Valeo

DATASHEET

VALEO ULTRASONIC SENSOR SYSTEM GENERIC KIT

Valeo Ultrasonic Sensor System is a plug and play kit developed to allow user to easily interface with Valeo Ultrasonic Sensors.

Valeo Ultrasonic sensors are widely-used automotive grade ultrasonic sensors providing SDI (Sensor Distance Interface) and freespace output over ethernet. The system will provide the direct distance detected by each sensor and freespace.

This kit contains twelve ultrasonic sensors, one ECU, sensor holders, one ethernet converter box, and one harness, as well as the necessary documents for easy integration and interface.

This kit can be easily integrated into a variety of platforms and for various applications, including but not limited to ADAS, robotaxis, autonomous shuttles and delivery robots.

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SPECIFICATIONS

ULTRASONIC SENSOR CHARACTERISTICS

Frequency	51.2 KHz
Minimum Distance *	0.15 m *
Maximum Distance *	4.1 m *
Horizontal Field of View	75°
Vertical Field of View	45°

POWER

Power Supply	11–16 V
Power Consumption	1.5 W

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range	−40°C to +85°C
Sensor Protection Class	IP6KX, IPX6X, IPX7, IPX9K
ECU Protection Class	IP42

PHYSICAL CHARACTERISTICS

Ultrasonic Sensor Dimensions	47 × 28 × 26 mm (H × W × D)
Membrane Diameter	15 mm
Ultrasonic Sensor Weight	15 g
ECU Dimensions	24 x 118 × 82 mm (H × W × D)
ECU Weight	98 g

INTERFACE

Ethernet	100Base-T1 (Automotive)
Ethernet Converter Box	100Base-T

SYSTEM COMPONENTS

HP Ultrasonic Sensors	12
Sensor Holders	12
ECU	1
Ethernet Converter Box	1
Harness	1

DATA

Output	SDI (Sensor Distance Interface)
	Freespace information

The kit includes 4 to 12 Ultrasonic sensors, generic sensor holder, ECU, ethernet converter box and harness

The information found in this document are subject to change.

* 75mm diameter pipe, Laboratory Conditions: 20°C, 50% rel. air humidity, no disturbance noise
** Opening Angle against a flat plate (-3dB)