

PRODUCT COMPARISON CHART

# Waste Management

waste management



Product Name	Bin Tag	Bin Tag HDX	Bin Tag HF	Bin Tag UHF	Plug Tag	InLine Ultra (Weld)	InLine Ultra Slim (Weld)	IN Tag 200/300/500	IN Tag 500 UHF	IN Tag 500 UHF (OM)		
<b>Application</b>	For integration into waste management collection bins during or after molding				Easy-mounting, non-removable tag for tracking containers for hazardous, recycling, medical and sensitive waste	Robust high performance, general purpose UHF transponder for metal and non metal outdoor use		Ruggedized for severe industrial environments, food compatible	Highly robust screw-on tag with anti collision support and on-metal option up to 140°			
<b>Frequency</b>	125 kHz	134.2 kHz	13.56 MHz	860-960 MHz (Worldwide)	131 kHz	134.2 kHz	860 - 960 MHz (Worldwide)	125 kHz	13.56 MHz	865 MHz (EU) / 915 MHz (US)		
<b>Size</b>	Ø30x15 mm				Ø9x19mm (Cap Ø15x19 mm)		97x27x15 mm (Ultra) 105x35x15 mm (Ultra weld)	97x27x9 mm (Ultra) 105x35x9 mm (Ultra weld)	Ø20 or 30x2.5 mm, Ø50x3 mm	Ø50x3.5 mm	Ø55x13 mm	
<b>Screw hole</b>	N/A		Ø5.5 mm	N/A	N/A		Ø5.2 mm or optional steel ring to weld	None (IN Tag 200) or Ø5.2mm		Ø5.3 mm		
<b>Standards / Protocol Support</b>	DIN30745	EN 14803, DIN 30745		ISO 15693, ISO 18000-3	EPC C1G2, ISO 18000-6C, DIN30745	N/A	EN 14803	ISO 18000-6C, EPC C1G2, ISO 17364, DIN 40050-9	N/A	ISO 15693, ISO 18000-3	ISO 18000-6C, EPC C1G2	
<b>Chip Type</b>	Unique	FDX-b BDE	HDX BDE	I-Code SLix	Higgs 3	Unique	FDX-b BDE	Monza 4QT	Hitag S, Unique	I-Code SLix	G2XM	
<b>Memory <sup>2</sup></b>	64 bit RO	128 bit RO	128 bit RO	1024 bit RW	96 bit EPC, 64 bit TID, 512 bit RW	64 bit RO	128 bit RO	96 bit TID, 128 bit EPC, 512 bit RW	64 bit RO, 256 bit RW, 2048 bit RW	1024 bit RW	240 bit EPC, 64 bit TID, 512 bit RW	
<b>Anti-collision</b>	N/A	N/A	Yes		N/A		Yes		Hitag S - Yes	Yes	Yes	
<b>Reading Distance <sup>1</sup></b>	N/A	N/A	N/A	Up to 6.5ft / 2m	N/A		Up to 26.2 ft (8 m)	Up to 16.4 ft (5 m)	N/A		Up to 9.8 ft / 3 m	
<b>Typical Use Environment</b>	Plastic				Plastic		Metal, plastic, wood, glass		Plastic, wood, glass		Plastic, wood	Metal, plastic
<b>Mounting Method</b>	Screw-in			N/A	Plug-in		Screw-on or weld		Embed, glue or screw-on		Screw-on	
<b>Operating Temperature <sup>1</sup></b>	-40 °C to +85 °C	-25 °C to +70 °C	-25°C to +85°C	-40 °C to +70 °C	-20 °C to +85 °C		-40°C to +80°C	-25°C to +85°C	-40°C to +85°C	-20 °C to +85 °C		
<b>Storage Temperature <sup>1</sup></b>	-40 °C to +90 °C	-40 °C to +85 °C	-40°C to +90°C	-40 °C to +70 °C	-20 °C to +85 °C		-40°C to +80°C	-40°C to +85°C		-40 °C to +90 °C		
<b>Peak Temperature <sup>1</sup></b>	N/A	N/A	N/A	N/A	N/A		Shock -40° to +85°	+140 °C (100h)		+140 °C (100h)		
<b>Housing Material</b>	Housing PA6, potting - PUR				PA6		PC-ABS		PPA		PPA	
<b>Chemical and Environmental Resistances <sup>1</sup></b>	Water, IP67 (1m, 1 h), salt mist, fuel B, petroleum, mineral and vegetable oils				Water, IP 68 (1m, 24 h)		Water, IP69K (100 bar at 80°C, 30 sek., 16 l/min), salt mist, petroleum, oils, humidity 70°/80%	Water, IP68 (1m, 24h), Salt mist, Fuel B, petroleum, mineral and vegetable oils, food compatible, flame resistant UL94 HB	Water, IP68 (1m, 24h), Salt mist, Fuel B, petroleum, mineral and vegetable oils, food compatible			
<b>Mechanical Resistances <sup>1</sup></b>	Vibration IEC 68.2.6, shock IEC 68.2.29, compression 1000N				Vibration IEC 68.2.6, shock IEC 68.2.29		Vibration IEC 68.2.6, shock IEC 68.2.29, Impact IEC 62262-1K09	Vibration IEC 68.2.6, shock IEC 68.2.29	Vibration IEC 68.2.6, shock IEC 68.2.29			
<b>Axial / Radial Force <sup>1</sup></b>	1000N (10 sec)				N/A		1000N	800N / 500N (10 sec)		800N / 500N (10 sec)		
<b>Warranty <sup>3</sup></b>	7 years				7 years		7 years	7 years		7 years		

