

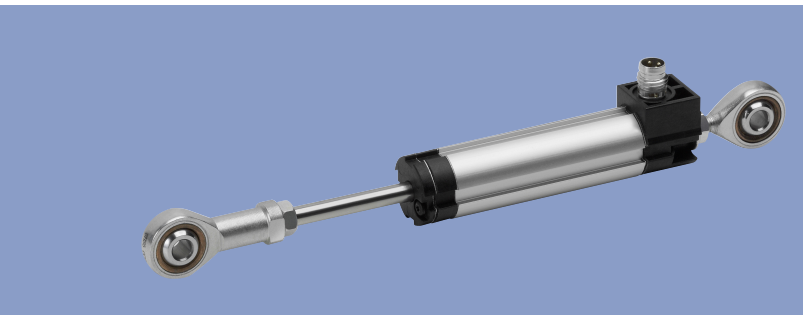
Position Transducers

Pivot head mounting

potentiometric

up to 300 mm, IP54

Series TEX



Special features

- compact dimensions

• protection class IP54

• mountable over back-lash

free pivot heads with a large

angle of free movement (up to

±12,5°)

• very long life (depending on

application) up to 100 million

movements

• resolution better than 0.01

mm

• outstanding linearity up to

±0.05 %

• variable mechanical custo-

mer interfaces

• cable or connector version

available

• heavy-duty version IP67 see

data sheet TX2

Compact design and easy to

assemble via pivot heads cha-

characterize this inexpensive

transducer. This transducer is

suitable for various industry

applications. By the simplicity

of the measuring system -

passive and absolute - the

transducer is largely insensi-

tive to electrical interference.

The measuring value remains

despite power failure.

The electrical connection can

be made via a radial plug con-

necter, a radial or axial cable.

Transducers with and without

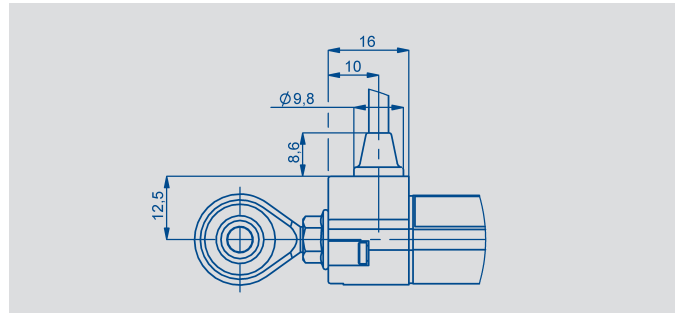
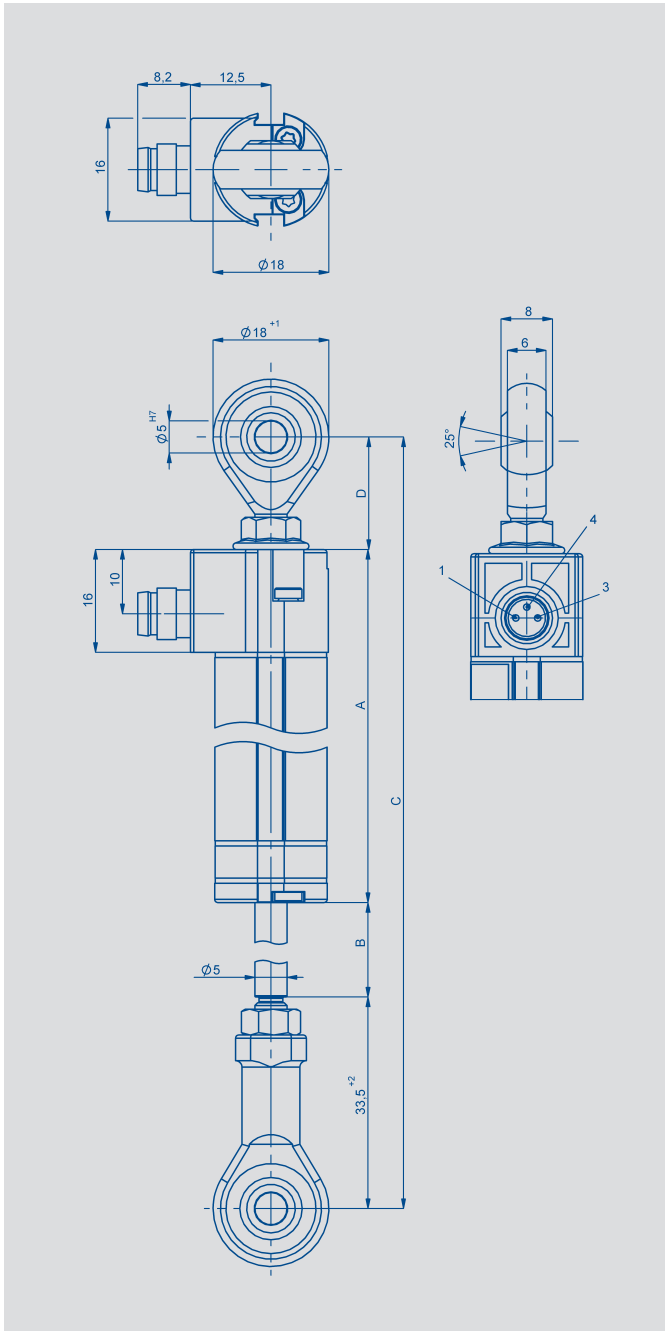
restoring spring and mounting

clamp, central thread or flange

plates see separate data

sheets TEX.

