

# 2026 PRODUCT CATALOGUE

We are at the forefront of Tire Pressure Monitoring System (TPMS) innovation, providing intelligent, wireless, and embedded solutions engineered to deliver safety, efficiency, and reliability across a wide range of vehicle applications and operating environments.

Discover our TPMS portfolio, engineered to meet international standards and future mobility needs.

[WWW.LID.TECH](http://WWW.LID.TECH)



# BELT SENSOR

## RIM TPMS

### PRODUCT OVERVIEW

Our real-time TPMS monitors sudden pressure loss using in-tire sensors with a patented, toolless rim-mounted design. The self-powered sensor provides 24/7 transmission, up to 7 years of lifetime, and measures pressure up to 14 bar (203 psi) in harsh environments.

The system also supports tire mileage tracking, encrypted RFID, it's the nylon belt mounting solution.



### TECHNICAL DATA



| MECHANICAL |                         |
|------------|-------------------------|
| Size       | 86.5x40x20.9mm          |
| Weight     | 40g (belt not included) |
| Tightness  | IP67                    |
| Marking    | ISO 11469               |
| Rim Sizes  | 17.5" to 22.5"          |
| Standard   | IPC 1755                |

| MEASUREMENT         |                       |
|---------------------|-----------------------|
| Pressure Range      | 0 to 1400 kPa         |
| Pressure Resolution | 5.5 kPa               |
| Pressure Accuracy   | ±17 kPa (-40 to 85°C) |
| Temp. Range         | -40 to 125°C          |
| Temp. Resolution    | 1°C                   |
| Temp. Accuracy      | ±3°C (-20 to 25°C)    |

| TEMPERATURE RANGE |                |
|-------------------|----------------|
| Operating         | -40 to + 125°C |
| Storage Battery   | 0 to 30°C      |
| Battery Lifetime  | 8 years        |

| RADIO FREQUENCY   |                    |
|-------------------|--------------------|
| RF Protocol       | FSK Manchester     |
| Carrier Frequency | 433.920MHz ±100ppm |
| FSK Deviation     | ±11.5kHz ±2kHz     |
| RF bit-rate       | 11363 bits/s       |

| LEGAL REGULATIONS |                |
|-------------------|----------------|
| Marking           | CE             |
| RF Regulation     | FCC/IC<br>RED  |
| RF Regulation     | IEC/EN 62368-1 |

# HOOK SENSOR

## RIM TPMS

### PRODUCT OVERVIEW

Our real-time TPMS monitors sudden pressure loss using in-tire sensors with a patented, toolless rim-mounted design. The self-powered sensor provides 24/7 transmission, up to 7 years of lifetime, and measures pressure up to 14 bar (203 psi) in harsh environments. This sensor exists in 2 versions: 434MHz and 315MHz (for the Japanese market).

The system also supports tire mileage tracking, encrypted RFID.



### TECHNICAL DATA



#### MECHANICAL

|           |   |
|-----------|---|
| Size      | 137x33x22mm   |
| Weight    | 70g   |
| Tightness | IP67  |
| Marking   | ISO 11469   |
| Rim Sizes | 15" to 16" (with adaptative sole)<br>17.5" to 22.5" |
| Standard  | IPC 1755  |

#### MEASUREMENT

|                     |                       |
|---------------------|-----------------------|
| Pressure Range      | 0 to 1400 kPa         |
| Pressure Resolution | 5.5 kPa               |
| Pressure Accuracy   | ±17 kPa (-40 to 85°C) |
| Temp. Range         | -40 to 125°C          |
| Temp. Resolution    | 1°C                   |
| Temp. Accuracy      | ±3°C (-20 to 25°C)    |

#### TEMPERATURE RANGE

|                  |                |
|------------------|----------------|
| Operating        | -40 to + 125°C |
| Storage Battery  | 0 to 30°C      |
| Battery Lifetime | 8 years        |

#### RADIO FREQUENCY

|                   |  |
|-------------------|--|
| RF Protocol       | FSK Manchester                           |
| Carrier Frequency | 433.920MHz ±100ppm<br>315.025MHz ±100ppm |
| FSK Deviation     | ±11.5kHz ±2kHz                           |
| RF bit-rate       | 11363 bits/s                             |

#### LEGAL REGULATIONS

|               |                |
|---------------|----------------|
| Marking       | CE             |
| RF Regulation | FCC/IC<br>RED  |
| RF Regulation | IEC/EN 62368-1 |

# TIRE TYPE TPMS SENSOR

## PRODUCT OVERVIEW

Our real-time Tire Pressure Monitoring System (TPMS) detects sudden pressure loss using wheel-unit sensors mounted inside the tire. The patented tire-mounted solution, integrated in a dedicated rubber container, enables easy tire installation and simplifies field operations.