<sup>1</sup> For further specification details, please see datasheets of the respective products. Read range is strongly dependent upon multiple parameters including reader, environment and application. HID Global tags are tested and proven to be at the top of their class.

<sup>2</sup> Unique (64 bit RO), Q5 (264 bit RW), Hitag S (32 bit RO, 256 bit RW, 2048 bit RW), I-Code SLix (1024 bit EEPROM, incl. 896 bit user memory)

<sup>3</sup> Warranty: Storage condition must not exceed specification for temperature, chemical, mechanical, electrical condition, storage from -25°C to + 50°C, humidity 20% to 80%

## Finding what you need

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# Animal Identification



Product Name	Glass Tag Ultra							E-Unit Rod	E-Unit Disc	
Application	Glass tube with up to 35% better read range than standard tube of same size							Small size with high chemical resistance provides an ideal solution for injection and long term immersion		
Size	Ø2x9 mm <sup>3</sup> , Ø2x12.5 mm <sup>3</sup>	1.4x8 mm <sup>3</sup>	Ø2x12 mm <sup>3</sup>	Ø2x12 mm	Ø3x15 mm	Ø3.85x22.5 mm	Ø4x22 mm	Ø4x34 mm	Ø1x7 mm, Ø1.8x15 mm	Ø 20, 24, 27, 28 mm or custom
Frequency	134.2 kHz			125 kHz	134.2 kHz			134.2 kHz		
Standards / Protocol Support	ISO 11784, ISO 11785			N/A	ISO 11784, ISO 11785			ISO 11784, ISO 11785		
Chip Type	EM4305	Hitag S, EM4305	Unique	Hitag S	HDX	Hitag S, EM4305		Hitag S, EM4305		
Memory <sup>1</sup>	512 bit RW	256 bit RW, 512 bit RW, 2048 bit RW	64 bit RO	256 bit RW	128 bit OTP	256 bit RW, 512 bit RW		256 bit RW, 512 bit RW, 2048 bit RW		
Tagging Method	Subcutaneous		External housing e.g. pigeon ring	Subcutaneous, primarily horses	External housing		External housing e.g. ceramic bolus (stomach)	Ear tag or customized implant	Ear tag	
Operating Temperature <sup>2</sup>	-25 °C to +85 °C							-25 °C to + 60 °C		
Storage Temperature <sup>2</sup>	-40 °C to +90 °C							-40 °C to + 60 °C		
Peak Temperature <sup>2</sup>	+120 °C (100h) +140 °C (10h)			+120 °C (100h)	+120 °C (100h) +140 °C (10h)			N/A		
Housing Material	BIO Glass							N/A		
Chemical and Environmental Resistances <sup>2</sup>	Water, IP68 (1m, 24h), saltwater, alcohol, HCL, fuel, ammonia							Depends on finished product		
Mechanical Resistances <sup>2</sup>	Vibration IEC 68.2.6, shock IEC 68.2.29							N/A		
Parylene Coating Available (better tissue adhesion)	Yes			Yes			N/A			
Warranty <sup>4</sup>	2 years							2 years		

