC inputs. 20k Ohms input impedance, approximately 12 bit resolution	One 05V DC input. 20k Ohms input impedance, approximately 12 k resolution				
Auxiliary Power		Internal 24V DC supply, 100 mA max. (for batching functions, frequency output channel and like applications)	_	—			
Frequency/Pulse	Output	One open collector transistor, user configu User assignable to rate, any totalizer, PID, te	rable as rate (3 kHz max output), a emperature, density, concentration	accumulator 010 Hz; 528V DC carrier. on or other similar measurements			
Digital I/O	Outputs	Four 528V DC, 50 mA maximum current draw (external pullup resistor required)	Two 528V DC, 50 mA maximu required)	m current draw (external pullup resistor			
	Inputs	Four 524V DC, 1k Ohms impedance	Three 524V DC, 1k Ohm impe	dance			
Industrial	Standard	Modbus RTU (EIA-485/RS485)					
Communications	Optional Module	Modbus TCP/IP & EtherNet/IP	r				
Modular Port Optional Module		_	HART 7				
Standard Configuration Port		USB 2.0 interface (through a Mini–B recept	acle) for RCT Console software				
Alarms		Six Hi/Lo Alarms; Alarm status on display by default, assignable to digital Output 2 or 4 and available via digital communications	Six Hi/Lo Alarms; Alarm status on display by default, assignable to Output 2 and available via digital communications				
Transmission Dist	ance	Up to 100 ft (30 meters); contact factory if I	onger length is needed				
Measurements		Forward and reverse mass flow and total, d	ensity, temperature; concentratio	on, volumetric flow and total (derived)			
Other Functions		Batch control, PID control. User configuration of all I/O functions					

CABLE KITS

The kits include the cable assembly, cable protector and sensor cable connection cover.								
RC820476-XX	Kit, PVC jacketed cable XX =length in ft; 20, 35, 50, 70, 100	Temp range: –40…176° F (–40…80° C)						
RC820477-XX	Kit, FEP jacketed cable XX =length in ft; 20, 35, 50, 70, 100	Temp range: -94392° F (-70200° C)	General Safety Kit					
RC830054-XX	FEP jacketed cable XX =length in ft; 20, 35, 50, 70, 100	Temp range: –94392° F (–70200° C)	Hazardous Location Cable					

DIMENSIONS

RCTX Transmitter, Integral Mount Electronics Enclosure Dimensions



Α	A B C		D	E
6.57 in. (167 mm)	5.20 in. (132 mm)	5.98 in. (152 mm)	4.57 in. \pm 0.12 in. (116 mm \pm 3 mm)	1.37 in. (35 mm)

RCTX Transmitter, Remote Mount Electronics Enclosure Dimensions



A B		С	D	E
6.57 in. (167 mm)	5.20 in. (132 mm)	13.43 in. (341 mm)	4.57 in. ± 0.12 in. (116 mm ± 3 mm)	1.37 in. (35 mm)

RCTN Transmitter Electronics Enclosure Dimensions



Figure 3: RCTN transmitter electronics dimensions

Α	В	С	D	E	F
9.80 in. (249.9 mm)	8.00 in. (203.2 mm)	10.30 in. (261.6 mm)	4.30 in. (109.2 mm)	3.66 in. (93.0 mm)	8.32 in. (211.2 mm)

RCTN Transmitter, Pipe Mounting Options





Figure 4: RCTN pipe mounting options

RCTN Transmitter Only, Pipe Bracket Dimensions



Figure 5: RCTN pipe bracket dimensions

A	В	с	D	E	F	G	н
5.50 in.	4.00 in.	1.11 in.	0.625 in.	1.25 in.	3.80 in.	5.25 in.	6.00 in.
(139.7 mm)	(101.6 mm)	(28.2 mm)	(15.9 mm)	(31.8 mm)	(96.5 mm)	(133.6 mm)	(152.4 mm)

