






<p>Product</p>	 <p>EM310-UDL Ultrasonic Distance/ Level Sensor</p>	 <p>EM400-TLD ToF Laser Distance Sensor</p>	 <p>EM400-MUD Multifunctional Ultrasonic Distance Sensor</p>	 <p>EM400-UDL Ultrasonic Distance Sensor</p>	 <p>EM500-UDL Ultrasonic Distance/ Level Sensor</p>
<p>Typical Applications</p>	 <p>Specific for Trash Bin and Parking</p>  <p>Medium or Large Trash Bin</p>  <p>Parking Lot</p>	 <p>Specific for Trash Bin</p>  <p>Small Trash Bin</p>	 <p>Specific for Trash Bin and Parking</p>  <p>Medium or Large Trash Bin</p>  <p>Parking Lot</p>	 <p>Regular to Highly Stable Distance Measurements Varying from Probes</p>  <p>Grain Storage</p>  <p>Liquid Level</p>  <p>Flood</p>  <p>Sewer</p>	 <p>Regular to Highly Stable Distance Measurements Varying from Probes</p>  <p>Tank Level</p>  <p>Factory</p>  <p>Liquid Level</p>  <p>Flood</p>
<p>Technology</p>	 <p>Ultrasonic</p>	 <p>ToF</p>	 <p>Ultrasonic</p>	 <p>Ultrasonic</p>	 <p>Ultrasonic</p>
<p>Version</p>	 <p>LoRaWAN[®]</p>	 <p>LoRaWAN[®]</p>  <p>NB-IoT</p>  <p>Cat-M</p>	 <p>LoRaWAN[®]</p>  <p>NB-IoT</p>  <p>Cat-M</p>	 <p>LoRaWAN[®]</p>  <p>NB-IoT</p>  <p>Cat-M</p>	 <p>LoRaWAN[®]</p>
<p>Measurement Range</p>	<p>3 - 450 cm</p>	<p>2 - 350 cm</p>	<p>3 - 450 cm</p>	<p>C050: 25 ~ 500cm C100: 25 ~ 800cm W050: 30 ~ 500cm W100: 50 ~ 1000cm</p>	<p>W050: 30 - 500 cm W100: 50 - 1000 cm C050: 25 - 500 cm C100: 25 - 800 cm</p>
<p>Blind Spot</p>	<p>Small</p>	<p>Almost No</p>	<p>Small</p>	<p>Mid-Large, Vary from Probes</p>	<p>Mid-Large, Vary from Probes</p>
<p>Power supply</p>	 <p>19000 mAh Li-SOCL2 battery (ER34615)</p>	 <p>2 x 9000 mAh ER26500 Li-SOCL2</p>	 <p>2 x 9000mAh ER26500 Li-SOCL2 Batteries</p>	 <p>2 x 9000 mAh ER26500 Li-SOCL2 Batteries</p>	 <p>19000mAh Li-SOCL2 battery (ER34615)</p>
<p>Battery Life</p>	 <p>10 Years Battery Life</p>	 <p>10 Years Battery Life</p>	 <p>10 Years Battery Life</p>	 <p>10 Years Battery Life</p>	 <p>10 Years Battery Life</p>
<p>Ingress Protection</p>	 <p>IP67</p>	 <p>IP67</p>	 <p>IP67</p>	 <p>IP67</p>	 <p>IP66 (IP67 as required)</p>
<p>Installation</p>	 <p>On the Flat Surfaces with Screws</p>	 <p>On the Flat Surfaces with Screws</p>	 <p>On the Flat Surfaces with Screws</p>	 <p>On the Flat Surfaces with Screws</p>	 <p>Wall Mounting</p>  <p>DIN Rail Mounting</p>

This sensors employs various detection technologies to achieve a wide range of distance measurement applications, catering to different measurement ranges, target objects, and application scenarios.



Tank Level



Trash Bins



Sewer Monitoring



Parking Lot

Milesight



Ultrasonic Distance/Level Sensor
EM310-UDL



ToF Laser Distance Sensor
EM400-TLD



Multifunctional Ultrasonic Distance
Sensor
EM400-MUD



Ultrasonic Distance Sensor
EM400-UDL



Ultrasonic Distance/Level Sensor
EM500-UDL

	Ultrasonic Distance/Level Sensor EM310-UDL	ToF Laser Distance Sensor EM400-TLD	Multifunctional Ultrasonic Distance Sensor EM400-MUD	Ultrasonic Distance Sensor EM400-UDL	Ultrasonic Distance/Level Sensor EM500-UDL
Technology	Ultrasonic	ToF	Ultrasonic	Ultrasonic	Ultrasonic
NB-IoT Version	/	√	√	√	/
Cat-1 Version	/	√	√	√	/
Measurement Range	3 - 450 cm	2 ~ 350 cm	3 ~ 450 cm	C050: 25 ~ 500 cm C100: 25 ~ 800 cm W050: 30 ~ 500 cm W100: 50 ~ 1000 cm	W050: 30 - 500 cm W100: 50 - 1000 cm C050: 25 - 500 cm C100: 25 - 800 cm
Blind Spot	Small	Almost No	Small	Mid-Large, Vary from Probes	Mid-Large
Typical Applications	Medium or Large Trash Container	Small Trash Bin Parking Lot	Medium or Large Trash Container	Grain Storage Liquid Level Flood Sewer	Tank Level
Power supply	19000 mAh Li-SOCL2 battery (ER34615) 10 Years Battery Life	2 x 9000 mAh ER26500 Li-SOCL2 Batteries 10 Years Battery Life	2 x 9000 mAh ER26500 Li-SOCL2 Batteries 10 Years Battery Life	2 x 9000 mAh ER26500 Li-SOCL2 Batteries 10 Years Battery Life	19000 mAh Li-SOCL2 battery (ER34615) 10 Years Battery Life
Accuracy	± (1+0.3%*S) cm, S=distance	±2 cm	± (1+0.3%*S) cm, S=distance(-15°C ~ 60°C)	± (1+0.3%*S) cm1, S=distance(-15°C ~ 60°C)	W050: 30 - 500 cm, ±1% FS W100: 50 - 1000 cm, ±1% FS C050: 25 - 500 cm, ± (1+0.3%*S) cm, S=distance C100: 25 - 800 cm, ± (1+0.3%*S) cm, S=distance
Operating Temperature	-15°C to +60°C	-30°C ~ 70°C	-30°C ~ 70°C	-15°C to +60°C	/
Relative Humidity	≤90% (non-condensing)	≤95% (non-condensing)	≤95% (non-condensing)	≤90% (non-condensing)	/
Ingress Protection	IP67	IP67	IP67	IP67	IP66 (IP67 as required)
Dimension	111 × 62 × 40 mm (4.37 × 2.44 × 1.57 in)	118 × 65 × 30 mm	118 × 65 × 32.5 mm	118 × 65 × 80 mm	156.1 × 71 × 69.5 mm
Weight	168g	/	/	168g	/
Installation	On the flat surfaces with screws	On the Flat Surfaces with Screws	On the Flat Surfaces with Screws	On the Flat Surfaces with Screws	DIN rail, wall, pole mounting