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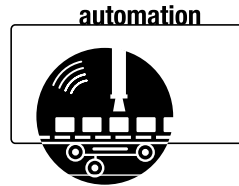
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1 For further specification details, please see datasheets of the respective products.  
 2 Hitag S (256 bit RW), EM4305 (512 bit RW)  
 3 Optionally available with on-demand custom programming, see <http://www.hidglobal.com/main/services/on-demand/pet-programming/>

4 Warranty: Storage condition must not exceed specification for temperature, chemical, mechanical, electrical condition, storage from -25°C to + 50°C, humidity 20% to 80%  
 For unpackaged tags: Warranty would depend on finished product and can only be given as long as raw product is not processed / packaged

PRODUCT COMPARISON CHART

# Automation & Manufacturing



Product Name	IN Tag 200/300/500			IN Tag 500 UHF	IN Tag 500 UHF (OM)	Logi Tag 121 OM	Poly Tag 340			Volcano Tag 231	Iron Tag 176	Brick Tag
Application	Ruggedized for severe industrial environments, food compatible			Highly robust screw-on tag with anti collision support and on-metal option up to 140°		Micro-sized and thin, high performance HF disc tag with on-metal option	Durable tag for outdoor use requiring extreme impact resistance			Tag to withstand high temperatures	On-metal, high temperature UHF Tag	Tag for car immobilizers and other special applications where small size is required
Frequency	125 kHz	13.56 MHz		865 MHz (EU) / 915 MHz (US)		13.56 MHz	125 kHz	13.56 MHz		125 kHz	865 MHz (EU) / 915 MHz (US)	130 kHz
Size	Ø20 or 30x2.5 mm, Ø50x3 mm		Ø20x or 30x2.8 mm, Ø50x3.3 mm	Ø50x3.5 mm	Ø55x13 mm	Ø12.4x2.15 mm	Ø34x8 mm			Ø26x4 mm	53x23x7 mm	12.1 x 6.1 x 3.0 mm
Screw Hole	None (IN Tag 200) or Ø5.2mm			Ø5.3 mm		N/A	Ø5.4 mm			Ø4.5 mm	N/A	N/A
Standards / Protocol Support <sup>1</sup>	ISO 15693, ISO 18000-3		ISO 15693	ISO 18000-6C, EPC C1G2		ISO 15693, ISO 18000-3, ATEX	ISO 15693, ISO 18000-3			N/A	EPC C1G2, ISO 18000-6C	N/A
Chip Type	Hitag S, Unique	I-Code SLiX	F-Mem	G2XM		Vigo	Unique	Hitag S	I-Code SLiX	Unique, Q5, Hitag S	Higgs 3	Nova
Memory <sup>3</sup>	64 bit RO, 256 bit RW, 2048 bit RW	1024 bit RW	16 Kbit RW	240 bit EPC, 64 bit TID, 512 bit RW		1024 bit RW	64 bit RO	256 bit RW, 2048 bit RW	1024 bit RW	64 bit RO, 256 bit RW, 264 bit RW, 2048 bit RW	64 bit TID, 96 bit EPC, 512 bit RW	160 bit RW
Anti-collision	Hitag S - Yes	Yes	Yes	Yes		Yes	Yes			Hitag S - Yes	Yes	N/A
Reading Distance <sup>1</sup>	N/A		N/A	Up to 9.8 ft / 3 m		N/A	N/A			N/A	Up to 13.1 ft (4 m)	N/A
Typical Use Environment	Plastic, wood, glass			Plastic, wood	Metal, plastic, wood	Metal, Plastic	Plastic, wood			Any to withstand equal temperatures	Metal	Car key or custom enclosure
Mounting Method	Embed, glue or screw-on			Screw-on		Embed, glue	Screw-on			Screw-on	Glue or sticker	Enclose
Operating Temperature <sup>1</sup>	-25°C to +85°C	-40°C to +85°C		N/A		-40°C to +85°C	-40 °C to +85 °C	-25 °C to +85°C	-40°C to +85°C	-25 °C to +85 °C	-40°C to +85°C	-40 °C to +90 °C
Storage Temperature <sup>1</sup>	-40 °C to +90 °C			-40 °C to +90 °C		-40°C to +90°C	-40 °C to +90 °C	-40 °C to +90°C		-25 °C to +140 °C	-40°C to +90°C	-40 °C to +120 °C
Peak Temperature <sup>1</sup>	+140 °C (100h)			+140 °C (100h)		+90 °C (100h)	+100 °C (100h)	+130 °C (100h)		+160 °C (100h) +200 °C (10min)	+180°C (400h)	
Housing Material	PPA			PPA		PPS	PA6			PPA	PPA	Epoxy
Chemical and Environmental Resistances <sup>1</sup>	Water, IP68 (1m, 24h), salt mist, fuel B, petroleum, mineral and vegetable oils, food compatible, flame resistant UL94 HB			Water, IP68 (1m, 24h), salt mist, fuel B, petroleum, mineral and vegetable oils, food compatible, flame resistant UL94 HB		Water, IP68 (1m, 24h), Salt mist, Fuel B, Petroleum, Mineral and vegetable oils, Food compatible	Water, water with salt, unleaded gasoline, petroleum, mineral and vegetable oils, humidity 90% HR @ 90 °C			Water, IP68 (1m, 24h)	Water, IP69K (100 bar at 80°C, 30 sek., 16 l/min), salt mist, fuel B, mineral and vegetable oils, petroleum, food compatible, flame (UL94HB) and UV resistant	Water IP68, saltwater, gasoline, oil, HCL, bleach, formic acid, caustic soda
Mechanical Resistances <sup>1</sup>	Vibration IEC 68.2.6, shock IEC 68.2.29			Vibration IEC 68.2.6, shock IEC 68.2.29		Vibration IEC 68.2.6, Shock IEC 68.2.29	Vibration IEC 68.2.6, shock IEC 68.2.29			Vibration IEC 68.2.6, shock IEC 68.2.29	Vibration IEC 68.2.6, shock IEC 68.2.29	Vibration IEC 68.2.6, Sshock IEC 68.2.29
Axial / Radial Force <sup>1</sup>	800N / 500N (10 sec)			800N / 500N (10 sec)		800N / 500N (10 sec)	800N / 500N (10 sec)			N/A	1000N	500N
Warranty <sup>4</sup>	7 years			7 years		2 years	2 years			2 years		

