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Acceleration Sensor ACC4

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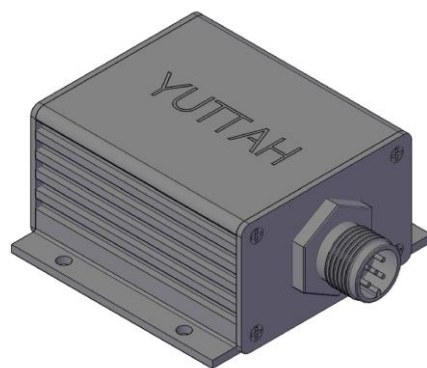
Acceleration Sensor ACC4

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The sensor ACC4 is a precise acceleration sensor, using MEMS technology. The ACC4 provides single-axis, 2-axis. And 3-axis acceleration measurement. The sensor is available with Analog and Digital output options.

Technology

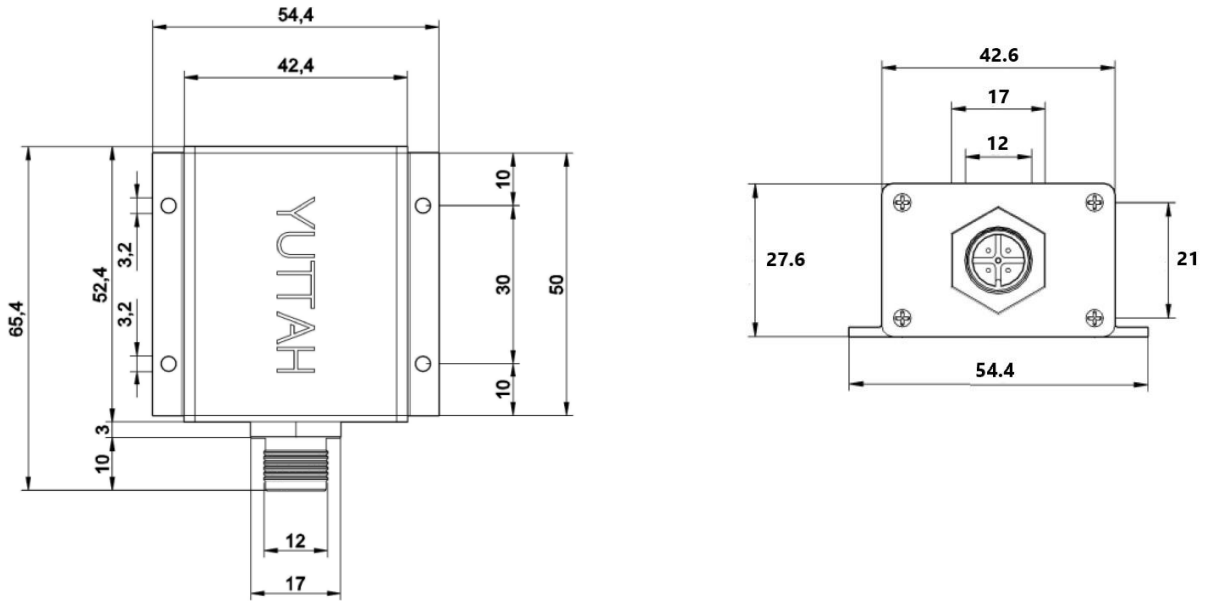
- High-precision inclination sensor
- MEMS technology
- Non-contact working principle
- Available with many measurement-range options
- Available with Analog and digital outputs
- Easy mounting and direct application



