AUTOMOTIVE ELECTRONICS

PRODUCTS CATALOGUE

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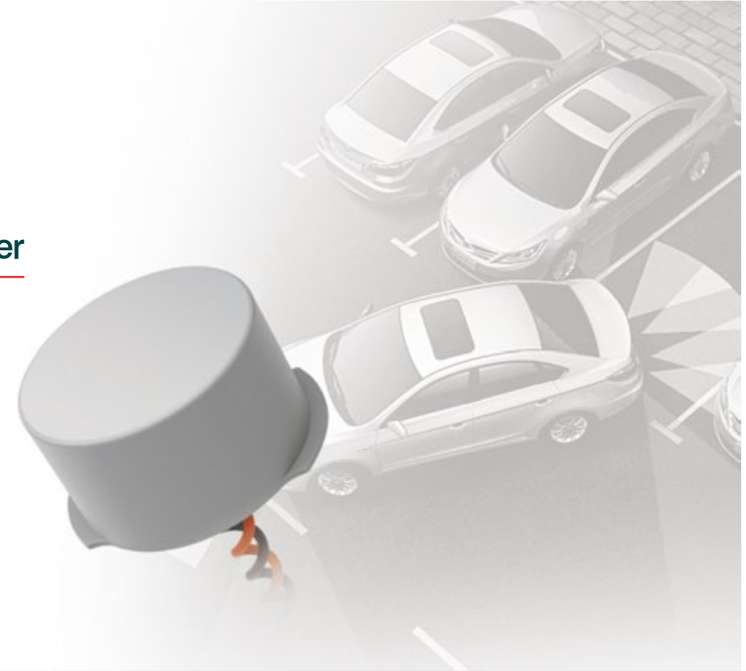


Ultrasonic Parking Transducer

Features

- Quality control standard of Automotive OEM manufacturers
- Outstanding consistency and stability
- High sensitivity and low power consumption

Applications

- Reverse parking system
- Parking assist system

Model	TC0120-001	TC0121-002	TC0062-003	TC0223-000
Appearance				
Resonant frequency (Khz)	48	55.5	58	55.5
Direction angle (°)	X: 60 Y: 60	X: 90 Y: 45	X: 90 Y: 45	X: 90 Y: 45
Decay time (mS)	≤1.8	≤2.2	≤1.8	≤2.0
Size (mm)	Φ15.5 x H9.0	Φ15.5 x H9.0	Φ14.0 x H9.0	Φ15.5 x H9.0

Ultrasonic Assembled Sensor

Features

- Integrated design, easy to install
- High sensitivity

Applications

- Parking Distance Control(PDC)
- Reversing aid system

Model	TK0139
Appearance	
Resonant frequency (Khz)	55.5±1
Direction angle (°)	X: 85 Y: 45
Decay time (mS)	0.9～1.5
Detection range* (m)	⩾2.5

*Φ75mm tube measurement

Ultrasonic Parking Assist Sensor

Features
- Long detection range, up to 5m
- Built-in circuit which matches the self-developed transducer
- IP69 protection class, superior climate resistance, stability and anti-interference

Applications
- Parking assist system

Model	VU0001-001	VU0002-001	VU0004-001	VU0005-000
Appearance				
Frequency (Khz)	48	55.5	55.5	48
Direction angle (°)	X: 60 Y: 60	X: 90 Y: 45	X: 90 Y: 45	X: 60 Y: 60
Max. range* (mm)	5000	2500	2500	5000
Accuracy (cm)	≤ ±5	≤ ±5	≤ ±5	⩽ ±5
Communication protocol	LIN 2.2	LIN 2.2	I/O	I/O
Protection class	IP69	IP69	IP69	IP69

* Φ75mm tube measurement

Ultrasonic Blind Spot Detection Sensor

Features
- Digital signal output
- Built-in circuit which matches the self-developed transducer
- IP69 protection class

Applications
- Blind Spot Detection

Model	VU0008-000
Appearance	
Frequency (Khz)	48
Direction angle (°)	X: 120 Y: 60
Max. range* (mm)	3500
Accuracy (cm)	⩽ ±5
Communication protocol	I/O
Protection class	IP69

* Φ75mm tube measurement

ROA Ultrasonic Transducer

Features

- Quality control standard of Automotive OEM manufacturers
- Outstanding consistency and stability
- High sensitivity and low power consumption

Applications

- Rear occupant alert system

Model	TO0101-004&TO0104-004	TO0019-000&TO0020-000
Appearance		
Frequency (Khz)	40±1.0	40±1.0
S.P.L (dB)	117～122	⩾115
Sensitivity (dB)	-60～-55	⩾65
Operating TEMP. (℃)	-40～+90	-40～+90
Housing material	ABS	ABS
Size (mm)	Φ10.0 X 7.1	Φ16.0 X 12.0

Life Detection Module

Features

-High sensitivity, quickly detect breathing or small movements

-Not affected by light, temperature and humidity

-Low power consumption

Applications

- Rear occupant alert system

Model	UM0040
Detection range (m)	1.8m (Wave speed angle0°) 1m (Wave speed angle30°)
Detection speed (s)	8
Voltage (V)	12
Current (mA)	40

Ultrasonic DEF/AdBlue Quality Sensor

Features
- High accuracy
- High reliability

Applications
-SCR system for Diesel Engines

Model	UQ0008-000
Appearance	
Frequency (Khz)	760±30
Resonant impedance (Ω)	≤340
Accuracy	±1%
Input voltage (Vp-p)	≤5

DEF/AdBlue Level Sensor

Features
- Continuous measurement
- High accuracy（Four times as high as the traditional liquid level sensors）
- No moving part