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<sup>1</sup> For further specification details, please see datasheets of the respective products. Read range is strongly dependent upon multiple parameters including reader, environment and application. HID Global tags are tested and proven to be at the top of their class.  
<sup>2</sup> ISO 11784, ISO 11785 for Hitag S and EM4305 chip only

<sup>3</sup> Unique (64 bit RO), Q5 (264 bit RW), Hitag S (32 bit RO, 256 bit RW, 2048 bit RW), Titan (1024 bit RW), EM4305 (512 bit RW) I-Code SLiX-L (512 bit EEPROM, incl. 256 bit user memory), I-Code SLiX (1024 bit EEPROM, incl. 896 bit user memory), I-Code SLiX-S (2048 bit EEPROM, incl. 1280 bit user memory), Vigo (1024 bit RW)

<sup>4</sup> Warranty: Storage condition must not exceed specification for temperature, chemical, mechanical, electrical condition, storage from -25°C to +50°C, humidity 20% to 80%

PRODUCT COMPARISON CHART

# Returnable Transport Items



Product Name	SlimFlex Square	InLine Tag Plate	On Metal RTI Transponder	InLine Ultra Curve	Beer Keg Tag	Nail Tag	IN Tag 200/300/500		IN Tag 500 UHF	IN Tag 500 UHF (OM)
<b>Application</b>	Flexible, UHF tag for pallet tagging. May be laser engraved with human readable information or barcode	Thin, rigid UHF tag for container tagging with room for inscriptions via Laser engraving or labels	Robust high performance transponder for curved metallic returnable transport items like beer kegs, gas cylinders etc.		Tag especially designed for kegs with optional metallic ring	Glass-fiber nail tag for easy insertion into wood for use in pallet identification	Ruggedized for severe industrial environments, food compatible		Highly robust screw-on tag with anti collision support and on-metal option up to 140°	
<b>Frequency</b>	860-960 MHz (Worldwide)	865 MHz EU (on-metal), 860 - 960MHz (non-metal)	860-960 MHz (Worldwide)		125 kHz	125 kHz	125 kHz	13.56 MHz	865 MHz (EU) / 915 MHz (US)	
<b>Size</b>	85x115x3 mm	120x68x3.7 mm	88x37x14.5 mm (including metal ring)		Ø33.6x12.9 mm, Ø43.6x12.9 mm (including metal ring)	Ø4x35.5 mm	Ø20 or 30x2.5 mm, Ø50x3 mm		Ø50x3.5 mm	Ø55x13 mm
<b>Screw hole</b>	Ø3 mm	Ø4.2 mm	Curve radius: 450 mm		N/A	N/A	None (IN Tag 200) or Ø5.2mm		Ø5.3 mm	
<b>Standards / Protocol Support</b>	ISO 18000-6C, EPC C1G2, ISO 17364		ISO 18000-6C, EPC C1G2, ISO 17364, DIN 40050-9		ISO 17364			ISO 15693, ISO 18000-3, ISO 17364	ISO 18000-6C, EPC C1G2, ISO 17364	
<b>Chip type</b>	Higgs 3	Monza3	Monza3	Monza 4QT	Hitag S	Unique	Hitag S, Unique	I-Code SLix	G2XM	
<b>Memory<sup>3</sup></b>	64 bit TID, 96 bit EPC, 512 bit RW	64 bit TID, 96 bit EPC	96 bit EPC	96 bit TID, 128 bit EPC, 512 bit RW	256 bit RW, 2048 bit RW	64 bit RO	64 bit RO, 256 bit RW, 2048 bit RW	1024 bit RW	240 bit EPC, 64 bit TID, 512 bit RW	
