

RMGZ 400/500/600 Series Force Measuring Roller

10 times overload protection

No recalibration required

20:1 force measuring range

Accuracy class 0.5%

Nominal forces from 13 - 900 lbs.

Sizes available for every application



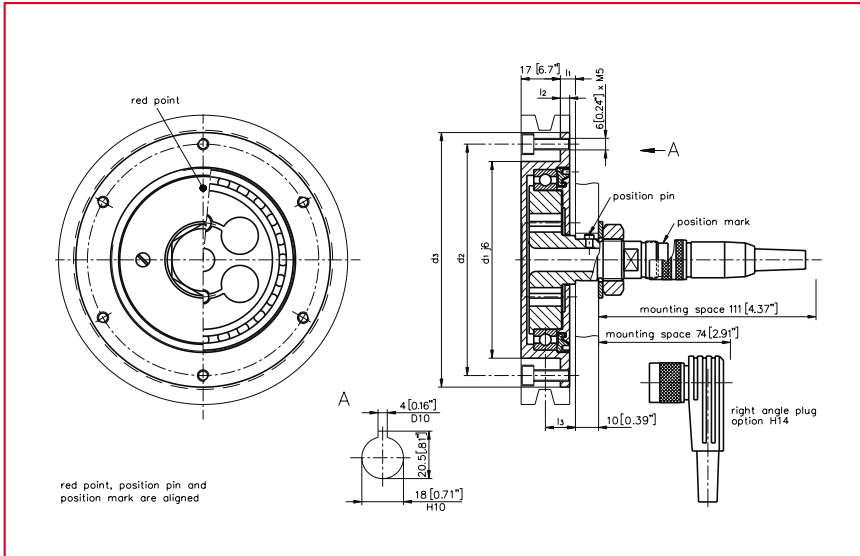
● **RMGZ 400/500/600 Series**

The RMGZ 400/500/600 Series Force Measuring Rollers are used to measure the tension in wire, cable, and similar materials. An application specific sheave or pulley is mounted to the rotating flange which is mounted to a lifetime lubricated ball bearing.

● **Functional Description**

Foil type strain gauges in a full Wheatstone Bridge configuration perform the actual tension measurement. The red point on the back of the sensor indicates the positive measuring direction. A mechanical overload stop ensures that even under extreme conditions, the FMS sensor performs consistently and is virtually indestructible. The RMGZ 400/500/600 sensor series design ensures that even with low material wrap angles tension will be measured accurately.

RMGZ 400/500/600 Series ● Dimensions in mm [inch]



RMGZ 400/500/600 Series ● Nominal Force / Dimensions mm [inch]

FMS Order Code	Nominal Force		Dimensions						Load Rating C dyn		Speed Limit	Deflection	Weight	
	N	lbs	d1	d2	d3	l1	l2	l3	kN	lbs	Rev/min		kg	lbs
RMGZ416B	60	13	85	100	110	6.5	4	13	11.8	2,653	8500	0.10	0.75	1.65
RMGZ421B	100	22	85	100	110	6.5	4	13	11.8	2,653	8500	0.10	0.75	1.65
RMGZ422B	200	45	85	100	110	6.5	4	13	11.8	2,653	8500	0.10	0.75	1.65
RMGZ425B	500	112	85	100	110	6.5	4	13	11.8	2,653	8500	0.10	0.75	1.65
RMGZ531B	1000	225	105	120	132	7.5	5	13.5	20	4,496	7000	0.15	0.9	1.98
RMGZ632B	2000	450	110	125	136	7.5	5	13.5	21.2	4,766	6700	0.10	0.9	1.98
RMGZ634B	4000	899	110	125	136	7.5	5	13.5	21.2	4,766	6700	0.10	0.9	1.98

RMGZ 400/500/600 Series ● Technical Data

Sensitivity	1.8mV/V
Tolerance of sensitivity	< ±0.2%
Accuracy class	±0.5%
Temperature coefficient	±0.1 % / 10 K [± 0.0055 % / °F]
Temperature range	-10...+ 60 °C [14 °F...140 °F]
Input resistance	350Ω
Supply voltage	1...12VDC
Overload protection	10 times rated nominal force
Sensor material	Steel
Rotating flange material	Aluminum

Options:

H14 = Right angle plug

H18 = Straight waterproof plug

Order code:

RMGZ422B.H14

Option

Scope of delivery:

Connection plug, mounting nut
(Sheaves or pulleys are available options and not typically included)

World Headquarters:

FMS Force Measuring Systems AG
Aspstrasse 6
8154 Oberglatt (Switzerland)
Tel. + 41 44 852 80 80
Fax + 41 44 850 60 06
info@fms-technology.com

FMS USA, Inc.
925 East Rand Road · Suite 207
Arlington Heights, IL 60004
Phone 847 392 7872
Fax 847 392 7873
fmsusa@fms-technology.com

FMS UK
Highfield, Atch Lench Road
Church Lench
Evesham WR 11 4UG
Phone + 44 1386 871023
Fax + 44 1386 871021
fmsuk@fms-technology.com

www.fms-technology.com