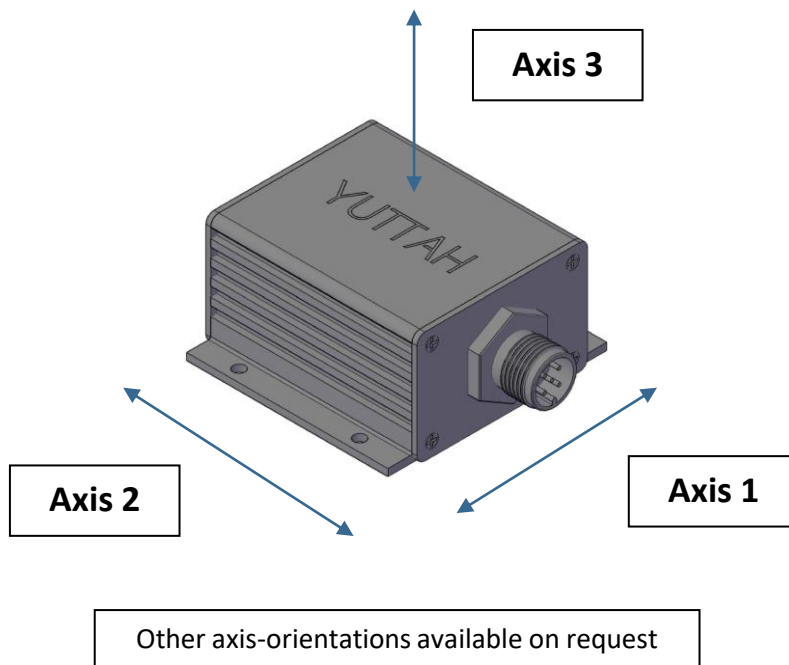
Specifications

Measurement ranges	G ranges (1-axis, 2-axis, and 3-axis): $\pm 2g, \pm 3g, \pm 5g, \pm 10g, \pm 25g, \pm 50g, \pm 100g, \pm 200g, \pm 400g$
Output options	<ul style="list-style-type: none">• Analog: 4 – 20 mA, 0 – 10 V, 0 – 5 V• Digital Absolute: CANopen, RS485 Modbus• Other interfaces: on request
Accuracy	$\pm 0.5\%$ F.S
Supply Voltage	Flexible 9 – 36 VDC or 5 VDC (+/- 5%)
Excitation Current	max. 30 mA
Protection Class	IP67 / IP69
Operating Temp.	-40 °C to +85 °C
Housing	Anodized Aluminum
Mounting	M3 bolts
Weight	approx. 220 g
Shock	DIN EN 60068-2-27:2010, 100 g/11 ms, 100 shocks
Vibration	DIN EN 60068-2-6:2008, 20 g 10 Hz-2 kHz, 10 cycles
EMC	DIN EN 61326-1:2013

Drawings



Dimensions in mm



Order Codes / Analog Output

ACC4 - 2 - 3 - 4 - 5

1 Model

ACC4

2 Supply Voltage

SV1: Flexible 9 – 36 VDC
SV2: 5 VDC (+/- 5%)

3 Output

A1: 4 – 20 mA
A2: 0 – 10 V
A3: 0 – 5 V

4 Axis

1: Single-axis
2: Dual-axis
3: 3-axis

5 Measurement Range

G Ranges: $\pm 2g$, $\pm 3g$, $\pm 5g$, $\pm 10g$,
 $\pm 25g$, $\pm 50g$, $\pm 100g$, $\pm 200g$, $\pm 400g$

Example: ACC4 - SV1 - A1 - 3 - 3

Order Codes / CANopen Output

ACC4 - 2 - 3 - 4 - 5

1 Model ACC4

2 Supply Voltage SV1: Flexible 9 – 36 VDC
SV2: 5 VDC (+/- 5%)

3 Output CANopen

4 Axis 1: Single-axis
2: Dual-axis
3: 3-axis

5 Measurement range G Ranges: ±2g, ±3g, ±5g, ±10g,
±25g, ±50g, ±100g, ±200g, ±400g

Example: ACC4 - SV1 - CANopen - 3 - 3

Order Codes / RS485 Modbus Output

ACC4 - 2 - 3 - 4 - 5

1 Model ACC4

2 Supply Voltage SV1: Flexible 9 – 36 VDC
SV2: 5 VDC (+/- 5%)

3 Output RS485 Modbus

4 Axis
1: Single-axis
2: Dual-axis
3: 3-axis

5 Measurement range
G Ranges: $\pm 2g$, $\pm 3g$, $\pm 5g$, $\pm 10g$,
 $\pm 25g$, $\pm 50g$, $\pm 100g$, $\pm 200g$, $\pm 400g$

Example: ACC4 - SV1 - RS422 - 3 - 3

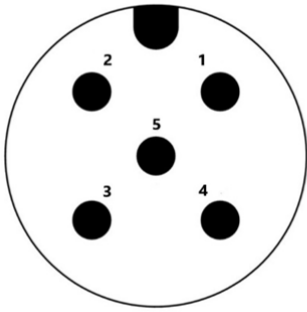
PINOUT

Analog Output / Single-Axis

M12 male connector, 5 pin

Connector pin no.

