



RS Series Rotary Transmitters

FEATURES

- 1, 4, 8 or 12 channels
- Speed: up to 40 000 rpm
- Contact Resistance of Cells: $< 0,2 \text{ m}\Omega$
- Noise: $25 \mu\text{V}$
- Signal: up to 0,3 A per cell; 60 V AC/DC
- Very low inertia
- No slippings
- Insensitive to electromagnetic disturbance
- Long lifetime

DESCRIPTION

Magtrol Rotary Transmitters are used for signal transmission of transducers on a rotating part (e.g. engine shaft) to a stationary system (measuring instrument or PC). They are exceptionally well-suited for the transmission of low level electrical signals, such as those from thermocouples, extensometer gauges and strain gauges, as well as transducers to measure oscillation and acceleration. RS Transmitters can also provide the power supply signal to each transducer.

Magtrol's RS Series Rotary Transmitters do not use slippings and are therefore arc-free, making them superior to all other rotary transmitters that use rings, brushes, wire loops and similar devices. Easy to use, installing RS Transmitters is as simple as connecting a cable. They require no power supply, batteries, software or parameter setup in order to operate. Standard models have a speed range of 0 to 20 000 rpm and a high-speed version (up to 40 000 rpm) is available.

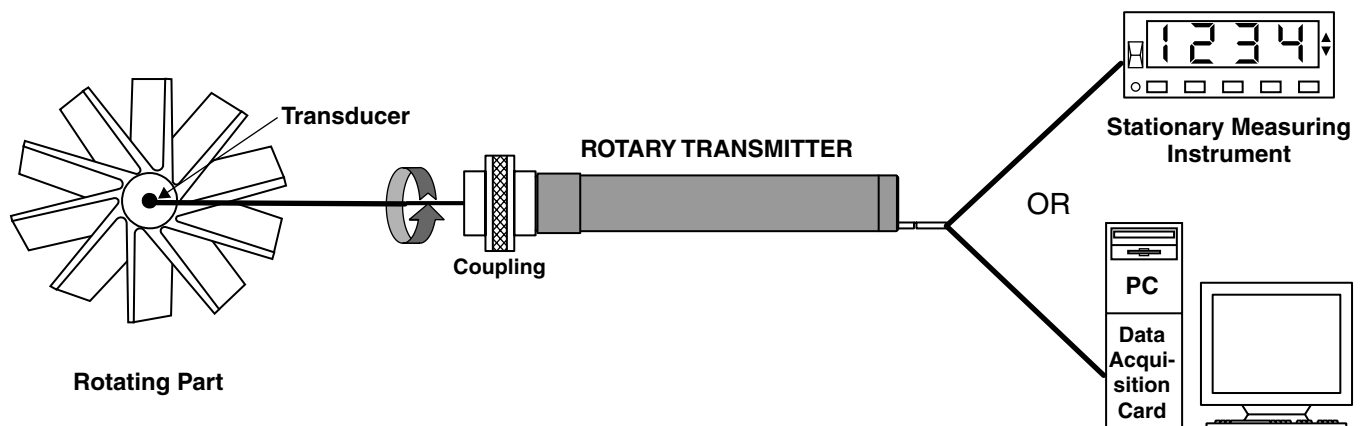


RS 208 and RS 212 (open)
Rotary Transmitters

APPLICATIONS

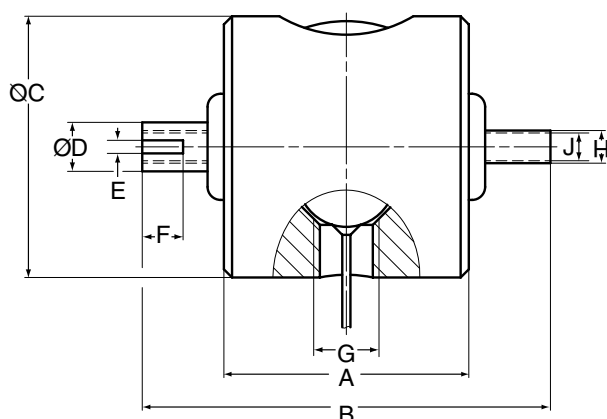
