5mm Eddy Current Sensor

Non-contact sensor designed for critical turbomachinery applications such as steam, gas, and hydro turbines, compressors, pumps, and fans to measure radial and axial shaft dynamic displacement: position, eccentricity, and speed.

	,,	
Dynamic Performance		
Sensitivity	16 V/mm (406.4 mV/mil) ≤ ±1.5% max	
Air Gap (Center)	Approx. 0.8 mm (0.03") Nominal	Initial gap Linear measuring range
Long-Term Drift	< 0.3%	- 0.5 - 0.4 - 0.3 - 0.2 - 0.1 0.0 - 0.1 0.2 - 0.3 - 0.4 - 0.5 0.3 - 0.4 - 0.5 - 0.6 - 0.7 - 0.8 - 0.9 - 1.0 - 1.1 1.2 - 1.3
Range: Static	±0.5 mm (0.020")	-4.0 -6.0 -8.0
Dynamic	0 to 250 μm (0 to 0.010")	12.0 14.0 16.0
Target		18.0
Target/Surface Material	Ferromagnetic Steel (42 Cr Mo 4 Standard)	Uout Mode -218V [V] Mode -420V
Maximum Surface Speed	2,500 m/s (98,425 ips)	15.8 mm Ø
Shaft Diameter	≥20 mm	CLEAR OF FERROUS MATERIAL S.25 mm
Environmental		5.25 mm
Operating Temperature Range	-35 to 180°C (-31 to 356°F)	45%
Temperature Excursions <4 Hours	200°C (392°F)	
Maximum Cable Temperature	200°C (392°F)	C=25.3 mm 3.2 mm
Temperature Error	<2%/100°K (API Compliant)	
Pressure Resistance to Sensor Head	10,000 hpa (145 psi)	WKIX-
Shock and Vibration	5g @ 60Hz @ 25°C (77°F)	5 mm S.5 mm WRENCH H.AT (2) 10 mm HEX JAM NUTS
Physical		GENCIA TO THE TOTAL TO THE TOTAL TO THE TOTAL
Material	Sensor – Stainless Steel, Cable – PTFE	
Weight (Sensor & 1 m Cable, No Armor)	~100 grams (3.53 oz)	25 mm
Accessories		ABLE ONED IN STREET
Required – Converter (Lemo Connector:	CON011, CON021 Screw Terminal: CON041)	MINIMAL CABLE BENDING RADIUS ARMORED 35 mm NON-ARMORED 25
Optional – Mounting Bracket, Armored C	Cable, Cable Seals	MININ MININ NON-
LEMO CONNECTOR ADAPTOR	SENSOR ID'S COVERED	BY SHRINK WRAP
7.DA TOK	OVERALL CABLE LENGTH (TYPICAL LENGTHS 4 m, 5 m	, 8 m, 9 m, 10 m)



PR6422

Agency Approvals

Depending on converter, mounting, and safety barriers; various CSA and ATEX agency approvals are standard, see converter spec sheet for details. Standards: DIN 45670, ISO 10817-1, API 670

Order Matrix	PR6422	Х	Х	Х	-	Х	Х	Х
Sleeve Thread	M6x0.5 ½-28UNF-2A	0 1						
Armored Cable	WITH WITHOUT		1 0					
Total Sensor Length C=Cx+5.3 mm	0(Cx=25 mm), 1(30 mm), 2(40 mm), 3(50 mm), 4(60 mm), 5(70 mm), 6(80 mm), 7(90 mm), 8(100 mm)			Х				
Adaptor Plug	WITH WITHOUT					0		
Total Cable Length	0(4 m), 1(5 m), 2(6 m), 3(8 m), F(9 m), 4(10 m)						Х	
Cable End	LEMO OPEN A9360 CONNECTION							0 1 2

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