The self-powered sensor delivers 24/7 data transmission, up to 7 years of lifetime. It also supports tire mileage tracking, load measurement via footprint, and encrypted tire RFID, while protecting the sensor from damage.



## TECHNICAL DATA



| MECHANICAL |                       |
|------------|-----------------------|
| Size       | 80x58x22mm            |
| Weight     | 33g                   |
| Tightness  | IP67                  |
| Marking    | ISO 11469             |
| Rim Sizes  | Minimum 15" (No max.) |
| Standard   | IPC 1755              |

| MEASUREMENT         |                       |
|---------------------|-----------------------|
| Pressure Range      | 0 to 1400 kPa         |
| Pressure Resolution | 5.5 kPa               |
| Pressure Accuracy   | ±17 kPa (-40 to 85°C) |
| Temp. Range         | -40 to 125°C          |
| Temp. Resolution    | 1°C                   |
| Temp. Accuracy      | ±3°C (-20 to 25°C)    |

| TEMPERATURE RANGE |                |
|-------------------|----------------|
| Operating         | -40 to + 125°C |
| Storage Battery   | 0 to 30°C      |
| Battery Lifetime  | 8 years        |

| RADIO FREQUENCY   |                    |
|-------------------|--------------------|
| RF Protocol       | FSK Manchester     |
| Carrier Frequency | 433.920MHz ±100ppm |
| FSK Deviation     | ±11.5kHz ±2kHz     |
| RF bit-rate       | 11363 bits/s       |

| LEGAL REGULATIONS |                |
|-------------------|----------------|
| Marking           | CE             |
| RF Regulation     | FCC/IC<br>RED  |
| RF Regulation     | IEC/EN 62368-1 |

# VALVE TYPE TPMS SENSOR

## PRODUCT OVERVIEW

Our real-time Tire Pressure Monitoring System (TPMS) detects sudden pressure loss using wheel-unit sensors mounted inside the tire. The patented tire-mounted solution, integrated in a dedicated rubber container, enables easy tire installation and simplifies field operations.

The self-powered sensor delivers 24/7 data transmission, up to 7 years of lifetime. It also supports tire mileage tracking, load measurement via footprint, and encrypted tire RFID, while protecting the sensor from damage.



## TECHNICAL DATA



| MECHANICAL |                |
|------------|----------------|
| Size       | 86.5x40x20.9mm |
| Weight     | 40g            |
| Tightness  | IP67           |
| Marking    | ISO 11469      |
| Rim Sizes  | 17.5" to 22.5" |
| Standard   | IPC 1755       |

| MEASUREMENT         |                       |
|---------------------|-----------------------|
| Pressure Range      | 0 to 1400 kPa         |
| Pressure Resolution | 5.5 kPa               |
| Pressure Accuracy   | ±17 kPa (-40 to 85°C) |
| Temp. Range         | -40 to 125°C          |
| Temp. Resolution    | 1°C                   |
| Temp. Accuracy      | ±3°C (-20 to 25°C)    |

| TEMPERATURE RANGE |                |
|-------------------|----------------|
| Operating         | -40 to + 125°C |
| Storage Battery   | 0 to 30°C      |
| Battery Lifetime  | 8 years        |

| RADIO FREQUENCY   |                    |
|-------------------|--------------------|
| RF Protocol       | FSK Manchester     |
| Carrier Frequency | 433.920MHz ±100ppm |
| FSK Deviation     | ±11.5kHz ±2kHz     |
| RF bit-rate       | 11363 bits/s       |

| LEGAL REGULATIONS |                |
|-------------------|----------------|
| Marking           | CE             |
| RF Regulation     | FCC/IC<br>RED  |
| RF Regulation     | IEC/EN 62368-1 |

# TWO-WHEELER TPMS SENSOR

## PRODUCT OVERVIEW

Our real-time Tire Pressure Monitoring System (TPMS) detects sudden pressure loss using in-tire wheel-unit sensors. The patented valve-mounted design (90° or straight) enables controlled, torque-defined installation, simplifying manufacturing operations.

