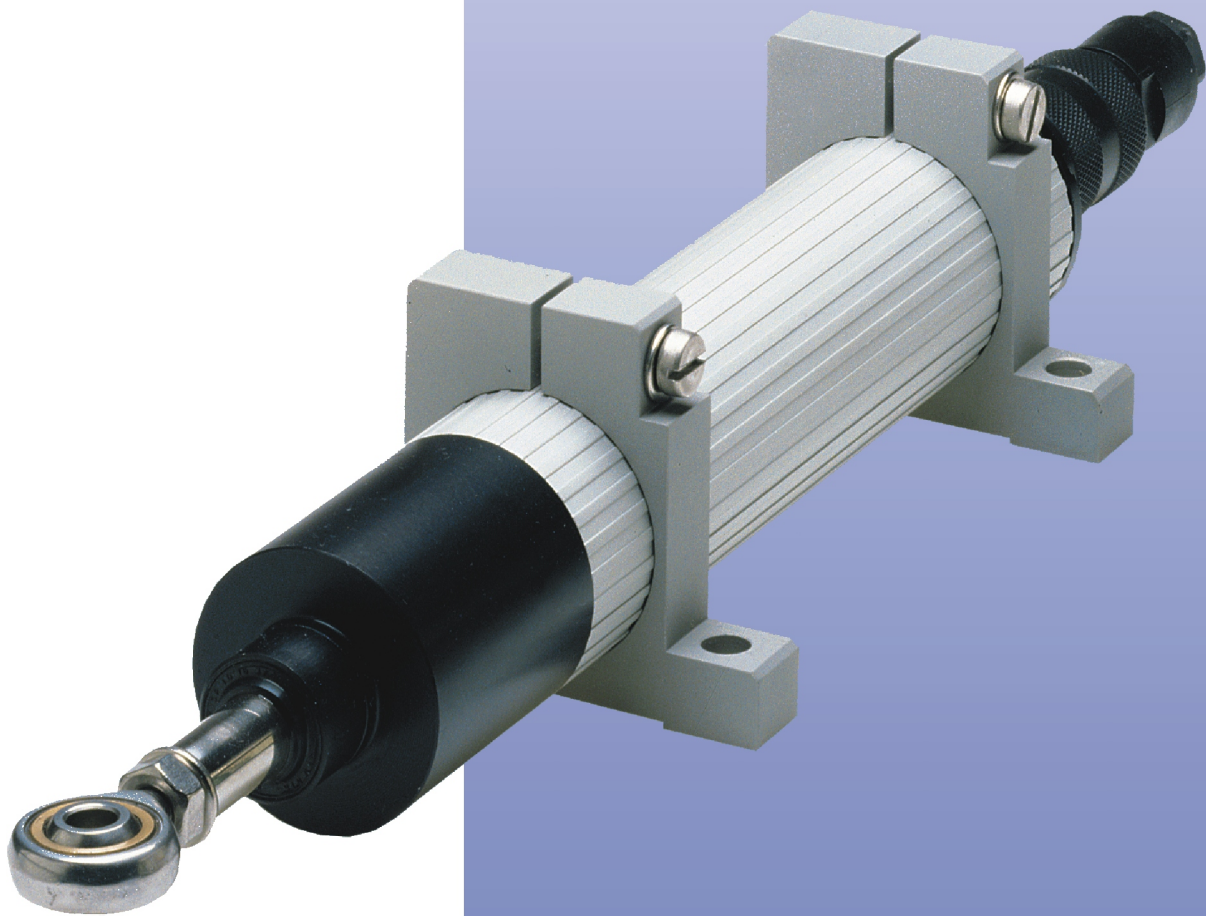


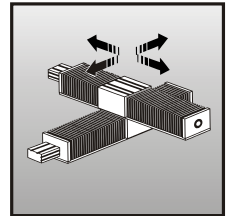
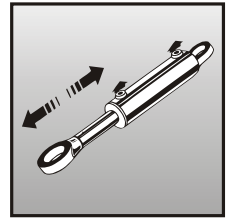
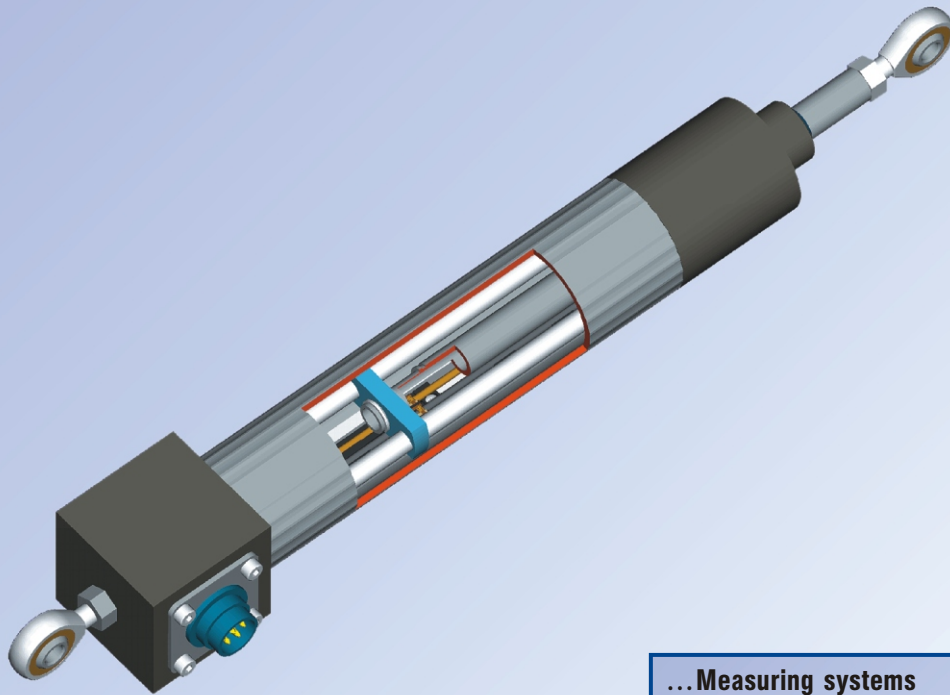
Linear Displacement Transmitters



Linear Displacement Transmitters

with potentiometric, inductive or optoelectronic measuring system

...Construction



For measuring linear displacements on machines and converting them into electrical signals for teletransmission purposes - linear displacement transmitters of the **potentiometric, inductive, incrementally or absolutely coded** type can be used, depending on their application.

In addition to other application they are used on

bending machines an injection moulding machines

actuator drives of valves and traps

transport vehicles

thickness, distance and pressure gauges

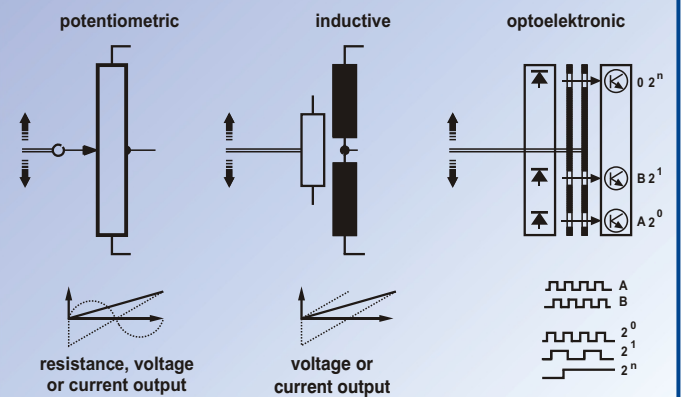
Potentiometric linear displacement transmitters comprise high-resolution wirewound resistance elements, capable of measuring length up to 1 m with high accuracy and a linearity of $\pm 0,1\%$.

For protection against mechanical damage, plunger with sintered metal bearing and pull-back spring (optional), wiper guide, wiper and resistance element are encapsulated in a robust aluminum casing, degree of protection IP 65.

For measurements relevant to safety, transmitters of this type are available with double-track potentiometer.

Inductive linear displacement transmitters comprise a non-contact differential inductor system providing high linearity and resolution, capable to perform reliable measuring ranges from 0 to 0.5 mm up to 0 to 500 mm even under extremely severe environmental conditions.

...Measuring systems



A separate or built-in oscillator/demodulator unit transforms the linear displacement of the plunger controlled differential inductor system into a current or voltage output signal .

Incremental and absolute displacement transmitters comprise by design an optoelectronic angular position transducer, degree of protection IP 65 to protect against dust and the effects of moisture, hinged by means of a driving pin and a toothed belt, guided inside the profiled aluminium. Transmitters of this type are preferably used for actual value determination of great measuring length on sawing machines in wood- and stone-working industry.

