



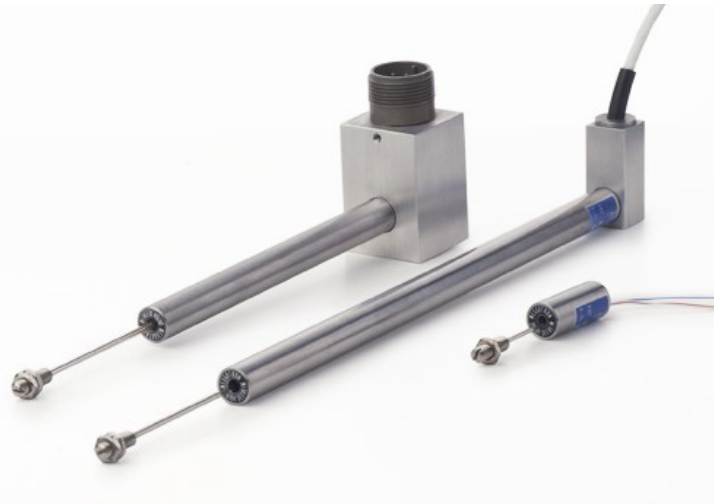
# ESA Messtechnik GmbH

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## Model WLH Linear Variable Displacement Transducer

### Description:

Inductive LVDT, half bridge circuitry design in standard 12 mm housing, suitable for all industrial applications in production and test environment.



### Technical Specifications:

		WLH 10	WLH 20	WLH 40	WLH 50	WLH 100	WLH 150	WLH 200	WLH 250	WLH 300	WLH 400	WLH 500
Nom. Displacement	mm	±5	±10	±20	±25	±50	±75	±100	±125	±150	±200	±250
Operational Range **)	mm	±10	±15	±30	±30	±60	±90	±110	±135	±160	±210	±258
Dimension A	mm	40	40	45	50	100	130	150	180	200	250	300
Dimension B	mm	80	100	145	145	245	355	455	565	675	875	1065
Weight (approx.)	g	40	60	85	85	120	150	200	230	280	350	440
Weight of Plunger (approx.)	g	6	8	9	9	12	15	20	25	30	40	50
Nom. Output (approx.)	mV/V	90	140	200	250	300	310	320	340	340	310	340
Sensitivity (approx.)	mV/V/mm	18	14	10	10	6	4,1	3,2	2,7	2,2	1,5	1,4
Suitable Excitation	V <sub>RMS</sub>	up to 5										
Suitable Carrier Frequency	kHz	5 to 10										
Linearity *)		± 0,5 % of FS nominal range Option: ± 0,25 % or ± 0,1 %										
Temperature Drift of Zero		±0,02 % / 10 K										
Temperature Drift of Sensitivity		±0,05 % / 10 K										
Operational Temperature *)		-50 °C to +80 °C										
DIN 40050 Protection		IP64										

\*) Option to be specified with order

\*\*) Operational Range: Possible range, however, technical specifications beyond nominal data not guaranteed; not valid for transducers with axial cable connection.

**Versions:**

Order Coding:											
WLH	nnn	N				n,n %			/Option 1 /Option 2 ...		
Series	Nom. Range	Connection				Linearity Class (FS)			Options		
WLH	10 mm to 500 mm	Stranded Wire	Cable axial	Cable radial	Connector radial	0,50%	0,25%	0,10%	Elevated operational temperature <sup>1)</sup>	Teflon cable instead of PE Cable <sup>2)</sup>	User specified dimension A
		o.	K	Q	R				/120 °C	/TF	/A xx
X	10 to 500	X	X	X		X	X	X	O	O	O
X	10 to 500				X	X	X	X	See WLH...RS	O	O

