



More Precision.

wireSENSOR

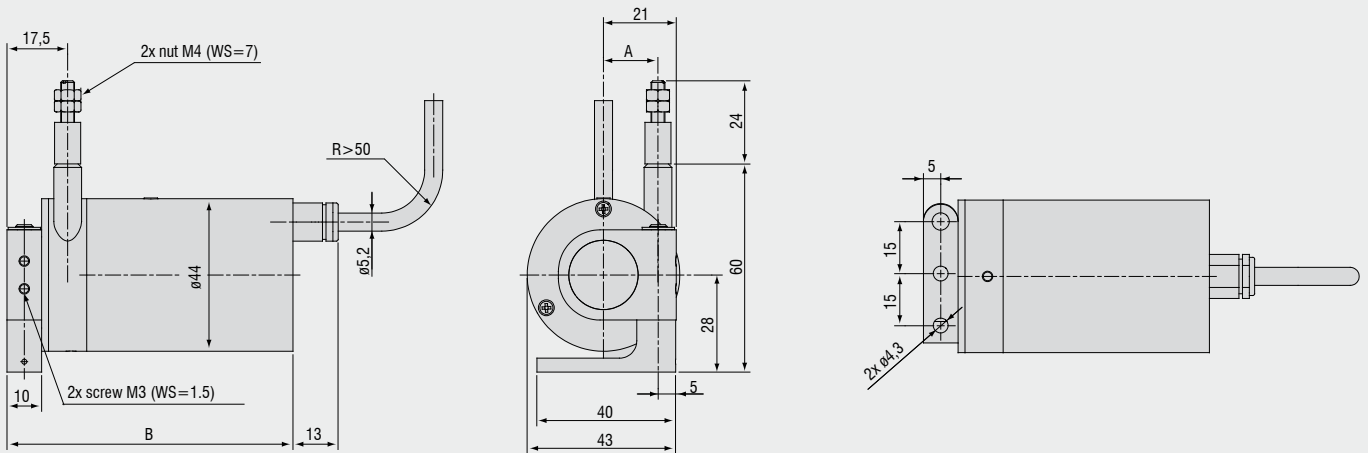
Draw-wire displacement sensors





- 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 long			
Weight		appr. 270g			

FSO = Full Scale Output

Specifications for analog outputs on page 43.

Article description

WDS - 100 - MP - C - P

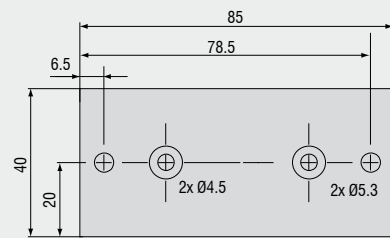
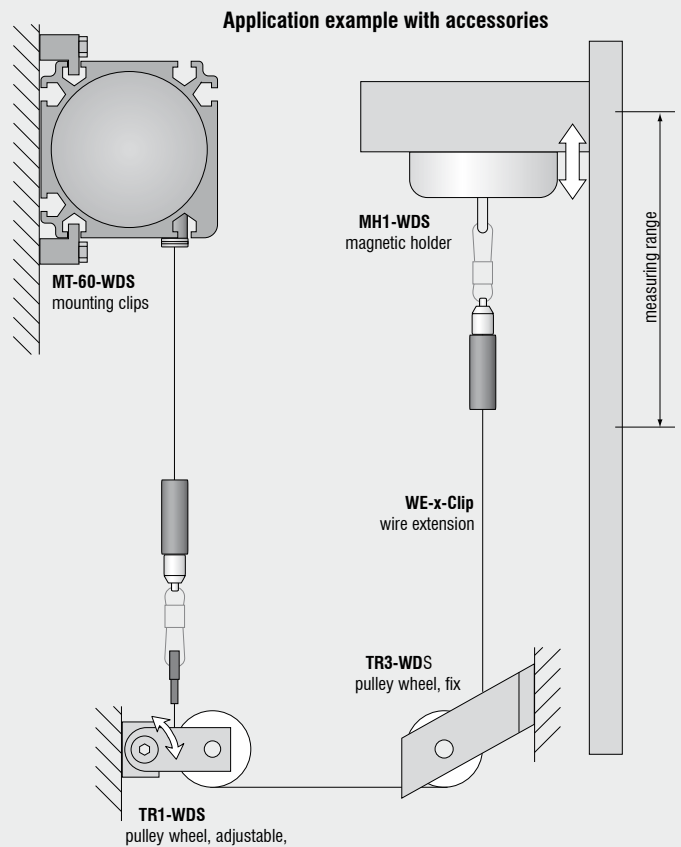
Output option:
P: potentiometer

