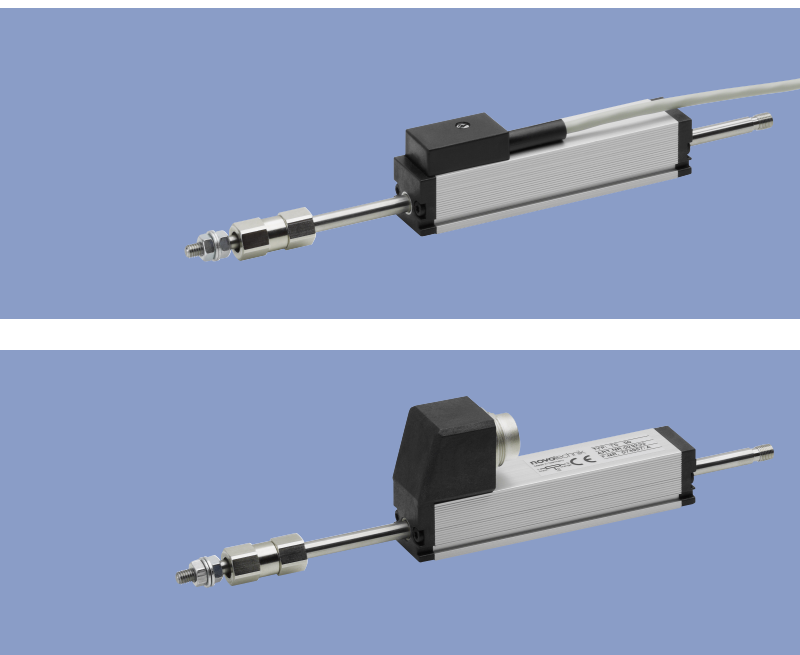


Series T, TS

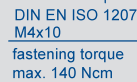
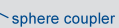
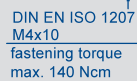


- long life - 100×10^6 movements
- outstanding linearity up to $\pm 0.075\%$
- actuating rod with double bearing system
- special ball coupling eliminates sideways forces
- high operational speeds up to 10 m/s
- insensitive to shock and vibration
- cable or plug connection optional

A ball coupling (which may be fitted to either end of the shaft) offers backlash-free operation even where there are parallel

or angular errors between the transducer axis and the direction of movement. The elastomer-damped, independently sprung precious metal multi-finger wiper has been designed to provide a reliable contact even at high speeds or when experiencing shock or vibration.

Description	
Housing	aluminium, anodized
Mounting	adjustable clamps
Actuating rod	stainless steel
Ball coupling	stainless steel with a hardened ball sprung against a hardened plate surface
Bearings	both ends in DU plastic bearings
Resistance element	conductive-plastic
Wiper assembly	precious metal multi-finger wiper, elastomer-damped
Electrical connections series T series TS	3-wire, shielded cable strain-relieved, 2 m long 5-pin round connector IEC 130-9

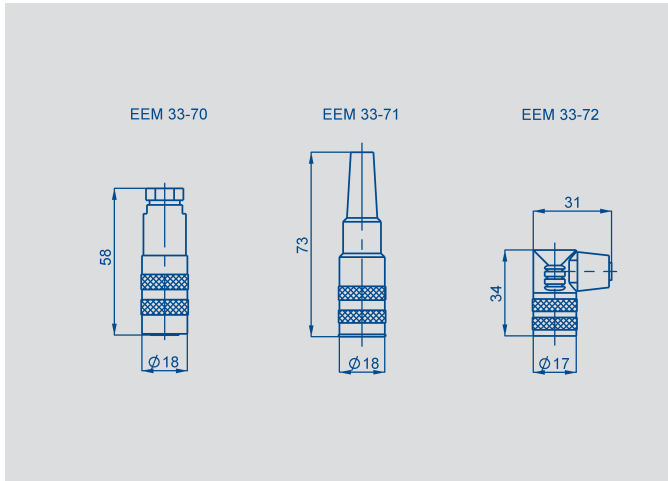


Type designations	T25 TS25	T50 TS50	T75 TS75	T100 TS100	T150 TS150	with cable with plug
Electrical Data						
Defined eletrical range	25	50	75	100	150	mm
Electrical stroke	27	52	77	102	152	mm
Nominal resistance	1	5	5	5	5	kΩ
Resistance tolerance	20					±%
Independent linearity	0.2	0.15	0.1	0.075	0.075	±%
Repeatability	0.002					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						
Overall length (dimension A)	63	88	113	138	188	+1 mm
Mechanical stroke (dimension B)	30	55	80	105	155	±1,5 mm
Weight with cable with plug	140	160	170	190	220	g
	86	107	132	150	190	g
Weight of actuator with coupling and wiper	35	43	52	58	74	g
Operating force (horizontal)	≤ 0.30					N
Compensation provided by ball bearing	±1 mm parallel offset, ±2.5° angular offset					
Maximum permitted torque for fixing screws (with washer)	140					Ncm

Environmental Data		
Temperature range	-30... +100	°C
Vibration	5... 2000	Hz
	A _{max} = 0.75	mm
	a _{max} = 20	g
Shock	50	g
	11	ms
Life	>100 x 10 ⁶	movements
Protection class	IP 40 (DIN EN 60529)	

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© 04/2010
Art.-Nr.: 062 723
Subject to changes
Printed in Germany



Included in delivery

2 mounting clamps Z-45 incl.
4 screws M4x10,
1 ball coupling

Optional accessories

4 mounting clamps Z3-31,
Art.No. 059010

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

Order designations		Available on request		
Type	Art.no.	Type	Art.-No.	independent linearity
T 25	023202	T 25-.1	023207	$\pm 0,1 \%$
TS 25	023232	TS 25-.1	023237	$\pm 0,1 \%$
T 50	023203	T 50-.1	023208	$\pm 0,1 \%$
TS 50	023233	TS 50-.1	023238	$\pm 0,1 \%$
T 75	023204	T 50-.05	023209	$\pm 0,05 \%$
TS 75	023234	TS 50-.05	023239	$\pm 0,05 \%$
T 100	023205	T 75-.05	023213	$\pm 0,05 \%$
TS 100	023235	TS 75-.05	023243	$\pm 0,05 \%$
T 150	023206	T 100-.05	023214	$\pm 0,05 \%$
TS 150	023236	TS 100-.05	023244	$\pm 0,05 \%$
		T 150-.05	023215	$\pm 0,05 \%$
		TS 150-.05	023245	$\pm 0,05 \%$

Recommended accessories

Plug type EEM 33-70
protection class IP 67,
Plug type EEM 33-71
protection class IP 40,
Plug type EEM 33-72
protection class IP 40.

Process-controlled indicators
MAP... with display,

Signal conditioner MUP...
/MUK ... for current supply 24
V and standardized output
signals.



Signal conditioner MUP