Description	
Housing	aluminium, anodized
Mounting	see drawing
Actuating rod	stainless steel (1.4305), rotatable, external thread M5
Bearings	sleeve bearing
Resistance element	conductive plastic
Wiper assembly	precious metal multi-finger wiper
Electrical connections	3-pin round connector M8x1
	3-wire PUR-cable, 3x0.14 mm ² , shielded, 2 m or 5 m lengths



Type 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
Electrical range	12	27	52	77	102	130	155	180	205	255	305	mm
Nominal resistance	1	1	2	3	4	5	6	7	8	10	12	kΩ
Resistance tolerance	20											±%
Independent linearity	0.25	0.2	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05	±%
Repeatability	0.01											mm
Recommended operating wiper current	≤ 1											μA
Max. wiper current in case of malfunction	10											mA
Max. permissible applied voltage	42											V
Effective temperature coefficient of the output-to-applied voltage ration	typical 5											ppm/K
Insulation resistance (500 VDC)	≥10											MΩ
Dielectric strength (500 VAC, 50 Hz)	≤100											μA
Mechanical Data												
Body length (dimension A)	63	78	103	128	153	194	219	244	269	319	369	±2 mm
Mechanical stroke (dimension B)	14	29	54	79	104	132	157	182	207	257	307	±2 mm
Min. distance between pivot heads nominal (dim. C), version_15, dim. D=18 mm	114.5	129.5	154.5	179.5	204.5	245.5	270.5	295.5	320.5	370.5	420.5	
Min. distance between pivot heads nominal (dim. C), version_13, dim. D=25 mm	121.5	136.5	161.5	186.5	211.5	252.5	277.5	302.5	327.5	377.5	427.5	
Weight approx.												
cable version TEX-_-_-_-1_-002-202	111	116	126	136	146	186	196	206	216	236	256	g
connector version TEX-_-_-_-1_-002-101	79	84	94	104	114	154	164	174	184	204	224	g
Operating force horizontal	≤ 3.0 (at RT 20° C)											N
Environmental Data												
Temperature range	-40 ...+85											°C
Operating humidity range	0...95 (no condensation)											% R.H.
Vibration	5...2000 A _{max} = 0.75 a _{max} = 20											Hz mm g
Shock	50 6											g ms
Life	> 100 x 10 ⁶ typ.											movements
Operating speed	10											m/s max.
Protection class	IP54 DIN EN 60529											

Ordering specifications

Preferred types printed in bold

Electrical version
002: linearized

Electrical connection
101: 3-pin round connector M8x1, radial output
202: NT standard cable 2 m, radial output
205: NT standard cable 5 m, radial output

T E X - 0 1 5 0 - 4 1 5 - 0 0 2 - 2 0 2

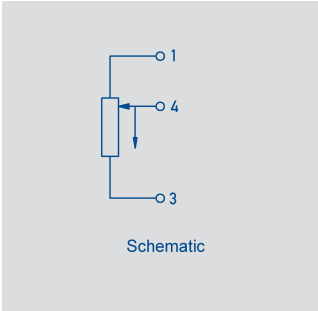
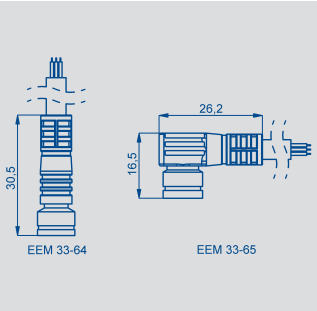
Series

Mechanical fixing
3: Pivot heads long
5: Pivot heads short

Mechanical version actuating rod
1: Transducer with one-side rod and thread M5

Protection class
4: one-side actuating rod, IP54

Electrical defined range
Standard lengths from 0010 mm up to 0300 mm



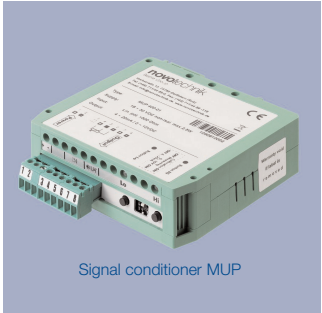
Output connector Code 101	Cable Code 202, 205	Connector with cable EEM 33-64, / -66 / -68 / -65 / -67 / -69
PIN 1	BN brown	BN brown
PIN 4	WH white	BK black
PIN 3	GN green	BU blue

Optional accessories

PUR-cable with 3-pin female connector M8x1, 3x0.34 mm², IP67, unshielded:
2 m lengths, EEM-33-64, P/N 005617,
5 m lengths, EEM-33-66, P/N 005619,
10 m lengths, EEM-33-68, P/N 005643.

PUR-cable with 3-pin angled female connector M8x1, 3x0.34 mm², IP67, unshielded:
2 m lengths, EEM-33-65, P/N 0056018,
5 m lengths, EEM-33-67, P/N 005620,
10 m lengths, EEM-33-69, P/N 005644
Other cable on request.

Process-controlled indicators MAP... with display, Signal conditioner MUP.../MUK... for current supply 24 V and standardized output signals.



Important

All values specified in this data sheet for linearity, lifetime and temperature coefficient are only valid for a sensor used as a voltage divider with virtually no load applied to the wiper ($I_e \leq 1 \mu A$).