Connection:
C: integrated cable, axial, 1m

Model MP / MPW (IP67)

Measuring range in mm

WE-x-M4, WE-x-Clip	Wire extension 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	Sensor cable, length 3 m
PS 2010	Power supply (chassis mounting 35 x 7.5 mm); input 120/230 VAC; output 24 VDC/2.5 A; L/B/H 120 x 20 x 40 mm
WDS-MP60	Mounting plate for P60 sensors



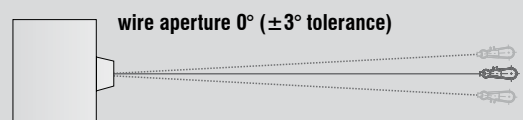
Mounting plate WDS-MP60

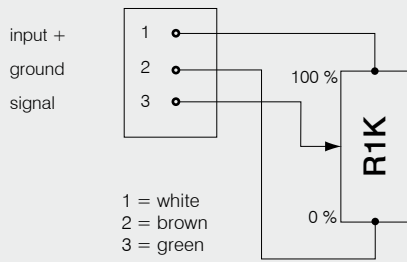
Installation information:

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

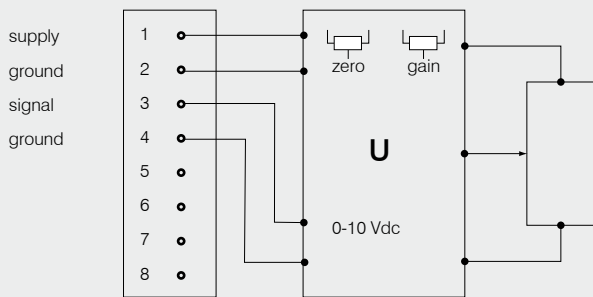
Wire exit angle:

When mounting a draw-wire displacement sensor, a straight wire exit ($\pm 3^\circ$ 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.

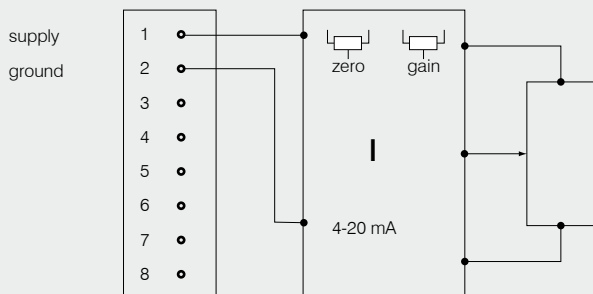




Potentiometric output (P)	
Supply voltage	max. 32VDC at 1kOhm / 1 Wmax
Resistance	1kOhm ±10% (potentiometer)
Temperature coefficient	±0.0025% FSO/°C
Sensitivity	depends on measuring range individually shown on test report



Voltage output (U)	
Supply voltage	14 ... 27VDC (non stabilized)
Current consumption	30mA max
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 stabilized)
Current consumption	35mA max
Output current	4 ... 20mA
Load	<600Ohm
Signal noise	<1.6µA _{eff}
Temperature coefficient	±0.01% FSO/°C
Electromagnetic compatibility (EMC)	EN 50081-2 EN 50082-2
Adjustment ranges	
Zero	±18% FSO
Sensitivity	±15%

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Sensors and systems for displacement, position and dimension

Eddy current displacement sensors
Optical and laser sensors
Capactive sensors
Linear inductive sensors
Draw wire displacement sensors
Laser micrometer
2D/3D profile sensors (laser scanner)
Image processing



Sensors and systems for non-contact temperature measurement

IR handheld
Stationary IR sensors
Thermal imager



Turn key systems for quality inspection

of plastics and film
of tires and rubber
of endless band material
of automotive components
of glass



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