Sensor Dimensions, RCS018...RCS300



Sensor	Nominal Size	A ¹	В	с	D	E (Standard)	E (Remote)
RCS018	1/2 in.	13.6 in. (346 mm) 1	7.1 in. (180 mm)	8.5 in. (217 mm) ²	4.4 in. (113 mm) ²	19.3 in. (489 mm)	18.3 in. (464 mm)
RCS025	1/2 in.	16.0 in. (406 mm) 1	9.0 in. (228 mm) 1	9.9 in. (253 mm) ²	4.4 in. (113 mm) ²	20.7 in. (525 mm)	19.7 in. (500 mm)
RCS050	1/2 in.	18.5 in. (470 mm) 1	11.6 in. (296 mm)	15.9 in. (405 mm) ²	5.1 in. (131 mm) ²	24.2 in. (615 mm)	23.2 in. (590 mm)
RCS100	1 in.	23.2 in. (590 mm) 1	16.8 in. (426 mm) 1	27.6 in. (700 mm) ²	6.4 in. (163 mm) ²	34.3 in. (870 mm)	33.3 in. (845 mm)
RCS200	2 in.	26.4 in. (670 mm) 2	18.5 in. (472 mm) ²	28.6 in. (726 mm) ³	7.9 in. (203 mm) ³	33.4 in. (848 mm)	32.4 in. (823 mm)
RCS300	3 in.	40.9 in. (1040 mm) ²	28.7 in. (728 mm) ²	40.4 in. (1028 mm) ³	9.5 in. (243 mm) ³	45.3 in. (1150 mm)	44.3 in. (1125 mm)

¹ ± 0.12 in (3 mm)

 $^{\rm 2}\pm0.15$ in (4 mm)

 $^{3}\pm0.24$ in (6 mm)

NOTE: End fittings can be NPT (shown), Class 150 or Class 300 ANSI flanges, or other; dimensions A and C do not change.

APPROXIMATE SHIPPING WEIGHTS

Sensor Only				Transmitter Only	Cables Only			
RCS018	15 lb	6.8 kg	RCTN	6.4 lb	2.9 kg	RC820***-20	6 lb	2.7 kg
RCS025	16 lb	7.3 kg	RCTX	3.4 lb	1.8 kg	RC820***-35	8 lb	3.6 kg
RCS050	26 lb	11.8 kg	RCTX-K Integral	4.9 lb	2.2 kg	RC820***-50	10 lb	4.5 kg
RCS100	47 lb	21.3 kg	RCTX-K Remote	8.2 lb	3.7 kg	RC820***-70	13 lb	5.9 kg
RCS200	90 lb	40.8 kg				RC820***-100	17 lb	7.7 kg
RCS300	219 lb	99.3 kg						

Vertical Mounting with Tubes to the Side, Flow Going Down

The mounting orientation shown in *Figure 7* is recommended for installation in an open vertical pipeline. If you MUST use this configuration, make sure to use an isolation valve or other pipe restriction to prevent the sensor from running empty while measurement is being taken.



Figure 7: Tubes to the side with flow going down)

Horizontal Mounting with Tubes Down

The mounting orientation shown in *Figure 8* is recommended for liquid applications.



1	Supports—Customer supplied	Rigid pipe supports approximately 3 and 6 pipe diameters from the end of the sensor						
2	Isolation Valves—Customer supplied	Full port ball						
3	Ground	Protective (earth), 10 AWG (4 mm ²) minimum						

Vertical Mounting with Tubes to the Side, Flow Going Up

The mounting orientation shown in *Figure 10* is recommended for self-draining configurations.



Figure 9: Tubes to the side with flow going up (self-draining)

1	Supports—Customer supplied	Rigid pipe supports approximately 3 and 6 pipe diameters from the end of the sensor
2 Isolation Valves— Customer supplied		Full port ball
3	Ground	Protective (earth), 10 AWG (4 mm ²) minimum

Horizontal Mounting with Tubes Up

The mounting orientation shown in Figure 10 is recommended for slurry applications where particulates may drop out and plug the tubes.



1	Supports—Customer supplied	Rigid pipe supports approximately 3 and 6 pipe diameters from the end of the sensor						
2	Isolation Valves—Customer supplied	Full port ball						
3	Ground	Protective (earth), 10 AWG (4 mm ²) minimum						

NETWORK OPTIONS

RS-485 Network	All RCT1000 meters come equipped an EIA-485 port with Modbus RTU
Ethernet	An optional Ethernet module allows communications via Modbus TCP/IP or EtherNet/IP
HART	An optional HART module, with RCTX transmitter

SOFTWARE UTILITY

RCT Console software is a PC-based software that can be used to configure, operate and diagnose the RCT1000 Coriolis meter. Additionally, the software can log and graph fluid characteristics and parameters for historical comparisons. RCT Console software is included with the RCT1000 Coriolis meter.

