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Inductive Displacement Sensor WT / WTA

Description:

Inductive Displacement Sensor, available in two versions:

- Series WT in $\varnothing 12$ mm standard housing
- Series WTA with $\varnothing 8$ mm fixing shaft, suitable for all industrial applications in production and test environment



Technical Specifications:

		WT / WTA 2	WT / WTA 5	WT / WTA 10	WT / WTA 20	WT / WTA 50	WT / WTA 100
Nom. Range	mm	± 1	$\pm 2,5$	± 5	± 10	± 25	± 50
Operational Range (min.)	mm	$\pm 1,6$	$\pm 3,5$	± 6	± 11	± 26	± 52
Dim. A (sensor tip in central position)	mm	8	12	15	20	35	65
Dim. B (design length)	mm	80	87	140	172	250	410
Measuring force in central position (approx.)	N	0,7	0,8	1,1	1,5	2,7	2,7
Spring Constant (approx.)	N/mm	0,045	0,056	0,040	0,067	0,085	0,050
Weight (approx.)	g	40	50	80	90	130	200
Weight of Sensor Rod (approx.**)	g	5	6	12	15	18	28
Nom. Output Signal (approx.)	mV/V	48	120	100	150	225	300
Sensitivity (approx.)	mV/V/mm	48	48	20	15	9	6
Suitable Excitation	V _{RMS}	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		$\pm 0,02$ % / 10 K					
Temperature Drift of Sensitivity		$\pm 0,05$ % / 10 K					
Displacement Marks in Rod *)		Option: Zero point (all) and End positions (from 10 mm)					
Operational Temperature *)		-50 °C bis +80 °C Option: bis + 120 °C					
DIN 40050 Protection		IP54					

*) Options to be specified with order

***) Sensor tip fixed with M2,5 standard thread and glued to rod; can be removed with exposing to temperature.

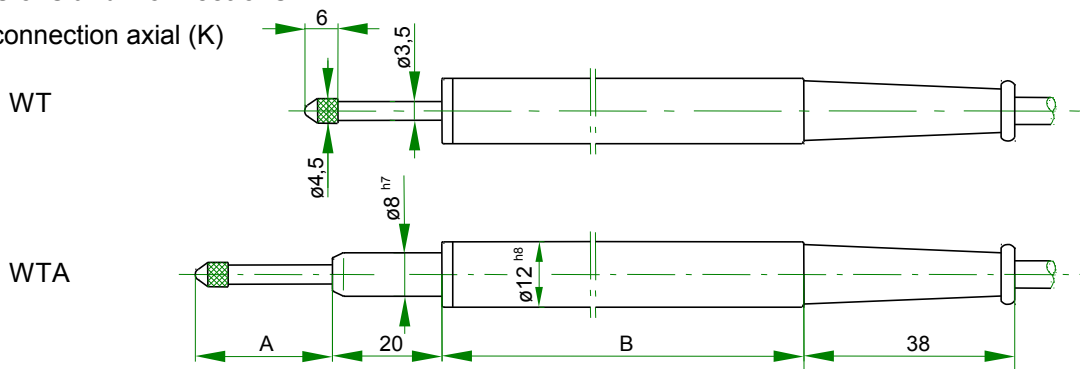
Versions:

Order Coding																	
WT		nnn		NN			n,n %			/Option 1 /Option 2 /...							
Series	Range	Connection					Linearity Class (FS)			Options							
WT	WTA (ø8 mm Shaft)	2 to 100 mm	Stranded Wire	Cable axial	Connector axial	Connector radial	Cable radial	0,50%	0,25%	0,10%	Elevated Operationtemperature ¹⁾	Displacement marks on rod (see picture)	Teflon Cable instead of PE-Cable ³⁾	Low Spring Force	Bellows (see picture) ⁴⁾	User specified Dim. A	Sensor tip not glued
			o.	K	LX	LR	Q				/120 °C	/M	/TF	/GF	/FB	/A xx	/NV
X	X	2	X	X	X	X	X	X	X	X	O	O ²⁾	O	O	O	O	O
X	X	5	X	X	X	X	X	X	X	X	O	O ²⁾	O	O	O	O	O
X	X	10	-	X	X	X	X	X	X	X	O	O	O	O	O	O	O
X	X	20 to 100	-	X	X	X	X	X	X	X	O	O	O	O	-	O	O

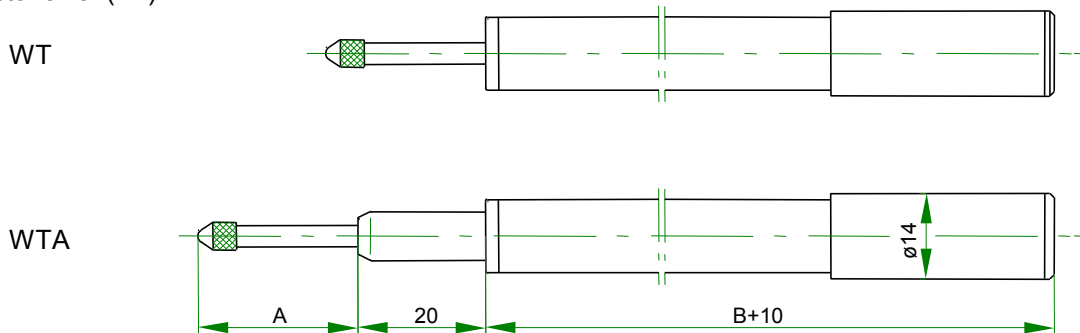
- X = available version
- O = available option
- = not available
- 1) Teflon cable with versions K and Q
- 2) zero position mark only
- 3) with versions K and Q only
- 4) not together with /M

