

6056 Series

Specially designed to improve ballistic fire control accuracy or CBRN detection on heavy and tracked vehicles with large caliber guns (MBT's).

IRDAM 6056 meteorological sensor is a powerful digital instrument measuring local real time environmental conditions.

Combat-proven 6056 sensors are the result of over 35 years IRDAM's experience on battlefield worldwide.

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

This 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 EIA-422 serial link. A single shielded cable connected to the unit supplies power to operate the sensor and provides data.

IRDAM sensors are fully certified for the most stringent military standards and have received the « Swiss Made » label.

They do not require any particular maintenance.

Replacement filters kits are available for easy decontamination procedures.

IRDAM sensors can receive (optional) an electronic compass indicating wind direction and vehicle direction towards geographical North.

IRDAM sensor can be combined with external temperature digital sensor TEMPEX (ground, ammunition storage room, ...)

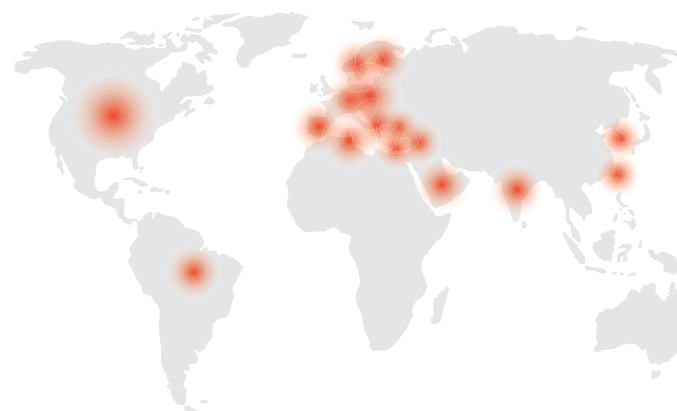
IRDAM guarantees a 25 years lifetime and operability of the 6056 series.

• Key features

- Dedicated to tracked armored vehicles (MBT's).
- Patented « Thermal Field Variation » technology insensitive to harshest environment.
- 100% tested equipment with individual test report.
- Easy to install and designed to avoid improper use and electrical overstress.
- Very low maintenance required.



