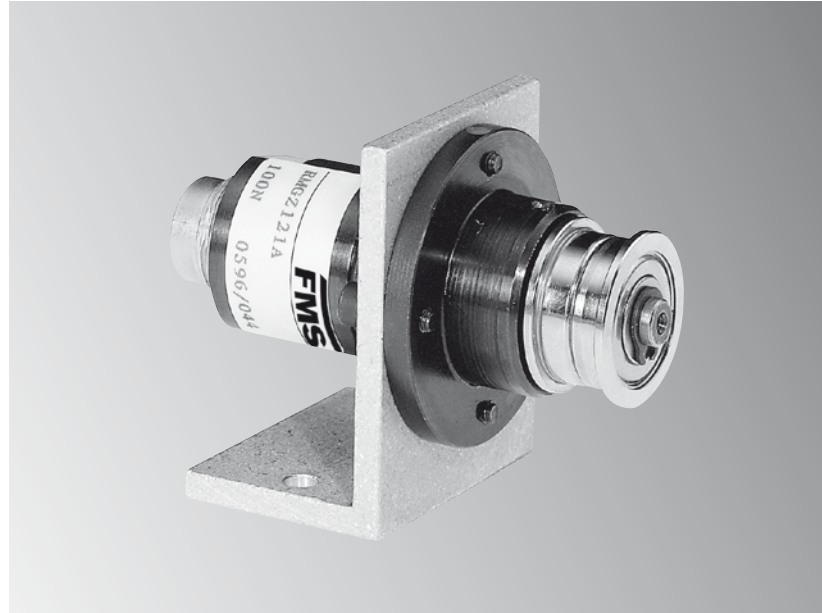


FMS Tension Control / Force Sensors

RMGZ 100 B Series Force Measuring Roller

- **Nominal forces from 6 – 300 N [0.7 – 67.4]:**
Sizes available for every application
- **10 times overload protection:**
No recalibration required
- **20 : 1 force measuring range:**
Wide measuring capability
- **Lifetime lubricated ball bearings:**
No maintenance necessary

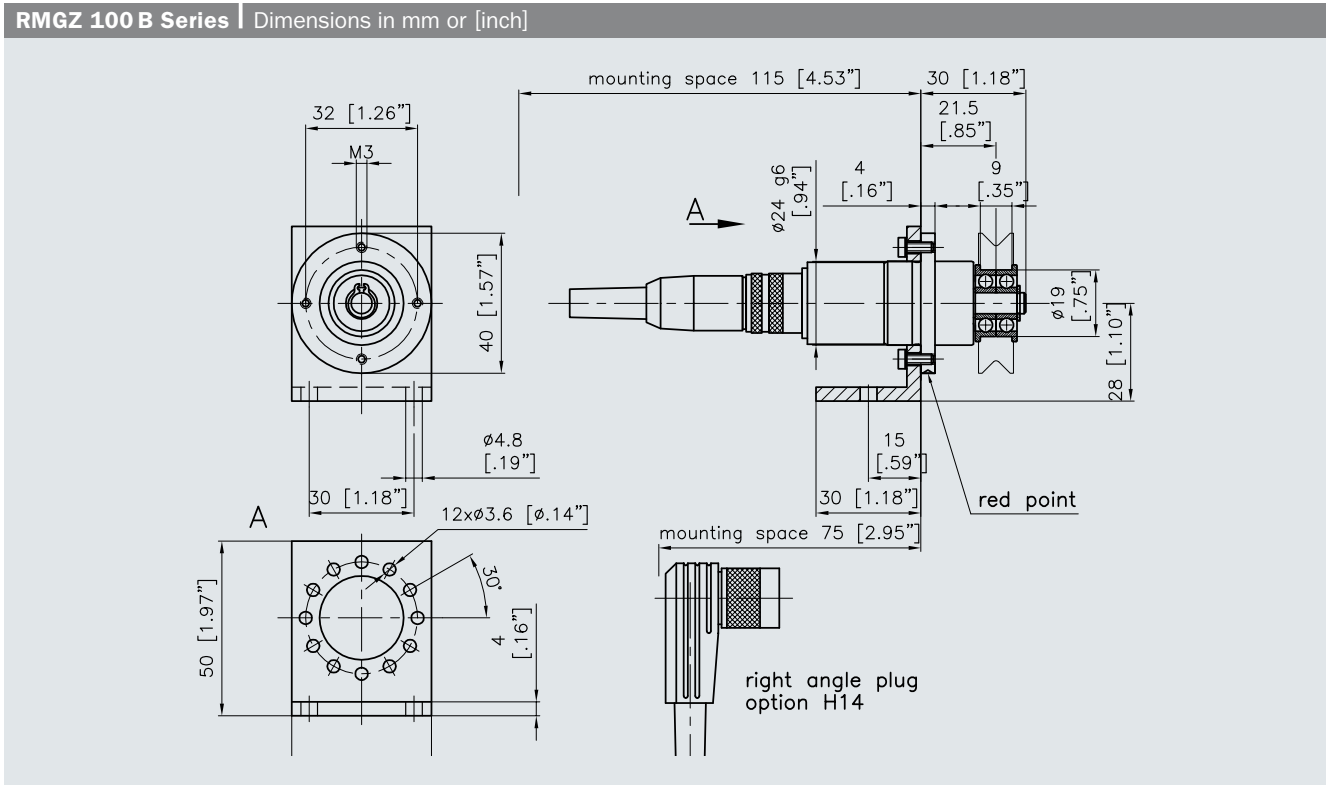


RMGZ 100 B Series

The RMGZ 100 B series force measuring roller is used to measure the tension in wire, cable and similar materials. An application specific sheave or pulley is mounted to the two lifetime lubricated ball bearings.

Functional Description

The RMGZ 100B series force measuring rollers works according to the dual flexion beam design. A quadruple foil type strain gauge mounted in a full Wheatstone bridge configuration performs the actual tension measurement. This measuring principal ensures tension measurement with the highest accuracy also for low forces and at small wrap angles.



RMGZ 100 B Series Nominal forces				
Sensor Type	Nominal Force N [lbf]	Load rating C dyn kN [lbf]	Speed limit Rev/min	Weight kg [lbs]
RMGZ 106 B	6 [1.35]	4.61 [1036]	40 000	0.25 [0.55]
RMGZ 111 B	10 [2.25]			
RMGZ 112 B	20 [4.5]			
RMGZ 115 B	50 [11.2]			
RMGZ 121 B	100 [22.5]			
RMGZ 123 B	300 [67.4]			

RMGZ 100 B Series Technical Data	
Sensitivity	1.8 mV/V
Tolerance of sensitivity	< \pm 0.2%
Accuracy class	\pm 0.5% ($F_{nominal}$)
Temperature coefficient	\pm 0.1%/10K
Temperature range	-10...+60 °C (option H16: -10...+120 °C) 14...140 °F (option H16: 14...248 °F)
Input resistance	350 Ω
Supply voltage	1...12 VDC
Overload protection	10-times the rated nominal force
Sensor material	Steel
Mounting bracket material	Aluminium
Protection class	Protected against dust IP40

RMGZ 100 B Texture of the order code
RMGZ115B. H14 Option
Sensor type

RMGZ 100 B Options
H 14 Right angle connector
H 16 Temperature range up to 120 °C

RMGZ 100 B Scope of delivery
• Mounting bracket • Connector

RMGZ 100 B Not included
• Sheaves (are available as an option)