Vibro Meter IPC704P-CP237 244-704-000-042

Dynamic Pressure Signal Conditioner

Vibro Meter IPC704P-CP237 244-704-000-042 is an IPC704 charge signal conditioner configured for a CP237 dynamic-pressure measurement chain. It converts the piezoelectric sensor charge into a signal suitable for the monitoring electronics, with high-pass and low-pass filtering appropriate to the configured measurement band. The photographed unit is identified for a 7.5 pC/kPa input and a 50 µA/kPa output. These configuration values distinguish this pressure-measurement unit from accelerometer and other pressure variants that share the IPC704 housing.



Technical Specifications

Product Identity	
Complete unit identity	IPC704P-CP237 244-704-000-042
Functional Configuration	
Function	Charge conditioning for CP237 dynamic pressure measurement
Base version	244-704-000-042; standard piezoelectric materials
Photographed input calibration	7.5 pC/kPa; unit nameplate
Photographed output calibration	50 µA/kPa; unit nameplate
Actual HP/LP filters	Confirm the individual unit configuration; not inferred from the family range
Performance & Power	
Supply	18–30 V DC; 25 mA maximum
Current output standing value	12 mA ±0.5 mA
Maximum dynamic current	±5 mA peak
Environment	
Operating temperature	–30 to +85 °C
Bare enclosure protection	IP40

Selected original manufacturer material follows on pages 3–4.

Compatibility & Selection Guide

System compatibility. Use a suitable GSI galvanic separation unit in the dynamic-pressure chain. Match sensor sensitivity, current-versus-voltage output, scaling and both filter settings before replacement. The 042 version and the separately specified 511 version for GaPO4 sensors have different applicability. Do not assume an older 032 unit is interchangeable merely because its housing or CP237 label looks similar.

Wiring & Installation Reference

Mechanical mounting

1. Confirm the enclosure The photographed bare unit is not an IP66 industrial enclosure.

2. Secure the conditioner Use the manufacturer mounting pattern and the specified M4 fasteners.

3. Verify the pressure chain Connect the suitable GSI separation unit and verify scaling and filter settings before operation.

Installation precautions

Dynamic-pressure sensors require a GSI galvanic separation unit.

Do not infer fitted filter frequencies, hazardous-area approval or an industrial enclosure from the base part number.

View terminal diagram (PDF) — page 4 · View mounting diagram — page 4

SPECIFICATIONS *(continued)*

Output characteristics (ordering option D)

RFI filter : Symmetrical LC network

2-wire current transmission

- *Dynamic signal* : Max. ±5 mA peak
- *Standing current* : 12 mA ±0.5 mA
- *Electrical connection* : +24 V = "+", COM = "−"
- *Output sensitivity* : See **Ordering information on page 12**
- *Max. dynamic range* : 5 mA peak/output sensitivity

3-wire voltage transmission

- *Dynamic signal* : Max. ±5 V peak
- *Standing voltage* : 7.5 V ±0.2 V
- *Output sensitivity* : See **Ordering information on page 12**
- *Output impedance* : 750 Ω (3-wire configuration)
- *Max. dynamic range* : 5 V peak/output sensitivity

⚠ **The 3-wire voltage output without galvanic separation unit should only be used with piezoelectric-based transducers which are insensitive to frame voltage.**
Dynamic pressure transducers should always be used with a GSI galvanic separation unit.

Filter characteristics (ordering options E and F)

High-pass filter

- *Cutoff frequencies (at −3 dB)* : 0.5, 1, 2, 5 or 10 Hz (all ±20%)
- *Slope* : 24 dB/octave (4th order)

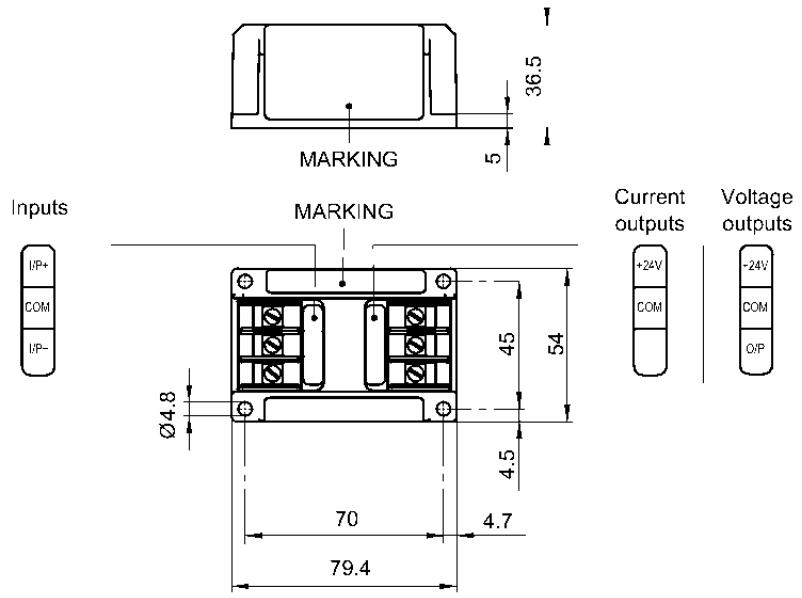
⚠ **When selecting a high-pass filter, be careful to select an appropriate frequency for the charge amplifier. See the charge amplifier frequencies versus transfer unit graphs on the following pages.**

