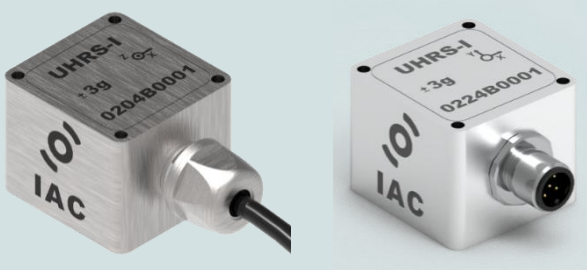
IAC-UHRS-I-02

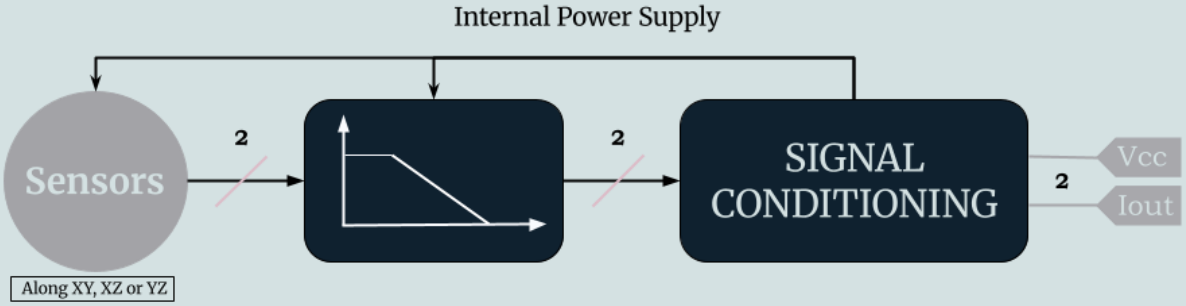
ULTRA HIGH RESOLUTION ACCELEROMETER (4-20mA)



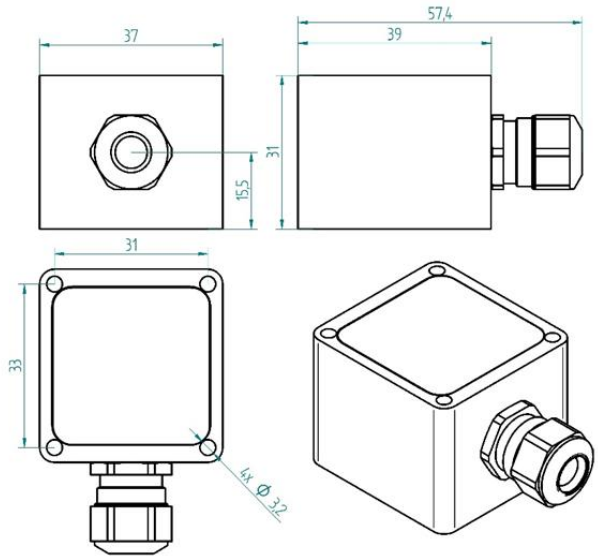
PROPERTIES

- 2-axes, very low noise, ultra-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 reverse polarization
- Compact and rugged design
- Protection grade IP 67

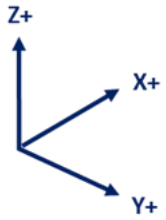
BLOCK DIAGRAM



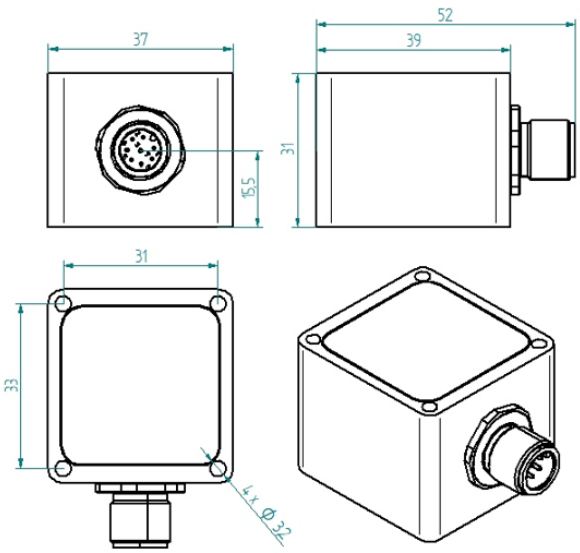
DIMENSIONS – Cable Gland Model

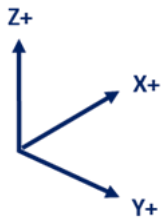


NOTE
When mounted with sensing axis vertical all units will indicate 1 g offset due to gravity



DIMENSIONS – M12 Connector Model





MOUNTING ACCESSORIES

See "IAC – Accelerometer Accessories data sheet"

SPECIFICATIONS – All Models

OUTPUT / CHANNEL	Output Range	4-20mA
	Supply Voltage	10–30 VDC
	Lower frequency limit	0 Hz (DC)
	Non-linearity	± 0.5 % typ. - 1.5% max.
	Sensitivity Error	2%
	Transverse Sensitivity	2 % typ. – 3 % max.
	Offset	± 20 mg
	Destruction limit[1]	± 1000g
ENVIRONMENTAL CHARACTERISTICS	Temperature Range	Operating -40 to 85°C / -40 to 185°F
	Temperature coefficient of sensitivity	150 ppm/°C
	Temperature drift of zero point	± 0.5 mg/°C
	Protection grade	IP67
MECHANICAL DATA	Weight Without Cable (g)	[2] CG/198, CO/218 - [3] CG/112, CO/132
	Case Material	Stainless Steel or Aluminium
	Mounting	3.2 mm diameter holes (4×)

[1] Handle the component with caution: dropping the accelerometer on a hard surface can generate several thousand g of acceleration, potentially exceeding absolute maximum limits and damaging the product.

