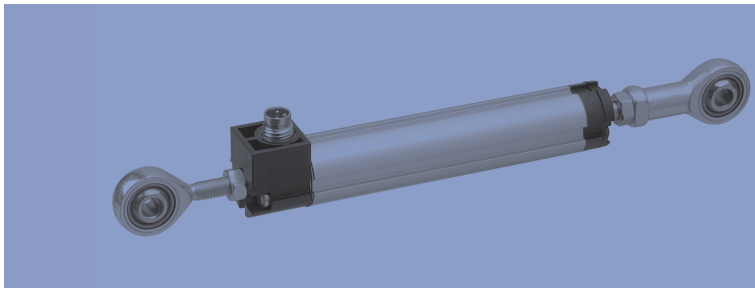


Position Transducers
potentiometric,
up to 300 mm, IP67

Series TEX



Special features

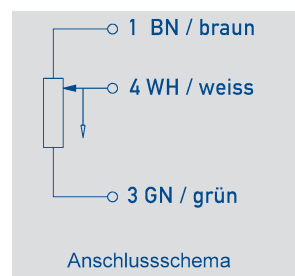
- compact dimensions
- protection class up to IP67
- pivot heads with large angle of free movement
- very high lifetime up to 100 mio. movements (depending on application)
- resolution better than 0.01 mm
- outstanding linearity
- variable customer interface
- applications under adverse ambient conditions, including humidity, fluids, dust

Excellent sealing and

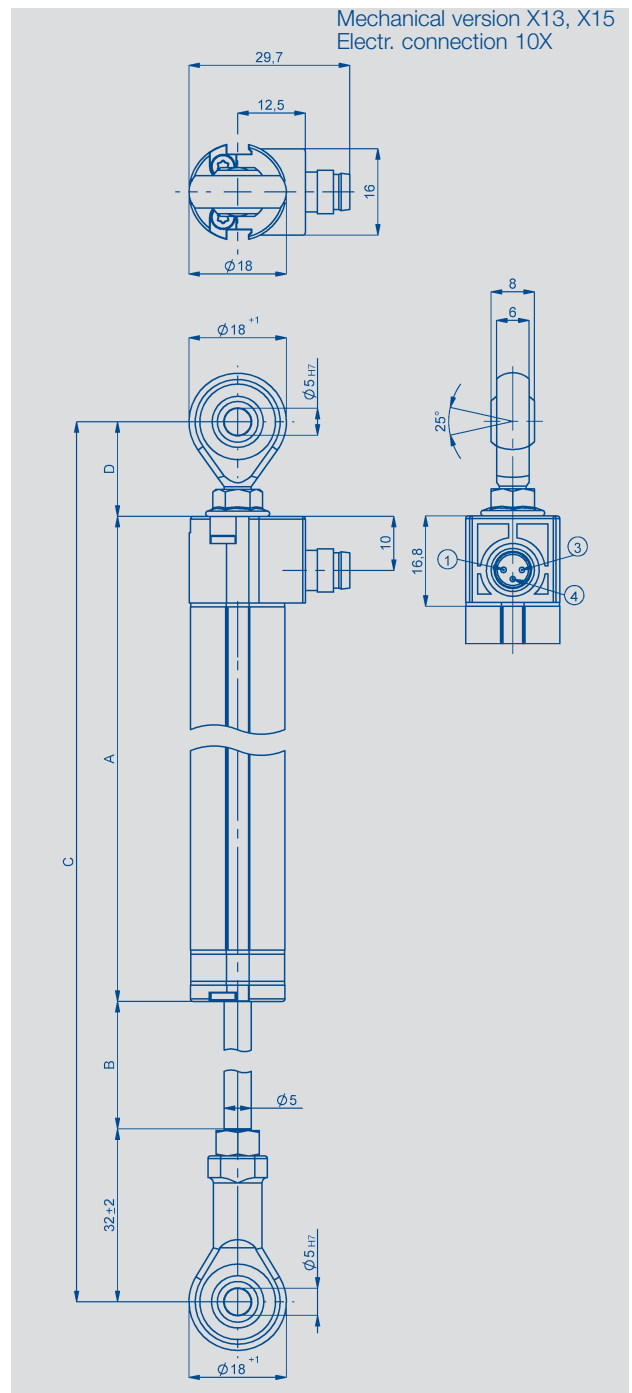
long lifetime, combined with smallest dimensions identify this cost effective linear transducer.

This sensor is well suited for mobile applications due to its easy-to-fix moveable pivot heads.