Low-pass filter

- *Cutoff frequencies (at −1 dB)* : 200, 500, 1000, 2000, 5000, 10000 or 20000 Hz (all ±10%)
- *Slope* : 12 dB/octave (2nd order)

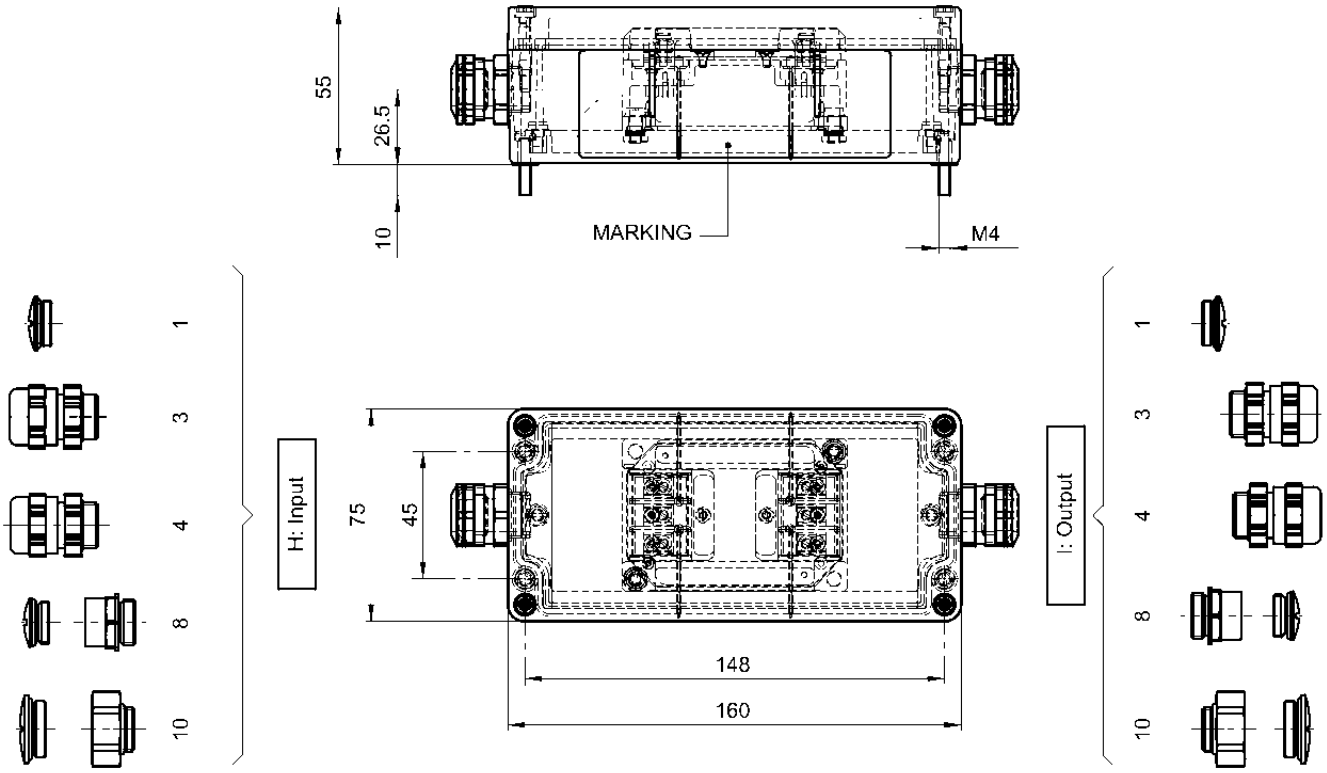
MECHANICAL DRAWINGS

Signal conditioner without industrial housing (ordering option G0)



Note: All dimensions in mm unless otherwise stated.

Signal conditioner with industrial housing (ordering option G1)



Note: All dimensions in mm unless otherwise stated.

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