

# RS Series Rotary Transmitters

*NOTE: Not available in U.S.*

## FEATURES

- 1, 4, 8 or 12 channels
- Speed: up to 40 000 rpm
- Resistance: < 0,2 mΩ
- Noise: 25 μV
- Signal: up to 0,3 A per cell; 60 V AC/DC
- Very low inertia
- No sliprings
- 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.

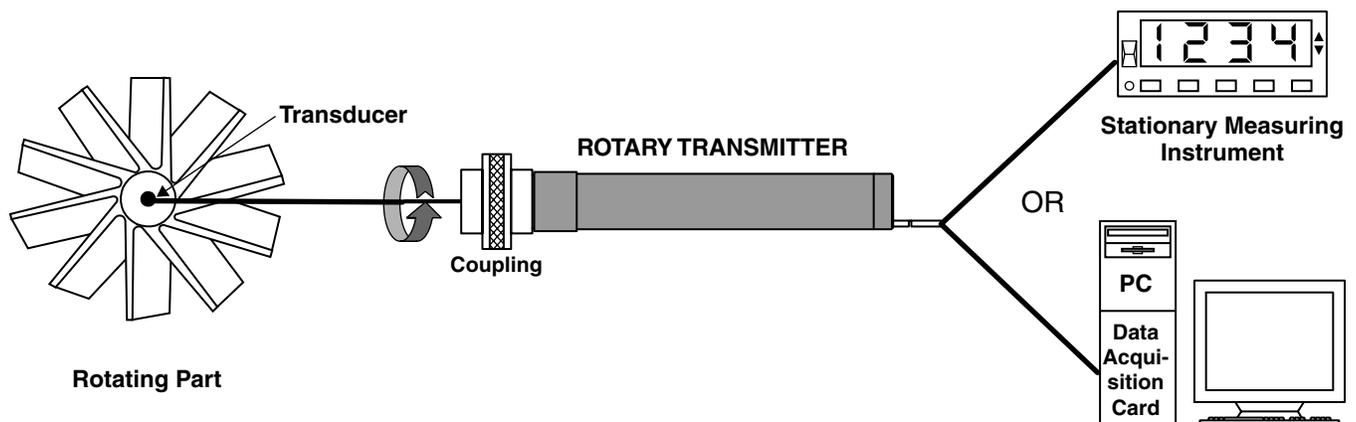
Magtrol's RS Series Rotary Transmitters do not use sliprings and are therefore arc-free, making them superior to all other rotary transmitters that use rings, brushes, wire loops and similar devices. Easy to use, installing RS Transmitters is as simple as connecting a cable. They require no power supply, 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.



## 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

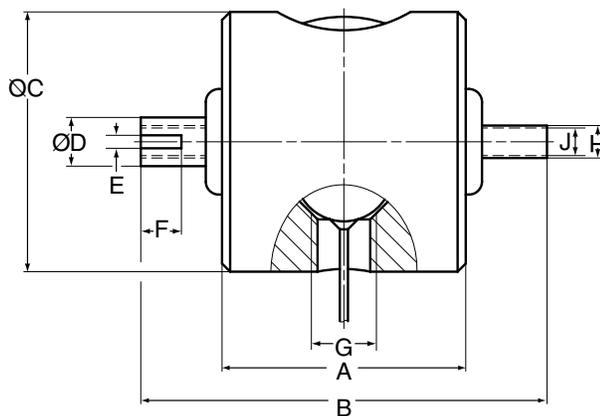


## RATINGS

	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 $\mu$ V (max. 50 $\mu$ V) with two cells in series at speeds from 0 to 20 000 rpm			
Contact Resistance of Cell	Max. 0,2 m $\Omega$ for 2 cells in series with an instantaneous variation from 0 to 5 000 rpm			
Insulation Resistance	More than 10 G $\Omega$ 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 °C to +60 °C			
Thermal EMF	Typically 2 $\mu$ 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 °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

