


MICHELIN
SP40 MEMS
Liquidproof Sensor



MICHELIN SP40 MEMS Liquidproof Sensor Owner's Manual

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MICHELIN SP40 MEMS Liquidproof Sensor



PRODUCT NAME

MEMS LIQUIDPROOF SENSOR (can be also abbreviated as MEMS LPS)

Part Number / CAI: 693136

PRODUCT DESCRIPTION

The MEMS LIQUIDPROOF SENSOR is a battery-powered air pressure and air temperature sensor designed to operate inside tubeless earthmover tires to measure the pressure and temperature of the tire. Those measurements are sent, via a radio transmitter, to a MEMS TRANSCIEVER A – ALUMINIUM (CAI 068685) unit, which is usually mounted in the cab of the vehicle.

FCC / IC CERTIFICATION

Model: RV1-40L FCC ID: FI5-RV1-40L

HVIN: RV1-40L IC: 5056A-RV140L

PMN: RV1-40L

Federal Communications Commission (FCC) Statement

To comply with the Canadian RF exposure

This device complies with Part 15 of the FCC Rules. compliance requirements, this device, and its antenna Operation is subject to the following two must not be co-located or operating in conjunction conditions: with any other antenna or transmitter."

- (1) This device may not cause harmful interference, and 2. To comply with RSS 102 RF exposure compliance
- (2) This device must accept any interference requirements, a separation distance of at least 20 received, including interference that may cause cm must be maintained between the antenna of this undesired operation.

This device contains license-exempt "15.21 You are cautioned that changes or transmitter(s)/receiver(s) that comply with modifications not expressly approved by the part Innovation, Science and Economic Development responsible for compliance could void the user's Canada's license-exempt RSS(s). authority to operate the equipment" Operation is subject to the following two conditions.

Radiation Exposure Statement

This device must accept any interference. This Transmitter must not be co-located or include interference that may cause undesired operating in conjunction with any other antenna or operation of the device. transmitter.

PRODUCT SPECIFICATION

Physical Characteristics

- Approximate dimensions: L= 80mm. W= 70mm. H=50mm
- Approximate weight: 110g

Storage Conditions

- storage temperature: -40°C to +60°C, -40°F to + 140°F

Performance Characteristics

- Normal transmission period: 60 seconds + 10 seconds
- Fast transmission period 16 seconds
- Tire compatibility: 49" to 63" earthmover tubeless tires
- Pressure resolution: 1kPa, 0.01 bar, 0.145 psi
- Typical pressure accuracy: $\pm 30\text{kPa}$, $\pm 0.3\text{ bar}$, $\pm 4.35\text{ psi}$ (-20 to + 90°C, -4 to + 194°F)
- Temperature resolution: 1°C, – 1.8°F
- Typical temperature accuracy: $\pm 2\text{ }^{\circ}\text{C}$, $\pm 3.6^{\circ}\text{F}$ (- 20 to + 90°C, – 4 to + 194°F)

RF Performance

- TX frequency: 433.92MHz ISM band
- RF output power: < 86.48 dBuV/m 3m (Peak) as per FCC 15.231 (b)
- RF data rate 5kHz, Modulation: FSK
- Antenna: Internal helical
- With duty cycle correction as per FCC part 15.35

Electrical Performance

- Batteries: 1 x Li-metal coin cell; Lithium content: 0.16g

Operating Conditions

- Operating temperature range: -20°C to +125°C; -4°F to + 257°F
- Operating pressure range: 100kPa to 1400kPa Absolute; 1 bar to 14 bar Absolute; 14.51 psi to 203.05 psi Absolute

Environment

- RoHS compliant

DISPOSAL

The MEMS LIQUIDPROOF SENSOR SP40 must not be disposed of in a landfill. At the end of its life, the MEMS

LIQUIDPROOF SENSOR SP40 must be removed from the tire and deposited in a container dedicated to the recycling of electronic equipment that contains batteries. If users do not have access to the appropriate recycling facility, your local Michelin MEMS representative can provide a container dedicated to the purpose of collecting MEMS equipment.

CONTACT DETAILS – Technical Support

For more information or assistance, please contact the Michelin MEMS representative for your country.

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The product must not be disposed of with unsorted waste but must be sent to separate collection facilities for recovery and recycling. Features and specifications are subject to change without notification. Document version 1.2

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Documents / Resources

	<p>MICHELIN SP40 MEMS Liquidproof Sensor [pdf] Owner's Manual</p> <p>SP40 MEMS Liquidproof Sensor, SP40, MEMS Liquidproof Sensor, Liquidproof Sensor, Sensor</p>
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References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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