# Poly Tag®

### Low and high frequency discshaped 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® 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)



Base Model Number   601131-010   629131-012   629131-014   629131-014-EX   645131-101   649131-010		Poly Tag®					
Part		0	0	0	(0)	0001371	0
Operating Frequency	Base Model Number	601131-010	629131-012	629131-014	629131-014-EX	6H5131-101	6H9131-010
Memory   64 bit read-only   2560 bit user memory   8 kB   888 Bytes user memory   8 kB   8 kB kB   8 kB kB   8 kB kB kB   8 kB kB kB   8 kB kB kB kB   8 kB		ELECTRONIC					
Memory	Operating Frequency	125 kHz 13.56 MHz					
Anti-Collision   No   Yes   No   No   Proximity   No   No   No   No   No   No   No   N	Chip Type	Unique	ICODE SLIX2			HID Trusted Tag	NTAG 216
Proximity (NFC Tap)	Memory	64 bit read-only	2560 bit user memory			8 KB	
PHYSICAL	Anti-Collision	No	Yes				
Dimensions   Di.3.4 x 0.31 in (Ø 34 x 8 mm)	Reading Distance	Dependent upon reader, environment and application Proximity (NFC Tap)					
Mounting Method   Screw-on   Fixation Hole Size   Ø 0.22 in (5.6 mm)   Plastic, wood, glass, metal   PA6 - high impact - glass fiber reinforced   Color   Black   Yellow   Black   Péd-high impact - glass fiber reinforced   PA6 - high impact - glass fiber reinforced   PA6 - glass fiber reinforced		PHYSICAL					
Fixation Hole Size	Dimensions	Ø 1.34 x 0.31 in (Ø 34 x 8 mm)					
### Affixes To   Plastic, wood, glass, metal   PA6 - high impact - glass fiber reinforced   PA6 - high impact	Mounting Method	Screw-on					
Housing Material   PA6 - high impact - glass fiber reinforced   Color   Black   Yellow   Black   Weight   2.7 oz (7.8 g)	Fixation Hole Size	Ø 0.22 in (5.6 mm)					
Color   Black   Yellow   Black   Weight   2.7 oz (7.8 g)	Affixes To	Plastic, wood, glass, metal					
Weight   2.7 oz (7.8 g)   CHEMICAL AND MECHANICAL	Housing Material	PA6 - high impact - glass fiber reinforced					
CHEMICAL AND MECHANICAL           Water         IP69K, IP68, 68° F (20° C), 3.3 ft (1 m) x 24 h           Withstands Exposure To         Mineral oil, petroleum, salt water, vegetable oil; 90% humidity at 194° F (90° C)           Flame resistance         UL 94 HB         UL 94 V-0         UL 94 HB           With a standards         UL 94 V-0         UL 94 HB           WIL 94 V-0         UL 94 HB           UL 94 V-0         UL 94 HB         UL 94 V-0         UL 94 V-0         UL 94 V-0         UL 94 V-0         UL 94 V-0 <th>Color</th> <th colspan="4"></th> <th colspan="2">Black</th>	Color					Black	
Water         IP69K, IP68, 68° F (20° C), 3.3 ft (1 m) x 24 h           Withstands Exposure To         Mineral oil, petroleum, salt water, vegetable oil; 90% humidity at 194° F (90° C)           Flame resistance         UL 94 HB         UL 94 V-0         UL 94 HB           Vibration         IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]         UL 94 V-0         UL 94 HB           Shock           IEC 68.2.29 [40 g, 18 ms, 6 axis, 2000 times]           Axial / Radial Force         800 N / 500 N, 10 sec           Impact         IEC 62262-IK07           Drop Test         100 x 5.9 ft (1.8 m)           THERMAL           Storage         40° to +194° F (-40° to +90° C), 1000 h           Operating         40° to +185° F (-40° to +90° C), 1000 h           Shock/Fatigue         -22° to +194° F (-30° to +90° C), 50 x 10 min with 30 sec transition           Peak         212° F (100° C), 100 h           OTHER         ISO/IEC 14443A, NFC Forum Tag Type 4         NFC Forum Tag Type 4         Type 4         Type 2           Certifications         Atternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number           Box Size         800 pcs.	Weight	2.7 oz (7.8 g)					
Withstands Exposure To         Mineral oil, petroleum, salt water, vegetable oil; 90% humidity at 194° F (90° C)           Flame resistance         UL 94 HB         UL 94 V-0         UL 94 HB           Vibration         IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]         UL 94 V-0         UL 94 HB           Shock         IEC 68.2.2 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]           Axial / Radial Force         800 N / 500 N, 10 sec           Impact         IEC 62262-IK07           Drop Test         100 x 5.9 ft (1.8 m)           THERMAL           Storage         -40° to +185° F (-40° to +90° C), 1000 h           -40 *to +185° F (-40° to +85° C)         -13° to +185° F (-25° to +35° C)         -13° to +158° F (-25° to +70° C)           Shock/Fatigue         -22° to +194° F (-30° to +90° C), 50 x 10 min with 30 sec transition           Peak         OTHER           ISO/IEC 14443A, NFC Forum Tag Type 4         ISO/IEC 14443A, NFC Forum Tag Type 4         Type 4         ISO/IEC 14443A, NFC Forum Tag Type 4         ATEX, IECEx, UKEX           Options         Alternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number           Box Size		CHEMICAL AND MECHANICAL					