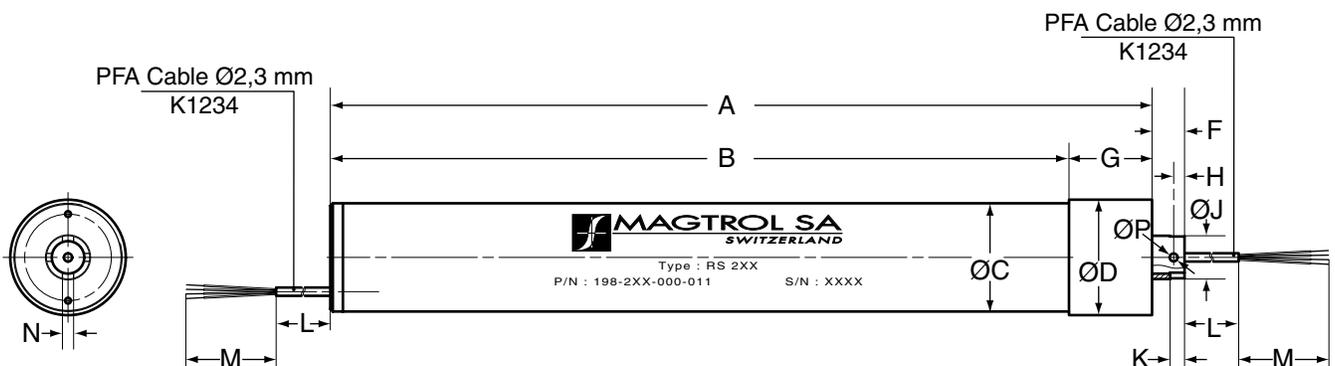
## DIMENSIONS

### Cell



	mm
A	15
B	25
ØC	16h9
ØD	3
E	0,8
F	2,5
G	M4
ØH	2h7
ØJ	1,7

### Models RS 204, 208 and 212



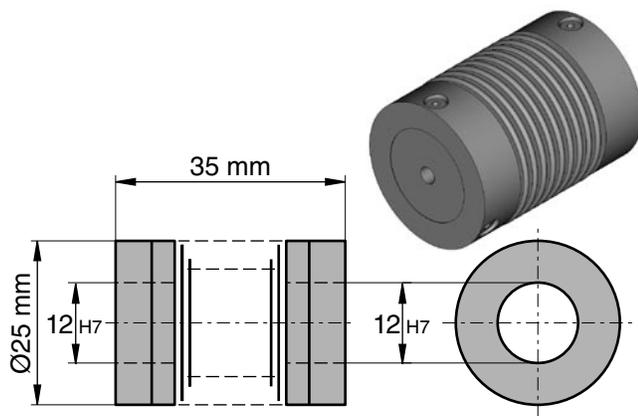
Model	A	B	ØC	ØD	F	G	H	ØJ	K	L	M	N	ØP
RS 204	131,6	108,6	30	32h6	9	23	3	12 <sup>-0,05</sup> <sub>-0,1</sub>	4	375	25	3,1 <sup>+0,01</sup> <sub>0</sub>	2,2
RS 208	227,6	204,6	30	32h6	9	23	3	12 <sup>-0,05</sup> <sub>-0,1</sub>	4	375	25	3,1 <sup>+0,01</sup> <sub>0</sub>	2,2
RS 212	323,6	300,6	30	32h6	9	23	3	12 <sup>-0,05</sup> <sub>-0,1</sub>	4	375	25	3,1 <sup>+0,01</sup> <sub>0</sub>	2,2

## OPTIONS AND ORDERING INFORMATION

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

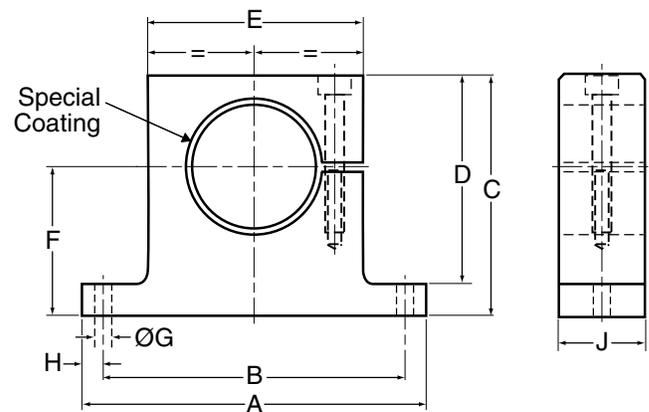
## ACCESSORIES

### 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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**MAGTROL INC**  
70 Gardenville Parkway  
Buffalo, New York 14224 USA  
Phone: +1 716 668 5555  
Fax: +1 716 668 8705  
E-mail: [magtrol@magtrol.com](mailto:magtrol@magtrol.com)

**MAGTROL SA**  
Centre technologique Montenaz  
1728 Rossens/Fribourg, Switzerland  
Phone: +41 (0)26 407 3000  
Fax: +41 (0)26 407 3001  
E-mail: [magtrol@magtrol.ch](mailto:magtrol@magtrol.ch)

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