Magtrol Rotary Signal Transmitters are used wherever measurement of rotating items is needed—in research and development laboratories, as well as in duration tests on objects under working conditions. Through high-performance data transmission, Magtrol RS Transmitters enable the measurement of pressure, acceleration, oscillation, vibration, shock, force, torque, temperature and displacement of rotating parts such as: turbines, jet engines, turbocompressors, propellers, motors, machine tools, bearings, tilting pads, molding machine screws and other machines, as well as for running tests on all types of road and rail vehicles.

SYSTEM CONFIGURATION

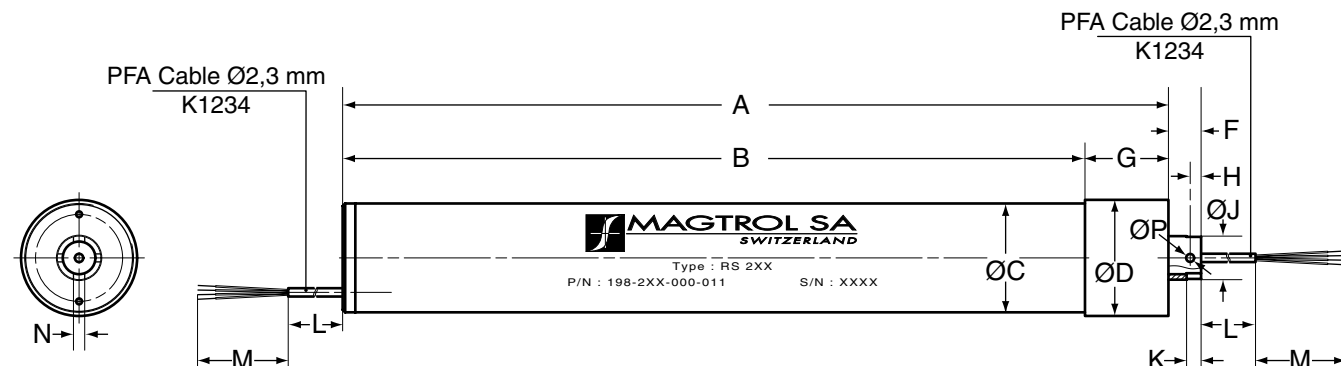


RATINGS

	Cell	RS 204	RS 208	RS 212
Number of Channels	1	4	8	12
Speed Ranges	standard version : 0 to 20 000 rpm high-speed version : 0 to 40 000 rpm			
Total Noise	Typically 25 μ V (max. 50 μ V) with two cells in series at speeds from 0 to 20 000 rpm			
Contact Resistance of Cell	Max. 0,2 m Ω for 2 cells in series with an instantaneous variation from 0 to 5 000 rpm			
Load Resistance of cells	Cell alone: max. 50m Ω Cells mounted in RS transmitter: 800 to 1500 m Ω depending of the lengths of the lead of each individual cell. Variation of resistance: about 2 m Ω / 5 $^{\circ}$ C			
Insulation Resistance	More than 10 G Ω for two adjacent cells			
Load Current	Max. 0,3 A per cell			
Load Voltage	60 V AC or DC between two cells or between cell and transmitter housing			
Temperature Range	-25 $^{\circ}$ C to +60 $^{\circ}$ C			
Thermal EMF	Typically 2 μ V with two cells connected in series and at speeds from 0 to 20 000 rpm; corresponding to a possible error of 0,05% for a constantan-chromium nickel thermocouple, at a temperature difference of 600 $^{\circ}$ C			
Connections (In/Out)	Soldering contact	Cables (400 mm input and 400 mm output cables included)		
Weight	24 g	310 g	530 g	750 g

