MICRO-EPSILON

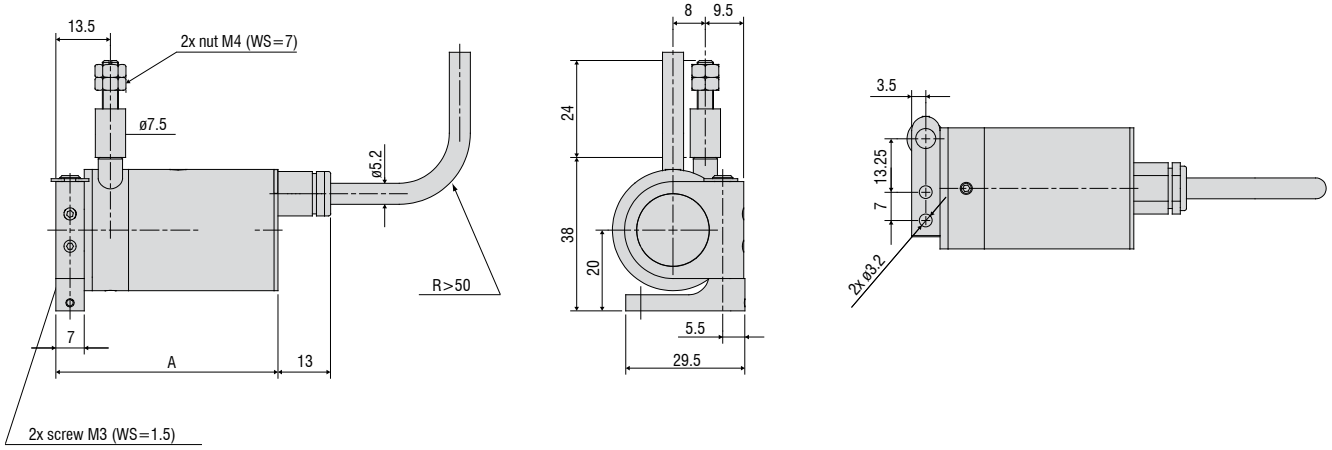
More Precision

wireSENSOR // Draw-wire displacement sensors

wireSENSOR MPM analog

- *Extreme compact miniature sensor*
- *Flexible mounting via swivel flange*
- *High speed measurement, wire acceleration up to 100g*

Model MPM



Measuring range (mm)	A (mm)
50	55
150 / 250	64
50-HG	61
150 / 250-HG	70

Model		WDS-50-MPM	WDS-150-MPM	WDS-250-MPM
Output		P		
Measuring range		50mm	150mm	250mm
Linearity	<0.2% FSO	-	<0.3mm	<0.5mm
	<0.25% FSO	<0.125mm	-	-
Resolution		quasi infinite		
Sensor element		conductive plastic potentiometer	hybrid potentiometer	
Temperature range		-20 ... +80 °C		
Material	housing	aluminium		
	draw wire	stainless steel (ø 0.45mm)		
Sensor mounting		swivel flange in two axes 180° / 360°		
Wire mounting		thread M4		
Wire acceleration		appr. 25g (option HG: 100g)		
Wire retraction force (min)		1.5N (option HG: 10N)		
Wire extension force (max)		3.5N (option HG: 17N)		
Protection class		IP 65		
Vibration		20g, 20Hz - 2kHz		
Mechanical shock		50g, 20ms		
Electrical connection		integrated cable, axial, 3-leads, 1m		
Weight		appr. 150g		

FSO = Full Scale Output
Specifications for analog outputs on page 51.

