



# ICONYX™

## HRG Crystal™-based Inertial Measurement Unit (IMU) for tactical guidance and control applications

**ICONYX™ is a high performance tactical-grade Inertial Measurement Unit (IMU) for guidance and control applications. ICONYX™ is designed to meet the most demanding environmental conditions with an extreme accuracy and reliability.**



### PROVEN TECHNOLOGY

Safran proposes an IMU based on Hemispherical Resonator Gyroscope, the HRG Crystal™. This technology is combat proven for 15 years and is extremely accurate, reliable and is capable of navigating in the most contested GNSS-denied environments.

### HRG CRYSTAL™ EMBEDDED

Thanks to the HRG Crystal™, ICONYX™ surpasses the highest performances of its category while keeping the best-in-class SWaP (Size, Weight and Power) characteristics of the market.

### DESCRIPTION

ICONYX™ includes 3 hemispherical resonator gyroscopes HRG Crystal™ and 3 closed-loop MEMS (Micro Electro-Mechanical Systems) accelerometers in a compact package. Both Safran's gyroscopes and Safran's accelerometers are technological breakthrough.

**Safran Electronics & Defense is with you every step of the way, building in the intelligence that gives you a critical advantage in observation, decision-making and guidance.**

## Technical Specifications

# ICONYX HP-15 AND ICONYX HP-30

### Optimized architecture

	WITHOUT MOUNTING RING	WITH MOUNTING RING
<b>Size</b> (excluding connectors)	ø 3.5 x 3.35 in (< ø 88.9 x 85.1 mm)	ø 3.7 x 3.7 in (< ø 94 x 94 mm) Ring : ø 5.0 in (ø 127 mm)
<b>Weight</b>	< 750g	< 950g
<b>Consumption</b>	+5V (<2 amps)	
<b>Gyro technology</b>	HRG (Hemispherical Resonator Gyroscope) Crystal™	

### Interface

- RS422 serial interface

### Environmental conditions

- Operating temperature : from -40°C to 85°C

### 100% in-house technology

### Export Control

- Dual Use - Export Control Classification Number (ECCN) 7A003.d.1
- ITAR Free



HRG Crystal™

KEY CHARACTERISTICS		
Version	Iconyx HP-15	Iconyx HP-30
<b>Accelerometer range</b>	Up to 15 g	Up to 30 g
<b>Gyro range</b>	Up to 490 °/s	
<b>Gyro bias (°/h 1sigma)</b>	0.15 (including gyro turn-on)	
<b>Gyro ARW (°/√h max)</b>	0.001	
<b>Gyro scale factor (ppm 1sigma)</b>	200	
<b>Accelerometer bias (µg 1sigma)</b>	100	200
<b>Accelerometer scale factor (ppm 1sigma)</b>	200	

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