Dimensions and Connections:

Cable connection axial (K)

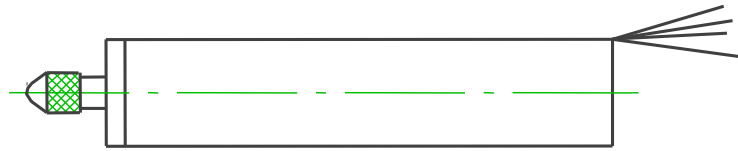


Connector axial (LX)

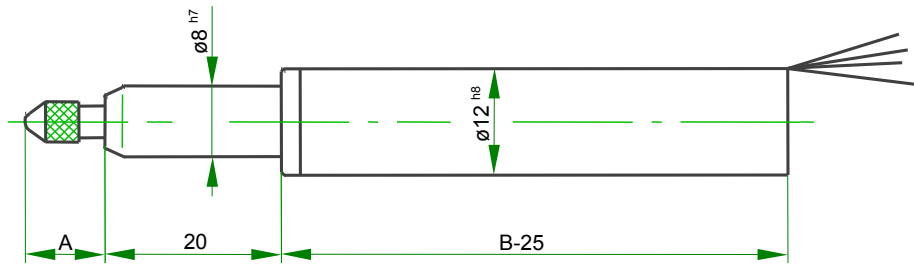


Stranded Wire ()

WT

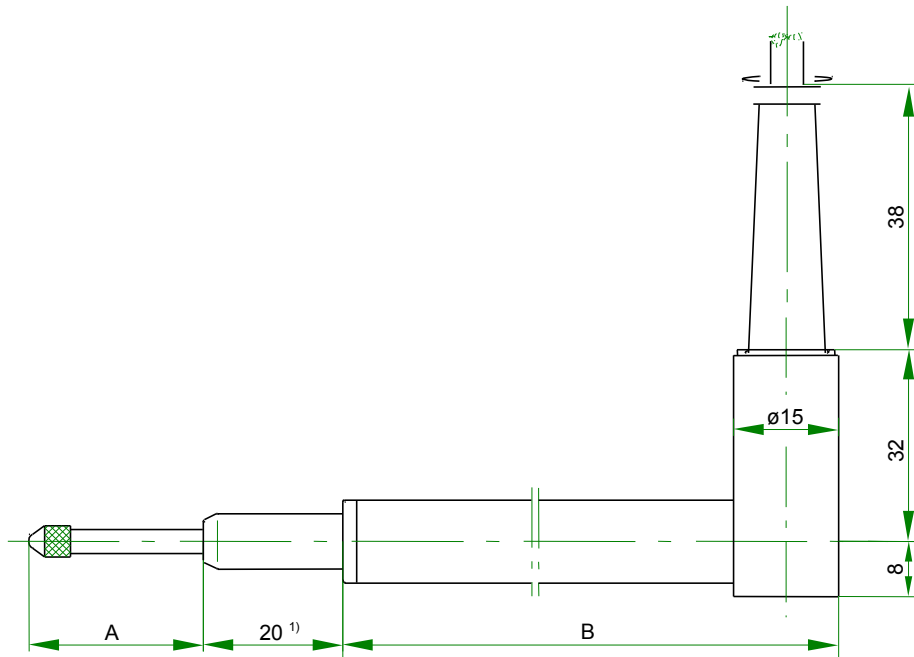


WTA



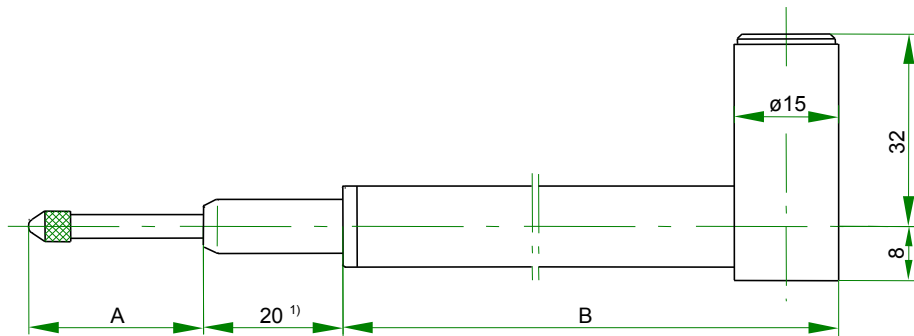
Cable radial (Q)

¹⁾ WTA only



Connector radial (LR)

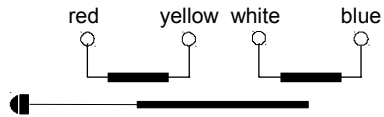
¹⁾ WTA only



Electrical Connection:

Stranded Wire

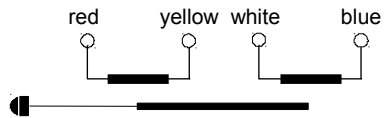
Teflon-insulated stranded wire length 250 mm



Cable

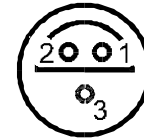
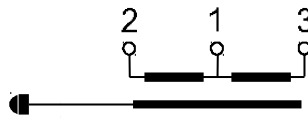
PE-Cable length 2,5 m

Option: Oil and temperature resistant Teflon Cable



Connector

Supplied with mating connector



Options:

Option M Displacement marks on rod



Option FB Bellows on rod (up to 10 mm) with enlarged dimension A

