

EDDY CURRENT PROBES

Links to further documents for this series:

[Installation guide](#)

[Catalogue](#)



SERIES WST

Key-Features:

- Contactless measurement on metal
- Measurement unaffected by oil, water or dust
- Measurement ranges from 0.8 to 4 mm (more on request)
- Linearity up to 1 %
- Resolution up to 0.4 μm
- Measurement frequency up to 50 kHz
- Analog output: 0...10 V, 0...20 mA, 4...20 mA
- Operating temperature -20...+125 °C
- Protection class up to IP65

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TECHNICAL DATA

		WST-0.8	WST-1.25	WST-2.5	WST-3	WST-4
Measurement range ¹⁾	[mm]	0.8	1.25	2.5	3	4
Sensitivity	[V/mm]	10	8	4	3.34	2.5
Resolution typical	[µm]	0.4	0.5	1		2
Temperature stability typical ²⁾	[%/K]	0.02				
Protection class		sensor IP65, connector IP44 / optional IP65				
Operating temperature	[°C]	-20...+125				
Vibration resistance		5...500 Hz, 5 g (IEC 68-2)				
Shock resistance		40 g, 11 ms				
Connection		axial cable output (1.5 m) with Lemo connector				
Housing		stainless steel (1.4571)				
Weight (cable included)	[g]	24		30	36	42

¹⁾ Values for measurements on steel (ST37). Ranges for measurements on Al, Cu, Ms and CFK ≈50 %. Ranges for measurements on Ti, Pb and VA ≈75 %

²⁾ at 50 % measurement range at temperature +10...+90 °C.

TECHNICAL DATA AMPLIFIER

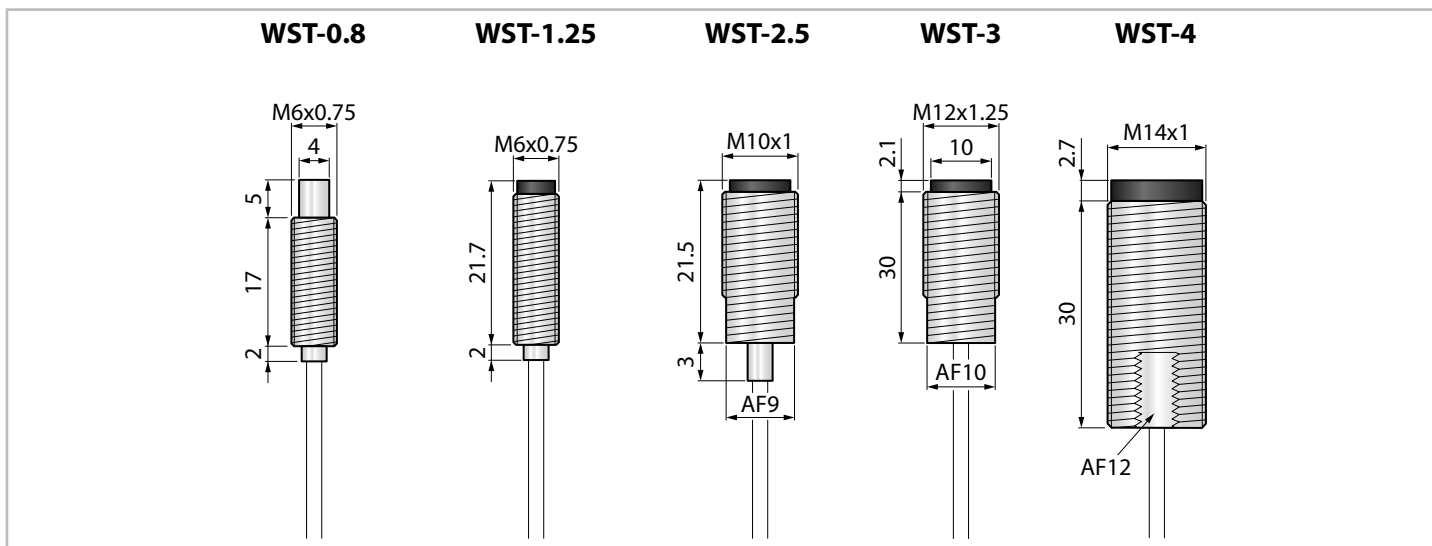
		WAT-10V	WAT-020A	WAT-420A
Output		0...10 V	0...20 mA ³⁾	4...20 mA ³⁾
Linearity max. ¹⁾	[%]	1		
Initial non-linearity ²⁾	[%]	approx. 10		
Frequency	[kHz]	5 / 20 / 50		
Supply	[VDC]	10...32		
Current consumption	[mA]	300		
Load resistance	[kΩ]	>10	<0.5	
Residual ripple	[mV _{pp}]	≤10		
Protection class		IP40		
Operating temperature	[°C]	0...+50		
Connection		screw terminals		
Weight	[g]	340		
Mounting		DIN rail		