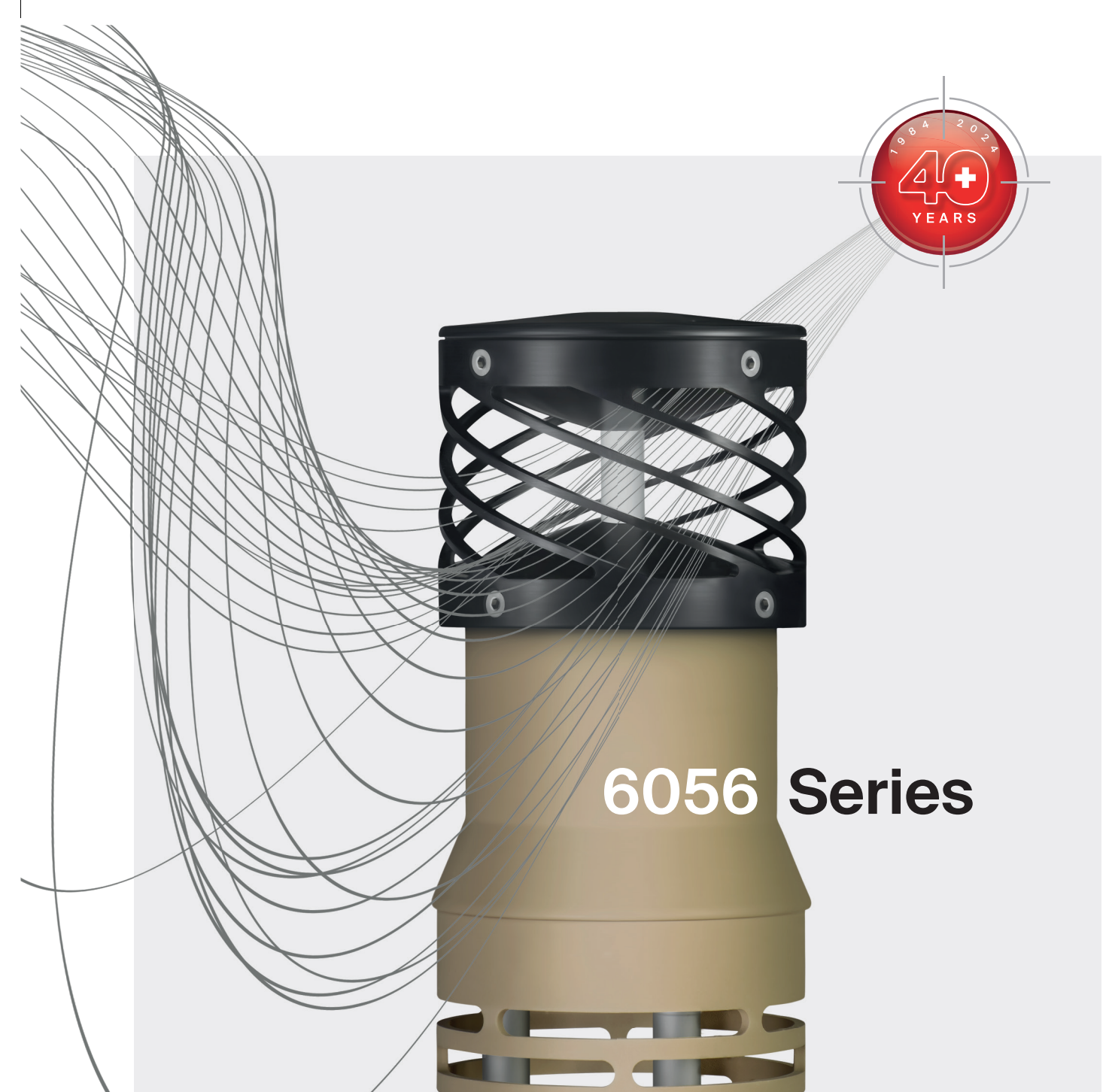
Global presence



Your local contact

IRDAM⁺
improve your precision

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6056 Series

Military Automatic Meteorological Sensor

IRDAM 6056 meteorological sensor is a powerful digital instrument measuring local real time environmental condition.

Specially designed to improve ballistics fire control precision on tracked armoured vehicles with large calibre guns.



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improve your precision

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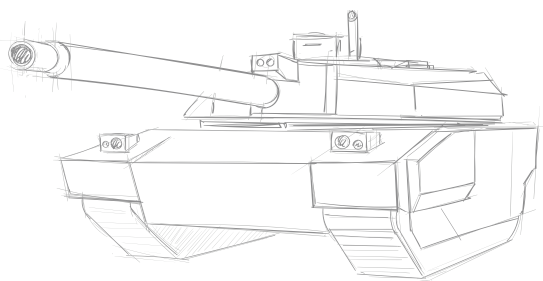
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6056 Series

improve your precision



Measurements specification



Wind Speed	
Range	0 - 40 m/s
Accuracy	± (0,5 m/s + 5%)
Resolution	1/16 m/s



Wind Direction	
Azimuth	0 - 360°
Accuracy (1)	± 5°
Resolution	1/16 °



Air Temperature	
Range	- 40°C - + 70°C
Accuracy (1)	± 1°C
Resolution	1/16°C



Absolute Atmospheric Pressure	
Range	600 - 1100 hPa (mbar)
Accuracy	± 5 hPa (mbar)
Resolution	1/16 hPa (mbar)



Optional: Direction of the station to magnetic North	
Azimuth	0 - 360°
Accuracy	± 5°
Resolution	1/16 °



Optional: Relative humidity	
Range	0% - 100% RH
Accuracy (1)	± 4% RH (0% - 20%)
	± 3% RH (20% - 80%)
	± 4% RH (80% - 100%)
Resolution	1/16% RH