Output signals



- 1
- 2
- 3
- 4
- 5

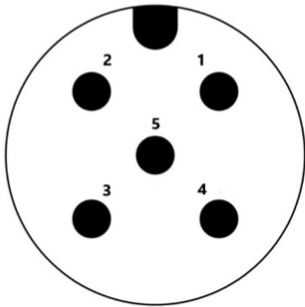
- Excitation GND
- Output GND
- +V (excitation voltage)
- Analog output / axis 1
- Do not connect

Analog Output / Dual-Axis

M12 male connector, 5 pin

Connector pin no.

Output signals



- 1
- 2
- 3
- 4
- 5

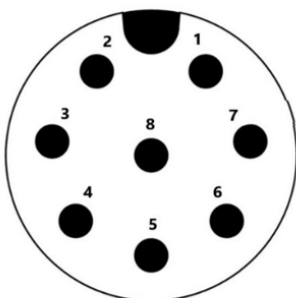
- Excitation GND
- Output GND
- +V (excitation voltage)
- Analog output / axis 1
- Analog output / axis 2

Analog Output / 3-axis

M12 male connector, 8 pin

Connector pin no.

Output signals



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

- Excitation GND
- Output GND
- +V (excitation voltage)
- Analog output / axis 1
- Analog output / axis 2
- Analog output / axis 3
- Do not connect
- Do not connect

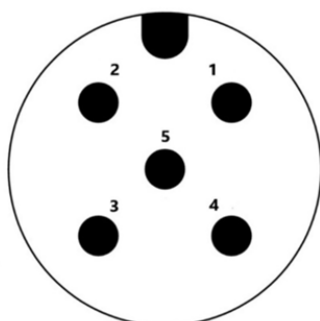
PINOUT

CANopen Output

M12 male connector, 5 pin

Connector pin no.

Output signals



- 1
- 2
- 3
- 4
- 5

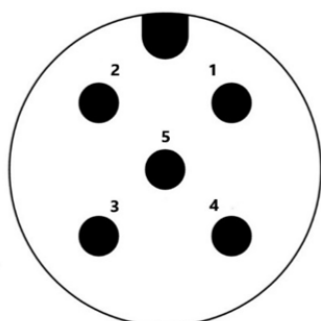
- GND
- Do not connect
- +V (excitation voltage)
- CAN-H
- CAN-L

RS485 Modbus Output

M12 male connector, 5 pin

Connector pin no.

Output signals



- 1
- 2
- 3
- 4
- 5

- GND
- Do not connect
- +V (excitation voltage)
- TXD / D- / B
- RXD / D+ / A

Advantages

- High precision
- High robustness
- High resistance against shocks and vibrations
- High protection class
- Non-contact technology
- Wear-free and maintenance-free
- Long lifetime
- Easy mounting and direct application
- Design flexibility

Applications

- Industrial Applications
- Bridge monitoring
- Water pumping stations
- Industrial Vehicles
- Noise measurement
- Transport monitoring
- Crash testing
- Vibration monitoring
- Power and Energy
- Medical
- Other Applications

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YUTTAH is a leading manufacturer of sensors, located in the United Arab Emirates. Our main product lines are: Position Sensors, Angle Sensors, Inclination Sensors, Acceleration Sensors, Vibration Sensors, Temperature Sensors, Pressure Sensors and Weight Sensors.

It is our main goal to help our customers to fulfil their needs. Our quality products are designed flexible to meet the application requirements of our customers. Our mission is to help our customers in the engineering phase to reach the wished results by providing customer customized sensor solutions. Our team is highly excited to help you in the stages of your development as well as providing a lifetime support. The combination of our know-how, quality products, flexible customized solutions, extensive lifetime support, and our experienced team is the right solution for you.

