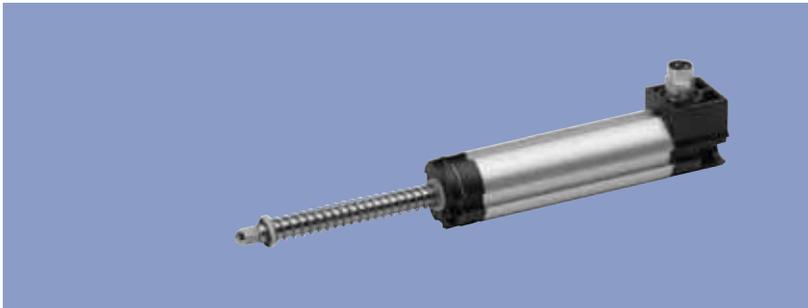


**Position Transducers
with return spring
potentiometric
up to 200 mm, IP 54**

Series TEX



Special features

- compact dimensions
- protection class IP54
- Position transducer with return spring
- very long life (depending on application) up to 50 million movements
- resolution better than 0.01 mm
- outstanding linearity up to $\pm 0.05\%$
- variable mechanical customer interfaces
- hardened tip
- cable or M8 connector available

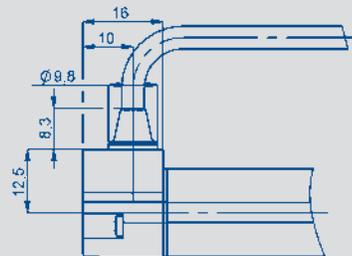
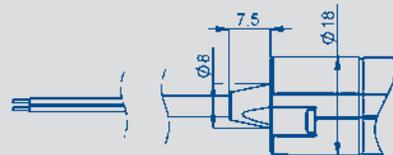
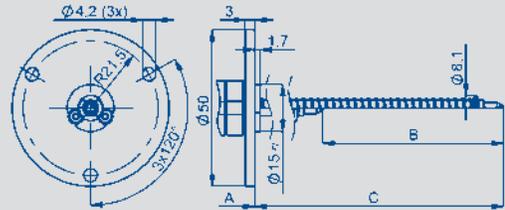
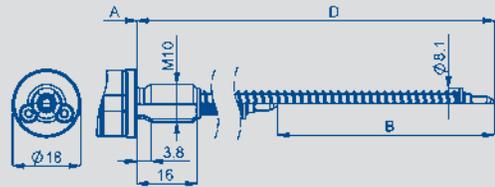
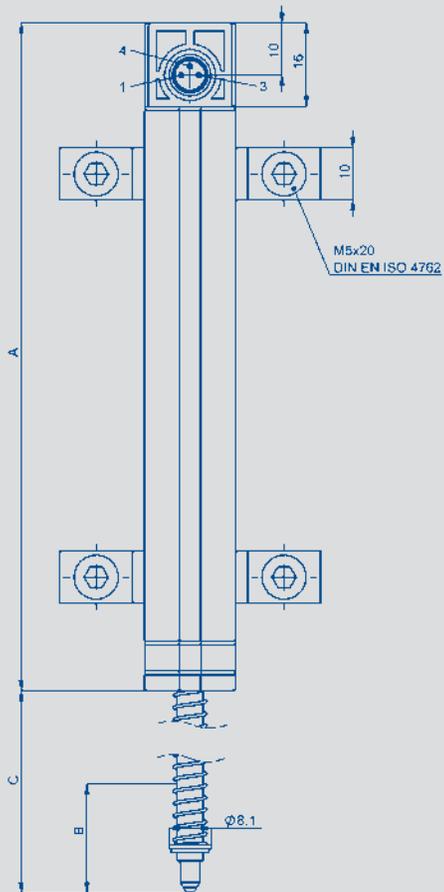
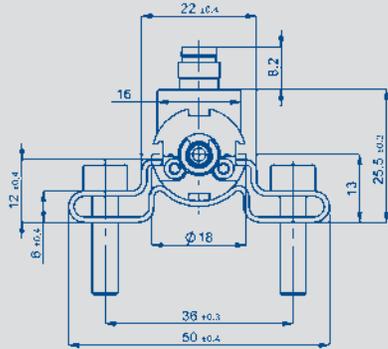
This cost effective linear transducer features compact dimensions, and three options for easy mounting under various conditions. These options are mounting clamps, bushing mount or flange plates.

A return spring allows direct measurement without connection to the moving part.

The electrical connection is provided with an M8 connector or a radial or axial cable.

For transducers without a return spring, please refer to separate data sheets.

