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## **ZS-B Series Force Transducers**

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### **FEATURES**

- For tensile and pressure forces to 10 kN
- Very robust construction
- Enclosure protection IP 65
- Made of stainless steel



### **DESCRIPTION**

The ZS-B transducer is an exceptionally robust transformer that was developed for industrial applications in the force range to 10 kN. It is characterised by a very low sensitivity to stress by lateral forces. It can be used for the measurement of both tensile forces and compressive stress. The sensor element is fabricated as a transverse body. A full bridge made of

metal foil strain gauges transforms the elastic deformation formed by the force to be measured into a correspondingly proportional resistance adjustment. The entire unit is made of a special stainless steel. As a standard, the transducers are supplied with a 3 m long connection cable with free ends.

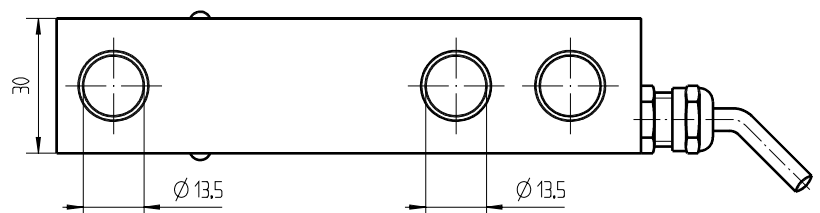
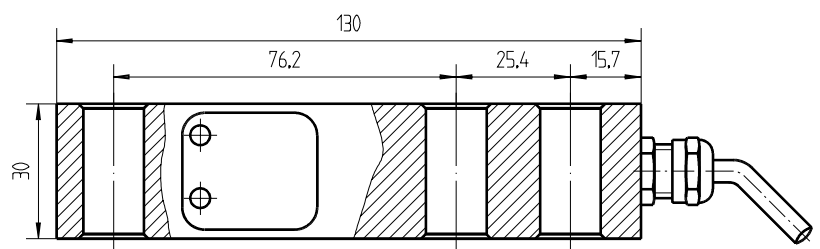
Accuracy class		0.1	0.05
Nominal force ( $=F_N$ )	kN		10
Max. permissible force	$\%F_N$		150
Ultimate overload	$\%F_N$		>500
Max. transverse force	$\%F_N$		100
Reference temperature	°C		+23
Nominal temperature range	°C		-20 to +60
Storage temperature range	°C		-30 to +70
Enclosure protection (DIN 40050)			IP 65
Nominal sensitivity ( $=S$ )	mV/V		2.00 ±0.01
Zero tolerance band	$\%S$		≤1
Max. supply voltage	V		10
Input resistance	Ω		380 ±30
Output resistance	Ω		352 ±3
Insulation resistance	Ω		>5 × 10 <sup>9</sup>
Combined error *	$\%S$	0.1	0.05
Linearity error *	$\%S$	0.1	0.05
Width of backlash *	$\%S$	0.1	0.05
TC of zero per 10K *	$\%S$	0.1	0.05
TC of sensitivity per 10K *	$\%S$	0.1	0.05
Creepage error (30 min) *	$\%S$	0.1	0.05

\* According to VDI 2637

## PIN CONNECTIONS

Pin	To DIN
Supply voltage (+)	brown
Supply voltage (-)	yellow
Measuring voltage (+)	green
Measuring voltage (-)	white
Shield	black
Cable length	3 m

## DIMENSIONS



## MODELS

### Nominal force

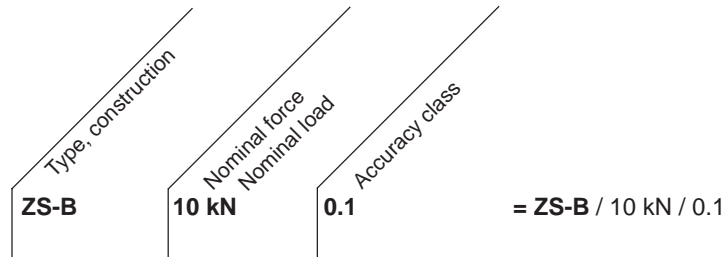
10 kN

Weight: 1 kg

## 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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