

# EXO Pro Tag

Highly robust, all-purpose RAIN® UHF tags mount to any surface material deliver long read ranges



HID Global's EXO Pro transponders are the most advanced general-purpose RAIN® RFID UHF tags available. Choose from options that mount on metal or any material while enabling read ranges of up to 36 ft (11 m).

EXO Pro devices improve data collection speed and accuracy for logistics applications, while making tracking more cost-effective. Members of the EXO family are highly rugged to withstand impact, high-pressure washing IP69K or chemical disinfection.

RAIN® RFID technology enables anti-collision functionality, fast data-rate communication and password data protection for precise, reliable reading and updating. All EXO Pro transponders are compliant with EPC global-certified UHF Class 1 Gen 2 readers and modules, including broadband capability for international operations.

The tough and versatile EXO Pro Tag transponders are available for mounting on metal, plastic or wood using standard screws, rivets, industrial adhesives or welding. The tags are lightweight, waterproof and resist high-pressure/high temperature washing conditions. The special material and over molded construction of some EXO Pro tags provides even greater impact protection, extra resilience against aggressive chemicals like Caustic Soda.

EXO Pro RFID tags include HID Global's patented 3D antenna, enabling omnidirectional read range performance independent of mounting material.

The EXO Pro InLine Combo version includes an ICODE SLIX2 chip for industrial HF or NFC interaction in addition to RAIN® RFID logistics. Slim versions of the tags enable optimal performance for space-restricted applications, and are configured for attachment via screw or weld.

In short, EXO Pro tags provide the durability of an encased RFID tag in a small footprint for harsh environments with some of the options in the range being the most rugged tags on the market, even withstanding a "sledgehammer test".



## KEY BENEFITS:

- **Extreme durability** – resistant to outdoor elements as well as blunt and sharp impact
- **Multiple mounting options** – glue, screw, rivet or weld
- **Enhanced reliability** – read-write on any material, up to 36 ft (11 m)
- **Broadband frequency** – for worldwide use

## TECHNOLOGY HIGHLIGHTS:

- Worldwide operating frequencies from 860 to 960 MHz + optional NFC
- Fully interoperable; standards compliant
- Reliable performance on both metal and non-metal surfaces
- Waterproof under high pressure / high temperature conditions; chemical and impact resistant
- Mounting options include nails, screws, rivets, welding and glues
- Large memory of up to 512-bit user memory and 128-bit EPC; 2560 bit HF/NFC

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HID Global can create a custom tag solution to fit your application requirements for chip type, dimensions, programming and materials.



## APPLICATION AREAS

Asset tracking and logistics








- Postal and road toll management
- Truck, wagon and train tracking
- Supply chain management:
- Pallet and goods tracking
- Furniture, boxes and tools

