

MILITARY AUTOMATIC METEOROLOGICAL SENSOR – 5060 SERIES



IRDAM 5060 meteorological sensor is a powerful digital instrument measuring local real time environmental conditions.

Based on the same technology as its bigger sister the famous 6056, this stripped-down version is especially designed for light wheeled vehicles equipped with small or medium calibre guns.

Its patented operating principle with no moving parts makes it perfectly adapted to military environments : vibrations, shocks, dust and water.

IRDAM sensors are the result of over 30 years of experience and development. They demonstrated their reliability and performance on worldwide battlefields.



5060 meteorological sensors are fully automatic and measure constantly:

- Wind speed
- Wind direction
- Air temperature
- Atmospheric pressure
- Relative air humidity (optional)

Additional features include:

- Electronic compass indicating wind direction and vehicle direction versus geographical North.
- GPS receiver that combines the geographical coordinates of the measurement location with the meteorological data.
- Digital external temperature sensor TEMPEX (ground, ammunition storage room, etc.).

The high precision meteorological sensor responds quickly to wind variations and measures the slightest breath. The measurements provided by the sensor are transmitted through a single digital frame on RS-422 / RS-485 serial link.

IRDAM sensors are fully certified to military standards and received the "Swiss Made" label.

They do not require any particular maintenance but need to be checked and calibrated regularly as any high precision measuring instrument.



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Measurements specification

Wind Speed

Range	0 - 40 m/s
Accuracy	± (0,5 m/s + 5%)
Resolution	0.1 m/s

Wind Direction

Azimuth	0 - 360°
Accuracy	± 5°
Resolution	0,1°

Direction of the station to magnetic North : OPTIONAL

Azimuth	0 - 360°
Accuracy	± 5°
Resolution	0.1°

Air Temperature

Range	- 40°C - + 60°C
Accuracy	± 1°C (@ Wind Speed > 2 m/s)
Resolution	0.1°C

Absolute Atmospheric Pressure

Range	600 - 1100 hPa (mbar)
Accuracy	± 5 hPa (mbar)
Resolution	0,1 hPa (mbar)

Relative humidity : OPTIONAL

Range	0% - 100 %
Accuracy	± 4 % HR (@ Wind Speed > 2 m/s)
Resolution	0,1 % HR

GPS Localization : OPTIONAL

Latitude	90° N - 90° S
Longitude	180° E - 180° W
Accuracy	variable
Resolution	1/512 min

Technical specification

Data transmission RS-422 / RS-485

Transmission cycle 200 ms

Input voltage 18 - 32 V DC

Consumption < 20 W

Autotest Permanent

Start up < 20s

Operating temperature - 40°C - + 60°C

Storage temperature - 51°C - + 70°C

Size

Height	350 mm
Diameter	120 mm
Base	Ø120 mm
Weight	2.3 kg

Options

Ground or ammunition storage room temperature sensor	TEMPEX
Case	PELI

PAINT system

Chemical agent resistant coating system	MIL-DTL-53072E
Pre-treatment	MIL-DTL-5541F
Primer	MIL-DTL-530022E
Top coat	MIL-DTL-530039E

Color

All military colour references available

I/O Connector D38999/24WD35PN

Certification specification

MIL-STD 461 : electromagnetic compatibility

• Conducted emission	CE 102 : 10 kHz to 10 MHz
• Radiated emissions	RE 102 : 10 kHz to 18 GHz
• Radiated susceptibility	RS 103 : 2 MHz to 4.2 GHz

MIL-STD 810 : environmental conditions

• Low pressure (altitude)	500.4: -40°C; 570 hPa
• Low pressure operation	500.5: 25°C; 572 hPa
• High temperature storage	501.4 proc 1 : +70°C; 2h
• Low temperature storage	502.4 Proc 1 : -51°C; 4h
• High temperature operation	501.4 Proc 2: +60°C; 2h
• Low temperature operation	502.4 Proc 2 : -40°C; 4h
• Temperature shock	503.4: +70°C, -40°C, +70°C
• Humidity	507.4: 10X 60°C to 30°C @ 95%RH
• Immersion	512.4: +52°C, 1m, 0.5h
• Vibration	514.5: +20°C, 20Hz to 2kHz, 2.2gRMS
• Shocks	516.5: +20°C, sawtooth, 40g 11ms

IEC EN 60000 : Environmental testing

• Protect again water jet (IP)	60529:2001 : 100l/min IP X6
• Electrostatic discharges	61000-4-2 : 8kV contact, 15kV air