

Wilcoxon Research®

Certified accelerometer and charge amplifier system 712E/CC712E

The side-exit Wilcoxon Research® high temperature sensor includes a 16 foot integral cable and is operable to 260° C. When monitoring machinery in extremely high temperature environments, high performing equipment is required to ensure data is accurate. The 712E/CC712E system consists of the 712E accelerometer with integral cable which connects to the CC712E charge converter. Using this system allows the temperature-sensitive amplifier (charge converter) to be installed away from the sensor, protecting the electronics from high temperatures. The input of the charge converter connects to the sensor via the integral cable and the output can connect to data analysis equipment.

The 712E high temperature sensor is ATEX certified for usage in explosive atmospheres when used with the CC712E charge amplifier.

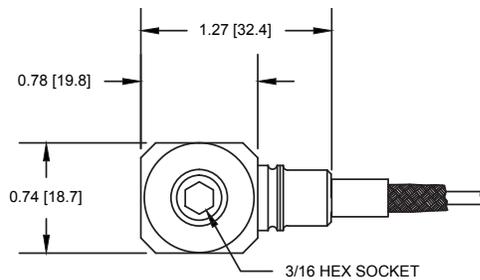
Key features

- Charge output
- Case isolated
- Operation up to 260° C
- 16 ft integral cable with stainless steel overbraid
- Low noise cable minimizes triboelectric noise
- Manufactured in an approved ISO 9001 and AS9100 facility

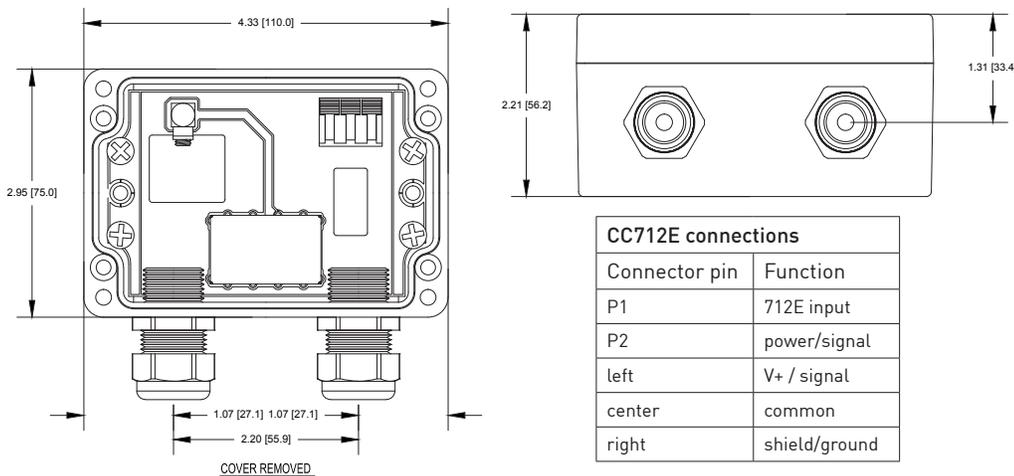
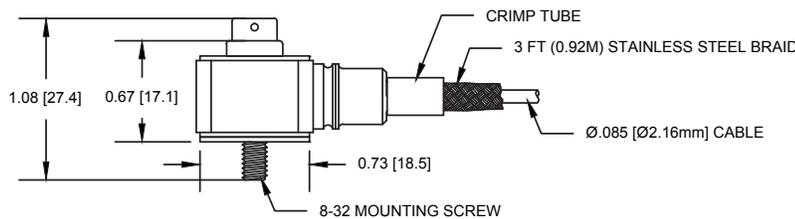
Certifications



ATEX certified when used with CC712E charge amplifier II 1G
Ga Ex ia IIC T2
Transducer T_{amb} -50°C - +260°C



712E connections (when used with CC712E)	
Connector pin	10-32 microdot
center pin	signal
outer shell	common



CC712E connections	
Connector pin	Function
P1	712E input
P2	power/signal
left	V+ / signal
center	common
right	shield/ground

Meggitt Sensing Systems

Our energy product competencies and services

Machinery protection | Condition monitoring | Integrated performance monitoring | Partial discharge monitoring | Sensors for extreme environments
Ignition systems | Flame detection and analysis | Industrial monitoring solutions | Nuclear products

98953 Rev B 6/14

MEGGITT
smart engineering for
extreme environments

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Certified accelerometer and charge amplifier system 712E/CC712E

Specifications

	712E	712E/CC712E
Sensitivity, 25° C	8 pC/g	20 mV/g
Acceleration range	N/A, dependent on external amplifier	100 g peak
Amplitude nonlinearity, to 100 g	1%	1%
Frequency response, ± 3 dB	0.5 - 20 kHz	0.5 Hz - 20 kHz
Resonance frequency	>37.5 kHz	>37.5 kHz
Transverse sensitivity	3% of axial, max	3% of axial
Temperature response	-50° C -10% +260° C +20%	-10% +20%
Capacitance, nominal	1,000 pF	-
Resistance, min	1,000 MΩ	-
Voltage source	-	18 - 30 VDC
Current regulating diode	-	2 - 10 mA
Electrical noise, equiv. g, broadband	-	0.001 g peak
Output impedance	-	<100 Ω
Bias output voltage	-	12 VDC
Grounding	case isolated, internally shielded	case isolated, internally shielded
Temperature range	-50 to +260° C	712E: -50 to +260° C CC712E: -50 to +95° C
Vibration limit	500 g peak	500 g peak
Shock limit	5,000 g peak	5,000 g peak
Base strain	0.002 g/μstrain	0.002 g/μstrain
Sensing element design	PZT, shear	PZT, shear
Weight	40 g, excluding cable	712E: 40 g, excluding cable CC712E: 123 g
Case material	712E: 316L stainless steel	712E: 316L stainless steel CC712E: glass reinforced plastic
Mounting	8-32 captive screw	8-32 captive screw
Integral cable	J3, 16 ft with stainless steel over-braid, 10-32 microdot connector	J3, 16 ft with stainless steel over-braid, 10-32 microdot connector

Note: Due to continuous process improvement, specifications are subject to change without notice.

This document is cleared for public release.

Contact

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