Description	
Housing	aluminium, anodized
Mounting	see drawing
Actuating rod	stainless steel, rotatable
Bearings	sleeve bearing
Resistance element	conductive plastic
Wiper assembly	precious metal multi-finger wiper
Electrical connections	3-pin round connector M8x1 3-wire, shielded cable, 2 or 5 m long

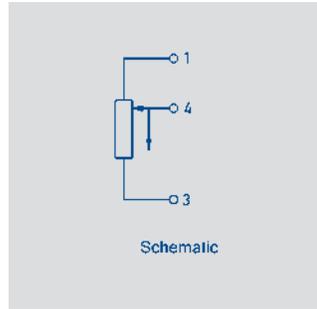
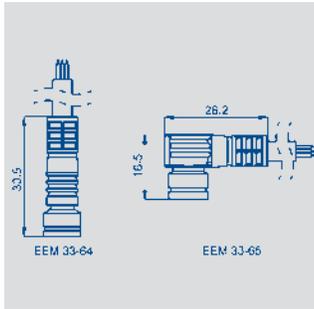


Type designations	TEX 0010	TEX 0025	TEX 0050	TEX 0075	TEX 0100	TEX 0125*	TEX 0150	TEX 0175*	TEX 0200	
Electrical Data										
Defined electrical range	10	25	50	75	100	125	150	175	200	mm
Electrical range	12	27	52	77	102	130	155	180	205	mm
Nominal resistance	1	1	2	3	4	5	6	7	8	k Ω
Resistance tolerance	20									\pm %
Independent linearity	0.25	0.2	0.1	0.1	0.1	0.05	0.05	0.05	0.05	\pm %
Repeatability	0,01 (without side loads)									mm
Recommended operating wiper current	≤ 1									μ A
Max. wiper current in case of malfunction	10									mA
Max. permissible applied voltage	42									V
Effective temperature coefficient of the output-to-applied voltage ratio	typical 5									ppm/K
Insulation resistance (500 VDC)	≥ 10									M Ω
Dielectric strength (500 VAC, 50 Hz)	≤ 100									μ A
Mechanical Data										
Body length (dimension A)	63	78	103	128	153	194	219	244	269	± 2 mm
Mechanical stroke (dimension B)	14	29	54	79	104	132	157	182	207	± 2 mm
Dimension C	41	56	106	156	201	233	265	298	331	± 2 mm
Dimension D	57	72	106	156	201	233	265	298	331	± 2 mm
Weight approx. with cable TEX_XXXX_X21_002_202 with conector TEX_XXXX_X21_002_101 additional weight	80 50	85 55	95 65	105 75	115 85	155 125	165 135	175 145	185 155	g g
Operating force horizontal	5,6 (at RT 20° C)									$\pm 0,8$ N
Operating frequency max. in center position (IP40) in center position (IP65)	49 44	43 39	35 32	28 26	24 21	21 18	20 16	20 15	20 15	Hz Hz
Environmental Data										
Temperature range	-40 ...+85									$^{\circ}$ 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	$> 50 \times 10^6$ typ.									movements
Operating speed	5									m/s max.
Protection class	IP54 DIN EN 60529									

*) = on request

Novotechnik U.S., Inc.
155 Northboro Road
Southborough, MA 01772

Phone: 508-485-2244
Fax: 508-485-2430
Email: info@novotechnik.com



Output connector Code 101	Cable Code 202, 205 302, 305	Connector with cable EEM 33-64, EEM 33-65
PIN 1	BN brown	BN brown
PIN 4	WH white	BK black
PIN 3	GN green	BU blue

Ordering specifications

Electrical version
002: Independent linearity $\pm 0.05\%$ up to $\pm 0.25\%$

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
302: NT standard cable 2 m, axial output
305: NT standard cable 5 m, axial output

Mechanical mounting
1: Clamps
2: Bushing mount M10 up to 0150 mm
4: Flange plate mounting up to 150 mm on request

Mechanical version actuating rod x2x
2: Transducer with return spring and hardened tip

Protection class
4: one-side actuating rod, IP54

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

Electrical defined range
Various standard lengths, 0010 up to 0200 mm

Included in delivery
Clamp mounting: 2 clamps
incl. 4 cylinder head screws
M5x20

Recommended accessories
Connector M8x1, 2 m cable,
EEM 33-64, IP67,
Art.No. 005617;
Angled connector M8x1,
2 m cable, EEM 33-65, IP67,
Art.No. 005618;
Connector with longer cable
length on request.
Process-controlled indicators
MAP... with display, Signal
conditioner MUP.../MUK... for
current supply and standardi-
zed output signals.



Signal conditioner MUP

Mounting instructions
The standard hardened tip
with M2,5 thread can be
replaced with other gauging
tips.
The actuating rod is not
locked against rotation.

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
($I_e \leq 1 \mu A$).