For the determination of measuring length in the range of several meters, the program offers extra rope length transmitters (further information see data sheet "Rope Length Transmitters").

Accessories: For indicating and monitoring the measured lengths picked up by these systems, indicating instruments and limit indicators are available (further information see data sheet "Signal Indication" and "Signal Converters").

...Specifications

of potentiometric displacement transmitters

Linear potentiometers

Series	SP0.... / 12,7*
System	potentiometric
Measuring length	25, 55, 85, 115, 145 und 175 mm
Casing material	Al, anodised
Degree of protection	IP 40
Plunger	stainless steel, sintered metal bearing
Pull-back spring	up to 55 mm measuring length
Resistance	50 Ω bis 10 k Ω \pm 5%
Linearity	$\leq \pm 0,5\%$
Multiple design	-
with built-in signal converter	Output. - Burden - Supply -

*economical small-size model

Dimension	Measuring length					
for Stroke	25	55	85	115	145	175
L	55	85	115	145	175	205

Linear potentiometers

Series	SP... / 28	SP... / 35
System	potentiometric	
Measuring length	von 25 bis 150 mm	von 100 bis 500 mm
Casing material	Al, anodised*	
Degree of protection	IP 40 oder IP 65	
Plunger	stainless steel, sintered metal bearing	
Pull-back spring	optional	
Resistance	10 Ω bis 100 k Ω \pm 5%	50 Ω bis 100 k Ω \pm 5%
Linearity	$\leq 0,5$ to 0,05%	
Multiple design	twofold	
with built-in signal converter	Output. 0 or 4-20 mA Burden max. 600 Ω Supply 18-33 VDC	

* V4A stainless-steel also available

Series	Measuring length					
SP.../28	for stroke	25	50	100	150	
	L	102,4	127,4	177,4	227,4	
	Dim. A \varnothing 28	Dim. B \varnothing 6		Dim. C \varnothing 15		

Flat-type controller

Series	SP... / 24
System	potentiometric
Measuring length	100 bis 200 mm
Casing material	Al, anodised
Degree of protection	IP 30
Actuation	via slider
Resistance	50 Ω bis 10 k Ω \pm 5%
Linearity	$\leq \pm 0,2\%$
Multiple design	twofold