The self-powered sensor offers up to 5 years of lifetime and measures pressure up to 3.5 bar (51 psi) in harsh environments.



## TECHNICAL DATA



| MECHANICAL    |                  |
|---------------|------------------|
| Size          | 39.3x24.6x23.7mm |
| Weight        | 26g              |
| Tightness     | IP67             |
| Marking       | ISO 11469        |
| Rim Hole Size | Ø8.5 or Ø11.5    |
| Standard      | IPC 1755         |
| Battery       | CR2032           |

| MEASUREMENT         |                        |
|---------------------|------------------------|
| Pressure Range      | 0 to 350 kPa           |
| Pressure Resolution | 1.37 kPa               |
| Pressure Accuracy   | ±4.5 kPa (-40 to 85°C) |
| Temp. Resolution    | 1°C                    |
| Temp. Accuracy      | ±3°C (-20 to 70°C)     |
| Temp. Range         | -20 to 120°C           |

| TEMPERATURE RANGE |                            |
|-------------------|----------------------------|
| Operating         | -20 to 120°C               |
| Survival          | -40 to 125°C               |
| Storage Battery   | 0 to 30°C                  |
| Battery Lifetime  | Depending on Protocol type |

| RADIO FREQUENCY     |                                  |
|---------------------|----------------------------------|
| Carrier Frequency   | 433.92 MHz<br>315.025MHz (Japan) |
| RF Protocol         | FSK Manchester                   |
| Deviation Frequency | ±23 kHz                          |
| RF bit-rate         | 11363 bits/s                     |
| LF Protocol         | ASK Modulation                   |

| LEGAL REGULATIONS |               |
|-------------------|---------------|
| Marking           | CE            |
| RF Regulation     | FCC/IC<br>RED |
| RF Regulation     | ARIB STD T93  |

# AFTERMARKET TPMS SENSOR

## PRODUCT OVERVIEW

This Tire Pressure Monitoring solution offers high vehicle compatibility with simple just-in-time programming and full OEM functionality. It features a self-learning, angle-adjustable aluminium valve for flexible installation.

Powered by a high-quality lithium button cell, it ensures a long service life and is compatible with all standard diagnostic and programming tools on the market.



## TECHNICAL DATA



| MECHANICAL             |                              |
|------------------------|------------------------------|
| Size (without valve)   | 50x22x12.5mm                 |
| Weight (without valve) | 29g                          |
| Tightness              | IP67<br>Polyurethane potting |
| Marking                | ISO 11469                    |
| Battery                | CR2032                       |

| INTERFACES          |                |
|---------------------|----------------|
| Carrier Frequency   | 433.945 MHz    |
| RF Protocol         | FSK Manchester |
| Deviation Frequency | ±10 kHz        |
| RF bit-rate         | 11400 bits/s   |
| LF Protocol         | ASK Modulation |

| LEGAL REGULATIONS |               |
|-------------------|---------------|
| Marking           | CE            |
| RF Regulation     | FCC/IC<br>RED |
| RF Regulation     | ARIB STD T93  |

| TEMPERATURE RANGE |                            |
|-------------------|----------------------------|
| Operating         | -40 to 125°C               |
| Survival          | -40 to 150°C               |
| Storage Battery   | 0 to 30°C                  |
| Battery Lifetime  | Depending on Protocol type |

| MEASUREMENT         |                     |
|---------------------|---------------------|
| Pressure Range      | 800 kPa             |
| Pressure Resolution | 2.75 kPa            |
| Pressure Accuracy   | ±20 kPa (0 to 70°C) |
| Temp. Resolution    | 1°C                 |
| Temp. Accuracy      | ±3°C (-20 to 70°C)  |