¹⁾ based on the measurement range

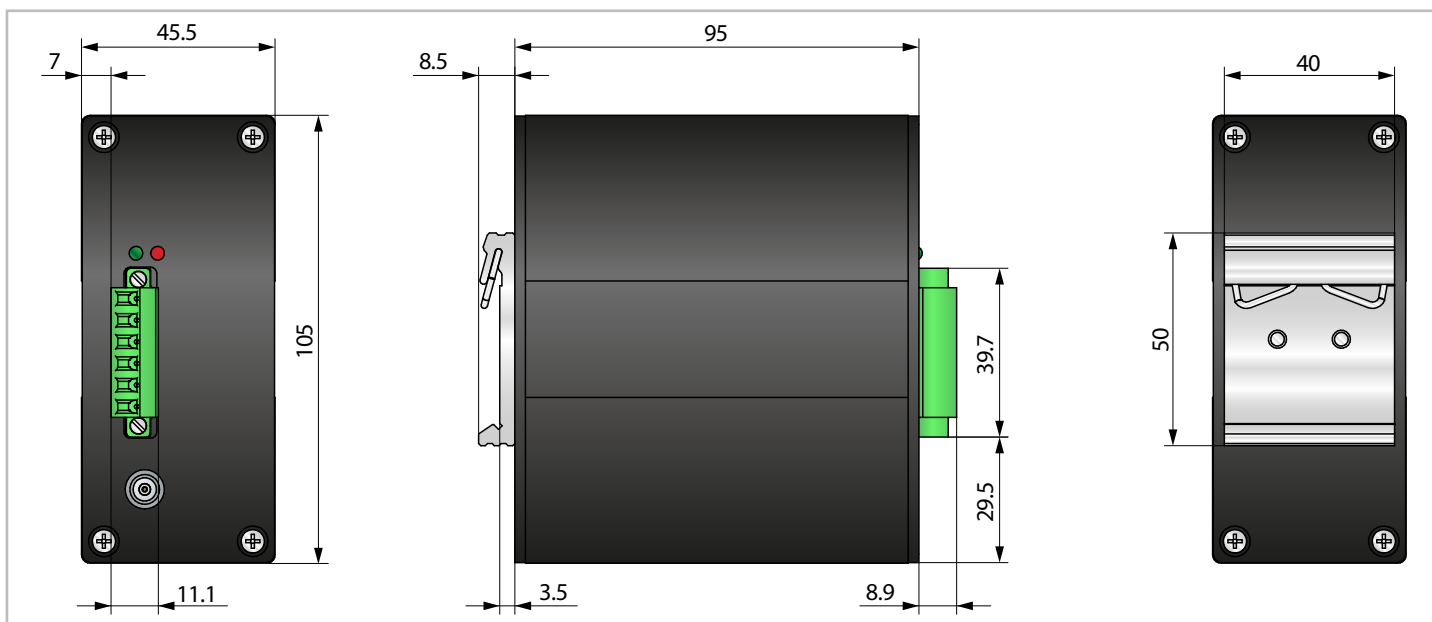
²⁾ within the first 1 % of the measurement range

³⁾ the versions WAT-020A and WAT-420A additional feature a 0...10 V output.

