



# ESA Messtechnik GmbH

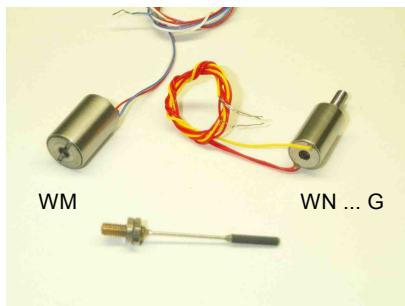
Schlossstr. 119 - D-82140 Olching / Munich  
 Telefon: +49 (0)8142 444 130 - Fax: +49 (0)8142 444 131  
 Internet: [www.esa-messtechnik.de](http://www.esa-messtechnik.de)  
 E-Mail: [info@esa-messtechnik.de](mailto:info@esa-messtechnik.de)

## Miniature Inductive Displacement Transducers (WLM, WM, WN, WV)

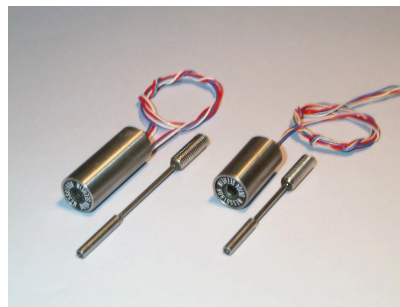
### Description:

Inductive displacement transducers, half bridge circuitry with nominal ranges of up to 5 mm in three versions:

- Series WM / WN miniature design, nominal range up to 2 mm
- Series WLH compact design, nominal range 5 mm
- Series WV high-precision/low cost version, nominal ranges up to 5 mm



Series WM / WN (WN...G)



Series WLH



Series WV

### Technical Specifications:

		WM 1	WM 2	WN 2	WLH 1	WLH 2	WLH 5	WV 2	WV 5
Nominal Range	mm	±0,5	±1	±1	±0,5	±1	±2,5	±1	±2,5
Stroke (min.)	mm	3	3	3	2	3	6	6	6
Dimension A	mm	25	25	25	30	30	40	30	30
Dimension B	mm	15	15	15 (G: 25)	22	22	30	50	50
Dimension C	mm	10	10	8	12	12	12	14	14
Dimension D	mm	M 3	M 3	M 3	M 5	M 5	M 5	M 3	M 3
Dimension E	mm	10	10	10	15	15	15	10	10
Dimension F (Core/ Core-holder)	mm	1 / 2	1 / 2	1 / 2	2 / 3	2 / 3	2 / 3	3 / 4	3 / 4
Weight (approx.)	g	6	6	4 (5)	11	11	15	25	25
Plunger weight (approx.)	g	1	1	1	2	2	3	5	5
Nom. output signal (approx.)	mV/V	40	80	80	40	80	125	30	75
Sensitivity (approx.)	mV/V/mm	80	80	80	80	80	50	30	30
Linearity *)	% of FS Range	0,5		~ 0,5	0,5			0,5 Option: 0,25 and 0,1	
Design Option *)		-		G (with threaded rod)					
Suitable Excitation	V <sub>RMS</sub>	Up to 5							
Suitable Carrier Frequency	kHz	5 to 10							
Temperature Drift of Zero		±0,05 % / 10 K							
Temperature Drift of Sensitivity		±0,05 % / 10 K							
Temperature Operation Range		-50 °C to +80 °C							
Protected According to DIN 40050		IP64							

\*) To be specified with order

## Design Versions:

Order Code								
XXX	nn			N		n,nn %		
Series	Range			Variety		Linearity Class (FS)		
	1	2	5	Stranded Wire	Threaded Rod	0,50%	0,25%	0,10%
				o.	G			
WLH	X	X	X	X	-	X	-	-
WM	X	X	-	X	-	X	-	-
WN	-	X	-	X	X	X	-	-
WV	-	X	X	X	-	X	X	X

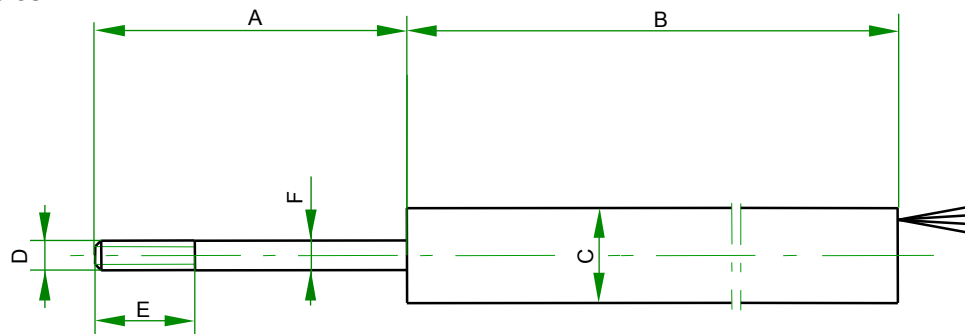
X = available variety

O = available option

-- = not available

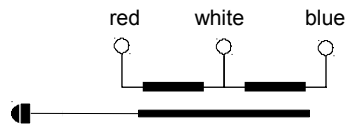
## Dimensions and Cables:

### Stranded Wire Cable



- Core channel fully through
- Stranded wire cable, min. length 100 mm

### Connection scheme



- Special/customized designs or cable options on request