# RECEIVER CONTROL UNIT

## TIRE PRESSURE

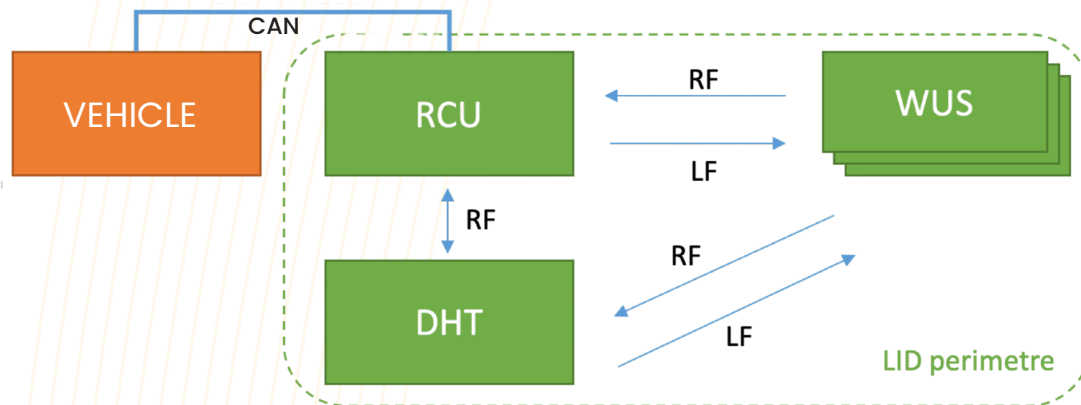
### PRODUCT OVERVIEW

This real-time TPMS alerts drivers to sudden pressure loss, helping prevent breakdowns and tire-related accidents.

The RCU receives wireless data from wheel sensors and transmits pressure and temperature via the vehicle CAN network. An optional algorithm can identify each wheel's position automatically.



### TECHNICAL DATA



| MECHANICAL        |                      | TEMPERATURE RANGE |               |
|-------------------|----------------------|-------------------|---------------|
| Size              | 118x100x56.6mm       | Operating         | -40 to 85°C   |
| Weight            | 164g                 | Storage           | 0 to 40°C     |
| Tightness         | IP69K                | LEGAL REGULATIONS |               |
| Flammability      | UL94 V0              | Marking           | CE            |
| 3 Mounting Points | M5 or M6 Fastener    | RF Regulation     | FCC/IC<br>RED |
| INTERFACES        |                      | TPMS              | R141          |
| CAN               | J1939 500 or 250kb/s |                   |               |
| CAN Trailer       | ISO 11992 250kb/s    |                   |               |
| Radio Frequency   | 434 MHz 11400bit/s   |                   |               |

## TIRE PRESSURE MONITORING SYSTEM

|                          |   |
|--------------------------|---|
| Sensors                  | Up to 24 (+4 spare wheels)  |
| Layout Configuration     | Number of RCU<br>Number of axles<br>Number of wheels  |
| Thresholds Configuration | Nominal pressure<br>Low pressure warning<br>Low pressure alert<br>High pressure warning<br>High temperature warning |
| Manual Location          | Sensor location configuration with a diagnostic tool  |

## AUTOLOCATION LAYOUT (Optional)

|         |                  |
|---------|------------------|
| Bus     | 3 axles          |
| Truck   | 4x2 and 6x4      |
| Trailer | 6 wheels/3 axles |

## ELECTRICAL

|                 |  |
|-----------------|--|
| Connector       | Six ways:<br>1. Power<br>2. CAN High<br>3. 120R CAN Termination activation<br>4. Ground<br>5. CAN Low<br>6. Ignition |
| Voltage         | 10 to 32V  |
| Protection      | 3A fuse  |
| RCU Consumption | 20 to 100mA  |

# REPEATER TIRE PRESSURE

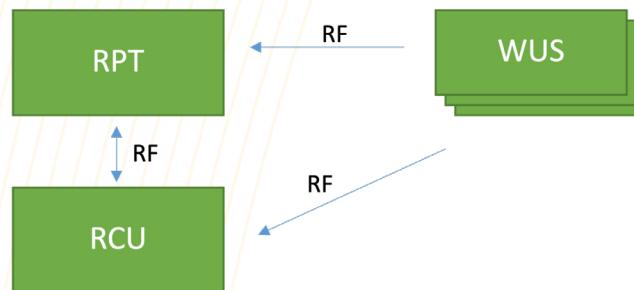
## PRODUCT OVERVIEW

The Repeater (RPT) shall transmit Tire Pressure Monitoring (TPM) information received from Wheel Unit Sensors (WUS) installed in rotating tires to TPMS Receiver Control Unit (RCU).

RPT can be installed under the vehicle. It is a gateway between WUS and RCU.