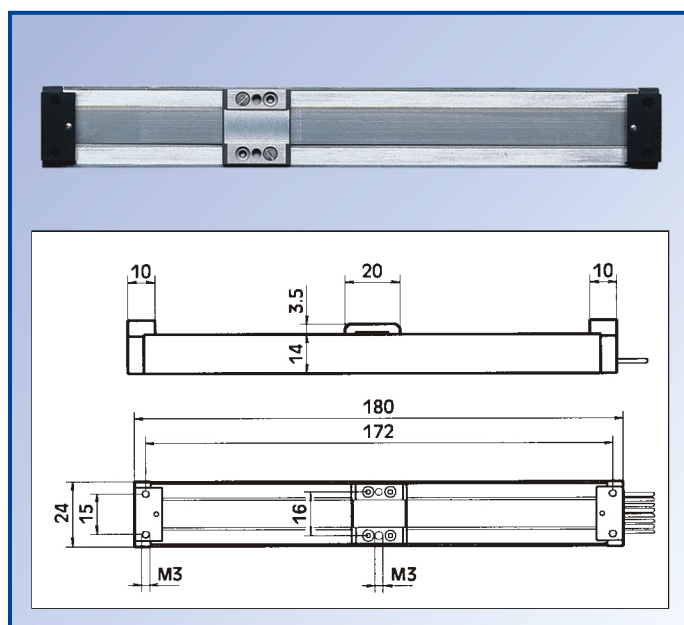
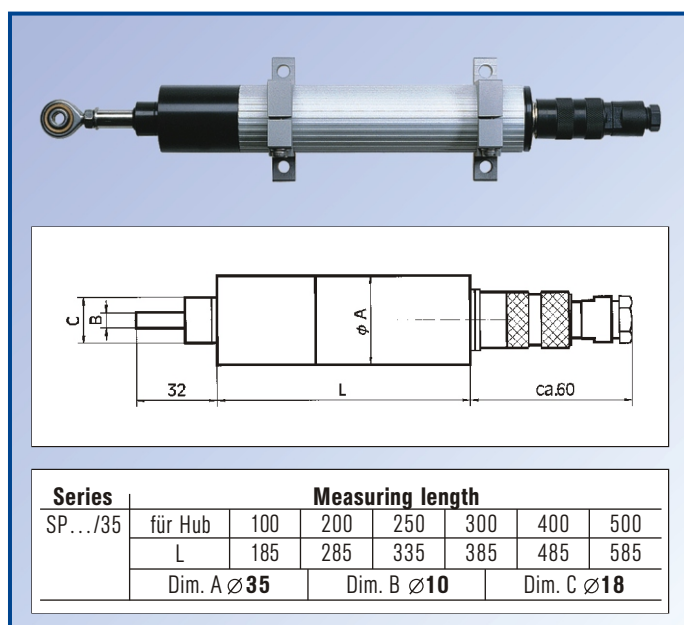
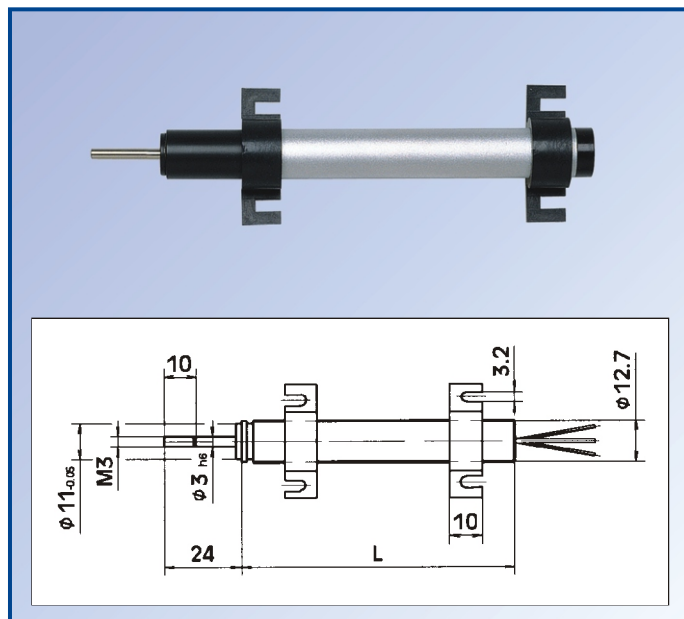
Detailed information on request

	Measuring length			
for stroke	100	120	150	200
L	160	180	210	260

Accessories for linear potentiometers:

- hinged rod head
- hinged rod head on both sides
- protective bellows for plunger

...Models



...Specifications

of inductive displacement transmitters

Tracer for instrument making

Series	W5 - 01	W5 - 02 M o. Abb.
System	inductive	
Measuring length	0-5 mm	0-3,5 mm
Linearity	$\leq \pm 0,1\%$	$\leq \pm 0,3\%$
Casing material	Al, anodised	
Degree of protection	IP 30	
Plunger	stainless steel, jewel bearing	
Pull-back Spring	yes	
Output	current or voltage	only in connection with separate signal converter (as well degree of protection EEX)

Tracer W5-01/28*

Series	W5 - 01/28
Measuring length	0-5 mm
Degree of protection	IP 65

*specifications identical to W5-01

Tracer for mechanical engineering applications

Series	W25... W500 - 01
System	inductive
Measuring length	25, 50, 100, ... bis 500 mm
Casing material	Al, anodised*
Degree of protection	IP 65
Plunger	stainless steel, sinter metal bearing
Pull-back Spring	yes
Output	either built-in or separate signal converter
Linearity	4-20 mA, burden max 600 Ω , supply 18-33 VDC

* V4A stainless steel also available

Maß	Meßlängen						
für Hub	25	50	100	150	200	250	500
A	41	66	116	166	216	266	516
L	91,5	141,5	241,5	341,5	441,5	541,5	1041,5

