

FA 202 Series Force Measuring Sensor with Dead Shaft Adapter

Ultra Slim Design

Adaptable in machines with difficult space conditions

20:1 Force Measuring Range

Accurate measurements at both high and low loads

Accuracy Class 0.5%

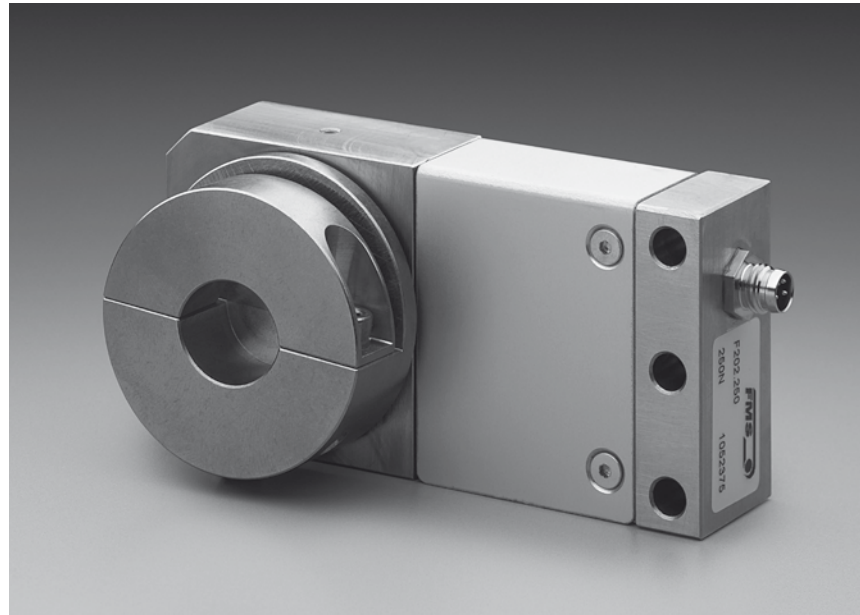
Highly linear measuring characteristic

Nominal Forces 50, 125, 250 and 500 N

Ideal for the low and medium application range

Stainless Steel Sensor, Aluminium Cover

Corrosion resistant, extremely durable



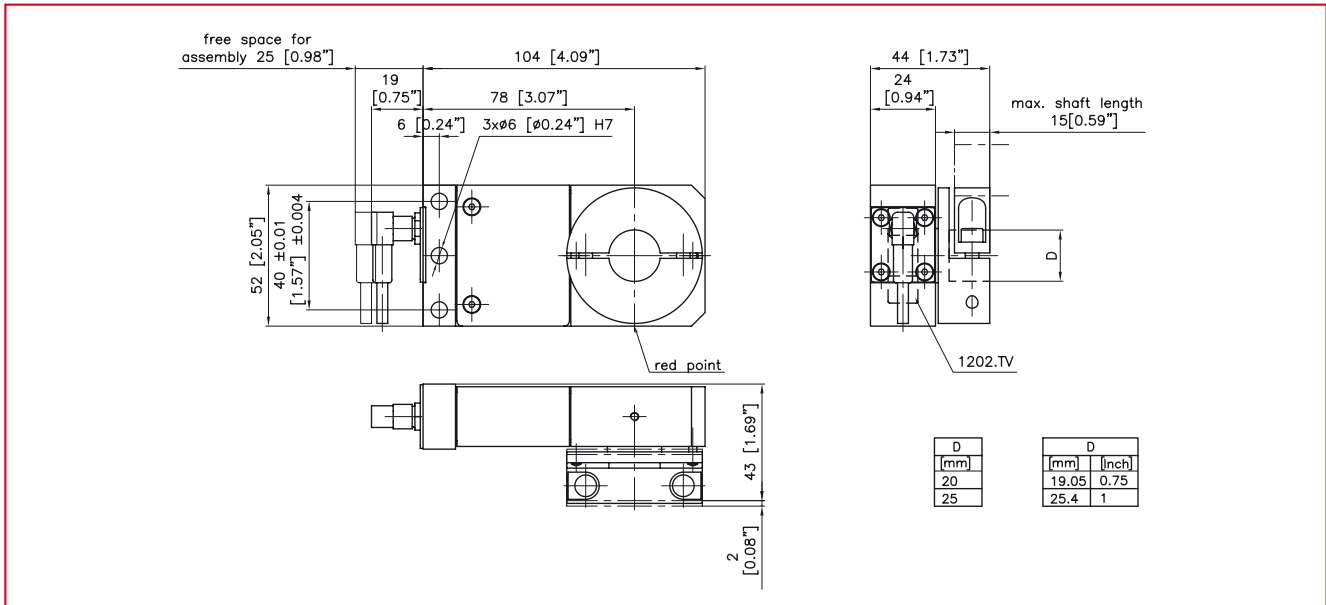
● FA 202 Series

The FA 202 Series Force Measuring Sensor is for use in dead shaft roller applications where limited space is available. The slim sensor design provides a new option for accurate web tension measurement on machines where wider sensor designs simply will not fit. The high-performance FA 202 Force Measuring Sensor ensures that even with low material wrap angles and high roller weights the tension will still be measured accurately. Sensor durability and operational reliability is excellent. The range of adapters covers the most popular shaft diameters. The red point located on the body of the sensor indicates the positive force measuring direction.

● Functional Description

The sensor utilizes foil type strain gauges mounted in a full Wheatstone Bridge configuration to provide extremely accurate tension measurement. The dual flexion beam design and built-in mechanical hard-stop eliminates angular deflection while reducing the possibility of recalibration or damage due to an overload condition. The connector on the sensor provides for fast wiring and easy installation, while the self-aligning bearing within the dead shaft adapter accommodates limited roller misalignment. The FA 202 Force Measuring Sensor is compatible with the full line of FMS Tension Measuring Amplifiers and Tension Controllers.

