

Model Number 482D27	BRIDGE/ DIFFERENTIAL, ICP/VOLTAGE SENSOR SIGNAL CONDITIONER			Revision: NR ECN#:56455	
Performance	ENGLISH	SI	OPTIONAL VERSIONS		
Channels	4	4	Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used		
Sensor Input Type(s)	ICP®, Voltage, Bridge/Differential	ICP®, Voltage, Bridge/Differential			
Voltage Gain (ICP/Voltage Mode)	0.1 to 1,000	0.1 to 1,000			
Voltage Gain (Bridge/Differential Mode)	0.1 to 1,000	0.1 to 1,000			
Accuracy (Gain, x0.1 to x0.4)	± 5 %	± 5 %			
Accuracy (Gain, x0.5 to x0.99)	± 1 %	± 1 %			
Accuracy (Gain, x1.0 to x1,000)	± 0.5 %	± 0.5 %			
Accuracy (Excitation)	± 1 %	± 1 %,			
Input Range (Differential)	± 5 V	± 5 V			
Input Range (Voltage)	± 5 V	± 5 V			
Output Range (Minimum)	± 10 V	± 10 V			
Frequency Range (- 5 %) (> x100)	0.1 to 50kHz	0.1 to 50kHz			[1]
Frequency Range (- 5 %) (x0.1 to x99.9 Gain)	0.1 to 225kHz	0.1 to 225kHz			[1]
Frequency Range (Bridge Input Mode -5%)	DC to 100kHz	DC to 100 kHz			
Frequency Range (Bridge Input Mode -3dB)	DC to 225kHz	DC to 225 kHz			
Phase Response (at 1 kHz)	± 1 °	± 1 °			
Cross Talk (maximum @ 10kHz)	- 72 dB	- 72 dB			
Calibration (Shunt)	Internal/External	Internal/External			
TEDS Sensor Support	Yes	Yes			
Fault/Bias Monitor/Meter (LED)	Open/Short/Overload	Open/Short/Overload			
Control Interface			NOTES: [1]AC coupled mode (low frequency response is 0Hz in DC Coupled mode.) [2]Adjustable in 0.1V steps. [3] Negative excitation can be set to 0V or to track the positive excitation voltage. [4]Typical, AC Coupled. For ICP or Voltage Input Mode [5]Bridge/Differential Mode, DC Coupled with 350 ohm bridge [6] See PCB Declaration of Conformance PS024 for details [7] Bridge Excitation Channel 1 = 100mA, Channels 2 – 4 = 30mA		
Digital Control Interface	USB-C (2.0)	USB-C (2.0)			
Digital Control Interface	Ethernet	Ethernet			
Human Interface	Keypad	Keypad			
Display	2 rows, 16 columns	2 rows, 16 columns			
Digital Control: Cable Length (USB) (Maximum)	16.4 ft	5m			
Environmental					
Temperature Range (Operating)	+32 to +120 °F	0 to +50 °C			
Electrical					
Power Required (for supplied AC power adaptor)	AC Power	AC Power			
AC Power (50 to 60 Hz)	100 to 240 VAC	100 to 240 VAC			
AC Power	1.6 Amps	1.6 Amps			
DC Power	≤ 2.5 Amps	≤ 2.5 Amps			
DC Power	+ 9 to 18 VDC	+ 9 to 18 VDC			
Excitation Voltage (To Sensor)	> +24 VDC	> +24 VDC			
Excitation Voltage (Positive)	+ 0 to 12 V	+ 0 to 12 V	[2]		
Excitation Voltage (Negative)	- 0 to 12 V	- 0 to 12 V	[2][3]		
Input Imbalance Adjustment (Maximum, Gain <10)	± 1.2 V	± 1.2 V			
Input Imbalance Adjustment (Maximum, Gain ≥10)	± 0.12 V	± 0.12 V			
Common Mode Voltage (Maximum)	± 10 V	± 10 V			
DC Offset (Stability, Maximum RTI)	5 µV/°C	5 µV/°C			
DC Offset (AC Coupled)	≤ 50 mV	≤ 50 mV			
DC Offset (DC Coupled, Gain <100)	< 10 mV	< 10 mV			
DC Offset (DC Coupled, Gain ≥100)	< 20 mV	< 20 mV			
Current Output (Excitation, Maximum)	100mA/30 mA	100mA/30 mA	[7]		
Constant Current Excitation (To Sensor)	0 to 20 mA	0 to 20 mA			
Output Impedance	≤ 50 Ohm	≤ 50 Ohm			
Impedance (Input)	> 1 MOhm	> 1 MOhm			
Broadband Electrical Noise (1 to 10,000 Hz) (Gain x1)	17 µV rms	17 µV rms	[4]		
Spectral Noise (1 Hz) (Gain x1)	1.0 µV/√Hz	1.0 µV/√Hz	[4]		
Spectral Noise (10 Hz) (Gain x1)	280 nV/√Hz	280 nV/√Hz	[4]		
Spectral Noise (100 Hz) (Gain x1)	200 nV/√Hz	200 nV/√Hz	[4]		
Spectral Noise (1 kHz) (Gain x1)	200 nV/√Hz	200 nV/√Hz	[4]		
Spectral Noise (10 kHz) (Gain x1)	200 nV/√Hz	200 nV/√Hz	[4]		
			SUPPLIED ACCESSORIES:		
			Model 017AXX Power Cord (1)		
			Model 100-18895-80 CABLE ASSEMBLY USB-A TO USB-C /W SCREW (1)		
			Model 488B14/NC POWER CONVERTOR (1)		
			Model EE75 PCB MCSC Control Software. (1)		
			Entered: ND	Engineer: CPH	
			Sales: AH	Approved: JWH	
			Spec Number:		
			Date: 8/12/26	Date: 8/12/26	
			Date: 8/12/26	Date: 8/12/26	
			80073		
			 PCB PIEZOTRONICS AN AMPHENOL COMPANY		
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			3425 Walden Avenue, Depew, NY 14043		