<b>Anti-collision</b>	Yes		Yes		Yes	N/A	Hitag S - Yes	Yes	Yes	
<b>Reading distance<sup>2</sup></b>	Up to 26.2 ft (8 m)	Up to 19.7 ft (6 m) on-metal, up to 24.6 ft (7.5 m) off-metal	Up to 22.9 ft (7 m)	up to 26.2 ft (8 m)	N/A	N/A	N/A		Up to 9.8 ft / 3 m	
<b>Typical use environment</b>	Plastic, Wood	Container tagging	Metal kegs, drums etc.		Kegs e.g. beer	Wood	Plastic, wood, glass		Plastic, wood	Metal, plastic, wood
<b>Mounting method</b>	Glue or Screw-on	screw	Weld on metal, glue		Weld on metal, glue	Nail	Embed, glue or screw-on		Screw-on	
<b>Operating Temperature<sup>1</sup></b>	-40°C to +70°C	-40°C to +85°C	-30 °C to +70 °C	-40°C to +80°C	-25 °C to +85 °C	-25 °C to +85 °C	-25°C to +85°C	-40°C to +85°C	-20 °C to +85 °C	
<b>Storage Temperature<sup>1</sup></b>	-40°C to +70°C	-40°C to +85°C	-40 °C to +70 °C	-40°C to +80°C	-40 °C to +85 °C	-25 °C to +85 °C	-40 °C to +90 °C		-40 °C to +90 °C	
<b>Peak Temperature<sup>1</sup></b>	Shock -40 to +70°	Shock -40° to +85°	N/A	Shock -40° to +85°	N/A	N/A	+140 °C (100h)		+140 °C (100h)	
<b>Housing Material</b>	TPE	ABS/PC	ABS / Steel	PC-ABS / Steel	ABS / Steel	PPA	PPA		PPA	
<b>Chemical and Environmental Resistances<sup>1</sup></b>	Water, IP68 (1m, 24h), salt mist, petroleum, mineral and vegetable oils, UV resistant, food compatible	Water, IP69K (100 bar at 80°C, 30 sek., 16 l/min), Salt Mist, Petroleum, Oils,	Water, IP67 (1m, 1h), salt mist, petroleum, oils	Water, IP69K (1m, 24h), salt mist, petroleum, Oils, humidity 70%/80%	Water, IP67 (1m, 1h)	Water, IP67 (1m, 1h)	Water, IP68 (1m, 24h), salt mist, fuel B, petroleum, mineral and vegetable oils, food compatible, flame resistant UL94 HB		Water, IP68 (1m, 24h), salt mist, fuel B, petroleum, mineral and vegetable oils, food compatible, flame resistant UL94 HB	
<b>Mechanical Resistances<sup>1</sup></b>	Vibration IEC 68.2.6, Shock IEC 68.2.29, Impact IEC 62262-IK06		Vibration IEC 68.2.6, shock IEC 68.2.29, impact IEC 62262-IK08		N/A	N/A	Vibration IEC 68.2.6, shock IEC 68.2.29		Vibration IEC 68.2.6, shock IEC 68.2.29	
<b>Axial / Radial Force<sup>1</sup></b>	1000N	500N	1000N		N/A	N/A	800N / 500N (10 sec)		800N / 500N (10 sec)	
<b>Warranty<sup>4</sup></b>	2 Years		2 years		2 years	2 years	7 years		7 years	

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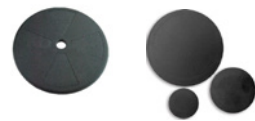
1 For further specification details, please see datasheets of the respective products.  
2 Read range is strongly dependent upon multiple parameters including reader, environment and application. HID Global tags are tested and proven to be at the top of their class.

