

## **AMGZ Series Force Measuring Sensor with Dead Shaft Adapter**

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**10 times overload protection**

**No recalibration required**

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**20:1 force measuring range**

**Accuracy class 0.5%**

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**Nominal forces from 22 - 500 lbs.**

**Sizes available for every application**

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**Stainless steel sensor**

**Corrosion resistant, ultra durable**

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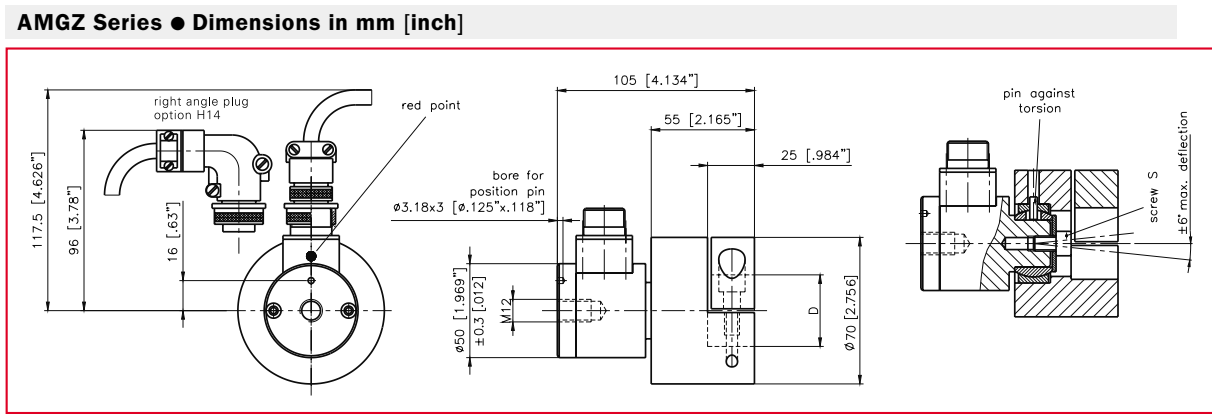


● **AMGZ Series**

The AMGZ Series Force Measuring Sensors are designed as dead shaft sensors to allow easy roller change in continuous material processing applications. They can be easily mounted to the machine frame with a single bolt or utilizing mounting brackets. The red point on the connector indicates the positive measuring direction. The AMGZ Force Measuring Sensor ensures that even with low material wrap angles and high roller weights, tension will still be measured accurately.

● **Functional Description**

Foil type strain gauges mounted in a full Wheatstone Bridge configuration in each sensor perform the actual tension measurement. This configuration combined with the flexion beam design ensures tension measurement with the highest accuracy and reliability under the most stringent requirements. The dead shaft adapter can be turned in any direction so that the shaft will always load from the top.



**AMGZ Series ● Specifications**

Sensor FMS Order Code	Nominal Force		S thread size	Weight with Adapter	
	N	lbs		kg	lbs
<b>AMGZ205.100</b>	100	22	M4	2.4	5.28
<b>AMGZ205.200</b>	200	45	M4	2.4	5.28
<b>AMGZ205.375</b>	375	84	M4	2.4	5.28
<b>AMGZ205.500</b>	500	112	M4	2.4	5.28
<b>AMGZ205.750</b>	750	169	M8	2.4	5.28
<b>AMGZ205.1500</b>	1500	337	M8	2.4	5.28
<b>AMGZ205.2250</b>	2250	506	M8	2.4	5.28

**AMGZ Series ● Adapter**

Adapter FMS Order Code	D	
	mm	inch
<b>AMGZ205.DI125</b>	31.75	1.25"
<b>AMGZ205.DI150</b>	38.10	1.50"
<b>AMGZ205.DM25</b>	25	0.98"

**AMGZ Series ● Technical Data**

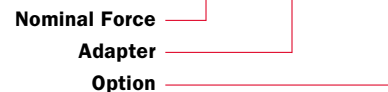
<b>Sensitivity</b>	1.8 mV/V
<b>Tolerance of sensitivity</b>	$< \pm 0.2\%$
<b>Accuracy class</b>	$\pm 0.5\%$
<b>Temperature coefficient</b>	$\pm 0.1\% / 10\text{K}$ [ $\pm 0.0055\% / ^\circ\text{F}$ ]
<b>Temperature range</b>	$-10 \dots +60\text{ }^\circ\text{C}$ [ $14\text{ }^\circ\text{F} \dots 140\text{ }^\circ\text{F}$ ]
<b>Input resistance</b>	350 $\Omega$
<b>Supply voltage</b>	1...12 VDC
<b>Overload protection</b>	10 times rated nominal force
<b>Sensor material</b>	Stainless steel

**Options:**

- H14** = right angle plug
- H15** = connection plug opposite to the red point
- H16** = temperature range up to 150 °C [300 °F]
- H18** = straight waterproof plug
- H29** = modified wiring and sealing for use in aggressive media and high temperatures to 150°C [300°F]
- H30** = modified wiring and sealing for oil based environments

**Order code:**

**AMGZ205.1500.DI125.H14**



**Scope of delivery:**

Sensor, adapter, straight connection plug, mounting screw and washer

Special sizes available on request

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