Returnable transport items

- Shipping container tracking
- Metal keg and gas cylinder identification

Waste management

- Commercial and industrial bin identification

	EXO Pro						
	400 HT	Midrange	InLine	600	750	800	InLine Combo
							
Base Model Number	CP16451 (EU) CP16453 (US)	AST1-174-3310 (EU) AST1-174-3300 (US)	6M6980-402 6M6981-402 (pro weld)	CP08785 CP16007 (M730)	CP08726 CP16100 (M730)	CP08725 CP16130 (M730)	6K7980-502
	ELECTRONIC						
Operating Frequency	(EU) - 865-868 MHz (ETSI) (US) - 902-928 MHz (FCC)		865-928 MHz (Global)				865-928 MHz (Global) / NFC
Chip Type	Monza R6-P	M750	M730	Monza 4QT  M730			Monza R6-P + ICODE SLIX2
Memory	128/96 bit EPC 32/64 bit UM	96 bit EPC 32 bits UM	128 bit EPC	128 bit EPC + 96 bit TID + 512 bit user memory  (M730 : 128 bit EPC)			128 bit EPC   96 bit TID + 2560 bit ICODE SLIX2
Anti-Collision	Yes						
Reading Distance (2W reader ERP, free space)	Up to 13.1 ft (4 m)	Up to 32.8 ft (10 m)		Up to 42.65 ft (13 m)	Up to 47.24 ft (14.4 m)	Up to 49.21 ft (15 m)	Up to 32.8 ft (10 m)
	PHYSICAL						
Dimensions	1.45 x 1.6 x 0.3 in (37.0 x 14.0 x 7.5 mm)	2.5 x 0.69 x 0.25 in (63.5 x 17.5 x 6.4 mm)	3.8 x 1.1 x 0.6 in (97 x 27 x 15 mm); Weld : 4.1 x 1.4 x 0.6 in (105 x 35 x 15 mm)	3.15 x 0.59 x 0.48 in (80 x 15 x 12.5 mm)	2.01 x 1.9 x 0.50 in (51 x 48 x 12.6 mm)	4.33 x 0.98 x 0.51 in (110 x 25 x 12.85 mm)	3.8 x 1.1 x 0.6 in (97 x 27 x 15 mm)
Mounting Method	Screw, weld (special models to glue on metal available on request)						
Screw Mounting Hole	Ø 0.12 in (3 mm)	Ø 0.075 in (2 mm)	Ø 0.2 in (5.2 mm)	Ø 0.2 in (4.9 mm)	Ø 0.2 in (5.5 mm)	Ø 0.2 in (4.9 mm)	Ø 0.2 in (5.2 mm)
Affixes To	All surfaces, including metal, plastic, wood						
Housing Material	Thermoplastic	Ryton PPS	High-impact plastic, Weld : stainless steel ring	ABS Rigid Plastic			High-impact plastic
Color	Black		Gray				
Weight	0.2 oz (5.7 g)	0.35 oz (10 g)	0.8 oz (23 g) Weld : 0.9 oz (26 g)	0.4 oz (12.5 g)	0.9 oz (25.6 g)	0.9 oz (26 g)	0.8 oz (23 g)
	CHEMICAL AND MECHANICAL						
Water	IP68, 68° F (20° C), 1 m x 24 h	IP69K (100 bar at 80° C, 30 sek., 16 l/min)	IP68, 68° F (20° C), 1 m x 24 h				
Withstands Exposure To	5% caustic soda, 10% salt water, vegetable oil, Motor oil, 68° F (20° C), 168hr	Dilute mineral acids, dilute alkali solutions (<20%), alcohols, petroleum, salt mist, vegetable oil, hydraulic fluid and most industrial cleaning agents	Mineral oil, petroleum, salt mist, vegetable oil; up to 80% humidity at 158° F (70° C); Caustic Soda (5%)	5% caustic soda, 10% salt water, vegetable oil, Motor oil, 68° F (20° C), 168hr			Mineral oil, petroleum, salt mist, vegetable oil; up to 80% humidity at 158° F (70° C); Caustic Soda (5%)
Vibration & Shock	MIL STD 810-G	IEC 68.2.6 / IEC 60068-2-27:2008		MIL STD 810-G			IEC 68.2.6 / IEC 60068-2- 27:2008
Impact	2kg Steel, 1m	1.75kg Steel, 0.76m	IEC 62262-IK08	10kg steel, 1m	4Kg steel, 1m	10kg steel, 1m	IEC 62262-IK08
Axial/Radial Force			1000 N, 10 sec				
	THERMAL THERMAL						
Storage	-40° to +185° F (-40° to +85° C), 1x1000 h -40° to +185° F (-40° to +85° C), 1x1000 h						
Operating Temperature	-40° to +185° F (-40° to +85° C)						
Peak Temperature	437° F (225° C), 100 h	392° F (200° C), 100 h					
Shock/Fatigue	-40° to +185° F (-40° to +85° C), 100 x 5 min with 20 sec transition						
	OTHER						
Standards	UHF EPC Class 1 Gen 2, ISO 18000-6C, ISO 17364, DIN 40050-9						+NFC Tag Type 5
Options	Custom label or embossed logo, no logo or custom tag color. Laser engraving of custom logo, barcode or text on gray tag versions. By default, grey tags are supplied without logo or laser engraving. ATEX/IECEx, C1D1						
Box Size	2520 pcs.	150 pcs.	240 pcs.	720 pcs.	450 pcs.	432 pcs.	240 pcs.
Warranty	2 Years						

