

Quick-start-guide for FMS force sensors

This document provides basic guidelines for the installation of FMS force sensors. It does not include information on options, accessories, maintenance, service, troubleshooting, dimensions or applications in explosion-proof areas.

Read these instructions thoroughly before commissioning.
Keep the document in a safe place.

Scan QR-code for detailed documents and CAD files.



Wenden Sie das Dokument für die deutsche Version.



Safety instructions

The following section indicates a possible dangerous situation which - if the safety regulations are not observed - may result in death or serious injury.



Warning - Danger of breaking

If the force transducer is heavily overloaded, there is a risk that it will break. This can result in hazards for the operating personnel of the system.

Take suitable safety measures to prevent overloading or to protect against resulting hazards.

The maximum possible loads are noted in the technical data.



Caution - Incorrect electrical connection leads to malfunctions

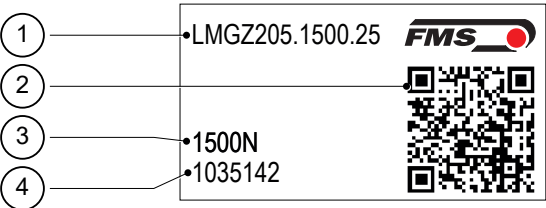
Color specifications of the strands according to IEC60757 are only valid for standard cables from FMS. If you use your own cables, the colors may differ. Incorrect measurement results or damage to components may result.

FMS recommends 2x2x0.25mm² shielded, twisted-pair cable.

Use FMS cables or ensure the correct connection.

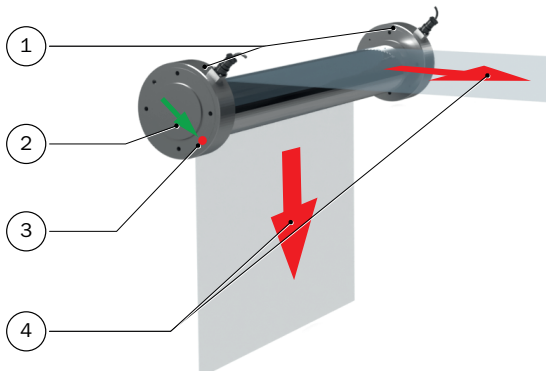
Product labeling

Pos.	Description
1	Order code
2	QR code for further, product specific information <ul style="list-style-type: none">Detailed installation instructionsData sheetTest protocolWiring diagramCAD dataetc.
3	Nominal force
4	Serial number

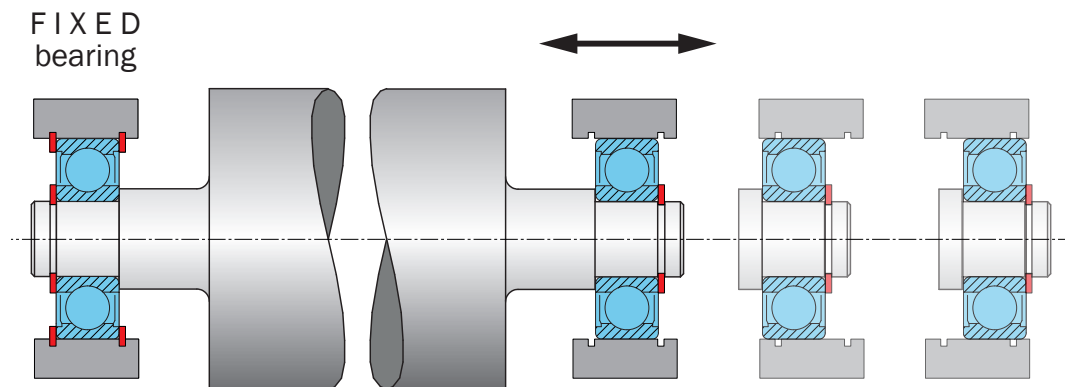


Installation

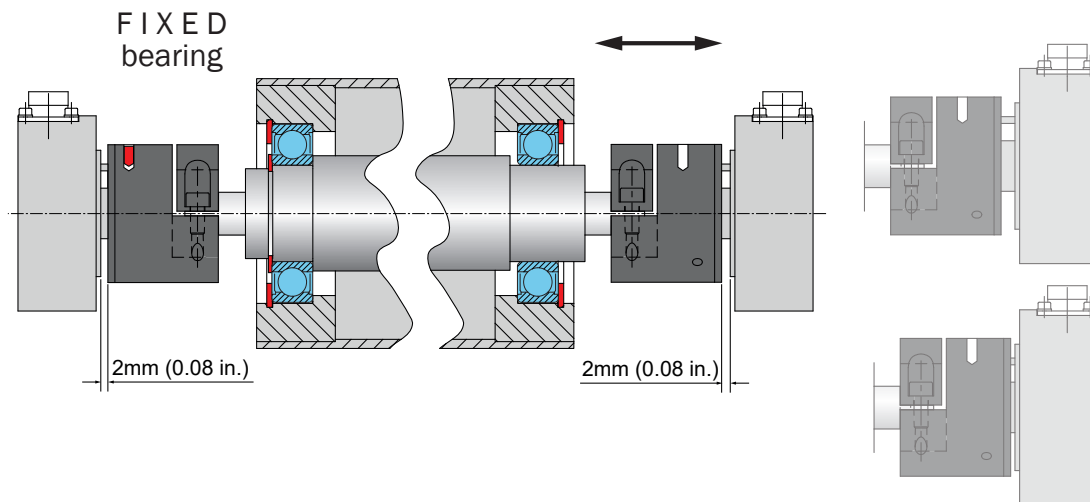
Pos.	Description
1	Force sensors
2	Resulting force on measuring roller
3	Red point, indicates the measuring direction for positive output signal
4	Web, material tension



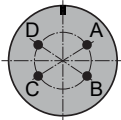
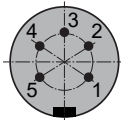
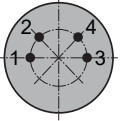
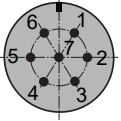
Fixed and floating bearing - LIVE shaft force sensors




Fixed and floating bearing - DEAD shaft force sensors



Electrical connection

Male connector	PIN	Wire	Color code
 AMPHENOL, 4-pole	A	Signal +	BN
	B	Exitation -	GN
	C	Exitation +	YE
	D	Signal -	WH
 M16 x 1.5, 5-pole	1	Signal +	BN
	2	Exitation -	GN
	3	Exitation +	YE
	4	Signal -	WH
	5	not connected	
 M8, 4-pole	1	Signal +	BN
	2	Exitation -	WH
	3	Exitation +	BU
	4	Signal -	BK
 AMPHENOL, 7-pole	1	Range L: Signal -	BN
	2	Range L+H: Exitation -	GN
	3	Range L: Exitation +	YE
	4	Range L: Signal +	WH
	5	Range H: Signal -	PK
	6	Range H: Exitation +	RD
	7	Range H: Signal +	GY

L, H: low and high measuring range

No connector	No.	Wire
 SMGZ- and PMGZ- series	1	Signal +
	2	Signal -
	3	Excitation +
	4	Excitation -

the single wires are numbered individually



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All data have been prepared and checked carefully. However, we cannot assume liability for any errors or incompleteness. Subject to modifications serving progress.