

# YUTTAH



## Acceleration Sensor ACC8

[www.yuttah.com](http://www.yuttah.com)

# Acceleration Sensor ACC8

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The sensor ACC8 is a precise acceleration sensor, using MEMS technology. The ACC8 provides single-axis, 2-axis. And 3-axis acceleration measurement. The sensor is available with Analog and Digital output options.

## Technology

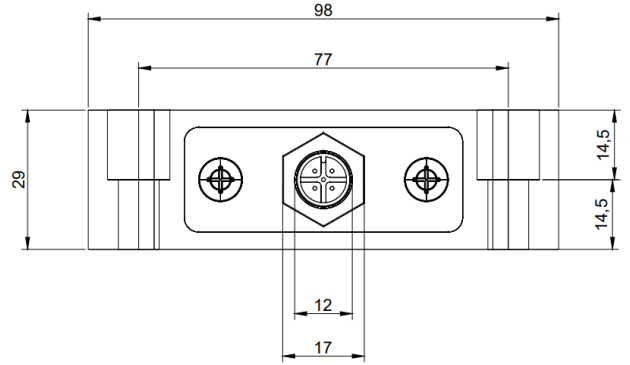
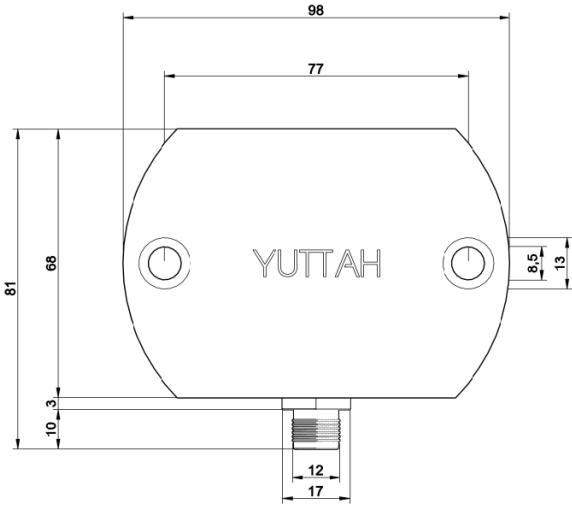
- High-precision inclination sensor
- MEMS technology
- Non-contact working principle
- Available with many measurement-range options
- Available with Analog and digital outputs
- Easy mounting and direct application



## Specifications

<b>Measurement ranges</b>	G ranges (1-axis, 2-axis, and 3-axis): $\pm 2g, \pm 3g, \pm 5g, \pm 10g, \pm 25g, \pm 50g, \pm 100g, \pm 200g, \pm 400g$
<b>Output options</b>	<ul style="list-style-type: none"><li>• Analog: 4 – 20 mA, 0 – 10 V, 0 – 5 V</li><li>• Digital: CANopen, RS485 Modbus</li><li>• Other interfaces: on request</li></ul>
<b>Accuracy</b>	$\pm 0.5\%$ F.S
<b>Supply Voltage</b>	Flexible 9 – 36 VDC or 5 VDC (+/- 5%)
<b>Excitation Current</b>	max. 30 mA
<b>Protection Class</b>	IP67 / IP69
<b>Operating Temp.</b>	-40 °C to +85 °C
<b>Housing</b>	Stainless Steel 1.4404 (AISI 316L)
<b>Mounting</b>	M8 bolts
<b>Weight</b>	approx. 850 g
<b>Shock</b>	DIN EN 60068-2-27:2010, 100 g/11 ms, 100 shocks
<b>Vibration</b>	DIN EN 60068-2-6:2008, 20 g 10 Hz-2 kHz, 10 cycles
<b>EMC</b>	DIN EN 61326-1:2013

## Drawings



Dimensions in mm



## Order Codes / Analog Output

ACC8 - 2 - 3 - 4 - 5

1 Model

ACC8

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: ACC8 - SV1 - A1 - 3 - 3

## Order Codes / CANopen Output

ACC8 - 2 - 3 - 4 - 5

1

Model

ACC8

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: ACC8 - SV1 - CANopen - 3 - 3

## Order Codes / RS485 Modbus Output

ACC8 - 2 - 3 - 4 - 5

1 Model

ACC8

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: ACC8 - SV1 - RS422 - 3 - 3

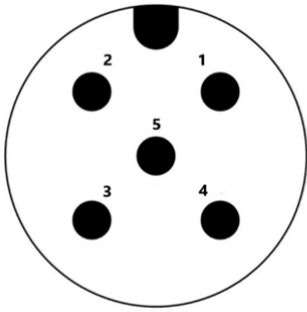
## PINOUT

### Analog Output / Single-Axis

M12 male connector, 5 pin

Connector pin no.

Output signals



- 1
- 2
- 3
- 4
- 5

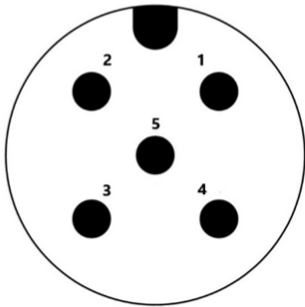
- Excitation GND
- Output GND
- +V (excitation voltage)
- Analog output / axis 1
- Do not connect

### Analog Output / Dual-Axis

M12 male connector, 5 pin

Connector pin no.

Output signals



- 1
- 2
- 3
- 4
- 5

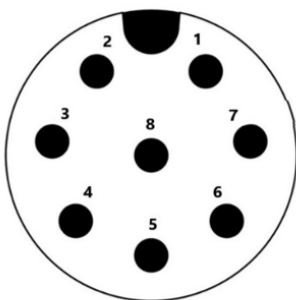
- Excitation GND
- Output GND
- +V (excitation voltage)
- Analog output / axis 1
- Analog output / axis 2

### 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

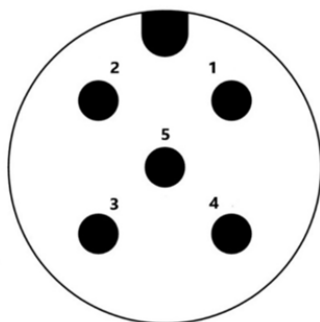
## PINOUT

### CANopen Output

M12 male connector, 5 pin

Connector pin no.

Output signals



- 1
- 2
- 3
- 4
- 5

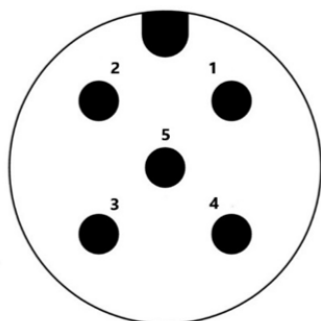
- GND
- Do not connect
- +V (excitation voltage)
- CAN-H
- CAN-L

### 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.

