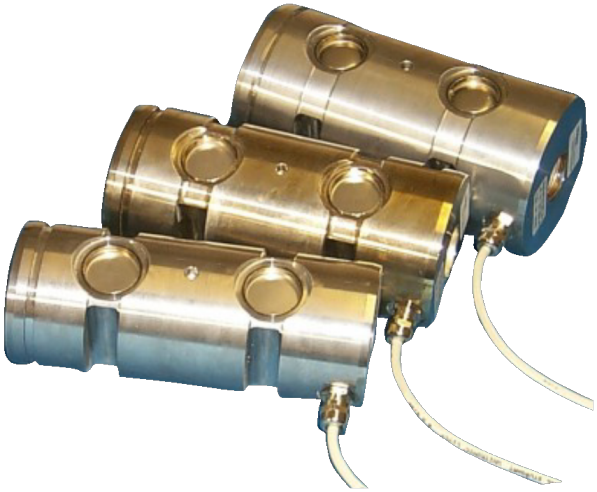
schenck process

Measuring Shaft
Typ MA6.3; MA12.5; MA25

- **Measuring shafts to replace existing shafts**
- **Stainless steel**
- **High protection class IP67**



Application
The measuring shaft is a sensor that registers overloading of cranes.

It is particularly well-suited to retroactive installation.

Design
The measuring shaft is made of stainless steel and has been designed for use in harsh industrial environments.

Function
The measuring axis works according to the principle of shear stress measurement (shear force measurement). As a result, the measurement accuracy of the measuring axis is only slightly influenced by transverse, lateral, shear or torsional forces.

It can be exposed to tensile or compressive stresses.

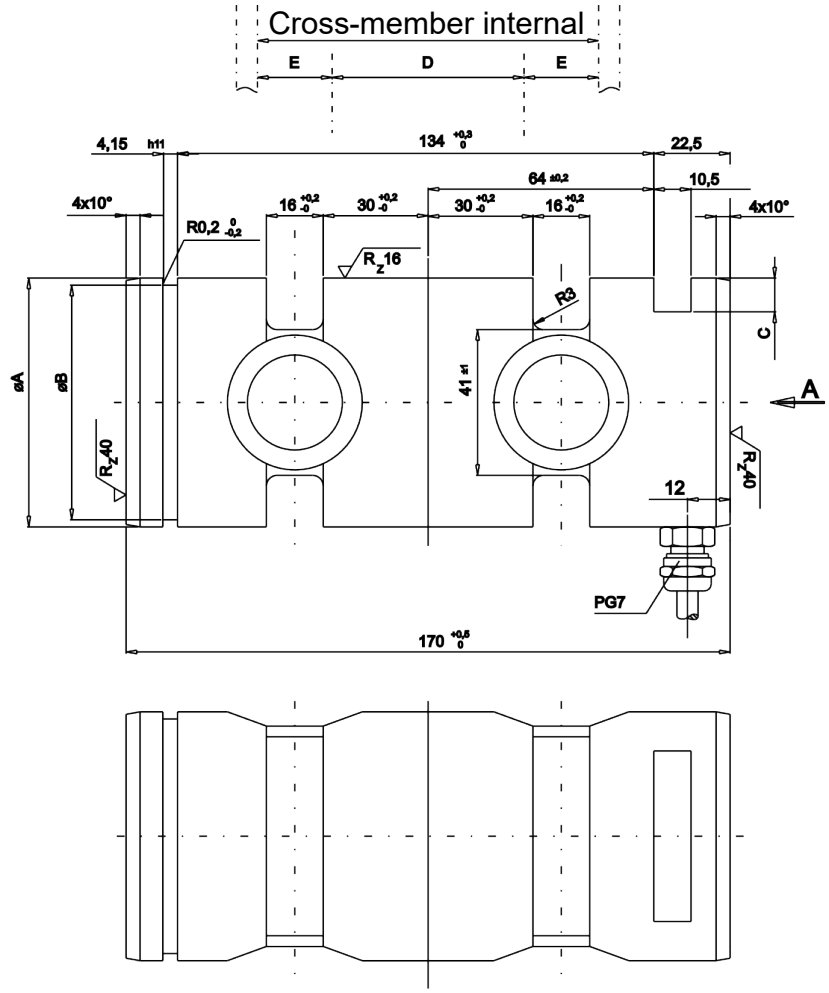
The shape of the measuring axis makes it possible, for example, to use it in rope pulleys, winches, etc.

Its main areas of application are cranes and mechanical engineering applications generally.

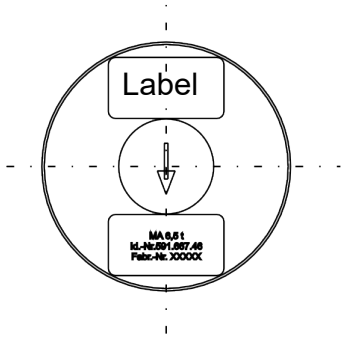
Due to its construction, it is aligned in the direction of the resulting force during installation. For example, an existing axis can be replaced by this measuring axis and the force acting on the axis can be recorded via the integrated strain gauges.

The transducer is therefore ideal for use in an overload measuring device.

Dimensions and basic data



View A



Type	Nominal load	ØA	ØB	C	D	E
MA6.3	6.3 t	70_{f6}	66_{h11}	9.5	54	21
MA12.5	12.5 t	80_{f6}	75_{h11}	14.5	60	18
MA25	25 t	90_{f6}	85_{h11}	13.5	67	14.5

Technical Data

Breaking load	5-fold reliability against breakage	
Sensitivity	C_n	1 mV/V
Compound error	F_{comb}	1 … 3 % *
Input resistance	R_e	500 Ω
Supply voltage	U_{smax}	10 V
Output resistance	R_a	500 Ω
Type of protection	-	IP67
Cable length	-	3.5 m
Nominal temperature	Btn	-20 °C … +80 °C
Material	-	1.4057
Probability of failure according to DIN EN 13849	$MTTF_D$	900 years
Core colors 4-wire	green (82): input+ / yellow (28): output+ / brown (81): input- / white (27): output- / bare (50): screen	
Option: wire colors 6-wire	gray (82.1): Sens+ / pink (81.1): Sens-	

* depending on the installation and the load range to be measured