

ZL-03 SERIES

TRACTION FORCE TRANSDUCER

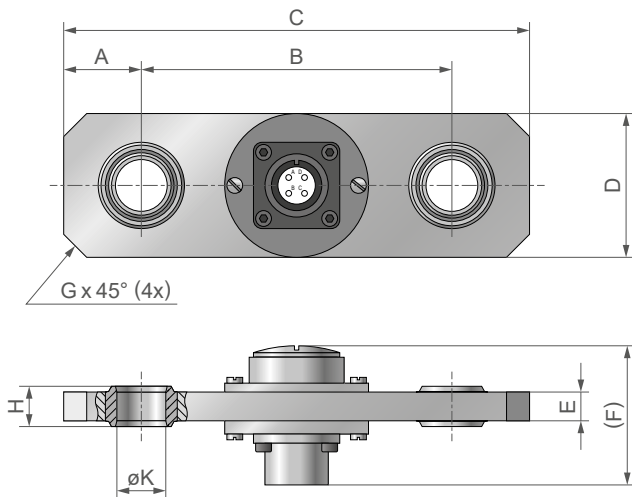
FEATURES

- Nominal Load: 10, 25, 50 or 75 kN
- Maintenance-free pendulum bearings
- Highly reliable under long-term dynamic loads
- Large Overload Capacity
- High Precision
- Excellent long-term stability
- Protection class: IP65

DESCRIPTION

The Magtrol ZL-03 Traction Force Transducer utilizes Strain Gauge Technology and was designed to support the load for long-term dynamic stresses. Connected to a signal conditioner, the transducer will provide signal proportional to the measured load.

DIMENSIONS



NOTE: All values are in metric units. Dimensions are in millimeters.

MODEL	A	B	C	D	E	F	G	H	$\varnothing K$ ^{a)}
ZL-03-10	27	108	162	50	10	~48.5	8	14	$\varnothing 17$ ($0_{-0.008}$)
ZL-03-25	44	160	248	80	16	~33.0	20	20	$\varnothing 25$ ($0_{-0.01}$)
ZL-03-50	58	210	326	100	20	~37.0	16	25	$\varnothing 35$ ($0_{-0.012}$)
ZL-03-75	72	246	390	125	25	~42.0	18	32	$\varnothing 45$ ($0_{-0.013}$)

a) The diameter of the counterpart must have a f7 tolerance.

NOTE: 3D STEP files for most of our products are available on our website: www.magtrol.com. Other files are available on request.

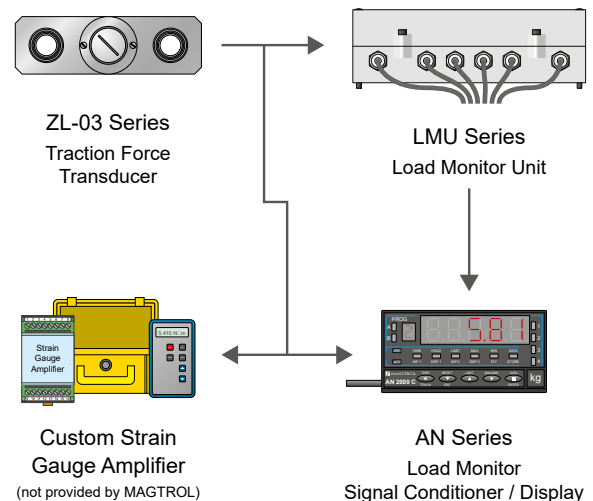


Fig. 1: ZL-03-10 | Traction Force Transducer

APPLICATIONS

The compact design along with a large overload capacity allows this transducer to provide an excellent ability to measure and monitor the force on crane cables, provide overload protection for elevators and other load measurements in various environments.

SYSTEM CONFIGURATION



SPECIFICATIONS

MODEL	ZL-03-10	ZL-03-25	ZL-03-50	ZL-03-75
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LOAD MEASUREMENT

Nominal Load (NL)	10 kN	25 kN	50 kN	75 kN
Overload Admissible (% of NL)	150 %			
Breaking Overload (% of NL)	≥ 500 %			
Combined Error (non linearity + hysteresis)	< ±0.5 %			

ELECTRICAL CHARACTERISTICS

Nominal Sensitivity	1 mV/V
Bridge Impedance Input	380 Ω (+40 Ω / -30 Ω)
Bridge Impedance Output	350 Ω (±2 Ω)
Isolation Resistance	>5 GΩ
Surface protection	galvanised
Power Supply	5...15 VDC

ENVIRONMENT

Nominal Temperature	-10 °C...+40 °C
Operating Temperature	-10 °C...+60 °C
Temperature coefficient of signal zero per 10K for nominal / for operating temperature range	< ±0.1 % / < ±0.2 %
Temperature coefficient of sensibility per 10K for nominal / for operating temperature range	< ±0.1 % / < ±0.1 %

ELECTRICAL CONNECTION

Connector	MS 3012 A, 4 poles
Cable assembly (optional)	cable length 3 m with connector
Wiring Diagrams	

ORDERING INFORMATION

ORDERING INFORMATION	ZL-03 - _ _ _
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10, 25, 50, 75 : Model ZL-03

Cable assembly	ZL-03-10-10
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Example: ZL-03 Traction Force Transducer 50 kN
would be ordered as : **ZL-03-50**