Applications
-SCR system for Diesel Engines

Model	UM0059-000
Appearance	
Measurement range (mm)	40～500
Accuracy (mm)	±5
Response time (s)	≤2
Power (V)	12

Ultrasonic Forward Collision Warning Sensor

Features
- Long detection range, up to 5m
- Built-in circuit which matches the self-developed transducer
- IP69 Protection class

Applications
- Forward Collision Warning

Model	VU0001-001	VU0005-000
Appearance		
Frequency (Khz)	48	48
Direction angle (°)	X: 60 Y: 60	X: 60 Y: 60
Max. range* (mm)	5000	5000
Accuracy (cm)	≤ ±5	⩽ ±5
Communication Protocol	LIN 2.2	I/O
Protection class	IP69	IP69

* Φ75mm tube measurement

Gasoline Level Sensor

Features
- External measurement
- Continuous measurement

Applications
- Automotive fuel tank monitoring
- Oil tank monitoring

Model	AW9Y200K01-01
Appearance	
Resonant frequency (Mhz)	2
Capacitance (pF)	1600±15%
Impedance (Ohm)	5±2
Operating Temp (℃)	-40 ~ +80
Size (mm)	Φ30×20

Dust Sensor

Features

- Independent detection of two channels, simultaneous detection of PM2.5 concentration inside and outside the car
- Real-time continuous measurement, refresh rate 1s/time
- High sensitivity

Applications

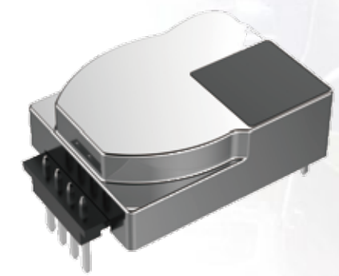
- Automotive Environmental System

Model	DL0002-000
Appearance	
Type	Laser
Input voltage (V)	8～18
Detection range (μm)	TYP 2.5 MIN 1.0 MAX 10
Output mode	Digital signal
Operating Temp (℃)	-20～+70
Size (mm)	98×74×24

CO2 Sensor

Features

- Excellent precision
- Good consistency

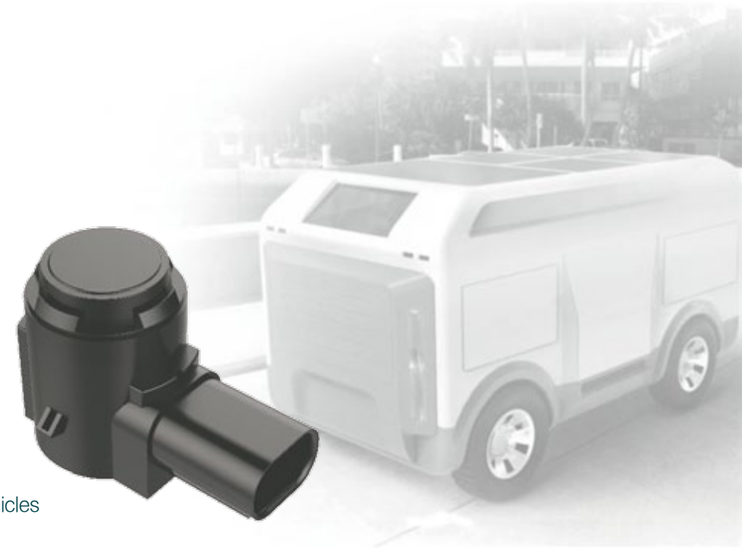


Applications

- Automotive Environmental System

Model	GC0001
Appearance	
Effective range (ppm)	0～3000
Max. Range (ppm)	0～5000
Accuracy (ppm)	± 50+5%
Input voltage (V)	(DC)+4.7 to +5.3
Current consumption (mA)	≤150
Size (mm)	33x20x9.2

Obstacle Avoidance Sensor



Features

- Built-in digital signal output
- self-check signal function and comes with a suitable circuit to optimize the performance of the sensor
- Simple structure, easy to install

Applications

- Autonomous driving system for unmanned vehicles

Model	VU0001-001	VU0002-001	VU0004-001	VU0005-000
Appearance				
Frequency (Khz)	48	55.5	55.5	48
Direction angle (°)	X: 60 Y: 60	X: 90 Y: 45	X: 90 Y: 45	X: 60 Y: 60
Max. range* (mm)	5000	2500	2500	5000
Accuracy (cm)	≤ ±5	≤ ±5	⩽ ±5	⩽ ±5
Communication Protocol	LIN 2.2	LIN 2.2	I/O	I/O
Protection class	IP69	IP69	IP69	IP69

*Φ75mm tube measurement

Buzzer

Features

- High reliability
- Small size, easy to install

Applications

- Car security system

Model	QJ0853	QJ0861	QJ0890	QJ0855
Appearance				
Frequency (Hz)	2000	3200	2000	800
S.P.L (dB)	⩾100(10cm)	⩾98(30cm)	⩾80(100cm)	88(50cm)
Driving voltage	30Vp-p	12VDC	12Vp-p	12VDC
Size (mm)	Φ30×13.5	Φ42×16.5	38.5×30×27.6	Φ43.2×16.8

Lineup

Products	Appearance	Parking system	Parking assist system	BSD system	SCR system			FCW system	ROA system	Fuel tank monitoring	Environmental system	Obstacle Avoidance System for AGV	Anti-theft alarm system
Ultrasonic Transducer		■	■	■									
Ultrasonic Sensor		■	■	■								■	
Open Type Ultrasonic Transducer									■				■
DEF/AdBlue Quality Sensor					■								
DEF/AdBlue Level Sensor					■								
Gasoline Level Sensor										■			
Dust Sensor											■		
CO2 Sensor											■		
Buzzer		■	■	■	■			■	■				■