

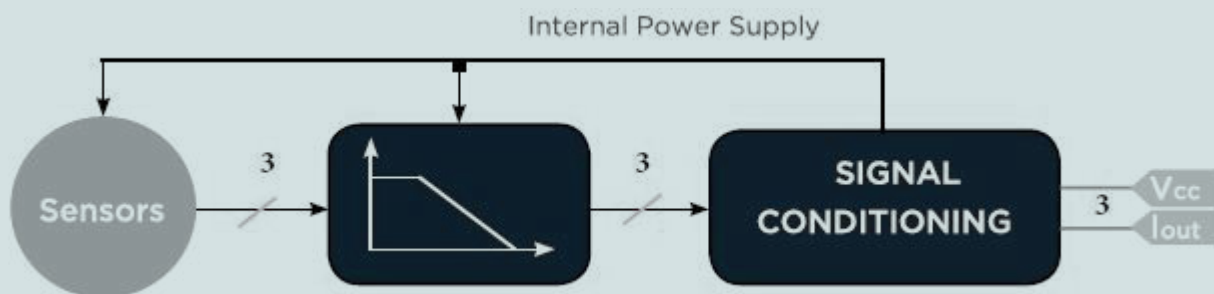
### HIGH RESOLUTION ACCELEROMETER (4-20mA)



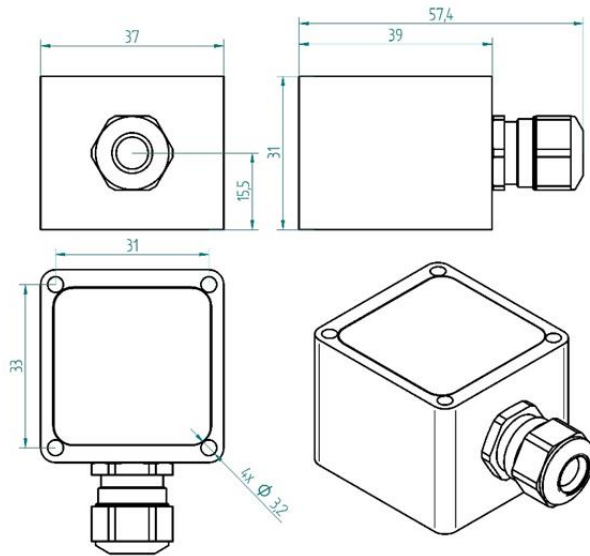
#### PROPERTIES

- 3-axes, low noise, high resolution
- Suited for direct connection to standard control and measurement equipment, e.g. PLCs or panel meters
- Embedded 4..20mA signal conditioning
- Galvanically Isolated
- Protected against false polarization
- Compact and rugged design
- Protection grade IP67

#### BLOCK DIAGRAM

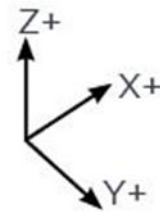


## DIMENSIONS - Cable Gland Model

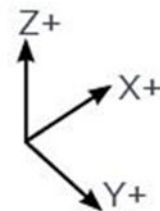
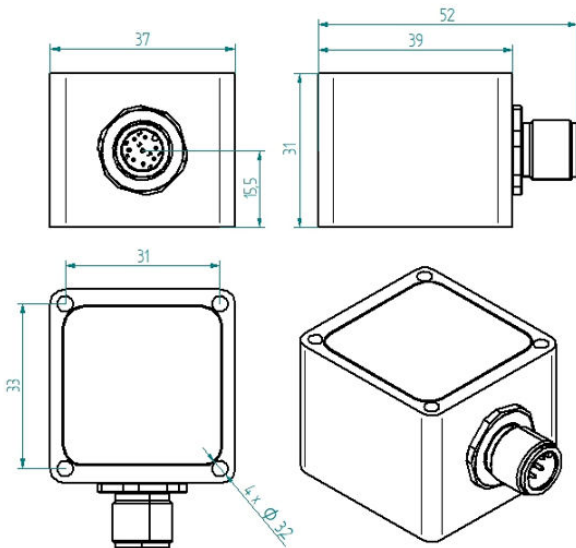