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

(1) @ Wind Speed > 2 m/s

Technical specification

Data transmission	RS-422 / RS-485
Transmission cycle	100 ms

Input voltage	18 - 32 V DC
Consumption	< 25 W

Autotest	Permanent
Start up	< 30s

Operating temperature	- 40°C - + 70°C
Storage temperature	- 40°C - + 71°C

MTBF (MIL HDBK 217F - 20°C)	
6056B, 6056H	> 45'000 hours
6056BC, 6056HC	> 16'000 hours
6056BCGPS, 6056HCGPS	> 16'000 hours

Size	
Height	550 mm
Diameter	85 mm
Base	Ø120 mm
Weight	<= 3.5 kg

Options	
Ground or ammunition storage room temperature sensor	TEMPEX
Protection cover	HOUSSE - 100000
Replacement filter kit	KITNBC6056

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

Patented product

Certification specification

MIL - STD 461F: electromagnetic compatibility (HCGPS model)	
Conducted emission	CE 102: 10 kHz to 10 MHz
Conducted susceptibility	CS 101: 30 Hz to 150 kHz
Radiated emissions	RE 102: 10 kHz to 18 GHz
Radiated susceptibility	RS 103: 30 MHz to 18 GHz
Bulk cable injection	CS114: 10kHz to 200 MHz
Bulk cable injection (In ex)	CS115: 14Hz, 1200V
Bulk cable injection (sinus)	CS116: 10k to 100MHz /0.1 to 3A

MIL - STD 810F: environmental conditions (HCGPS model)	
Low pressure (altitude)	500.4: -40°C; 570 hPa
High temperature storage	501.4 proc 1: +71°C; 2h
Low temperature storage	502.4 Proc 1: -40°C; 4h
High temperature operation	501.4 Proc 2: +70°C; 2h
Low temperature operation	502.4 Proc 2: -40°C; 4h
Temperature shock	503.4: -40°C, +71°C, -40°C
Humidity	507.4: 10X 60°C to 30°C @ 95%RH
Immersion	512.4: +52°C, 1m, 0.5h
Salt fog	509.4: 34°C, 48h, 5% NaCl
Blowing dust	510.4: 23+71°C, 8.9m/s,10.6g/m3
Vibration	514.5: +20°C, 20Hz to 2kHz, 7.7gRMS
Shocks	516.5: +20°C, sawtooth, 40g 11ms

IEC EN 60000: Environmental testing (B model)	
Half sinus shocks	60068-2-27: 10g, 6ms
Half sinus shocks	60068-2-27: 500g, 0.5ms
Protect again water jet (IP)	60529:2001: 100l/min IP X6
Random vibration	60068-2-64: 10Hz to 2050Hz 1.5gRMS
Electrostatic discharges	61000-4-2: 8kV contact, 15kV air

VG 95373, VG95370: electromagnetic compatibility (B model)	
Immunity to RF filed	95373-13: 30MHz to 1GHz, 100V/m
Conducted susceptibility	95373-14 LF07G, 100k to 100MHz
impulse susceptibility	95373-14 LF03G, +/- 100V@5 Ohms
Radiated emission	95373-12 SA04G, 30MHz to 1GHz
conducted emission	95370-16 SA06S, 30MHZ to 88MHz
Radiated emission	95373-10 LA01G, 100k to 100MHz

VG96916, TL 1240-060: power network requirement (B model)	
Impulse immunity	96916-5: 70V/2ms & 50V/50ms
Sinus Immunity	96916-5: 10Hz to 10kHz 8.4V
Immunity DC change	TL1240-060: 18V to 32V

GAM-EG-13, Method 43, procedure 9 (BL model)	
Bump Shocks	8g, 12ms, ±887 shocks
Gun Shocks	25g, 8ms, ±1875 shocks (axis H)
	11g, 6ms, ±1875 shocks (axis Z)