[2] Stainless Steel Casing Grade (e.g. for offshore/marine environment)

[3] Aluminium (MIL-A-8625 Type II coating)

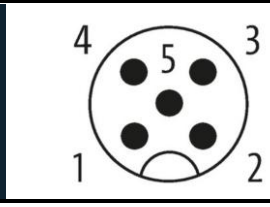
PERFORMANCES – By Model

Range - g	Sensitivity - mA/g	Freq. Response (-3dB) - Hz	Noise - µg/√Hz (Typical)
+/- 3	2.67	0 - 500	2.0
+/- 5	1.60	0 - 650	2.5

ELECTRICAL CONNECTIONS – Cable Gland Model

Signal XY sensing	Signal XZ sensing	Signal YZ sensing	4 x 0,25^2
Sensor supply + input	Sensor supply + input	Sensor supply + input	Brown
Sensor supply – input	Sensor supply – input	Sensor supply – input	White
X Axis Out	X Axis Out	Y Axis Out	Yellow
Y Axis Out	Z Axis Out	Z Axis Out	Green

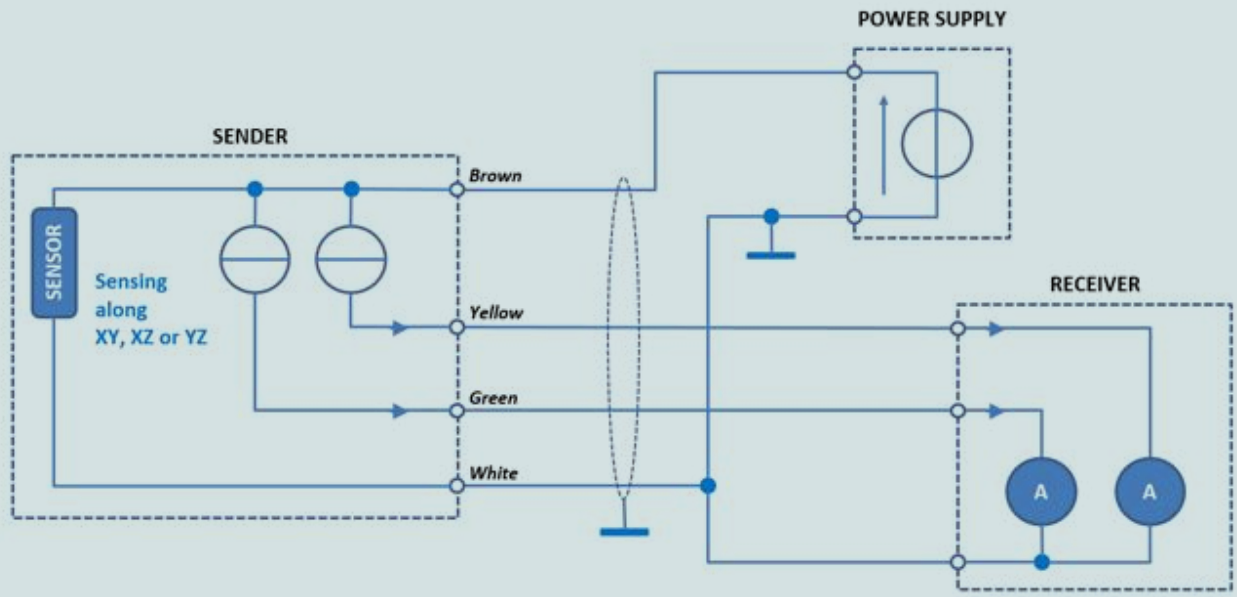
ELECTRICAL CONNECTIONS – M12 Connector Model

I 02		1	OUT 1	4-20mA current output
		2	OUT 2	4-20mA current output
		3	NC	-
		4	+24 VDC	Sensor supply + input
		5	0 VDC	Sensor supply – input

Selected Axes:

X	OUT 1	X	OUT 1	Y	OUT 1
Y	OUT 2	Z	OUT 2	Z	OUT 2

ELECTRICAL CONNECTIONS



ORDERING INFORMATION

IAC - UHRS - I - 02 - AA - XX - XX - Xg - XXXXHz - X - XX.X m

Sensing Axis
XY
XZ
YZ

Cable Connection	
CG	Cable Gland
CO	M12

Casing	
AL	Aluminium
SS	Stainless Steel

Range
±3g
±5g

Low Pass Filter Frequencies	
0100	100Hz
0250	250Hz
0500	500Hz

Low Pass Filter Orders	
1	1st order
2	2nd order

Cable Length
Value in meter

Specifications subject to change without notice. – Last updated: April 2026

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