
ZM-S Series Force Transducers

NOTE: Not available in U.S.

FEATURES

- Low assembly dimensions
- 100 N to 1 kN made of high-strength aluminium alloy
- 5 kN to 50 kN made of stainless steel
- Enclosure protection IP 65



DESCRIPTION

The transducers in the ZM-S series are designed for the measurement of static and dynamic pressure forces. They are characterised by their small dimensions. The sensor element is a diaphragm body fitted with metal foil strain gauges.

The 100 N to 1 kN transducers are fitted with the help of three screw taps on a flat surface. Force, including tensile force in this range, is introduced keeping

transverse force off through the M4-type female thread using an appropriate coupling unit. The 50 kN transducers are fitted with the help of four screw taps on a flat surface. Force is introduced through the integrated calotte.

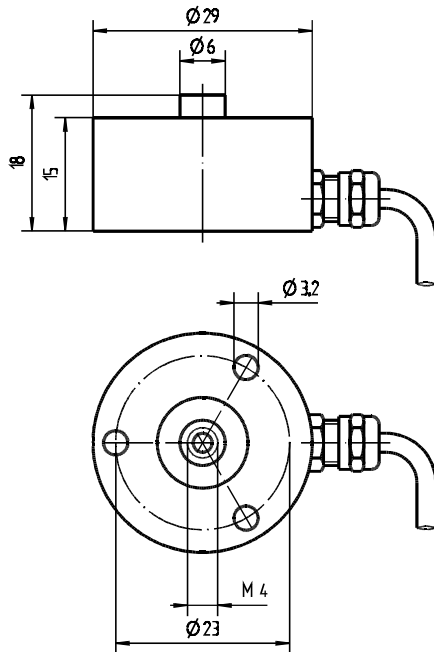
All ZM-S series transducers are supplied with a 1.5 m long connection cable with free ends as standard.

Accuracy class		1		
Nominal force (=F _N)	N kN	100/200/500 1	5/10/20	50
Max. permissible force	%F _N		150	
Ultimate overload	%F _N		>300	
Max. transverse force/load	%F _N		20	
Reference temperature	°C		+23	
Nominal temperature range	°C		-20 to +60	
Storage temperature range	°C		-30 to +70	
Enclosure protection (DIN 40050)			IP 65	
Nominal sensitivity (=S)	mV/V	~1		~1
Zero tolerance band	%S	≤3		≤3
Max. supply voltage	V	10		10
Input resistance	Ω	380 ±30		760 ±50
Output resistance	Ω	352 ±1.5		710 ±10
Insulation resistance	Ω	>5 × 10 ⁹		>5 × 10 ⁹
Combined error				
(Linearity error and width of backlash)	%S		1	
TC of zero per 10 K	%S		≤0.5	
TC of sensitivity per 10 K	%S		≤0.5	
Creepage error (30 min)	%S		≤0.5	

PIN CONNECTIONS

Pin	To DIN	
Supply voltage (+)	red	brown
Supply voltage (-)	blue	yellow
Measuring voltage (+)	green	green
Measuring voltage (-)	yellow	white
Shield	black	black
Cable length	1.5 m	

ZM-S 100 N to 1 kN

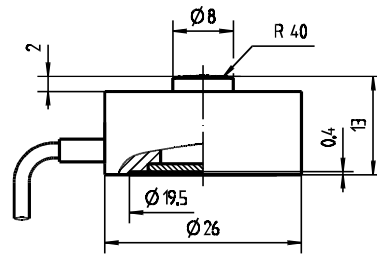


MODELS
Nominal force

- 100 N
- 200 N
- 500 N
- 1 kN

Weight: ≈25 g

ZM-S 5 kN to 20 kN

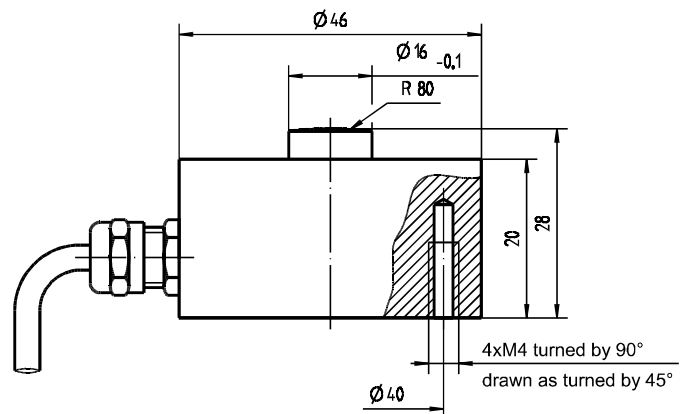


MODELS
Nominal force

- 5 kN
- 10 kN
- 20 kN

Weight: ≈55 g

ZM-S 50 kN



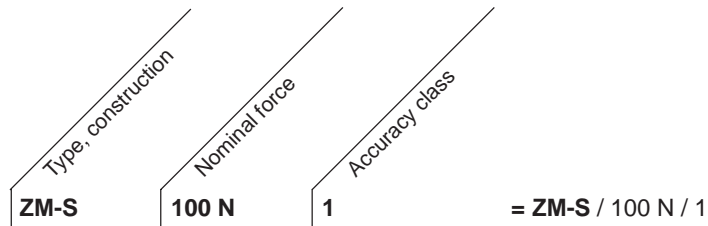
MODELS
Nominal force

- 50 kN

Weight: ≈230 g

ORDERING INFORMATION
**Explanation of Type Code
(Ordering Example)**

for Force Transducers


SYSTEM OPTIONS

Model No.	Product Description	Ordering Number
LMU 112	Load monitoring unit containing 2 level detectors, 1 current and 1 voltage O/Ps	224-112-000-XXX
LMU 116	Load monitoring unit containing 4 level detectors, taring and 4 summer functions	224-116-000-XXX
LMU 117	Dual channel load monitoring unit (2 x LMU 112)	224-117-000-XXX
AN 2000 C	Digital process monitor for strain gauge transducers	AN 2000 C /X/X/XX/XX/X

Due to the continual development of our products, we reserve the right to modify specifications without forewarning.


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