



More Precision

eddyNCDT // Inductive sensors based on eddy currents

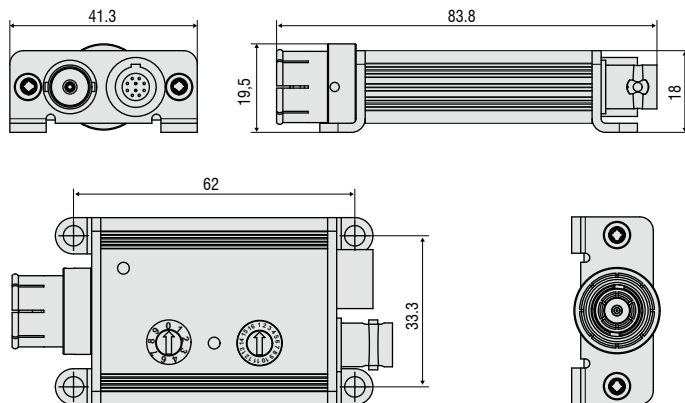


Model	DZ140	
Resolution	10 bits	
Speed range (measuring range)	200 ... 400,000 rpm	
Linearity	< $\pm 0.2\%$ FSO	
Target material	aluminum or titanium	
Supply voltage	9 ... 30 VDC (short-term up to 36 VDC)	
Max. current consumption	50 mA	
Digital output	TTL level (1 pulse / blade with variable pulse duration or 1 pulse / rotation with 100 μ s pulse duration)	
Analog output	0 ... 5 V ¹⁾	
Connection	Sensor: triaxial connector; Supply/signal: 10-pole connector, raw signal: coaxial connector (cable see accessories)	
Mounting	Screw connection with 4 through-holes	
Temperature range	Storage	-40 ... +125 °C
	Operation	-40 ... +125 °C
Protection class (DIN EN 60529)	IP65 (plugged)	
Weight	approx. 85 g	
Number of blades	adjustable via rotary switch accessible from outside for 1 to 16 blades	

FSO = Full Scale Output (speed range)

¹⁾ Rotational speed adjustable via mode rotary switch


Controller DZ140

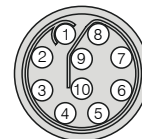


Dimensions in mm, not to scale.

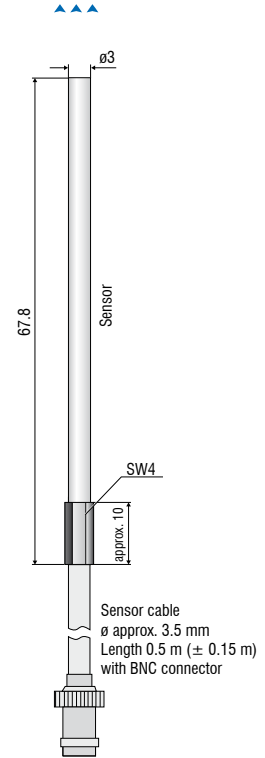
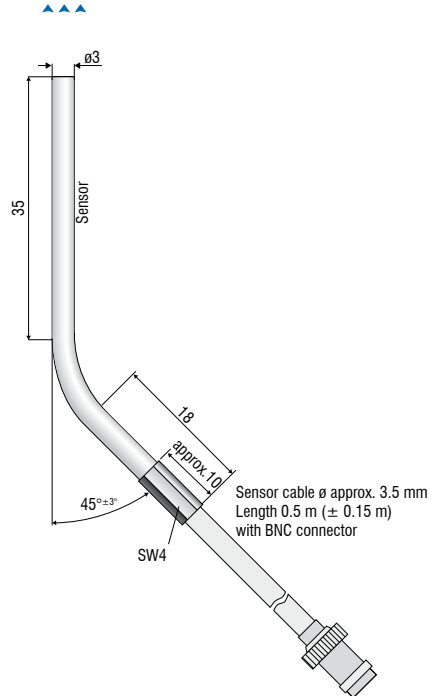
Pin assignment for power supply and signal

Pin	Assignment	Color (cable: PC140-x)
1	Analog output for rotational speed 0 ... +5 V	Blue
2	reserved, not connected	Yellow
3	TTL pulses, digital	Green
4	reserved, not connected	-
5	GND	Black
6	reserved, not connected	-
7	Supply -	White
8	Supply voltage +9 ... 30 VDC	Brown
9	Not assigned	-
10	Not assigned	-