### NOTE

When mounted with sensing axis vertical all units will indicate 1g offset due to gravity



## DIMENSIONS - M12 Connector Model



## MOUNTING ACCESSORIES

See "IAC - Accelerometer Accessories data sheet"

## SPECIFICATIONS - ALL MODELS

|                                      |  |   |  |
|--------------------------------------|--|---|--|
| <b>OUTPUT/CHANNEL</b>                | Output Range                           | 4-20mA  |  |
|                                      | Supply Voltage                         | 10-30 VDC   |  |
|                                      | Lower frequency limit                  | 0 Hz (DC)   |  |
|                                      | Non-linearity                          | ± 0.5 % F.S.  |  |
|                                      | Sensitivity Error                      | 0.5% typ. - 1 % max.  |  |
|                                      | Transverse Sensitivity                 | 2 % typ. - 3 % max.   |  |
|                                      | Offset                                 | 0.2 % F.S. typ. - 0.5 % F.S. max.                             |  |
|                                      | Destruction limit                      | ± 5000g   |  |
| <b>ENVIRONMENTAL CHARACTERISTICS</b> | Operating temperature Range            | Operating<br>-40 to 125°C / -40..185°F                        | Non-Operating<br><-55 ; >125°C / <-67 ; >257°F |
|                                      | Temperature coefficient of sensitivity | ± 0.03 %/°C   |  |
|                                      | Temperature drift of zero point        | ± 0.02 % F.S./°C  |  |
|                                      | Protection grade                       | IP67  |  |
| <b>MECHANICAL DATA</b>               | Weight Without Cable (g)               | <sup>(1)</sup> CG/203, CO/223 - <sup>(2)</sup> CG/117, CO/137 |  |
|                                      | Case Material                          | Stainless Steel or Aluminium                                  |  |
|                                      | Mounting                               | 3.2 mm diameter holes (4x)                                    |  |

<sup>(1)</sup> Stainless Steel Casing Grade (e.g. for offshore/marine environment)

<sup>(2)</sup> Aluminium (MIL-A-8625 Type II coating)

## PERFORMANCES - BY MODEL

| Range - g | Sensitivity - $\mu\text{A/g}$ | Freq. Response (-3dB) - Hz | Noise - $\mu\text{g}/\sqrt{\text{Hz}}$ |
|-----------|-------------------------------|----------------------------|--|
| +/- 2     | 4000                          | 0 - 400                    | 8                                      |
| +/- 5     | 1600                          | 0 - 600                    | 10                                     |
| +/- 10    | 800                           | 0 - 1000                   | 13                                     |
| +/- 25    | 320                           | 0 - 1500                   | 28                                     |
| +/- 50    | 160                           | 0 - 2000                   | 53                                     |
| +/- 100   | 80                            | 0 - 2500                   | 100                                    |
| +/- 200   | 40                            | 0 - 3000                   | 200                                    |
| +/- 400   | 20                            | 0 - 4000                   | 400                                    |