Broadband Electrical Noise (1 to 10,000 Hz) (Gain x10)	32 µV rms	32 µV rms	[4]
Spectral Noise (1 Hz) (Gain x10)	7.9 µV/√Hz	7.9 µV/√Hz	[4]
Spectral Noise (10 Hz) (Gain x10)	630 nV/√Hz	630 nV/√Hz	[4]
Spectral Noise (100 Hz) (Gain x10)	400 nV/√Hz	400 nV/√Hz	[4]
Spectral Noise (1 kHz) (Gain x10)	350 nV/√Hz	350 nV/√Hz	[4]
Spectral Noise (10 kHz) (Gain x10)	350 nV/√Hz	350 nV/√Hz	[4]
Broadband Electrical Noise(1 to 10,000 Hz)(Gain x100)	180 µV rms	180 µV rms	[4]
Spectral Noise (1 Hz) (Gain x100)	75 µV/√Hz	75µV/√Hz	[4]
Spectral Noise (10 Hz) (Gain x100)	5.0 µV/√Hz	5.0 µV/√Hz	[4]
Spectral Noise (100 Hz) (Gain x100)	2.5 µV/√Hz	2.5 µV/√Hz	[4]
Spectral Noise (1 kHz) (Gain x100)	2.0 µV/√Hz	2.0 µV/√Hz	[4]
Spectral Noise (10 kHz) (Gain x100)	2.0 µV/√Hz	2.0 µV/√Hz	[4]
Broadband Electrical Noise (1 to 10,000 Hz) (Gain x1000)	1.8 mV/rms	1.8 mV/rms	[4]
Spectral Noise (1 Hz) (Gain x1000)	790 µV/√Hz	790µV/√Hz	[4]
Spectral Noise (10 Hz) (Gain x1000)	45 µV/√Hz	45µV/√Hz	[4]
Spectral Noise (100 Hz) (Gain x1000)	20 µV/√Hz	20µV/√Hz	[4]
Spectral Noise (1 kHz) (Gain x1000)	20 µV/√Hz	20µV/√Hz	[4]
Spectral Noise (10 kHz) (Gain x1000)	20 µV/√Hz	20µV/√Hz	[4]
Broadband Electrical Noise (1 to 10,000 Hz) (Gain x1)	21 µV rms	21 µV rms	[5]
Broadband Electrical Noise (1 to 10,000 Hz) (Gain x10)	27 µV rms	27 µV rms	[5]
Broadband Electrical Noise (1 to 10,000 Hz) (Gain x100)	225 µV rms	225 µV rms	[5]
Broadband Electrical Noise (1 to 10,000 Hz) (Gain x1,000)	2.0 mV rms	2.0 mV rms	[5]
Spectral Noise (1 Hz) (Gain x1,000)	280 µV/√Hz	280 µV/√Hz	[5]
Spectral Noise (10 Hz) (Gain x1,000)	45 µV /√Hz	45 µV /√Hz	[5]
Spectral Noise (100 Hz) (Gain x1,000)	22 µV/√Hz	22 µV/√Hz	[5]
Spectral Noise (1 kHz) (Gain x1,000)	20 µV/√Hz	20 µV/√Hz	[5]
Spectral Noise (10 kHz) (Gain x1,000)	20 µV/√Hz	20 µV/√Hz	[5]
Overload Threshold (± 0.2 Vpk)	± 10 Vpk	± 10 Vpk	

Physical

Electrical Connector (ICP® Sensor Input)	BNC Jack	BNC Jack
Electrical Connector (Bridge/Differential)	8-socket mini DIN	8-socket mini DIN
Electrical Connector (Output)	BNC Jack	BNC Jack
Electrical Connector (DC Power Input)	6-socket mini DIN	6-socket mini DIN
Electrical Connector (USB Digital Control)	USB-C	USB-C Electrical
Connector (Ethernet)	RJ-45	RJ-45
Size (Height x Width x Depth)	3.20 in x 8.00 in x 5.90 in	8.10 cm x 20 cm x 15 cm
Weight	2.50 lb	1,134 gm



All specifications are at room temperature unless otherwise specified.

In the interest of constant product improvement, we reserve the right to change specifications without notice.

ICP® is a registered trademark of PCB Piezotronics, Inc.

This model, designated with an RH prefix, is RoHS compliant. For further details, and to obtain PCB's RoHS Statement of Conformance, please visit <http://www.pcb.com>