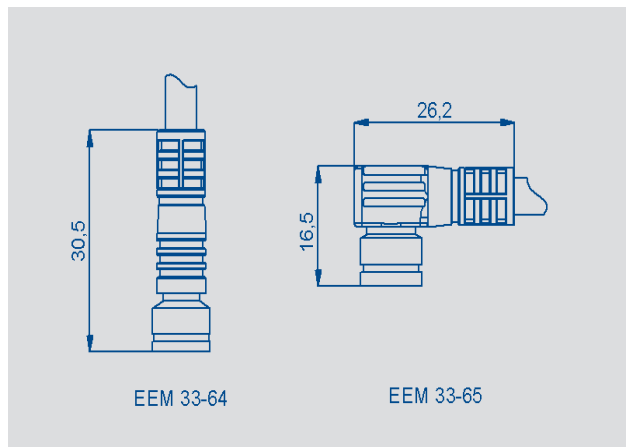
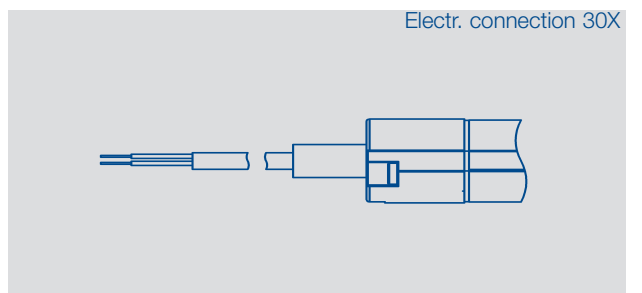
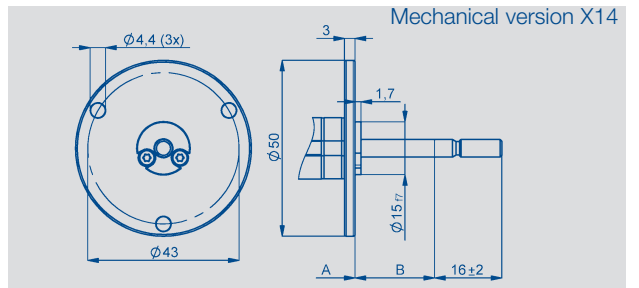
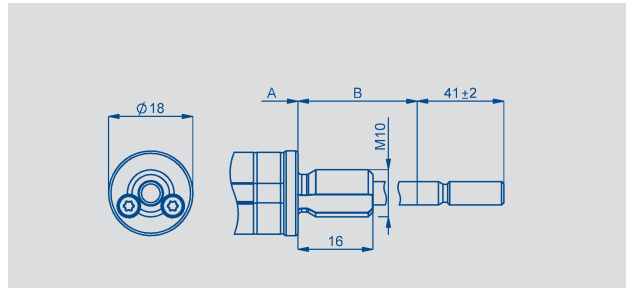
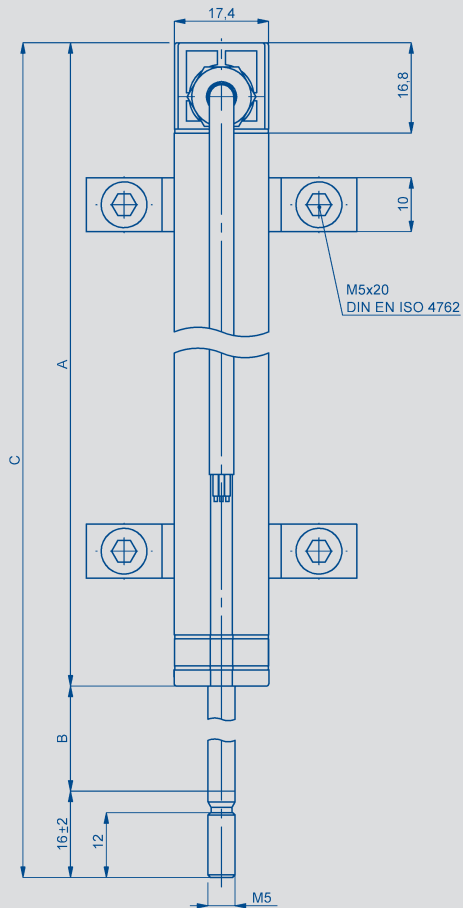
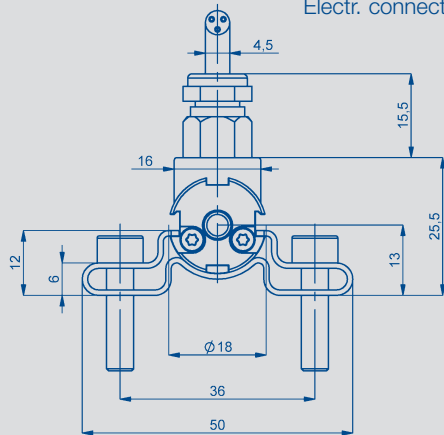
Multiple mounting possibilities, as fixing clamps for precise measurement applications or center bushing or bolt-through flange plates (customer specific designs available on request, allow for an optimal adaption to the relative measurement environment. Optional cable or connector outlets also contribute to the customer flexibility.