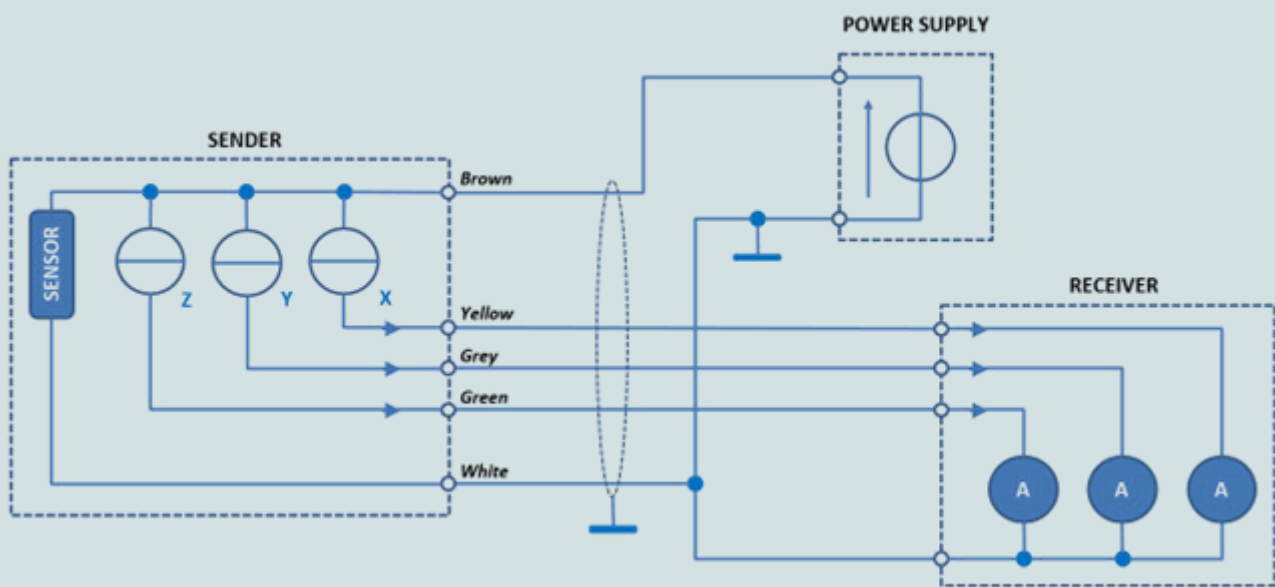
## ELECTRICAL CONNECTIONS - Cable Gland Model

| Signal X sensing      | Signal Y sensing      | Signal Z sensing      | 5 x 0,25 <sup>2</sup> |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Sensor supply + input | Sensor supply + input | Sensor supply + input | Brown                 |
| Sensor supply - input | Sensor supply - input | Sensor supply - input | White                 |
| X Axis Out            |                       |                       | Yellow                |
|                       | Y Axis Out            |                       | Grey                  |
|                       |                       | Z Axis Out            | Green                 |

# ELECTRICAL CONNECTIONS - M12 Connector Model

|             |  |   |        |                       |
|-------------|--|---|--------|-----------------------|
| <b>I 03</b> |  | 1 | OUT X  | 4-20mA current output |
|             |  | 2 | OUT Y  | 4-20mA current output |
|             |  | 3 | OUT Z  | 4-20mA current output |
|             |  | 4 | +24VDC | Sensor supply + input |
|             |  | 5 | 0VDC   | Sensor supply - input |

## ELECTRICAL CONNECTIONS



## ORDERING INFORMATION

IAC - HiRes - I - 03 - XX - XX - Xg - XXXXHz - X - XX.X m

|                  |             |        |                 |        |                             |      |                        |   |              |                |
|------------------|-------------|--------|-----------------|--------|-----------------------------|------|------------------------|---|--------------|----------------|
| Cable Connection |             | Casing |                 | Range  | Low Pass Filter Frequencies |      | Low Pass Filter Orders |   | Cable Length |                |
| CG               | Cable Gland | AL     | Aluminium       |        | ± 2g                        | 0100 | 100Hz                  | 1 | 1st order    | Value in meter |
| CO               | M12         | SS     | Stainless Steel |        | ± 5g                        | 0250 | 250Hz                  | 2 | 2nd order    |                |
|                  |             |        |                 |        | ± 10g                       | 0500 | 500Hz                  |   |              |                |
|                  |             |        |                 |        | ± 25g                       | 1000 | 1000Hz                 |   |              |                |
|                  |             |        |                 |        | ± 50g                       |      |                        |   |              |                |
|                  |             |        |                 |        | ± 100g                      |      |                        |   |              |                |
|                  |             |        |                 | ± 200g |                             |      |                        |   |              |                |
|                  |             |        |                 | ± 400g |                             |      |                        |   |              |                |