

Model Number  
**485B39**

# DIGITAL ICP® - USB SIGNAL CONDITIONER

Revision: C  
ECN #:

## PERFORMANCE

|                                              | ENGLISH                                | SI                                     |
|----------------------------------------------|----------------------------------------|----------------------------------------|
| Channel Count                                | 2                                      | 2                                      |
| Voltage Range (nominal)                      | ± 10 V pk <sup>1</sup>                 | ± 10 V pk <sup>1</sup>                 |
| ADC Resolution                               | 24-bit <sup>2</sup>                    | 24-bit <sup>2</sup>                    |
| Frequency Range (± 5 %)                      | 0.8 Hz to 20.7 kHz                     | 0.8 Hz to 20.7 kHz                     |
| Sample Rate                                  | 48, 44.1, 32, 22.05, 16, 11.025, 8 kHz | 48, 44.1, 32, 22.05, 16, 11.025, 8 kHz |
| Antialiasing Lowpass Filter (-3dB) at 48 kHz | 22.9 kHz <sup>3</sup>                  | 22.9 kHz <sup>3</sup>                  |
| AC High Pass Filter (-3dB)                   | 1 Hz to 0.5 Hz <sup>4</sup>            | 1 Hz to 0.5 Hz <sup>4</sup>            |
| Digital Output Interface                     | USB class 1 audio                      | USB class 1 audio                      |

## ENVIRONMENTAL

|                               |                   |                  |
|-------------------------------|-------------------|------------------|
| Temperature Range (Operating) | 14 °F to +176 °F  | -10 °C to +80 °C |
| Temperature Range (Storage)   | -40 °F to +176 °F | -40 °C to +80 °C |

## ELECTRICAL

|                                       |                          |                          |
|---------------------------------------|--------------------------|--------------------------|
| Excitation Voltage (to sensor: ± 5 %) | 24 V DC                  | 24 V DC                  |
| Constant Current Excitation (± 5 %)   | 4 mA                     | 4 mA                     |
| DC Power (USB)                        | < 500 mW (5 V at 100 mA) | < 500 mW (5 V at 100 mA) |
| Settling Time                         | 1.5 seconds              | 1.5 seconds              |
| Electrical Isolation (case)           | Grounded                 | Grounded                 |

## MECHANICAL

|                                |                          |                          |
|--------------------------------|--------------------------|--------------------------|
| Housing Material               | Stainless steel          | Stainless steel          |
| Size (length x width x height) | 2.4 in x 1.5 in x 0.7 in | 60 mm x 39 mm x 19 mm    |
| Weight                         | 4.4 oz                   | 125 gram                 |
| Sensor Inputs                  | 2 BNC jacks              | 2 BNC jacks              |
| Digital Output                 | 11 in integral USB cable | 28 cm integral USB cable |
| USB Connector                  | Type A                   | Type A                   |

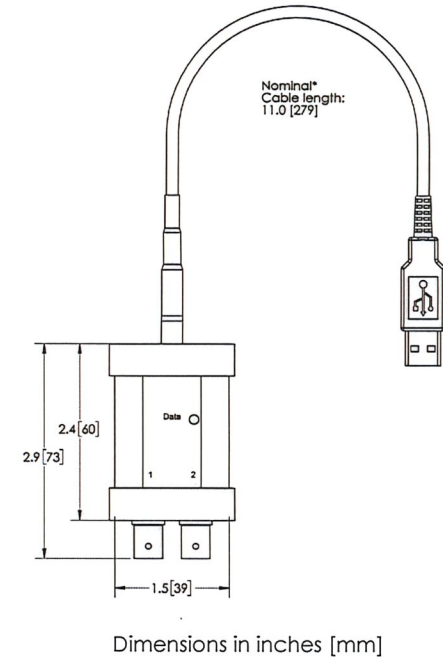
### NOTES:

- <sup>1</sup> ± 8 V pk, guaranteed
- <sup>2</sup> 16-bit selectable by software
- <sup>3</sup> Proportional to sample rate
- <sup>4</sup> Sample rate dependent (48 kHz to 8 kHz)

### OPTIONAL ACCESSORIES:

- MD821AM/A USB A to Lightning camera adaptor
- USB A to USB OTG adaptor

## PRODUCT DRAWING



## OPTIONAL VERSIONS

- V485B39 – Voltage inputs (no ICP supply current)
- IV485B39 – ICP (CH 1), voltage (CH 2)

In the interest of constant product improvement, specifications may change without notice.



All specifications are at room temperature unless otherwise specified.

|                                 |                                |                                |                                |
|---------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Project Engineer:<br><i>NMA</i> | Product Manager:<br><i>NAP</i> | Mkt Team Leader:<br><i>CAO</i> | Spec Number:<br><b>PS-0149</b> |
| Date: <i>6/19/19</i>            | Date: <i>6/19/19</i>           | Date: <i>6/20/19</i>           |                                |

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