## TECHNICAL DATA



| MECHANICAL        |                       | ELECTRICAL      |  |
|-------------------|-----------------------|-----------------|--|
| Size              | 118x100x56.6mm        | Connector       | Six ways:<br>1. Power<br>2. CAN High<br>3. 120R CAN Termination activation<br>4. Ground<br>5. CAN Low<br>6. Ignition |
| Weight            | 164g                  | Voltage         | 10 to 32V  |
| Tightness         | IP69K                 | Protection      | 3A fuse  |
| Flammability      | UL94 V0               | RCU Consumption | 20 to 100mA  |
| 3 Mounting Points | M5 or M6 Fastener     |                 |  |
| INTERFACES        |                       |                 |  |
| Radio Frequency   | 434 MHz    11400bit/s |                 |  |
| TEMPERATURE RANGE |                       |                 |  |
| Operating         | -40 to +85°C          |                 |  |
| Storage           | 0 to 40°C             |                 |  |
| LEGAL REGULATIONS |                       |                 |  |
| Marking           | CE                    |                 |  |
| RF Regulation     | FCC/IC<br>RED         |                 |  |

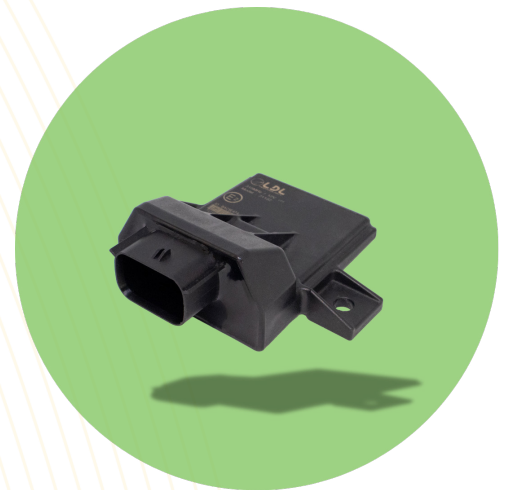
# RECEIVER CONTROL UNIT

## TWO-WHEELER

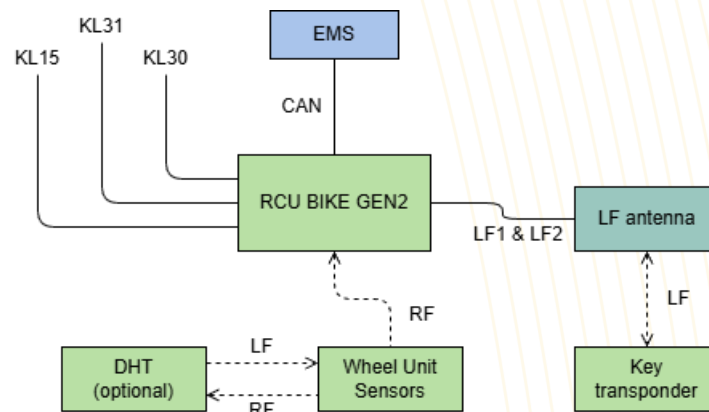
### PRODUCT OVERVIEW

Our real-time Original Equipment direct tire pressure monitoring system (TPMS) warns against sudden loss of pressure, and protects the driver from annoying breakdowns or even serious accidents due to tire failure.

TPMS RCU continuously receives wireless data from the wheel unit sensors in order to send pressure and temperature information through the vehicle CAN network. The external LF Antenna can serve as immobiliser.



### TECHNICAL DATA



| MECHANICAL        |                                  | TEMPERATURE RANGE |               |
|-------------------|----------------------------------|-------------------|---------------|
| Size              | 88x95x32.4 mm                    | Operating         | -20 to 85°C   |
| Weight            | 100g                             | Storage           | 0 to 30°C     |
| Tightness         | IP67                             | LEGAL REGULATIONS |               |
| Flammability      | UL94-HB                          | Marking           | CE            |
| 2 Mounting Points | M5 or M6 Fastener                | RF Regulation     | FCC/IC<br>RED |
| INTERFACES        |                                  | TPMS              | R141          |
| CAN               | 500kb/s                          |                   |               |
| Radio Frequency   | 433.92 MHz<br>315.025MHz (Japan) |                   |               |

## TIRE PRESSURE MONITORING SYSTEM

|                             |   |
|-----------------------------|---|
| Thresholds<br>Configuration | Nominal pressure<br>Low pressure warning<br>Low pressure alert<br>High pressure warning<br>High temperature warning |
|-----------------------------|---|