Optoelectronic displacement transducers

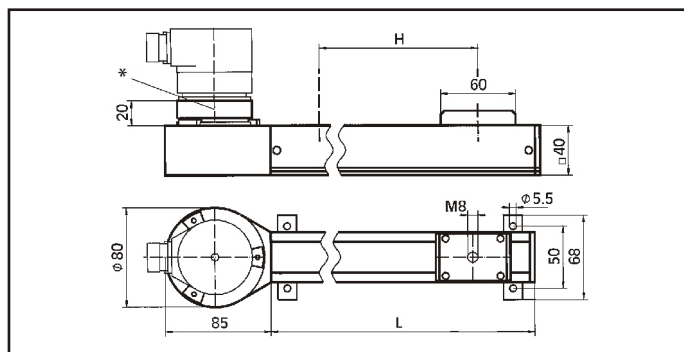
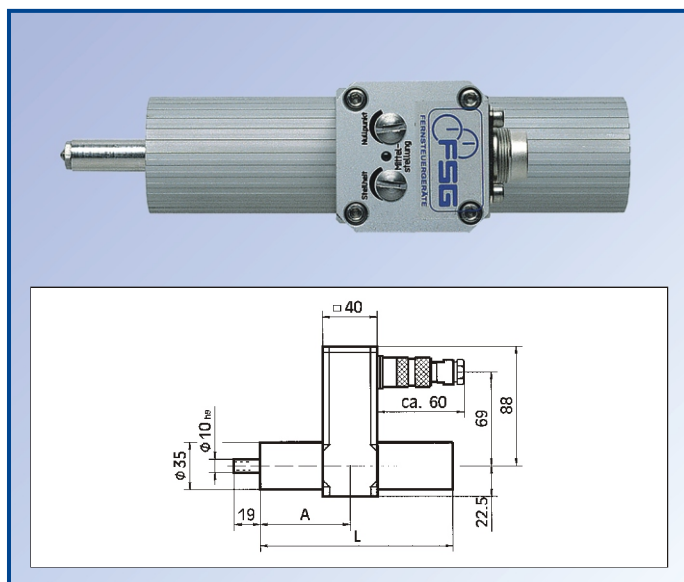
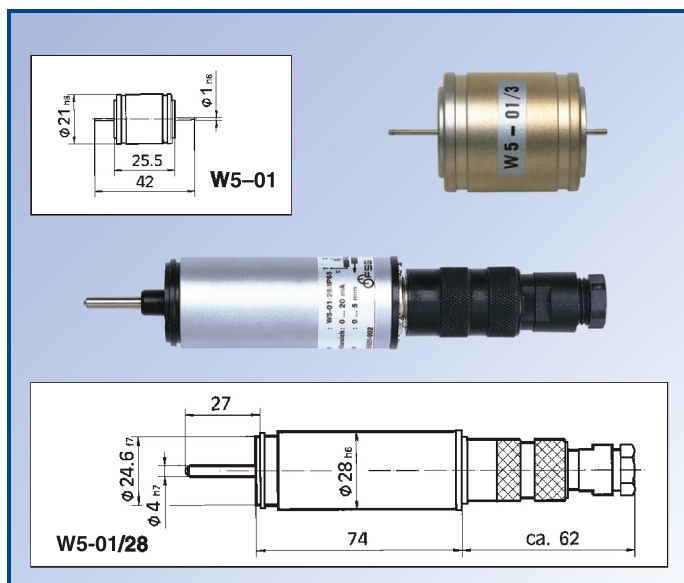
Measuring length	0-200 up to 0-1000 mm
incremental	resolution 0,1 mm
absolute	resolution 10 bit/50 mm; CAN- or SSI-interface

detailed information on request

Dimension	Measuring length								
for stroke	200	300	400	500	600	700	800	900	1000
L	300	400	500	600	700	800	900	1000	1100

*coupling support of optional design, for the attachment of all encoding systems customary in trade

...Models



Berlin	Kablow	Heppenheim
Fernsteuergeräte Kurt Oelsch GmbH Jahnstraße 68 + 70 12347 Berlin Telefon (0 30) 6291- 1 Telefax (0 30) 6291- 277 www.fernsteuergeraete.de	FSG Fernsteuergeräte Meß- und Regeltechnik GmbH Mühlenweg 2 -3 15758 Kablow Telefon (0 33 75) 269 - 0 Telefax (0 33 75) 269 - 277	Fernsteuergeräte Kurt Oelsch GmbH & Co. KG Weiherhausstraße 10 64646 Heppenheim Telefon (0 62 52) 99 50-0 Telefax (0 62 52) 72 05-3