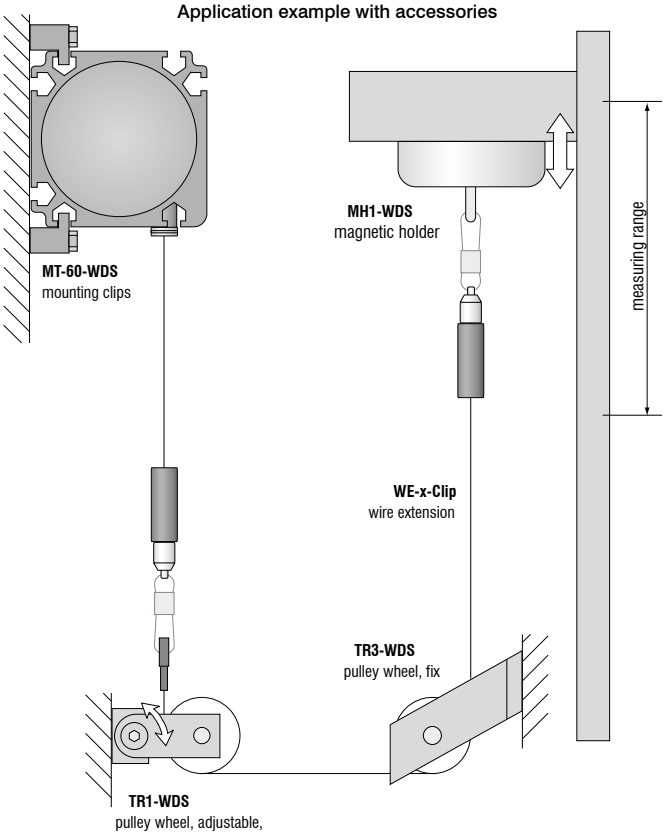
Article description

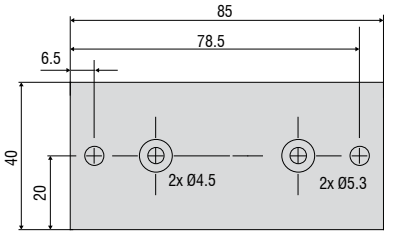
WDS - 50 - MPM - C - P - HG

- HG: Option HG: wire acceleration up to 100g
- P: Output option: P: potentiometer
- C: Connection: C: integrated cable, axial, 1m
- MPM: Model MPM
- 50: 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, lenght 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





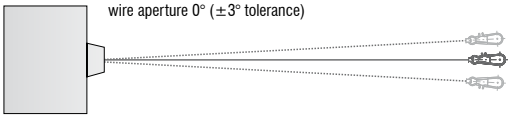
Mounting plate WDS-MP60

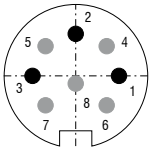
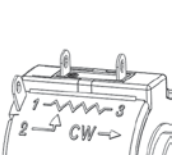
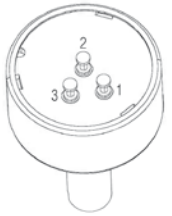
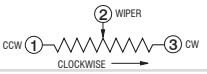
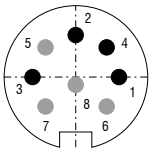
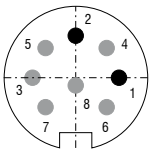
Installation information:

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.



Output		Plug M16 -SA / -SR	Integrated cable -CA / -CR	Open contacts
Potentiometric output (P)		 sensor side		 
Supply voltage	max. 32VDC at 1kOhm / 1 Wmax			
Resistance	1kOhm ±10% (potentiometer)			
Temperature coefficient	±0.0025% FSO/°C			
		1 = input + 2 = ground 3 = signal	white = input + brown = ground green = signal	1 = input + 2 = signal 3 = ground 
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 61000-6-4 EN 61000-6-2			
Adjustment ranges (if supported by the model)		 sensor side		
Zero	±20% FSO			
Sensitivity	±20%			
		1 = supply 2 = ground 3 = signal 4 = ground	white = supply brown = ground green = signal yellow = ground	
Current Output (I)				
Supply voltage	14 ... 27VDC (non stabilised)			
Current consumption	max. 35mA			
Output current	4 ... 20mA			
Load	<600Ohm			
Signal noise	<1,6 μA$_{eff}$			
Temperature coefficient	±0.01% FSO/°C			
Electromagnetic compatibility (EMC)	EN 61000-6-4 EN 61000-6-2			
Adjustment range (if supported by the model)		 sensor side		
Zero	±18% FSO			
Sensitivity	±15%			
		1 = supply 2 = ground	white = supply brown = ground	

High performance sensors made by Micro-Epsilon

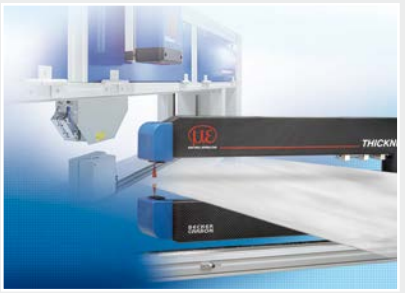
Sensors and systems for displacement and position

Sensors and measurement devices for non-contact temperature measurement

2D/3D profile sensors (laser scanner)

Optical micrometers, fibre optic sensors and fibre optics

Color recognition sensors, LED analyzers and color inline spectrometer



Measurement and inspection systems

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