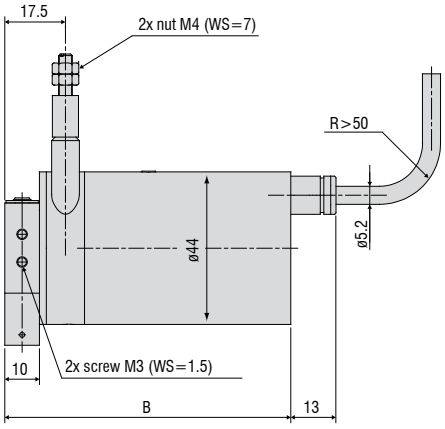
MICRO-EPSILON

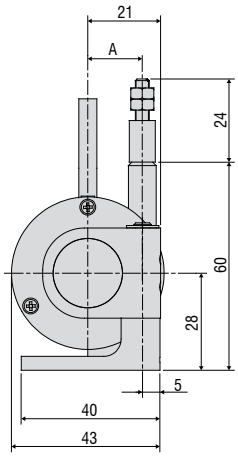
More Precision

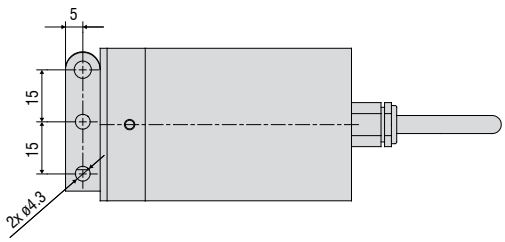
wireSENSOR // Draw-wire displacement sensors

- *Miniature design*
- *Optional IP 67 (MPW)*
- *For fast measurement and harsh environments*

Model MP / MPW







Measuring range (mm)	A (mm)	B (mm)
100 / 300 / 500 / 1000-MP	15.7	82.5
100 / 300 / 500 / 1000-MPW	15.7	86.5

Model		WDS-100 MP(W)	WDS-300 MP(W)	WDS-500 MP(W)	WDS-1000 MP(W)
Output		P			
Measuring range		100mm	300mm	500mm	1000mm
Linearity	±0.1% FSO	-	-	±0.5mm	±1mm
	±0.25% FSO	-	±0.75mm	-	-
	±0.5% FSO	±0.5mm	-	-	-
Resolution		0.15mm	0.2mm	quasi infinite	
Sensor element		wire potentiometer		hybrid potentiometer	
Temperature range		-20 ... +80 °C			
Material	housing	aluminium			
	draw wire	stainless steel (ø 0.45mm)			
Wire mounting		thread M4			
Sensor mounting		swivel flange in two axes 180° / 360°			
Wire acceleration		appr. 30g			
Wire retraction force (min)		7N	7N	6.5N	5N
Wire extension force (max)		8.5N	8.5N	8.5N	8N
Protection class	series MP	IP 65			
	series MPW	IP 67			
Vibration		20g, 20Hz - 2kHz			
Mechanical shock		50g, 10ms			
Electrical connection		integrated cable, axial, 3-leads, 1m			
Weight		appr. 270g			

FSO = Full Scale Output
Specifications for analogue outputs on page 47.

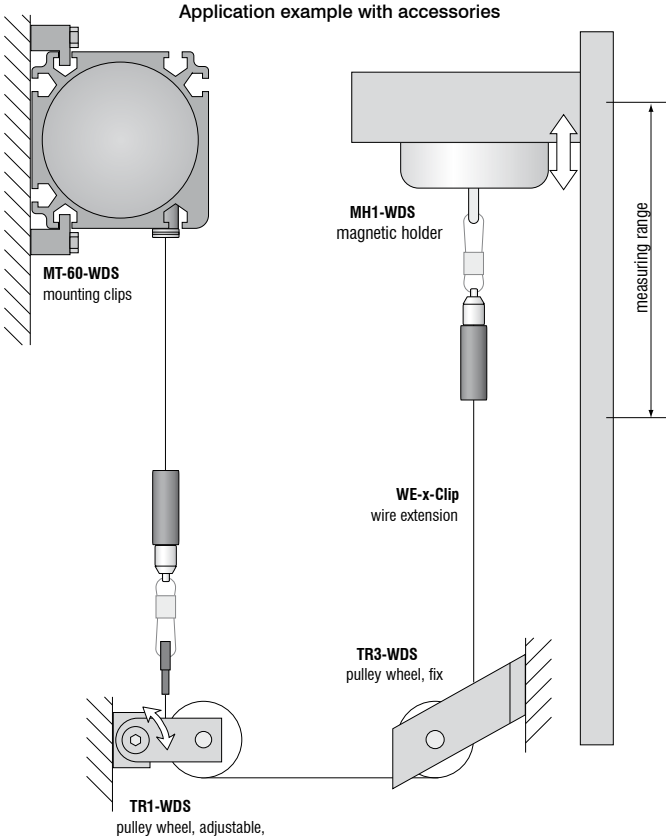
Article description

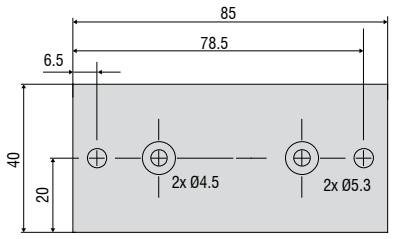
WDS - 100 - MP - C - P

- P: Output option: P: potentiometer
- C: Connection: C: integrated cable, axial, 1m
- MP: Model MP / MPW (IP67)
- 100: Measuring range in mm