## ELECTRICAL

|                    |  |
|--------------------|--|
| Connector          | Twelve ways:<br>1. LF Antenna<br>2. CAN Low<br>3. CAN High<br>4. -<br>5. KL30<br>6. KL15<br>7. LF Antenna<br>8. CAN Low<br>9. CAN High<br>10. -<br>11. KL31<br>12. - |
| Voltage            | 4 to 18V   |
| Protection         | 5A fuse  |
| RCU<br>Consumption | 0.5 to 150mA   |

# TELEMATICS CONTROL UNIT

## TIRE PRESSURE

### PRODUCT OVERVIEW

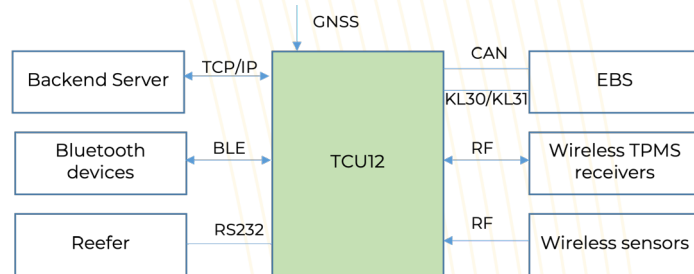
EBS standard data can be transmitted by LID's telematics unit directly to the customer's cloud server, enabling fleet managers to monitor vehicle data – including real-time tire pressure – for improved safety, efficiency, and maintenance planning.

Mounted on the chassis, the telematics hardware also acts as a receiver for all wireless sensors, eliminating the need for additional antennas or external receiver units.

The system is compatible with any service provider: LID supplies the hardware and data output, while customers remain free to choose the software platform that best fits their operational needs.



### TECHNICAL DATA



| MECHANICAL        |                   |
|-------------------|-------------------|
| Size              | 178x150x76mm      |
| Weight            | 570g              |
| Tightness         | IP69K             |
| Flammability      | UL94 V0           |
| 3 Mounting Points | M5 or M6 Fastener |

| LEGAL REGULATIONS |              |
|-------------------|--------------|
| RF Regulation     | RED          |
| RF Regulation     | FCC/IC       |
| RF Regulation     | ARIB STD T93 |
| Marking           | CE           |
| Cybersecurity     | ISO 21434    |
| Update Software   | ISO 24089    |

| INTERFACES      |                           |
|-----------------|---------------------------|
| GSM             | 2G/4G*                    |
| Bluetooth       | BLE 4.1                   |
| GPS             | Position 10m              |
| Radio Frequency | 434 MHz / 315 MHz (Japan) |

| TEMPERATURE RANGE |             |
|-------------------|-------------|
| Operating         | -40 to 85°C |
| Charge Battery    | -30 to 85°C |
| Storage Battery   | 15 to 30°C  |

\*Sim-chip shall be provided prior to manufacturing

# WIRELESS SENSOR NETWORK

## TIRE PRESSURE

### PRODUCT OVERVIEW

Our multipurpose wireless sensors support different features activated through a hand tool device able to support: temperature for refrigerated transporters by bringing seamless verification of the closed cold chain, door check with an effective protection against unwanted access, or vehicle identifier to associate the truck-trailer pair.

The self-powered sensor has a 5 year-lifetime, and 24/7 transmission rate.



### TECHNICAL DATA



| MECHANICAL   |                 |
|--------------|-----------------|
| Size         | 64.5x57.5x24 mm |
| Weight       | 59g             |
| Tightness    | IP69K           |
| Standard     | IPC 1755        |
| Flammability | UL94-HB         |

| INTERFACES      |         |
|-----------------|---------|
| Radio Frequency | 434 MHz |

| LEGAL REGULATIONS |    |
|-------------------|----|
| Marking           | CE |

| TEMPERATURE RANGE |               |
|-------------------|---------------|
| Operating         | -40 to + 85°C |
| Charge Battery    | -30 to + 85°C |
| Storage Battery   | 0 to 30°C     |
| Battery Lifetime  | 7 years       |

| MEASUREMENT      |                    |
|------------------|--------------------|
| Temp. Range      | -40 to 85°C        |
| Temp. Resolution | 0.5°C              |
| Temp. Accuracy   | ±1°C (-20 to 25°C) |



An **Amphenol** Company

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