 10-pin cable connector
View on solder side



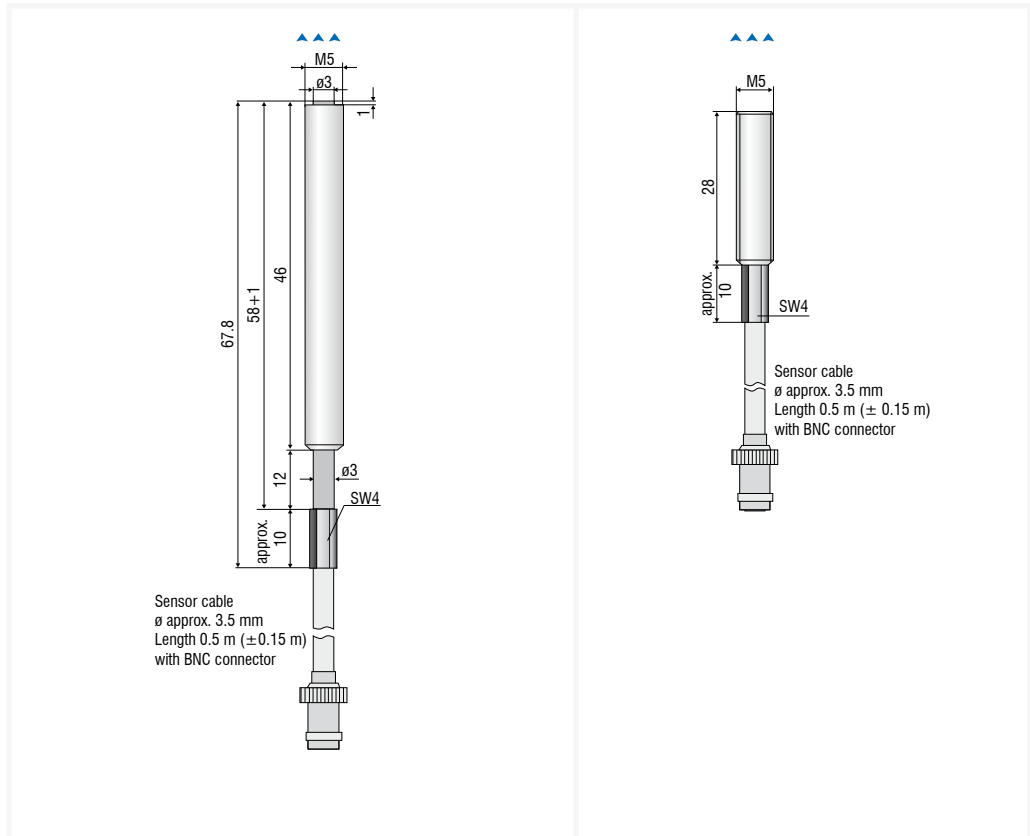
▲▲▲▲
Measurement direction



Model		DS 05(03)	DS 05(04)
Sensor type		shielded	shielded
Connection ¹⁾		integrated cable, axial, length 0.5 m	integrated cable, axial, length 0.5 m
Mounting		Clamping/adapter	Clamping/adapter
Temperature range	Storage	-40 ... +200 °C	-40 ... +200 °C
	Operation	-40 ... +200 °C	-40 ... +200 °C
Special feature		curved housing	-

¹⁾ Length tolerance \pm 0.15 m

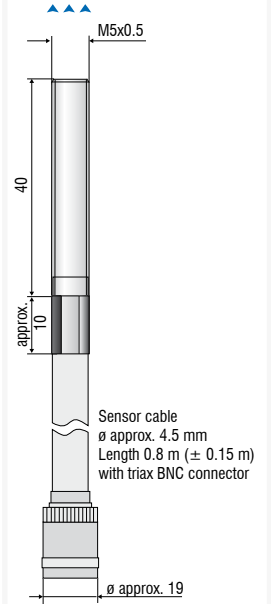
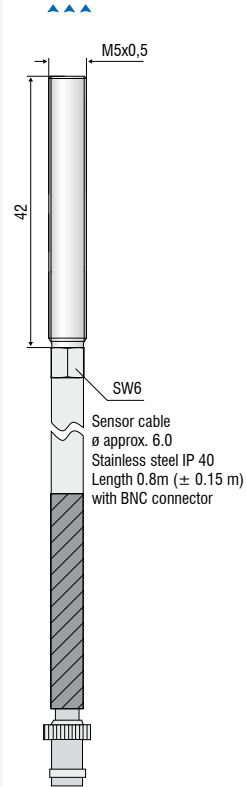
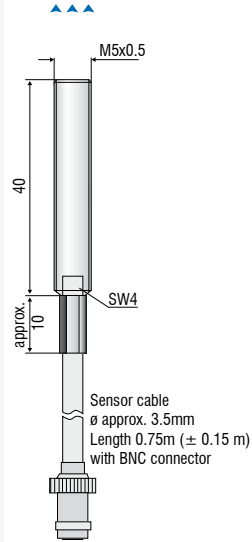
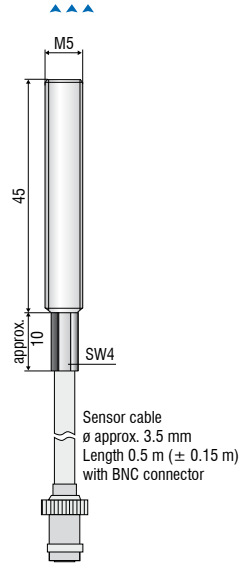
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Measurement direction