RCS200 test.dlgx - Graph

Sample	Time	33, Phase	60, Tube Frequency	183, Coil A Voltage	184, Driver Output	185, Coil B Voltage	-	S
	[s]	μs	Hz	mV	%	mV		8
• 1	0.359	-0.018321750685572624	88.507232666015625	60.0019416809082	69.021713256835937	59.978321075439453	1	1
2	1.045	0.0089603438973426819	88.516281127929688	59.999141693115234	69.029747009277344	59.97698974609375		late
3	2.075	0.044337108731269836	88.521278381347656	60.000080108642578	69.03057861328125	59.9730110168457		100
4	3.105	-0.059853188693523407	88.511688232421875	60.009830474853516	69.027748107910156	59.9715690612793		1
5	4.134	0.021695289760828018	88.5118637084961	59.991420745849609	69.026771545410156	59.969928741455078		P
6	5.164	0.0785641223192215	88.512863159179688	59.994338989257813	69.041763305664063	59.967929840087891		Suce
7	6.193	0.029011240229010582	88.509567260742187	59.99884033203125	69.036247253417969	59.965499877929688		1
8	7.223	0.066253632307052612	88.510772705078125	59.999370574951172	69.035362243652344	59.967361450195313		č
9	8.253	0.061536498367786407	88.491180419921875	59.990581512451172	69.039588928222656	59.9675407409668		6
10	9.282	-0.1050340011715889	88.511962890625	59.99462890625	69.03460693359375	59.963081359863281		
11	10.312	-0.015941370278596878	88.50128173828125	60.005199432373047	69.028480529785156	59.986789703369141		
12	11.341	-0.0635964497923851	88.497077941894531	60.016311645507813	69.017707824707031	59.9633903503418		
13	12.137	-0.00923190638422966	88.506942749023438	59.997470855712891	69.030845642089844	59.971458435058594		
14	13.167	0.11063340306282043	88.502738952636719	60.005691528320312	69.027137756347656	59.976848602294922		
15	14.196	0.023042159155011177	88.499702453613281	59.993961334228516	69.033676147460938	59.969009399414063		
16	15.226	-0.057191379368305206	88.509368896484375	60.004070281982422	69.027626037597656	59.978610992431641		
17	16.256	0.030765749514102936	88.512100219726563	59.993301391601563	69.03558349609375	59.983150482177734		
18	17.285	0.086112096905708313	88.518013000488281	59.984481811523438	69.042228698730469	59.971881866455078		
19	18.315	-0.10414709895849228	88.516181945800781	59.997970581054687	69.034095764160156	59.97052001953125		
20	19.344	-0.034287728369235992	88.5077896118164	59.990089416503906	69.038200378417969	59.971920013427734		
21	20.031	0.032753609120845795	88.5064697265625	59.99407958984375	69.039588928222656	59.980728149414063		
22	21.060	0.0646323710680008	88.501480102539062	59.996551513671875	69.027915954589844	59.966129302978516		
23	22.090	0.000642613391391933	88.503471374511719	60.015239715576172	69.015998840332031	59.985980987548828	-	
~ .							12	

ACCESSORIES

Description	Part Number
USB Cable; Mini-B; 10 ft	RC820648
3/4 in. NPT to M20 adapter; hazardous location	RC820103

PART NUMBER CONSTRUCTION

Sensor Part Number (Remote Mount Transmitter Option)

		-		-		- [1 - 1] - [
										ı <u> </u>		
Model	-											
Badger Meter Coriolis Flow Meter	RCS											
Nominal Line and Equivalent Pipe Size												
1/2 in., 3/16 in. (4.76 mm)	018											
1/2 in., 1/4 in. (6.35 mm)	025											
1/2 in., 1/2 in. (12.70 mm)	050											
1 in., 1 in. (25.40 mm)	100											
2 in., 2 in. (50.80 mm)	200											
3 in., 3 in. (76.20 mm)	300											
Wetted Material												
316L Stainless Steel		9	5									
Process Connection Type ¹												
NPT (018200 sensors only)				1	NPT							
Class 150 ASME B16.5 Flange (018300 sensors only)				F	AA							
Class 300 ASME B16.5 Flange (018300 sensors only)				F	AB							
Class 600 ASME B16.5 Flange (018200 sensors only)				F	AC							
PN40 Flange				F	PNB							
Tri-clamp					TRI							
Electronic Mounting Options												
Remote Mount Transmitter							R					
Certifications												
General/Ordinary Area, CE									G			
cCSAus Class I, Div 1; Class I, Zone 0 I.S. Sensor (use with	n RCTX, H1 area c	lassifica	tion	optio	n)				Н			
ATEX/IECEx Zone 0 I.S. Sensor (use with RCTX, Y1 area	classification opt	tion)							Υ			
Calibration/Meter Uncertainty Liquids										-		
Mass Flow: 0.1% of reading \pm 0.025% of full scale (100,	200, 300 sensors	only)								1		
Mass Flow: 0.2% of reading \pm 0.05% of full scale (018	050 sensors only	<i>ı</i>)								2		
Mass Flow: 0.1% of reading	-									6		
Pressure Registration												
CRN for Canada (Process connection types NPT, FAA, F None	AB only)											C N

¹Other process connection types can be provided. Consult factory for pricing and delivery estimates.