DIMENSIONS
Cell


	mm
A	15
B	25
OC	16h9
OD	3
E	0,8
F	2,5
G	M4
OH	2h7
OJ	1,7

Models RS 204, 208 and 212


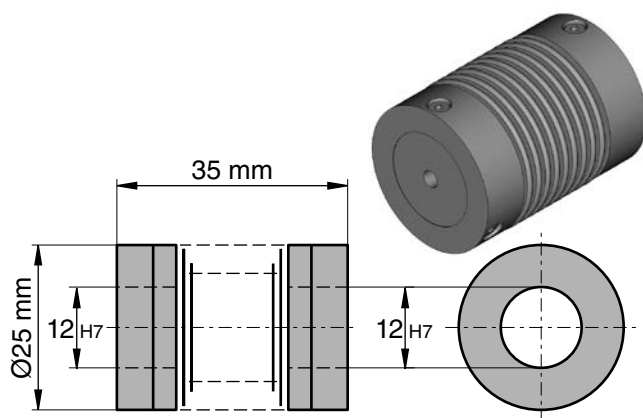
Model	A	B	OC	OD	F	G	H	OJ	K	L	M	N	OP
RS 204	131,6	108,6	30	32h6	9	23	3	12 ^{-0,05} _{-0,1}	4	375	25	3,1 ^{+0,01} ₀	2,2
RS 208	227,6	204,6	30	32h6	9	23	3	12 ^{-0,05} _{-0,1}	4	375	25	3,1 ^{+0,01} ₀	2,2
RS 212	323,6	300,6	30	32h6	9	23	3	12 ^{-0,05} _{-0,1}	4	375	25	3,1 ^{+0,01} ₀	2,2

OPTIONS AND ORDERING INFORMATION

MODEL NUMBER:	RS 2 <input type="text"/> <input type="text"/> / <input type="text"/> 11
RS Rotary Transmitter with:	
NUMBER OF CHANNELS	
• 4 channels	04
• 8 channels	08
• 12 channels	12
HIGH-SPEED CAPABILITY	
• without (standard)	0
• with (option)	1
Rotary Transmitter Cell:	P/N 198-101-010-011V

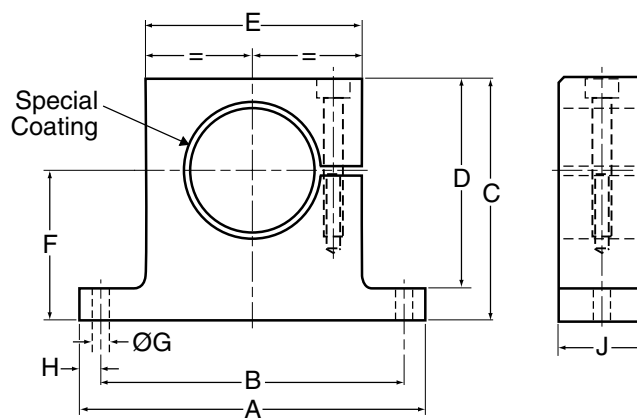
ACCESSORIES

Miniature Flexible Couplings



Coupling Model Number	Fits Rotary Transmitter
MK1/20/35/12H7/12H7	RS 2XX-011 (standard)
MK1/20/35/12H7/12H7/HS	RS 2XX-111 (high-speed)

Mounting Bracket



A	B	C	D	E	F	ØG	H	J
80,0	70,0	57,0	49,0	50,0	35,0	4,3	5,0	20,0

Part Number: 198-102-955-011



CAUTION: The RS Rotary Transmitters contain mercury. The cells are hermetically sealed and should not be opened. In lieu of disposing the transmitters/cells, please return them to Magtrol SA in Switzerland for recycling.

Due to the continual development of our products, we reserve the right to modify specifications without forewarning.



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