

# Poly Tag<sup>®</sup>

Low and high frequency disc-shaped RFID tags with extreme impact resistance, ready for outdoor use



Poly Tag passive contactless radio frequency identification (RFID) transponders deliver reliable performance in a cost-effective housing that stands up to rugged conditions. Each heavy-duty disc is waterproof, highly chemical and shock resistant, and withstands peak temperatures up to 266° F (130° C). The yellow Poly-Tag versions are flame resistant according to UL 94 V-0 and available with ATEX/IECEX certificates for use in potentially explosive environments of mining, gas and dust. Blank yellow version may be laser engraved according to customer's certifications as needed.

Poly Tag devices are housed in field-proven, high-impact PA6. This nylon thermoplastic shell absorbs the daily bumps and jolts of industrial environments, while protecting the electronics within.

Exceptional toughness, chemical resistance and abrasion resistance assure consistent communications with RFID readers, and reliable performance in automation and manufacturing applications.

Low frequency (LF) Poly Tag discs perform on any flat surface. They offer reliable, cost-effective tagging for near-proximity reader applications, with available data storage of 64-bit user capability.

The high frequency (HF) Poly Tag disc offers anti-collision technology for faster data processing, higher user memory, and an improved read range over LF discs. Chip options for NFC or HID Trusted Tag<sup>®</sup> are available to implement secure "proof of presence" applications like guard tours or maintenance checks using standard NFC phones as readers.

For additional disc-tag options, the HID IN Tag<sup>™</sup> family also includes heavy-duty tags, in low frequency, high frequency and UHF configurations. For other applications, consider ultra-thin HID Epoxy Disc or indoor World Tag<sup>™</sup> transponders.



## KEY BENEFITS:

- Durable housing – withstands shock, impact and vibration; waterproof; resistant to chemical exposure
- ATEX/IECEX certified flame resistant options for use in hazardous environments
- Heat tolerant – during storage, industrial processing and daily use
- Versatile – mounts securely to plastic or wood with screws
- Cost-effective – excellent size to performance ratios

## APPLICATION AREAS:

Automation and manufacturing

- Processing boxes
- Production equipment
- Maintenance and Inspection

## ASSET TRACKING AND LOGISTICS

- Outdoor equipment e.g. furniture, playground items, or walls
- Oil & Gas, mining industry
- Plastic bins
- Proof of Presence (e.g. guard tour)

Poly Tag®						
						
<b>Base Model Number</b>	601131-010	629131-012	629131-014	629131-014-EX (ATEX)	6H5131-101	6H9131-010
<b>ELECTRONIC</b>						
<b>Operating Frequency</b>	125 kHz		13.56 MHz			
<b>Chip Type</b>	Unique		ICODE SLIX2		HID Trusted Tag	NTAG 216
<b>Memory</b>	64 bit read-only		2560 bit user memory		8 KB	888 Bytes user memory
<b>Anti-Collision</b>	No		Yes			
<b>Reading Distance</b>	Dependent upon reader, environment and application				Proximity (NFC Tap)	
<b>PHYSICAL</b>						
<b>Dimensions</b>	Ø 1.34 x 0.31 in (Ø 34 x 8 mm)					
<b>Mounting Method</b>	Screw-on					
<b>Fixation Hole Size</b>	Ø 0.22 in (5.6 mm)					
<b>Affixes To</b>	Plastic, wood, glass, metal					
<b>Housing Material</b>	PA6 - high impact - glass fiber reinforced					
<b>Color</b>	Black		Yellow		Black	
<b>Weight</b>	2.7 oz (7.8 g)					
<b>CHEMICAL AND MECHANICAL</b>						
<b>Water</b>	IP69K, IP68, 68° F (20° C), 3.3 ft (1 m) x 24 h					
<b>Withstands Exposure To</b>	Mineral oil, petroleum, salt water, vegetable oil; 90% humidity at 194° F (90° C)					
<b>Flame resistance</b>	UL 94 HB		UL 94 V-0		UL 94 HB	
<b>Vibration</b>	IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]					
<b>Shock</b>	IEC 60068-2-27:2008 [40 g, 18 ms, 6 axis, 2000 times]					
<b>Axial / Radial Force</b>	800 N / 500 N, 10 sec					
<b>Impact</b>	IEC 62262-IK07					
<b>Drop Test</b>	100 x 5.9 ft (1.8 m)					
<b>THERMAL</b>						
<b>Storage</b>	-40° to +194° F (-40° to +90° C), 1000 h					
<b>Operating</b>	-40° to +185° F (-40° to +85° C)		-40° to +176° F (-40° to +80° C)		-13° to +185° F (-25° to +85° C)	-13° to +158° F (-25° to +70° C)
<b>Shock/Fatigue</b>	-22° to +194° F (-30° to +90° C), 50 x 10 min with 30 sec transition					
<b>Peak</b>	212° F (100° C), 100 h					
<b>OTHER</b>						
<b>Standards</b>	ISO 15693, ISO 18000-3, NFC Type 5			ISO/IEC 14443A, NFC Forum Tag Type 4		ISO/IEC 14443A, NFC Forum Tag Type 2
<b>Certifications</b>				ATEX, IECEx, UKEX		
<b>Options</b>	Alternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number					
<b>Box Size</b>	800 pcs.					
<b>Warranty</b>	2 Years					



I M1 Ex ia I Ma  
 II 1 G Ex ia IIC T6 Ga  
 II 1 D Ex ia IIIC T85°C Da  
 -60°C ≤ Tamb ≤ +75°C



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