Mechanical version X13, X15
Electr. connection 10X



Mechanical version X11
Electr. connection 20X



Typ designations	TEX 0010	TEX 0025	TEX 0050	TEX 0075	TEX 0100	TEX 0125	TEX 0150	TEX 0175	TEX 0200	TEX 0250	TEX 0300	
Electrical Data												
Defined electrical range	10	25	50	75	100	125	150	175	200	250	300	mm
Nominal resistance	1	1	2	3	4	5	6	7	8	10	12	k Ω
Resistance toleranz	20 (linearized; electr. version 002) 30 (nonlinearized; electr. version 001)											$\pm\%$ $\pm\%$
Independent linearity	0,25	0,2	0,1	0,1	0,1	0,05	0,05	0,05	0,05	0,05	0,05	$\pm\%$
Repeatability	$\leq 0,01$											mm
Recommended operating wiper current	≤ 1											μ A
Max. wiper current in case of malfunction	10											mA
Max. permissible applied voltage	42											V
Temperature coefficient of the output-to-applied voltage ration	typical 5											ppm/K
Insulation resistance (500 VDC, 1 bar, 2 s)	≥ 10											M Ω
Dielectric strength (50 Hz, 2 s, 1 bar, 500 VAC)	≤ 100											μ A
Mechanical Data												
Body length (dimension A)	63	78	103	128	153	194	219	244	269	314	369	± 2 mm
Mechanical stroke (dimension B)	14	29	54	79	104	132	157	182	207	257	307	mm
Minimum distance between pivot heads (dim. C), version X15 (dim. D = 17,5 mm)	114	129	154	179	204	245	270	295	320	370	420	± 2 mm
Minimum distance between pivot heads (dim.C), version X13 (dim. D = 24,5 mm)	121	136	161	186	211	252	277	302	327	377	427	± 2 mm
Environmental Data												
Operating speed	5											m/s max.
Temperature range	-40 ...+85 (-40...+100 on request)											$^{\circ}$ C
Vibration	5...2000 $A_{max} = 0.75$ $a_{max} = 20$											Hz mm g
Shock	50 6											g ms
Life	100 x 10 ⁶ typ. (IP40, IP54) 50 x 10 ⁶ typ. (IP65, IP66)											movem. movem.
Protection class	up to IP 66 DIN 40500 / IEC											

Ordering specifications

										Electr. version 002 Standard: Independent linearity $\pm 0.05\%$ up to $\pm 0.25\%$					
										Electr. connection 101 3-pin M8 connector (STD) 201 Radial cable - 1 meter 202 Radial cable - 2 meter (STD) 203 Radial cable - 3 meter 205 Radial cable - 5 meter 301 Axial cable - 1 meter 302 Axial cable - 2 meter (STD) 303 Axial cable - 3 meter 305 Axial cable - 5 meter					
T	E	X	0	1	5	0	3	1	1	0	0	2	2	0	1
Series								Mechanical mounting 1 Standard: "snap-on" clamps 2 Optional: Centric mounting M 16x1.5 3 Optional: Pivot heads 4 Optional: Flange mounting 5 Optional: Pivot heads (short version)							
								Mechanical version actuating rod X1X 1 Standard: Transducer with one-side-rod, M5							
								Mechanical linkage 3 Optional: one-sided actuating shaft, IP40 4 Standard: one-sided actuating shaft, IP54 5 Standard: one-sided actuating rod, IP67							
			Electrical defined range Standard: 0010 up to 0300; in mm steps; diverse standard lengths												

Connector pin assignment

The pin assignments are depending on the relative versions.

Recommended accessories

Connector M8x1, 2 m cable, EEM 33-64, IP67, Art.No. 005617;
 Angle connector M8x1, 2 m cable, EEM 33-65, IP67, Art.No. 005618;
 Connector with longer cable on request