

WK SERIES

2-wire TRANSMITTER



**Monitors or signal converters are unnecessary.
Electric current output makes long wiring possible.**

Direct connection to control instruments.

The ideal system for monitoring small compressor vibrations.



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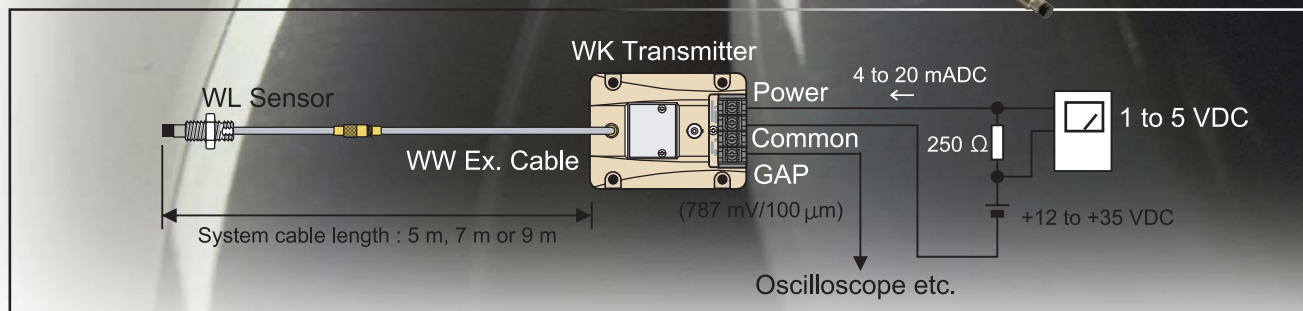
SIMPLE WIRING - 2-WIRE TRANSMITTER

The WK series transmitter is an eddy-current type transmitter that incorporates vibration converter features, supplying the power and transmitting the signal with a 2-wire current loop. The WK system reduces equipment and wiring costs. Two kinds of transmitters are available - the WK-142K for shaft vibration, and the WK-142T for thrust position.

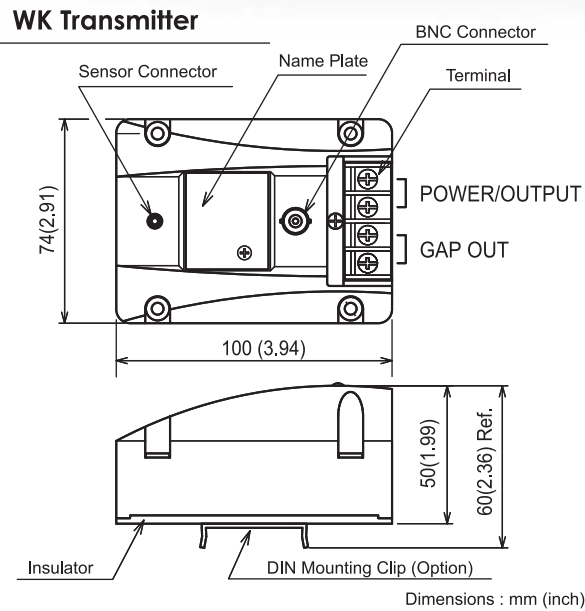


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Example of SYSTEM CONFIGURATION



Outline Drawing



Specifications

	WK-142K	WK-142T
Current Output		
4 to 20mA Output Range	0 to 100 μ m pk-pk, 0 to 125 μ m pk-pk, 0 to 200 μ m pk-pk, 0 to 250 μ m pk-pk, 0 to 400 μ m pk-pk	-0.6 to 0 to +0.6 mm, -0.635 to 0 to +0.635 mm
4 to 20mA Output Conversion Accuracy	$\pm 1.5\%$ of full scale range (from test signal input pin to current output)	$\pm 1.0\%$ of full scale range (from test signal input pin to current output)
Max. Load Resistance	43.5 \times (Vps-12) Ω (Vps=Power supply voltage)	
Calibration Material	JIS SCM440 flat (AISI 4140 equivalent)	
Linear Range*	1.4 mm (Gap : 0.3 to 1.7 mm)	
Scale Factor*	7.87 mV/ μ m	
Scale Factor Error*	5 m, 7 m system : 7.87 mV/ μ m $\pm 6.5\%$ typ. (including interchangeability errors) 9m system : 7.87 mV/ μ m $\pm 10\%$ typ. (including interchangeability errors) Step : 200 μ m, Target : 30 mm dia.	
Output Impedance*	10 k Ω (it is calibrated load impedance at 10 M Ω)	
Frequency Response*	5 Hz to 6,000 Hz (+0 dB, -3 dB) at 900 μ m Gap	
Operating Temperature Range	Transmitter : 0 to 70°C Sensor & Extension cable : -34 to +177°C (Connector : Max.125°C)	
Relative Humidity	95% RH (non-condensing)	
Power Supply Voltage	12 to 35 VDC	
System Cable Length	5 m, 7 m or 9 m	5 m, 7 m

* The above specifications apply at 25°C with 24 VDC power supply and SCM440 (AISI 4140 equivalent) steel flat target.

