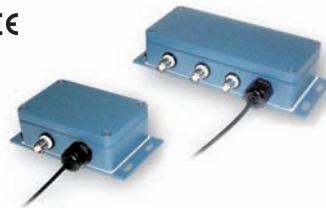




# Industrial Charge Amplifiers

## Industrial Charge Amplifiers

CE



CE





Model Number	421A11	421A13	421A25
Channels	1	3	1
Number of Measurement Ranges	3	3	13 Fixed, 3 Adjustable
Input Range [1]	±100 to 100,000 pC	±100 to 100,000 pC	±100 to 1,000,000 pC
Sensitivity [1]	5.00 to 0.05 mV/pC	5.00 to 0.05 mV/pC	100 to 0.01 mV/pC
Output Voltage	±5 V	±5 V	±10 V
Low Frequency Response	~0 Hz	~0 Hz	~0 Hz
High Frequency Response (-5%)	4 to 12 kHz [1]	4 to 12 kHz [1]	2 to 20 kHz [1] [4]
Broadband Electrical Noise	11 µV rms [2]	11 µV rms [2]	<20 mVpp [5]
Drift	0.03 pC/s	0.03 pC/s	0.03 pC/s [6]
Temperature Range	+32 to +140 °F 0 to +60 °C	+32 to +140 °F 0 to +60 °C	+23 to +140 °F -5 to +60 °C
Power Required	15 to 30 VDC	15 to 30 VDC	15 to 35 VDC
Current Draw (Maximum)	19 mA	19 mA	70 mA
Input Connector	BNC Jack	BNC Jacks	BNC Jack
Output Connector	Screw Terminal [3]	Screw Terminal [3]	DB25 Male [7]
Size	4.89 x 2.52 x 1.50 in 124.2 x 64 x 38.1 mm	6.95 x 2.52 x 1.50 in 176.5 x 64 x 38.1 mm	3.9 x 3.1 x 1.35 in 98 x 79 x 34.4 mm
Weight	14.6 oz 415 gm	21.1 oz 598.7 gm	9.6 oz 272.2 gm
<b>Supplied Accessories</b>			
Ferrite Beads	(2) 100-2973-30	(4) 100-2973-30	—
<b>Additional Versions</b>			
2-Channel	421A12	421A12	—
200,000 pC Input	421A111	421A113	—
<b>Notes</b>			
[1] Dependant on input range selected [2] Noise measurements performed at 10,000 pC to 100,000 pC range [3] Supplied with 10-ft multi-conductor cable and PG-9 cord grip [4] - 3dB [5] Measured 0.1 Hz to 100 kHz; <30 mVpp in 100 pC range [6] At room temperature. Scope: charge input open and screened, charge amplifier connected to operating voltage for minimum 30 minutes, in "operate" mode, lid tightly closed [7] Connector also used for setup control and power			

# Differential Charge Converters



## Differential Charge Converters

			
	CE		
Model Number	422M182	422M183	495B10-02-10
Type [1]	Differential Inputs	Differential Inputs	Differential Inputs
Gain	4 mV/pC ±5%	6 mV/pC ±5%	2 mV/pC
Input Range	±1250 pC	±833 pC	±1250 pC
Output Voltage Range	±5.0 V	±5.0 V	±2.5 V
Low Frequency Response (±5%)	2 Hz	2 Hz	10 Hz [4]
High Frequency Response (±5%)	55k Hz [2]	55k Hz [2]	10k Hz [5]
Broadband Electrical Noise	28 µV rms [3]	28 µV rms [3]	36 µV rms
Temperature Range	-60 to +185 °F -51 to +85 °C	-60 to +185 °F -51 to +85 °C	-13 to +185 °F -25 to +85 °C
Power Required	ICP® Power	ICP® Power	10 to 32 VDC/ 17 mA
ICP® Excitation Voltage	22 to 28 VDC	22 to 28 VDC	—
ICP® Constant Current Excitation	2.2 to 20 mA	2.2 to 20 mA	—
2-pin Input Connector	2-pin 5/8-24 UNF-2A	2-pin 5/8-24 UNF-2A	PC02A-8-2S
Output Connectors	BNC Jack	BNC Jack	PT02H-10-6P
Size	4.58 x 1.25 x 1.25 in 116.21 x 31.75 x 31.75 mm	4.58 x 1.25 x 1.25 in 116.4 x 31.75 x 31.75 mm	5.5 1.73 x 1.21 in 139.7 x 43.8 x 30.8 mm
Weight	3.5 oz 109 gm	3.5 oz 109 gm	7.2 oz 204 gm
Notes			
[1] Specifically designed for use with differential output sensors [2] High frequency response may be limited by supply current and output cable length [3] Tested using voltage source and input capacitor equal to the feedback capacitor, to simulate a charge output sensor [4] Acceleration output: -120 dB/decade [5] Both acceleration and velocity outputs have -40 dB/decade response past upper frequency limit			

Hochwertige Messtechnik und Beratung aus einer Hand

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