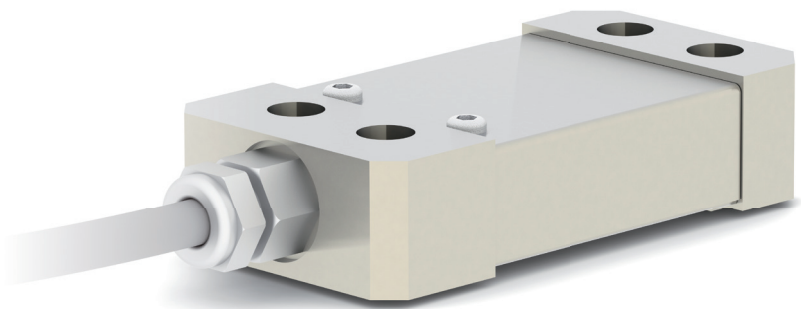


Strain transducer **DE X.X**



For strains up to $\pm 750 \mu\epsilon$
CANopen signal output
Optional with integrated measuring amplifier
with analogue current and voltage output
Encased design IP 67

Force measurement on forming presses
Use on wind turbines
Applications on injection moulding machines

Designed,
developed and
made in Germany

Type DE strain transducers are distinguished by their compact and robust design. They are screwed to existing machine components and measure the strain in the force shunt. Extremely high forces can also be recorded through this indirect measurement.

Strain transducers have been optimised for three measuring ranges:

strains from $0 \dots \pm 250 \mu\epsilon$, $0 \dots \pm 500 \mu\epsilon$ or $0 \dots \pm 750 \mu\epsilon$.

The strain transducers provide a digital CANopen output signal. The strain transducers are optionally available with integrated measuring amplifiers that provide an analogue output signal, current or voltage. With these measuring amplifiers, the zero point, tare and gain can

be adjusted at any time via an external control line, even after installation.

Use of strain transducers has proved extremely successful, particularly in mechanical engineering and on large machine plants.

Technische Daten

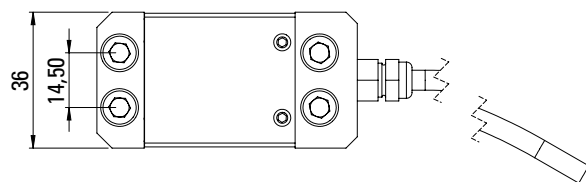
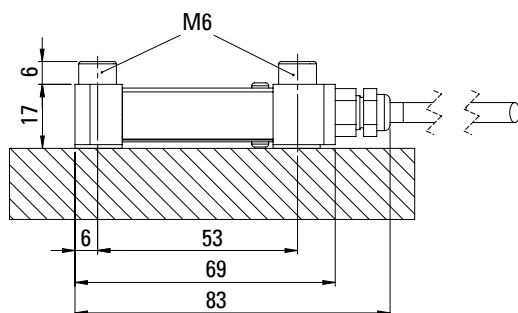
Type	DE 1.0	DE 1.1	DE 1.2
Nominal strain	250 $\mu\epsilon$	500 $\mu\epsilon$	750 $\mu\epsilon$
Material	Stainless steel		
Weight (without cable)	0.2 kg		
Limit strain	2-times nominal strain		
Accuracy	$\pm 0.5\%$ f.s.*		
Reference temperature	20°C		
Nominal temperature range	-10°C up to +80°C		
Working temperature range	-30°C up to +80°C		
Temperature coefficient of gain	< 0.2 % f.s./10 K		
Temperature coefficient of zero	< 0.2 % f.s./10 K		
Nominal deflection	< 0.1 mm		
Degree of protection	IP 67		
Vibration resistance	20g, 100 h, 50 ... 150 Hz		

* f.s. = full scale value

1 $\mu\epsilon$ = 0,001 mm/m, i.e. 1 $\mu\epsilon$ equivalent to 0,001 mm strain per metre

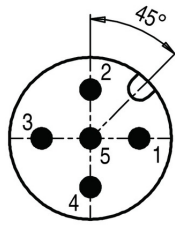
Dimensions

in mm



Fastening via 4 M6 screws

Technical data

Version	CANopen according to CiA 301 V4.02, CiA 404 V1.02		
Supply U+	8...40 V		
Resolution	10 ... 16 bit (depending on the measuring rate)		
Measuring rate	20 ... 500 Hz		
Insulation resistance	> 1 GΩ (at 50 V)		
Max. power consumption	60 mA		
Electrical protection	Reverse voltage protection		
Cable type (if provided)	HELU-Supertronic-330-C PURö, ozone-resistant, 4 x 0,14 mm ² , length 2 m		
Electrical connection variants	Cable	M 12 x 1 5-pole	
	U+	WH	2
	GND	BN, BU	1,3
	CAN-H	BK	4
	CAN-L	GY	5
	Shield	single-sided	
Pole assignment			

Options

- » With integrated measuring amplifier MV8.0
 - › with analogue current and voltage output
 - › adjustable (Teach function): Zero, Tara and Gain