



Traction measuring Tension measuring bearing

Measuring range 100-45000 N

To measure, regulate and control tractive forces in flexible material webs like e.g. plastic foils, metal, paper, textiles etc.



Tension measuring bearings consist of a tension measuring ball bearing housing and an integrated roller bearing, allowing them to fulfill two purposes. These are:

- bear shafts and rollers
- measure the tension of a running web

The tension measuring bearings are bolted directly to the machine column or mounted to the machine frame using brackets. Measurement is effected by four strain gauges (SG) bonded to the sides of the measuring bar.

The pick-up housing are overload protected. If abnormal operating conditions cause the admissible measuring load to be exceeded, strait pins limit the relative motion between the inner and the outer rings. This prevents plastic deformation of the measuring bar.

Technical data Type LMGZ...

sensitivity	1,8mV/V
repeating accuracy	± 0,5%
rated voltage	12V
max. voltage	18V
measuring signal at 5V and nominal load	approx. 6,5 mV
impedance of the SG-bridge	350 Ω
temperature coefficient	± 0,5%/10K
operating temperature	-10...+60°C
Overload reaction	1,5x f _N
breaking load	10x f _N
axial load	20% f _N
round connector type 4-poles	MS3057-6A

Tension measuring bearing	Nominal measuring force [N]	Bearing hole [mm]
LMGZ 200	100	9
LMGZ 200	50	10
LMGZ 201	500/250/125	12
LMGZ 203	1000/500/250	17
LMGZ 205	1500	20
LMGZ 205	750/375	25
LMGZ 307	3000	35
LMGZ 307	1500/750	10
LMGZ 310	6000	50
LMGZ 310	3000/1500	60
LMGZ 313	10000	65
LMGZ 313	5000/2500	80
LMGZ 316	30000	80
LMGZ 320	45000	100