

## FA 202 Series Force Measuring Sensor with Dead Shaft Adapter

### Ultra Slim Design

Adaptable in machines with difficult space conditions

### 30 : 1 Force Measuring Range

Accurate measurements at both high and low loads

### Accuracy Class 0.3 %

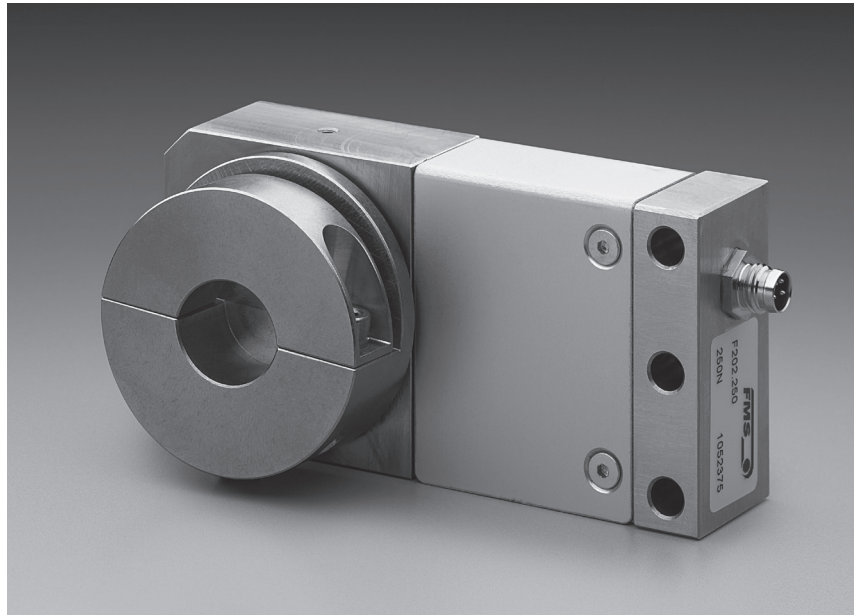
Highly linear measuring characteristic

### Nominal Forces 50, 125, 250, 500, and 1000 N

Covers a wide application range

### Stainless Steel Sensor, Aluminium Cover

Corrosion resistant, extremely durable



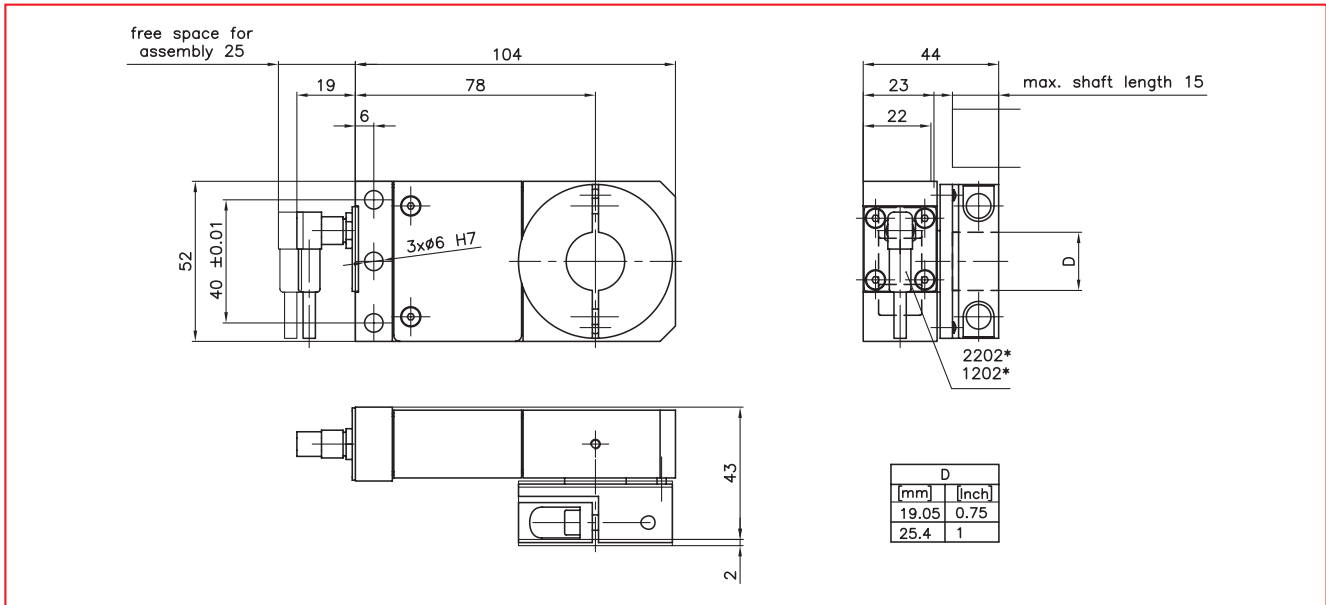
#### ● FA 202 Series

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**



Bearings 1202 TV and 2202 TV are for rollers with 15 mm journal diameter.

**FA 202 Series • Specifications**

Sensor Type	Nominal Force		Weight	
	N	lbf	kg	lbs
<b>F 202.50</b>	50	11.2	0.89	1.96
<b>F 202.125</b>	125	28.1	0.89	1.96
<b>F 202.250</b>	250	56.2	0.89	1.96
<b>F 202.500</b>	500	112.4	0.89	1.96
<b>F 202.1000</b>	1000	224.8	0.89	1.96

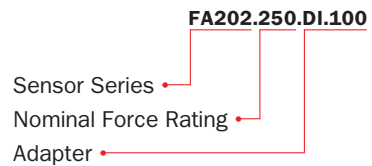
**FA 202 Series • Adapter Specifications**

Inch Adapter Type	D inch	Metric Adapter Type	D mm
<b>FA 202.DI.100</b>	1.00"	<b>FA 202.DI.100</b>	25
<b>FA 202.DI.125</b>	1.25"	<b>FA 202.DM.30</b>	30
<b>FA 202.DI.150</b>	1.50"		

**FA 202 Series • Technical Data**

<b>Sensitivity</b>	1.8 mV / V ± 2%
<b>Accuracy Class</b>	± 0.3% (F <sub>nominal</sub> )
<b>Temperature Coefficient</b>	± 0.1% / 10 K
<b>Temperature Range</b>	-10...+60 °C [14...140 °F]
<b>Input Resistance</b>	350 Ω
<b>Supply Voltage</b>	1...12 VDC
<b>Maximum Overload</b>	50 – 500 N = 10 x rated nominal force 1000 N = 5 x rated nominal force
<b>Sensor Material</b>	Stainless steel (aluminium cover)

**Order Code (example):**



**Scope of delivery:**

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

**Not Included:**

Mounting Screws, Washers, Cable, or Connector.

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