Model Code

For Shaft Vibration

WK-142K □ - □ /NB □ /DNC /CEM

System Cable Length	Output Range	Non-incendive	With DIN Mounting Clips	CE Marking
1	5 m	1 0 to 100 μ m pk-pk	1	CSA : Class I Div.2 Gr. A,B,C,D ATEX : Ex nA II T6
2	7 m	2 0 to 125 μ m pk-pk	8	KTL : Ex nA II T4
		3 0 to 200 μ m pk-pk		
		4 0 to 250 μ m pk-pk		
		5 0 to 400 μ m pk-pk		

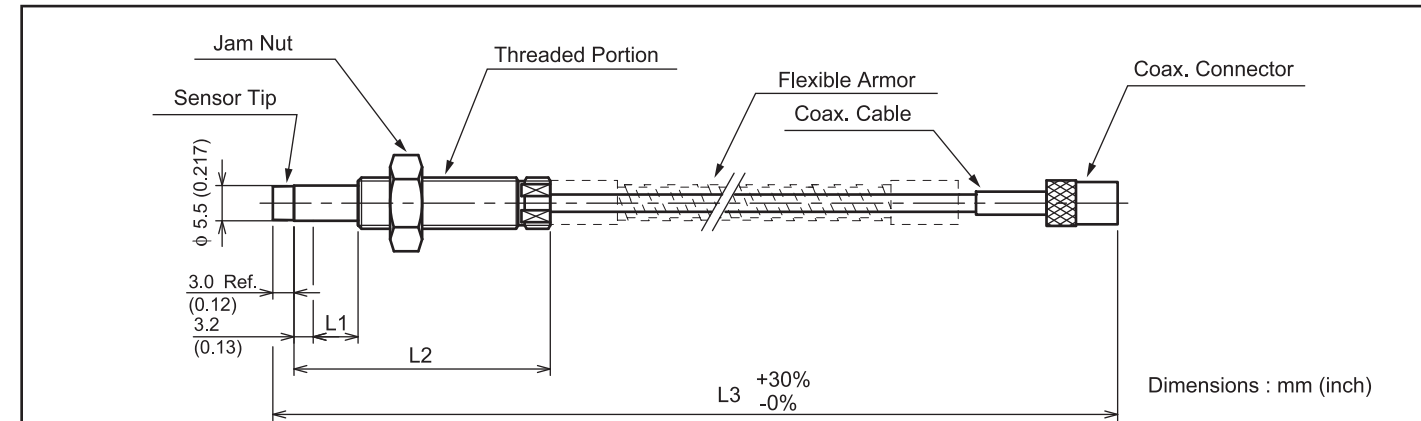
For Thrust Position

WK-142T □ - □ /NB1 /DNC /CEM

System Cable Length	Output Range	Non-incendive	With DIN Mounting Clips	CE Marking
1	5m	1 -0.6 to 0 to +0.6 mm	1	CSA : Class I Div.2 Gr. A,B,C,D ATEX : Ex nA II T4
2	7m	2 -0.635 to 0 to +0.635 mm (-25 to 0 to +25 mils)		

Outline Drawing and Model Code

WL Sensor

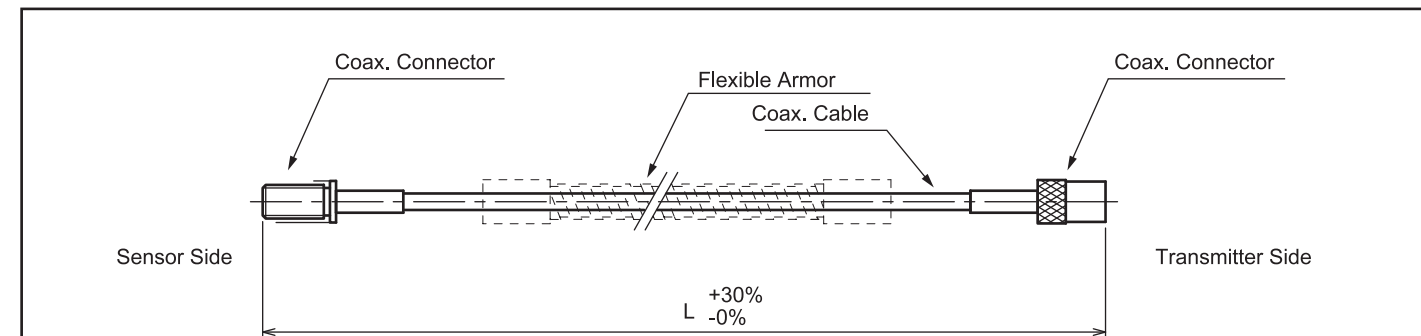


WL-142K05 □ - □ □ □ □ □ □ □ □ /NB □

	Armor	Threaded Size	Unthreaded length* (L1)	Case length* (L2)	Cable length (L3)	Non-incendive
A	With (Without Fluoro resin coating)	M1	M8 x 1	10 mm step, 0 to 230 mm e.g.) 06 = 60 mm L1 \leq L2 - 20 mm	10 mm step, 20 to 250mm e.g.) 25 = 250 mm	1 0.5 m
		M2	M10 x 1			2 1.0 m
		U1	1/4-28 UNF-2A	0.1 inch step, 0 to 9.2 inch e.g.) 04 = 0.4 inch L1 \leq L2 - 0.7 inch	0.1 inch step, 0.8 to 9.9 inch e.g.) 35 = 3.5 inch	3 5.0 m
T	With (With Fluoro resin coating)	U2	3/8-24 UNF-2A			4 7.0 m
						5 9.0 m

* inch for UNF-2A thread mm for M thread

WW Extension Cable



WW-142K □ - □ /NB □

	Armor	Extension Cable length	Non-incendive
A	With (Without Fluoro resin coating)	1 4.0 m	1 CSA : Class I Div.2 Gr. A,B,C,D ATEX : Ex nA II T6
T	With (With Fluoro resin coating)	2 4.5 m	8 KTL : Ex nA II T4
L	Without	3 6.0 m	
		4 6.5 m	