

DATASENSING UT5 ULTRASONIC SENSORS

UT5L/G4-1ESY

M30 housing ø 61mm, analog. 4-20 mA+ NPN NO/NC
600-8000mm

- Extra long sensing range of up to 8000mm
- PNP, NPN, Voltage or current analogue and IO-Link output versions available
- Remote Teach-In or Teach-In button



PRODUCT DESCRIPTION

The **UT5 series ultrasonic sensors** from Datasensing (formerly Micro Detectors) offer a versatile and reliable solution for a wide range of industrial and commercial applications. These sensors are designed in a durable M30 barrel format, making them ideal for integration into various systems where precision and reliability are crucial. Whether you're working in robotics, automotive systems, industrial automation, or even healthcare, the UT5 series provides the functionality and flexibility needed to meet your needs.

Available in multiple configurations, the UT5 series sensors come with either digital or analogue outputs, providing compatibility with a broad range of control systems. You can choose between an M12 connection or an embedded 2-meter cable for easy integration, depending on your specific installation requirements. Additionally, the sensors are offered in both metal and plastic housing options, allowing you to select the appropriate material based on environmental conditions or durability requirements.

Ultrasonic sensors like the UT5 series work by emitting high-frequency sound waves, typically above 20 kHz, which then bounce off objects in their path. The sensor measures the time it takes for these sound waves to reflect, calculating the distance to the object with remarkable accuracy. This technology is ideal for applications that require non-contact sensing, such as proximity detection, object detection, and level measurement.

Technical features:

- Range: High detection range for accurate distance measurement
- Housing Options: Available in both metal and plastic housing
- Barrel Type: Standard M30 barrel design for easy mounting in a variety of applications.
- Outputs: Digital Output (e.g., PNP/NPN) for straight forward signal processing or analogue Output (e.g., 0-10V, 4-20mA) for more precise and continuous measurements.
- Connection Options: M12 connection for secure and easy integration or embedded 2-meter cable option for flexible installation.
- Operating Frequency: Uses ultrasonic waves above 20 kHz to detect objects and measure distances accurately.
- Operating Temperature: Wide operating temperature range, typically between -25°C to +70°C, ensuring reliable performance in various environments.
- Detection Angle: Adjustable detection angle
- Measurement Principle: Operates on the principle of time-of-flight (TOF) of ultrasonic sound waves to measure distance to objects.
- Response Time: Fast response time for quick detection and measurement.
- High Sensitivity: Capable of detecting a wide range of object sizes and materials
- IP Rating: Typically features IP65/IP67 or higher for resistance to dust, moisture, and harsh environments.
- Multiple Applications: Ideal for various applications such as level measurement, proximity sensing, and object detection.
- Easy Calibration: Simple calibration procedure for accurate measurement across different setups.

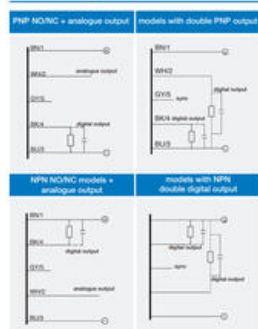
TECHNICAL DATA

Distance max

8000 mm

Distance min	600 mm
Electrical connection	M12 plug cable exit
Housing	M30
IP class	IP67
LED indication	Yes
Material of body	PBT, Stainless steel 316L
Output	4-20 mA
Supply voltage dc max	30 V DC
Supply voltage dc min	10 V DC
Temperature operational max	70 °C
Temperature operational min	-20 °C

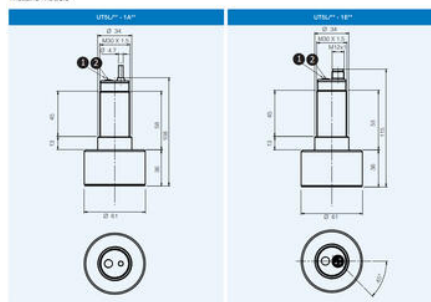
electrical diagrams of connections



DI1 DI2
DI3 DI4
AO1 AO2
AO3 AO4

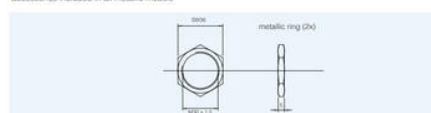
dimensions (mm)

metallic models

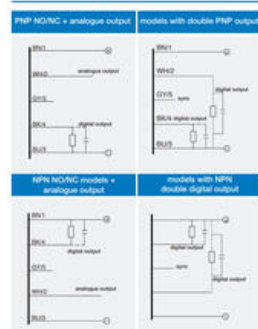


dimensions (mm)

accessories included in all metallic models

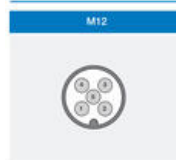


electrical diagrams of connections

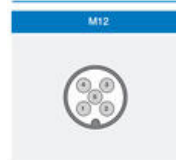


DI1 DI2
DI3 DI4
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AO3 AO4

plugs

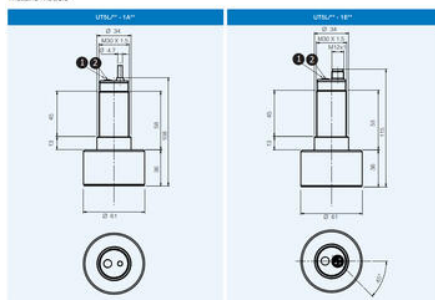


plugs



dimensions (mm)

metallic models



1 Touch-in button 2 LED

dimensions (mm)

accessories included in all metallic models