Accessories:	
WE-xxxx-M4	Wire extension with M4-wire connection, x=length
WE-xxxx-Clip	Wire extension with eyelet, x=length
TR1-WDS	Pulley wheel, adjustable
TR3-WDS	Pulley wheel, fixed
GK1-WDS	Attachment head for M4
MH1-WDS	Magnetic holder for wire mounting
MH2-WDS	Magnetic holder for sensor mounting
MT-60-WDS	Mounting clamp for WDS-P60
FC8	Female connector for WDS, 8-pin
FC8/90	Female connector 90° for WDS
PC 3/8-WDS	Sensor cable, length 3m
PS 2020	(Power Supply 24 V / 2,5 A, Input 100 - 240 VAC, output 24 VDC / 2.5 A, for snap in mounting on DIN 50022 rail)
WDS-MP60	Mounting plate for P60 sensors

Application example with accessories





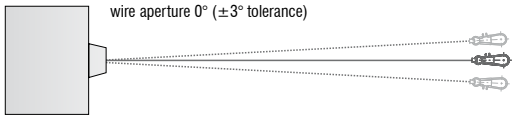
Mounting plate WDS-MP60

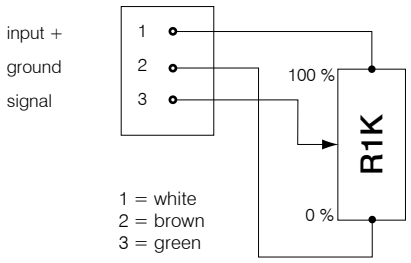
Installation information:

Wire attachment: The free return of the measurement wire is not permissible and it is essential that this is avoided during installation.

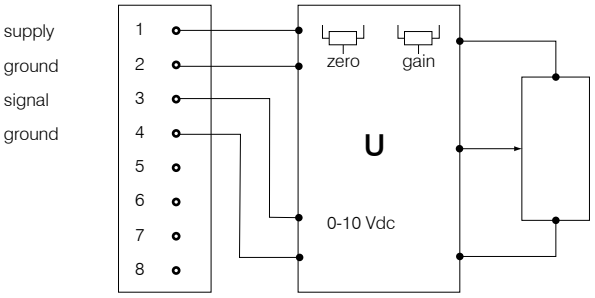
Wire exit angle:

When mounting a draw-wire displacement sensor, a straight wire exit (±3° tolerance) must be taken into account. If this tolerance is exceeded, increased material wear on the wire and at the wire aperture must be expected.

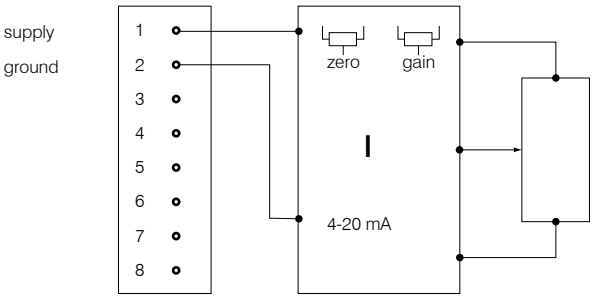




Potentiometric output (P)	
Supply voltage	max. 32VDC at 1kOhm / 1 Wmax
Resistance	1kOhm ±10% (potentiometer
Temperature coefficient	±0.0025% FSO/°C
Sensitivity	depends on measuring range individually shown on test report



Voltage output (U)	
Supply voltage	14 ... 27VDC (non stabilised)
Current consumption	max. 30mA
Output voltage	0 ... 10VDC
	Option 0 ... 5 / ±5V
Load impedance	>5kOhm
Signal noise	0.5mV$_{eff}$
Temperature coefficient	±0.005% FSO/°C
Electromagnetic compatibility (EMC)	EN 50081-2
	EN 50082-2
Adjustment ranges	
Zero	±20% FSO
Sensitivity	±20%



Current Output (I)	
Supply voltage	14 ... 27VDC (non stabilised)
Current consumption	max. 35mA
Output current	4 ... 20mA
Load	<600Ohm
Signal noise	<1.6µAeff
Temperature coefficient	±0.01% FSO/°C
Electromagnetic compatibility (EMC)	EN 50081-2
	EN 50082-2
Adjustment range	
Zero	±18% FSO
Sensitivity	±15%

High performance sensors made by Micro-Epsilon

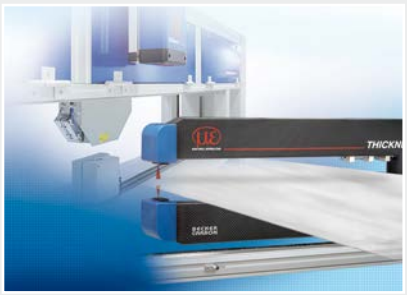
Sensors and systems for displacement and position

Sensors and measurement devices for non-contact temperature measurement

2D/3D profile sensors (laser scanner)

Optical micrometers, fibre optic sensors and fibre optics

Colour recognition sensors, LED analysers and colour inline spectrometer



Measurement and inspection systems

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