TECHNICAL DRAWING SENSORS



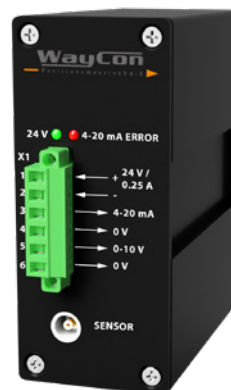
TECHNICAL DRAWING AMPLIFIER



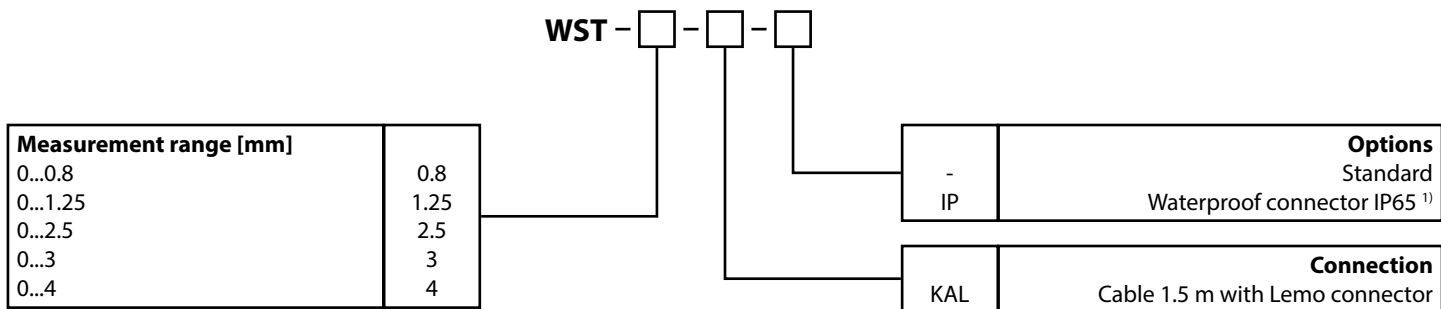
ELECTRICAL CONNECTION

Terminal	Function
1	+V
2	GND
3	0...20 mA / 4...20 mA ¹⁾
4	0V ¹⁾
5	0...10V
6	0V

¹⁾ WAT-020A and WAT-420A only

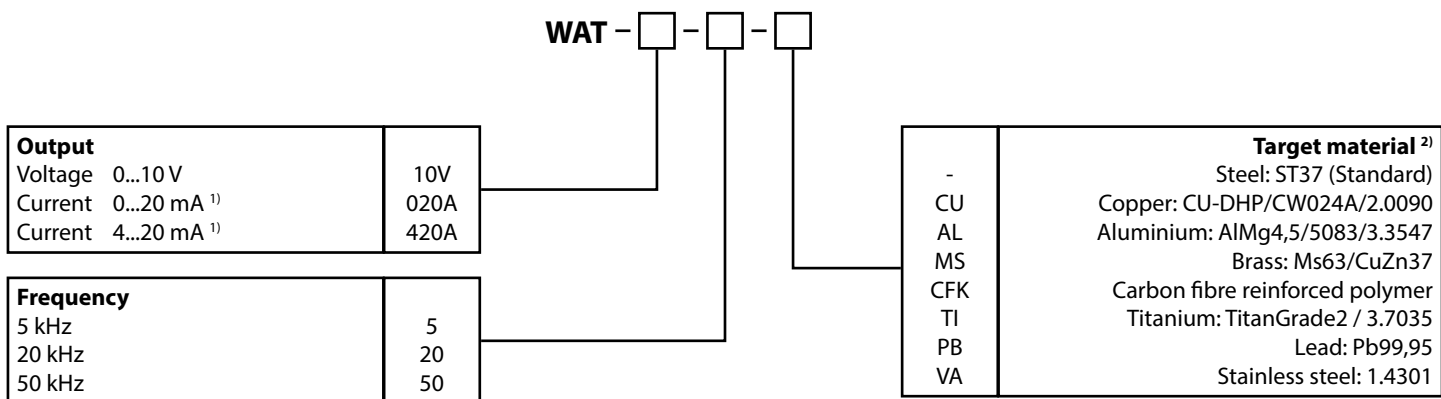


ORDER CODE SENSORS



¹⁾ only in combination with connection cable K3.5L-MF-IP65 or K7L-MF-IP65

ORDER CODE AMPLIFIER



¹⁾ the versions WAT-020A and WAT-420A additional feature a 0...10 V output.

²⁾ Values for measurements on steel (ST37). Ranges for measurements on Al, Cu, Ms and CFK ≈50 %. Ranges for measurements on Ti, Pb and VA ≈75 %. Other materials on request.

ACCESSORIES

K3.5L-MF	Cable 3.5 m, Lemo female to Lemo male	K3.5L-MF-IP65	Cable 3.5 m, Lemo female to Lemo male, IP65
		K7L-MF-IP65	Cable 7 m, Lemo female to Lemo male, IP65

Please note that no more than two extension cables per sensor should be used and that the maximum length is not more than 10 m, otherwise the linearity will be negatively affected.

Subject to change without prior notice.

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