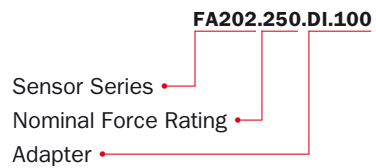
FA 202 Series • Dimensions in mm or [inch]



FA 202 Series • Specifications

Sensor Type	Nominal Force		Weight	
	N	lbf	kg	lbs
F 202.50	50	11.2	0.89	1.96
F 202.125	125	28.1	0.89	1.96
F 202.250	250	56.2	0.89	1.96
F 202.500	500	112.4	0.89	1.96

Order Code (example):



FA 202 Series • Adapter Specifications

Inch Adapter Type	D inch	Metric Adapter Type	D mm
FA 202.DI.075	0.75"	FA 202.DM.20	20
FA 202.DI.100	1.00"	FA 202.DM.25	25

Scope of delivery:

(1) Sensor, (1) Snap Ring, (1) Adapter, Spacer, Installation and Operation Manual.

Not Included:

Mounting Screws, Washers, Cable, or Connector.

FA 202 Series • Technical Data

Sensitivity	1.8 mV / V ±2%
Accuracy Class	±0.5% (F _{nominal})
Temperature Coefficient	±0.1% / 10 K
Temperature Range	- 10...+60°C [14...140°F]
Input Resistance	350 Ω
Supply Voltage	1...12 VDC
Maximum Overload	10 times rated nominal force
Sensor Material	Stainless steel (aluminium cover)

Accessories FA 202 Ordering Code

Shoulder bolt Ø 6 x 30/M5	50001930
Dowel pin d6 h6 x20	50000558
Sensor cable with connector	50002226 (2 m) 50002227 (10 m)

World Headquarters:

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

FMS USA, Inc.
 2155 Stonington Avenue
 Suite 119
 Hoffman Estates, IL 60169
 Phone + 1 847 519 4400
 Fax + 1 847 519 4401
 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

FMS Italy
 Via Baranzate 67
 20026 Novate Milanese
 Phone + 39 02 39487035
 Fax + 39 02 39487035
 fmsit@fms-technology.com