

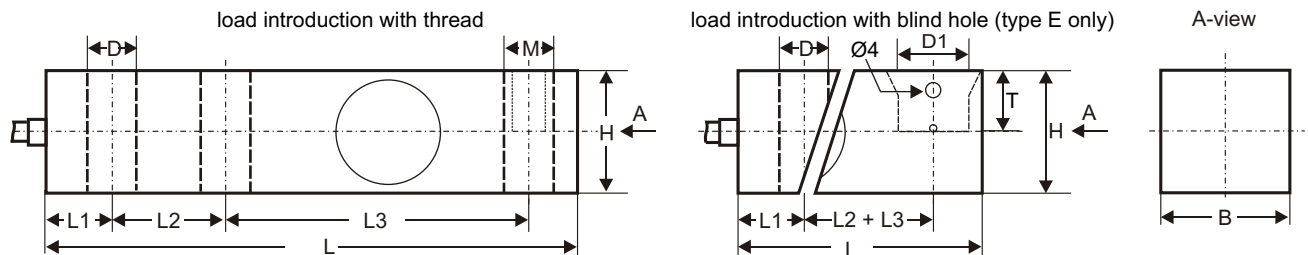
# Shear force transducer

## Characteristics



Material: alloy steel (type L) / stainless steel (type E) aluminium alloy (type A)  
 Range: 20.....10000 kg  
 Output: 3 mV/V ( $\pm 0,004$ ) / 2 mV/V ( $\pm 0,1$ )  
 Bridge supply: 10 V AC/DC  
 Accuracy: 0,02% of end scale value  
 Degree of protection: IP 66 / IP 67  
 Connection cable: 6 m / 3 m (4-wire)

## Dimensions



model	capacity	L	L1	L2	L3	H	B	D	M	D1	T
type A	20...500 kg	130	15,8	25,4	76,2	32	32	Ø13,5	M12 x 1,75	-	-
type E / L	500...2000 kg	130	15,8	25,4	76,2	31,8	31,8	Ø13,5	M12 x 1,75	18	15
type E / L	2500...5000 kg	171,5	19,1	38,1	95,3	38,1	38,1	Ø19,8	M20 x 1,5	25	20,5
type E / L	7500...10000 kg	222,2	25,4	50,8	120,6	50,8	50,8	Ø26,2	M24 x 2,0	30	31

## Technical data

### Input

Nominal load type A: 20 / 30 / 50 / 100 / 200 / 350 / 500 kg  
 Nominal load type E / L: 500 / 1000 / 1500 / 2000 / 2500 / 3000 / 5000 / 7500 / 10000 kg  
 Input resistance: type A: 410 ohms  $\pm 10$  type E / L: 400 ohms  $\pm 5$   
 Insulation resistance: >5000 Mohms at 50 VDC  
 Overload: type A: safe overload 120% FS  
                   ultimate load 150% FS  
                   type E / L: safe overload 150% FS  
                   ultimate load 200% FS

### Output

Sensitivity: type A: 2,0 mV/V  $\pm 0,1$   
                   type E / L: 2,0 mV/V / 3 mV/V  $\pm 0,004$   
 Output resistance: 350 ohms  $\pm 3$

### Accuracy

Combined error: 0,02% FS  
                   option type L: OIML R60 C3  
 Linearity / hysteresis: 0,02% FS  
 Repeatability: 0,01% FS  
 Creep: 0,02% FS / 30 min  
 Temp.-coeff. on output: 0,02% FS / 10°C  
 Temp.-coeff. on zero: type A: 0,02% FS / 10°C  
                   type E / L: 0,03% FS / 10°C  
 Zero unbalance:  $\pm 1\%$  FS

### Voltage supply

Recommended: type A: 9...12 V AC/DC / type E / L: 10 V AC/DC  
 Maximum: type A: 18 V AC/DC / type E / L: 15 V AC/DC

### Ambient temperature

Compensated: type A: -10...+40°C / type E / L: -10...+55°C  
 Operating: type A: -35...+65°C / type E / L: -35...+70°C

### Mechanics

Dimension: see table  
 Material: type A: aluminium alloy / type E: stainless steel  
                   type L: alloy steel  
 Surface: type A: anodized / type L: nickel plated  
 Protection: type A / E / L: IP 66 / type E / L: IP 67  
                   IP 67: laser welded sealing  
 Weight: type A: 20...500 kg: approx. 1 kg  
                   type E / L: 500...1500 kg: approx. 1,3 kg  
                   type E / L: 2000 kg: approx. 1,5 kg  
                   type E / L: 2500...3000 kg: approx. 1,8 kg  
                   type E / L: 5000 kg: approx. 3 kg  
                   type E / L: 7500...10000 kg: approx. 5,8 kg  
 Cable: type A: 3 m polyurethan, shielded, 4 wire  
                   type E / L: 6 m polyurethan, shielded, 4 wire  
                   option: 6 wire

## Applications

For use in all ranges where weights have to be measured, e.g. in electronic vehicle scales, hoppers and silos in loading plants for ports, theatre technics and terotechnology.



Ordering Code

C	A	X	X	X	X	X	X	-	X	X	X
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<b>Sensitivity:</b>	3 mV/V (on request)	0									
	2 mV/V	1									
<b>Capacity:</b>	20 kg		8								
	30 kg		9								
	50kg		A								
	100 kg		B								
	200 kg		C								
	350 kg		D								
	500 kg		0								
	1000 kg		1								
	1500 kg		2								
	2000 kg		3								
	2500 kg		4								
	3000 kg		5								
5000 kg		6									
7500 kg		E									
10000 kg		F									
<b>Load introduction:</b>	through bore with thread 1/2 through							0			
	blind hole (on request for type E only)							8			
<b>Material:</b>	alloy steel IP 66							0			
	stainless steel IP66							1			
	alloy steel IP 67							2			
	stainless steel IP 67							3			
	aluminium alloy							4			
<b>Connection:</b>	6 m cable 4-wire, shielded (type E / L)								0		
	6 m cable 6-wire, shielded (on request)								1		
	3 m cable 4-wire, shielded (type A)								2		
	3 m cable 6-wire, shielded (on request)^								3		
<b>Accuracy:</b>	0,02 % FS									0	
	OIML R60 C3 (on request)									1	
<b>Other / accessories:</b>	special model										0

Standard specification  
 Type A: aluminium alloy / 20...500 kg / 2 mV/V / 0,02% FS / IP 66 / 3 m cable, 4-wire  
 Type E: stainless steel / 500...10000 kg / 2 mV/V / 0,02 % FS / IP 66 / 6 m cable, 4-wire  
 Type L: alloy steel / 500...10000 kg / 2 mV/V / 0,02 % FS / IP 66 / 6 m cable, 4-wire  
 Spacer: 500...2000 kg: 4 mm / 2500...5000 kg: 6 mm / 7500...10000 kg: 8 mm

Accessories: spacer: included fastening screws: on request  
 guard plate for cable: on request fixation plate for foot: on request  
 load foot: on request

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