X = available version

1) includes Teflon cable with versions K and Q

O = available option

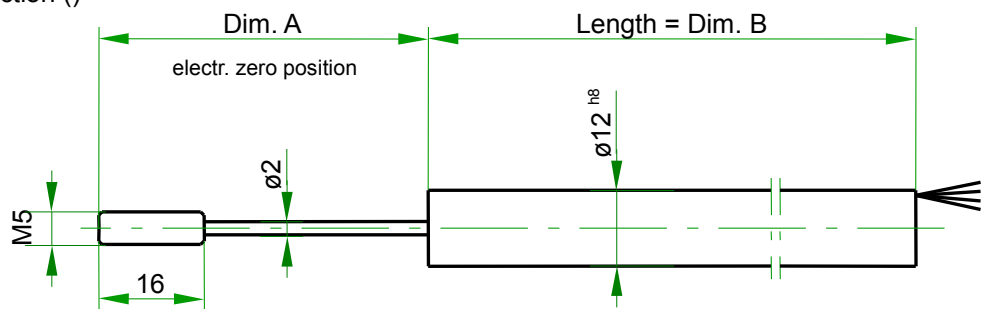
2) only with versions K and Q

-- = not available

**Dimensions and Connection Versions:**

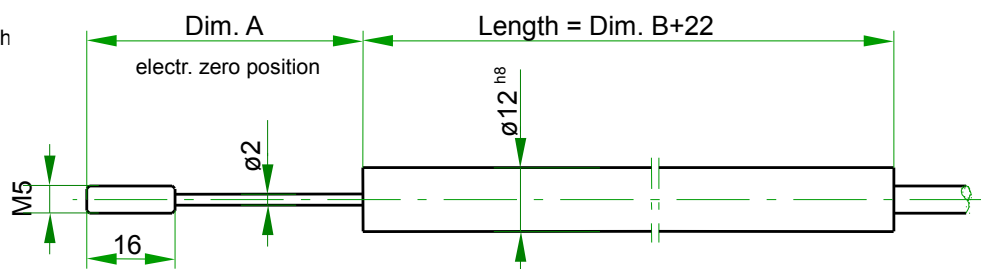
**Stranded Wire Connection ( )**

Plunger channel through



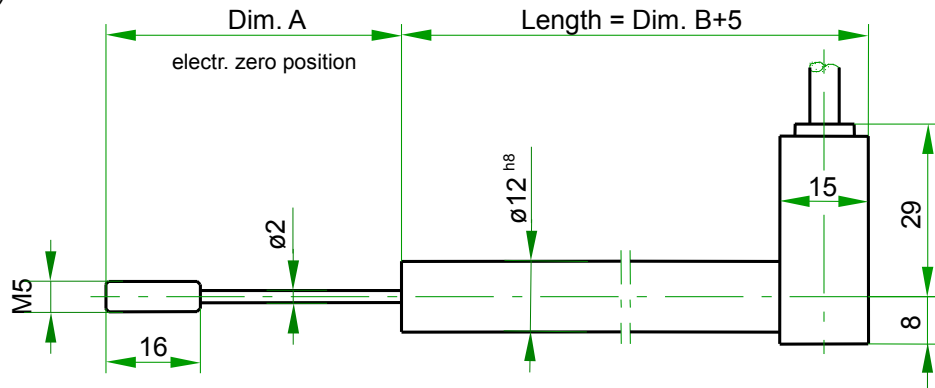
**Axial Connection (K)**

Plunger channel not through



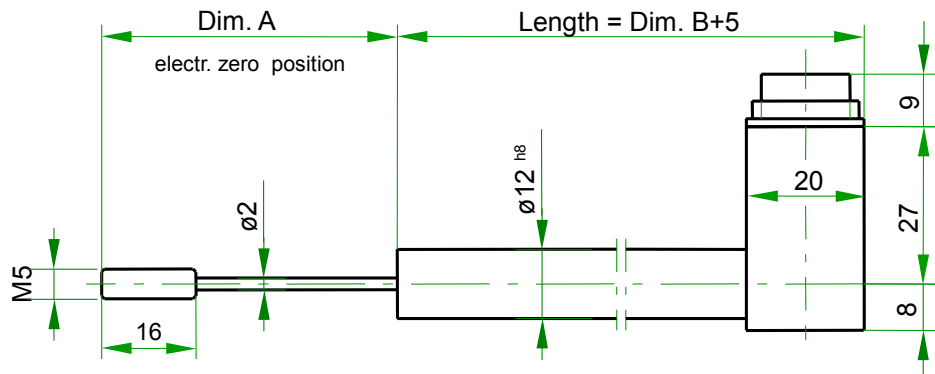
**Radial Connection (Q)**

Plunger channel through



**Radial Connector (R)**

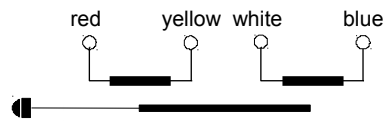
Plunger channel through



**Electrical Connection:**

**Stranded Wire**

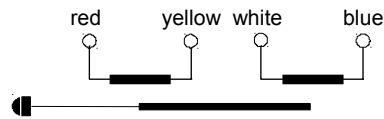
Stranded Wire Teflon insulation length 250 mm



**Cable Connection**

PE-Cable length 2,5 m

Option: oil and temperature resistant Teflon cable



**Connector**

Mating connector supplied

