



## MEMS EVOLUTION3 SENSOR PRODUCT NOTICE



Product name	CAI
MEMS EVOLUTION <sub>3</sub> SENSOR	TBA

### **PRODUCT NAME**

MEMS Sensor

### **PRODUCT DESCRIPTION**

The MEMS EVOLUTION<sub>3</sub> SENSOR is a battery powered air pressure and air temperature sensor designed to operate inside tubeless earthmover tires. This information is sent, via a radio transmitter, to a MEMS EVOLUTION<sub>2</sub> TRANSCIEVER unit, which is usually mounted in the cab of the vehicle.

## **FCC / IC CERTIFICATION**

Model : RV1.30  
FCC ID : FI5-RV1-30E  
IC : 5056A-RV130

"This device complies with part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following 2 conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operations."

**Warning !** Changes or modifications not explicitly approved by Michelin will invalidate the authorization of this device. Operation of an unauthorized device is prohibited under Section 302 of the Communications Act of 1934, as amended, and Subpart I of Part 2 of Chapter 47 of the Code of Federal Regulations.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## **PRODUCT SPECIFICATION**

### Performance Characteristics

- Normal transmission period: 60 seconds  $\pm$  10 seconds
- Fast transmission period 16 seconds
- Tire compatibility: 49" to 63" earthmover tubeless tires
- Pressure resolution: 1kPa
- Typical pressure accuracy:  
 $\pm$  30kPa,  $\pm$  0.3 bar,  $\pm$  4,35 psi (-20 to + 90°C, -4 to + 194°F )
- Temperature resolution: 1°C - 1.8°F
- Typical temperature accuracy:  
 $\pm$  2 °C,  $\pm$  1.8°F ( - 20 to + 90°C, - 4 to + 194°F )

### RF Performance

- TX frequency: 433.92MHz ISM band
- RF output power: <72.9 dBuV/m @ 3m as per FCC 15.231 (e) \*
- RF data rate 5kHz

- Antenna: Internal helical

\* With duty cycle correction as per FCC part 15.35

#### Electrical Performance

- Batteries: 1 x Li-ion

#### Operating Conditions

- Operating temperature range: -40°C to +125°C; -40°F to + 257°F
- Operating pressure range: 100kPa to 1400kPa Absolute; 1 bar to 14 bar Absolute; 14.51 psi to 203.14 psi Absolute

#### Storage Conditions

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

#### Physical Characteristics

- Approximate dimensions: L= 78mm. W= 70mm. H=46mm
- Approximate weight: 110g

#### **DISPOSAL**

The MEMS SENSOR must not be disposed of in landfill.

At the end of its life, the MEMS SENSOR 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 is able to provide a container dedicated to the purpose of collecting MEMS equipment.

#### **CONTACT DETAILS**

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

*MFP MICHELIN © 2012 All rights reserved.*

*Exclusive property of Manufacture Française des Pneumatiques Michelin.*

*Any reproduction or utilization prohibited without the consent of Michelin*