Model		DS 05(07)	DS 05(14)
Sensor type		shielded	shielded
Connection ¹⁾		integrated cable, axial, length 0.5 m	integrated cable, axial, length 0.5 m
Mounting		Cable gland (M5)	Cable gland (M5)
Temperature range	Storage	-40 ... +200 °C	-40 ... +200 °C
	Operation	-40 ... +200 °C	-40 ... +200 °C
Special feature		-	Length of housing 42.5 mm

¹⁾ Length tolerance ±0.15 m

▲▲▲▲
Measurement direction



Model	DS 05(15)	DS 1	DS 1(04)	DS 1/T
Sensor type	shielded	shielded	shielded	shielded
Connection ¹⁾	integrated cable, axial, length 0.5 m	integrated cable, axial, length 0.75 m	integrated cable, axial, length 0.8 m	integrated cable, axial, length 0.8 m
Mounting	Cable gland (M5)	Cable gland (M5)	Cable gland (M5)	Cable gland (M5)
Temperature range	Storage	-40 ... +200 °C	-40 ... +235 °C	-40 ... +235 °C
	Operation	-40 ... +200 °C	-40 ... +235 °C	-40 ... +235 °C (short-term +285 °C)
Special feature	-	-	protective hose (stainless steel)	-

¹⁾ Length tolerance \pm 0.15 m

Connection cables for DZ140 portfolio sensors



Miniature coaxial cable for DS05(x) and DS1 models

Diameter: approx. 3.5 mm

Sheathing: thermal protection fabric hose (polyolefin shrink hose)

Temperature range: -50 °C to +200 °C (static)

Minimum bending radius: static approx. 18 mm / dynamic approx. 35 mm

Connection: BNC socket coaxial



Miniature coaxial cable for DS1(04) models

Diameter: approx. 6 mm

Sheathing: metallic protective hose (stainless steel)

Temperature range: -50 °C to +200 °C (static)

Minimum bending radius: static approx. 30 mm / dynamic approx. 60 mm

Connection: BNC socket coaxial

Protection class: IP 40



Triaxial cable for the DS1/T models

Diameter: approx. 3.5 mm

Sheathing: thermal protection fabric hose (polyolefin shrink hose)

Temperature range: -50 °C to +200 °C

Minimum bending radius: static approx. 18 mm / dynamic approx. 35 mm

Connection: BNC socket triaxial

Article	Description	DT3001	DT3005	DT3060	DT3070	DT3300	DZ140	SGS
PCx/8-M12	Supply and signal cable 8-pole with M12 connector Standard length: 3 m Optionally available: 5 m / 10 m / 15 m / 10 m as drag-chain suitable variant			X	X			
PCx/5-M12	Supply and signal cable 5-pole with M12 connector Standard length: 5 m Optionally available: 20 m	X	X					
PC4701-x	Supply and signal cable 8-pole with M12 connector Standard length: 10 m Optionally available: 15 m / 10 m as drag-chain suitable variant							X
SCD2/4/RJ45	Ethernet cable 4-pole with M12 connector on RJ45 connector Standard length: 2 m			X	X			
SCAx/5	Signal cable, analog 5-pole with M16x0.75 connector Standard length: 3 m Optionally available: 6 m / 9 m					X		
SCDx/8	Signal cable for switching inputs and outputs: 8-pole with M16x0.75 connector Standard length: 0.3 m Optionally available: 1 m					X		
PSCx	Supply and synchronization cable 5-pole with M9 connector Standard length: 0.3 m Optionally available: 1 m					X		
ESCx	Synchronization cable 5-pole with M9 connector Standard length: 0.3 m Optionally available: 1 m					X		
PC140-x	Supply and signal cable 8-pole connector Standard length: 3 m Optionally available: 6 m						X	
PS2020	Power supply unit Input 100-240 VAC output 24 VDC / 2.5 A; mounting onto symmetrical standard rail 35 mm x 7.5 mm, DIN 50022	X	X	X	X	X	X	X

Sensors and Systems from Micro-Epsilon



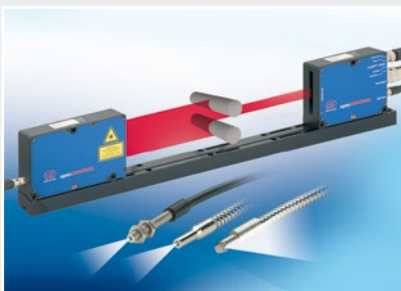
Sensors and systems for displacement, distance and position



Sensors and measurement devices for non-contact temperature measurement



Measuring and inspection systems for metal strips, plastics and rubber



Optical micrometers and fiber optics, measuring and test amplifiers



Color recognition sensors, LED analyzers and inline color spectrometers



3D measurement technology for dimensional testing and surface inspection