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novotechnik
 Siedle Gruppe

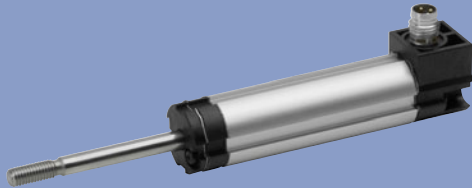


DOCUMENTO OBSOLETO

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**Position Transducers
 with actuating rod
 potentiometric
 up to 300 mm, IP 54**

Series TEX



Special features

- compact dimensions
- protection class IP54
- very long life (depending on application) up to 100 million movements
- resolution better than 0,01 mm
- outstanding linearity up to $\pm 0,05\%$
- variable mechanical customer interfaces
- cable or connector version available
- IP 67 version see data sheet TX2

This cost effective transducer is characterized by its various mounting options and compact dimensions. Flexible mounting clamps, bushing mounts or flange plates for easy mounting under various conditions.

For transducers with return spring and pivot head mounting, please see separate data sheets.

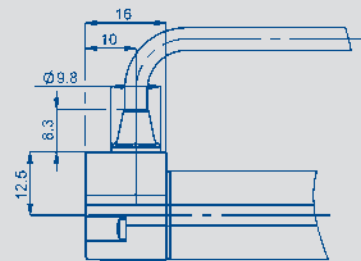
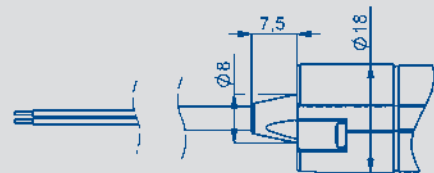
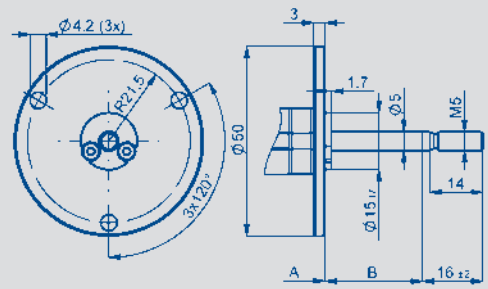
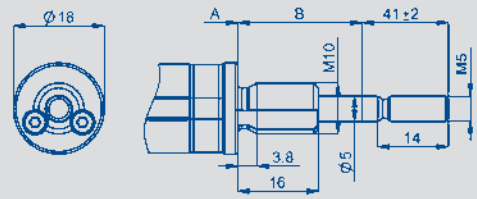
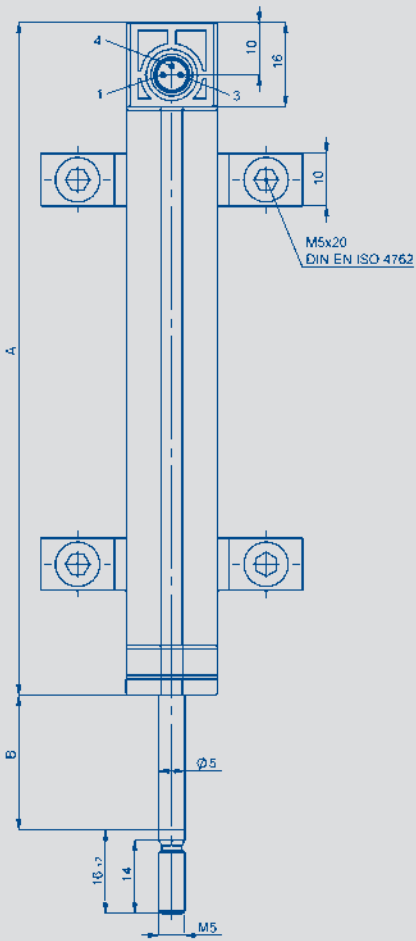
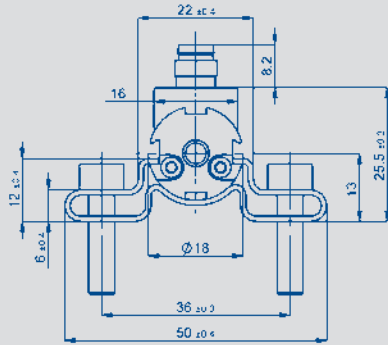
Typical applications are linear position measurements on small presses and textile machines as well as measurement of deformation and crowd distances in the testing technology.

The use of a ball coupling is recommended for a side load-free guidance.

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

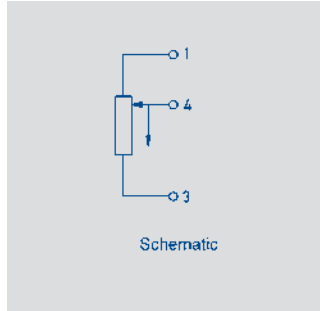
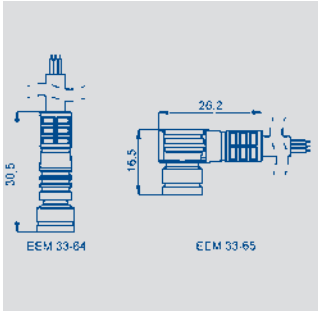
Description

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	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 ratio	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
Weight approx. with cable TEX_XXXX_X11_002_202	77	82	92	102	112	152	162	172	182	202	222	g
with connector TEX_XXXX_X11_002_101 additional weight	45	50	60	70	80	120	130	140	150	170	190	g
Operating force horizontal	≤3.0 (at RT 20° C)											N
Environmental Data												
Temperature range	-40 ...+85											°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.											movements
Operating speed	10											m/s max.
Protection class	IP54 DIN EN 60529											

*)= on request



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

TEX | **0150** | **411** | **002** | **202**

Series

Mechanical mounting
1: Fixing clamps
2: Central mounting M10 up to Ø150 mm
4: Flange plate mounting up to Ø150 mm on request

Mechanical version actuating rod x1x
1: Transducer with one-side actuating rod and thread M5

Protection class
4: one-side actuating rod, IP54

Electrical defined range
Various standard lengths, 0010 up to 0300 mm

Electrical version
002: Independent linearity ±0.05 % bis ±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

Included in delivery

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

Optional accessories

Pivot Head Z-G01,
Art.No. 056014

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;
Ball coupling Z301 M5/M5,
Art.No. 058002;
(s. data sheet accessories).
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

A ball coupling is recom-
mended for backlash-free and side
load-free operation to com-
pensate parallel or angular
errors between transducer
axis and the direction of
movement.

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