General Safety Transmitter Part Number (Remote Mount)



Hazardous Location Transmitter Part Number (Remote Mount)

	RCT X - K - R] - 🔲 - 🗌	
Certifications			
cCSAus Class I, Div 1; Class I, Zone 1	H1		
ATEX/IECEx Zone 1	Y1		
Communication Protocol			
Modbus RTU & Ethernet (Modbus TCP/IP, Ethe	rNet/IP)	E	
Modbus RTU (Standard on all models		м	
Modbus RTU & HART		н	
Sensor Connection			
Hazardous location (RCTX only)			В

Integral Mount Transmitter with Sensor Part Number Construction

-		-] - [٦ - ٦	- [-	-		
Model											
RCT1000 Coriolis Sensor	RCS										
Nominal Line Size and Flow Rate											
1/2 Inch / DN15 20 lb/min	018										
1/2 Inch / DN15 40 lb/min	025										
1/2 Inch / DN15 220 lb/min	050										
1 Inch / DN25 1000 lb/min	100										
2 Inch / DN50 1700 lb/min	200										
3 Inch / DN80 5200 lb/min	300										
Wetted Material											
316L Stainless Steel		S									
Process Connection Type ¹											
National Pipe Thread (018200 sensors)			NP	Т							
Class 150 ASME 16.5 Flange (018300 sensors)			FA	A							
Class 300 ASME 16.5 Flange (018300 sensors)			FA	В							
Class 600 ASME 16.5 Flange (018200 sensors)			FA	c							
PN40 Flange			PN	В							
Tri-clamp			TR	1							
Electronic Mounting Options											
Integral Mount Transmitter (with RCTX only)					М						
Certifications											
cCSAus Class I, Div 1; Class I, Zone 1						Н					
ATEX Zone 1; IECEx Zone 1						Y					
Calibration/Meter Uncertainty Liquids											
(018050 sensors) Mass Flow: 0.2% of reading \pm 0.05	5% of full scale						2				
(100300 sensors) Mass Flow: 0.1% of reading \pm 0.02	25% of full scale						1				
Mass Flow: 0.1% of reading							6				
Pressure Registration											
CRN for Canada (Process connection types NPT, FAA, None	FAB only)								C N		
Display										_	
Explosion Proof Transmitter, Display / Keypad										XK	
Explosion Proof Transmitter, No Display / Keypad										XN	
Communication											
Modbus RTU & Ethernet (Modbus TCP/IP, EtherNet/IP)										Е
Modbus RTU (Standard on all models)											М
Modbus RTU and HART											Н
¹ Other process connection types can be provided. Co	onsult factory for	r pricina a	and deliv	erv estir	nates						

Control. Manage. Optimize.

Trademarks appearing in this document are the property of their respective entities. Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists. © 2019 Badger Meter, Inc. All rights reserved.

www.badgermeter.com

The Americas | Badger Meter | 4545 West Brown Deer Rd | PO Box 245036 | Milwaukee, WI 53224-9536 | 800-876-3837 | 414-355-0400 México | Badger Meter de las Americas, S.A. de C.V. | Pedro Luis Ogazón N°32 | Esq. Angelina N°24 | Colonia Guadalupe Inn | CP 01050 | México, DF | México | +52-55-5662-0882 Europe, Eastern Europe Branch Office (for Poland, Latvia, Lithuania, Estonia, Ukraine, Belarus) | Badger Meter Europe | ul. Korfantego 6 | 44-193 Knurów | Poland | +48-32-236-8787

Europe, Middle East and Africa | Badger Meter Europa GmbH | Nurtinger Str 76 | 72639 Neuffen | Germany | ±49-7025-9208-0 Europe, Middle East Branch Office | Badger Meter Europa GmbH | Nurtinger Str 76 | 72639 Neuffen | Germany | ±49-7025-9208-0 Europe, Middle East Branch Office | Badger Meter Europa | PO Box 341442 | Dubai Silicon Oasis, Head Quarter Building, Wing C, Office #C209 | Dubai / UAE | ±971-4-371 2503 Slovakia | Badger Meter | 80 Marine Parade Rd | 19-07 Parkway Parade | Singapore 449269 | ±65-634664836 Switzerland | Badger Meter Swiss AG | Mittelholzerstrasse 8 | 3006 Bern | Switzerland | ±41-31-932 01 11