Flame resistance	Water						
Vibration   IEC 68.2.6 [10 g, 10 to 2000 Hz, 3 axis, 2.5 h]   Shock   IEC 68.2.29 [40 g, 18 ms, 6 axis, 2000 times]							
Shock   IEC 68.2.29 [40 g, 18 ms, 6 axis, 2000 times]						UL 94 HB	
Axial / Radial Force   800 N / 500 N, 10 sec							
Impact   IEC 62262-IK07   100 x 5.9 ft (1.8 m)     THERMAL     Storage   -40° to +194° F (-40° to +90° C), 1000 h     -40° to +176° F   (-40° to +85° C)   (-25° to +85° C)   (-25° to +85° C)   (-25° to +70° C)     Shock/Fatigue   -22° to +194° F (-30° to +90° C), 50 x 10 min with 30 sec transition     Storage   Storage   ISO/IEC 14443A, NFC Forum Tag   Type 4   Type 2     Storage							
Drop Test   100 x 5.9 ft (1.8 m)     THERMAL     Storage   -40° to +194° F (-40° to +90° C), 1000 h     -40° to +196° F (-40° to +85° C)     -40° to +176° F (-40° to +80° C)     -13° to +185° F (-25° to +85° C)     -13° to +185° F (-25° to +85° C)     (-25° to +85° C)     -25° to +70° C							
THERMAL   Storage   -40° to +194° F (-40° to +90° C), 1000 h     -40° to +176° F   -13° to +185° F   (-40° to +85° C)     -40° to +85° C)     -40° to +85° C)     -13° to +185° F   (-25° to +85° C)     -13° to +158° F   (-25° to +70° C)     -25° to +70° C)       -22° to +194° F (-30° to +90° C), 50 x 10 min with 30 sec transition							
Storage	Drop lest						
Operating         -40 °to +185° F (-40° to +85° C)         -40 °to +176° F (-40° to +80° C)         -13° to +185° F (-25° to +70° C)           Shock/Fatigue         -22° to +194° F (-30° to +90° C), 50 x 10 min with 30 sec transition           Peak         212° F (100° C), 100 h           OTHER         ISO/IEC 14443A, NFC Forum Tag Type 4         ISO/IEC 14443A, NFC Forum Tag Type 4           Certifications         ATEX, IECEx, UKEX           Options         Alternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number           Box Size         800 pcs.	04						
Caperating   Cap	Storage		+90° C), 1000 h		40 %- 1176% F	100 +- 11050 5	100 - 1100 5
Shock/Fatigue -22° to +194° F (-30° to +90° C), 50 x 10 min with 30 sec transition  Peak 212° F (100° C), 100 h  OTHER  Standards ISO 15693, ISO 18000-3, NFC Type 5 ISO/IEC 14443A, NFC Forum Tag Type 4 ISO/IEC 14443A, NFC Forum Tag Type 4 ISO/IEC 14443A, NFC Forum Tag Type 2  Certifications Alternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number Box Size 800 pcs.	Operating						
Peak 212° F (100° C), 100 h  OTHER  Standards  ISO 15693, ISO 18000-3, NFC Type 5  Certifications  ATEX, IECEx, UKEX  Options  Alternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number  Box Size 800 pcs.	Shock/Fatigue		+90° C), 50 x 10	min with 30 sec t		(	( 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
OTHER  Standards  ISO 15693, ISO 18000-3, NFC Type 5  ISO/IEC 14443A, NFC Forum Tag Type 4  NFC Forum Tag Type 4  Type 2  Certifications  Options  Alternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number  Box Size  800 pcs.							
Standards     ISO 15693, ISO 18000-3, NFC Type 5     NFC Forum Tag Type 4     NFC Forum Tag Type 2       Certifications     ATEX, IECEx, UKEX       Options     Alternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number       Box Size     800 pcs.							
Options Alternative chips e.g. MIFARE® Classic, MIFARE® DESFire®, custom logo or color, laser engraved serial number  Box Size 800 pcs.	Standards		ISO 15693, ISO	18000-3, NFC Ty	pe 5	NFC Forum Tag	NFC Forum Tag
Box Size 800 pcs.	Certifications				ATEX, IECEx, UKEX		
	Options	Alternative chips e.g. M	IFARE® Classic,	MIFARE® DESFir	e®, custom logo or co	lor, laser engraved se	erial number
Warranty 2 Years	Box Size	800 pcs.					
	Warranty	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







hidglobal.com

For more information, contact tagsales@hidglobal.com

North America: +1 512 776 9000 | Toll Free: 1 800 237 7769