3 Unique (64 bit RO), Q5 (264 bit RW), Hitag S (32 bit RO, 256 bit RW, 2048 bit RW), EM4305 (512 bit RW), I-Code SLix-L (512 bit EEPROM, incl. 256 bit user memory), I-Code SLix (1024 bit EEPROM, incl. 896 bit user memory), I-Code SLix-S (2048 bit EEPROM, incl. 1280 bit user memory)

4 Warranty: Storage condition must not exceed specification for temperature, chemical, mechanical, electrical condition, storage from -25°C to + 50°C, humidity 20% to 80%

PRODUCT COMPARISON CHART

Medical and Health



Product Name	Epoxy Disc			Logi Tag 141	Logi Tag 161	SlimFlex Laundry	Piccolino Tag	
Application	Robust, general purpose flat disc to glue or screw-on			Mechanical, chemical and temperature resistant tags for harsh environments		Flexible but robust small UHF Tag	Tiny tag for custom housing with high memory capacity and fast anti-collision	
Frequency	125 kHz			13.56 MHz		860-960 MHz (Worldwide)	13.56 MHz	
Size	Ø20, 30 or 50x1 mm	Ø30x1.5 mm	Ø30x1 mm	Ø14x2.9mm	Ø16x2.9mm	55x12x2.3 mm	Ø7.5x1 mm, Ø9.5x1 mm	Ø9.5x1 mm
Screw Hole	None, Ø3.2 or Ø4.3 mm	Ø3.2 mm	Ø12 mm	N/A		N/A	N/A	
Standards / Protocol Support	N/A			ISO 15693, ISO 18000-3, ATEX		EPC C1G2, ISO 18000-6C	ISO 15693, ISO 18000-3	ISO 15693
Chip Type	Hitag S	Unique	Q5	I-Code SLix-L	I-Code SLix-L, SLix	G2IM	I-Code SLix, Vigo	F-Mem
Memory <sup>1</sup>	2048 bit RW	64 bit RO	264 bit RW	512 bit RW	512 bit RW, 1024 bit RW	96 bit TID, 256 bit EPC, 512 bit RW	1024 bit RW	16 Kbit RW
Anti-collision	Yes	N/A		Yes		Yes	Yes	
Typical Use Environment	Plastic			Cloth		Cloth, plastic	Depends on finished product	
Reading Distance*	N/A			up to 12.6" (32 cm)	up to 13.4" (34 cm)	up to 8.2 ft (2.5 m)	N/A	
Mounting Method	Screw-on, glue or encapsulate			Embed		embed, glue	Depends on finished product	
Operating Temperature <sup>2</sup>	-25 °C to +85 °C			-40°C to +85°C		-40°C to +85°C	-40°C to +85°C	-20°C to +85°C
Storage Temperature <sup>2</sup>	-40 °C to +85 °C			-40°C to +85°C		-40°C to +85°C	-40 °C to +85 °C	
Peak Temperature <sup>2</sup>	+140 °C (1x24h)	+120 °C (1x24h)		+120 °C (100h), Heat patch +220 °C (30s)		+120 °C (100h), Heat patch +220°C (30s)	N/A	
Housing Material	Epoxy			PPS		TPE	Epoxy	
Chemical and Environmental Resistances <sup>2</sup>	Water, IP67 (1m, 1h), mineral oils, ethanol, petrol, fuel			Water, IP68 (1m, 24h), HCL, bleach, perchlorethylen		Water IP68 (1m, 24h), mineral oil, petroleum, salt mist, vegetable oil, HCL (10%), Bleach (5%); UV light; food compatible	Depends on finished product	
Mechanical Resistances <sup>2</sup>	N/A			Vibration IEC 68.2.6, shock IEC 68.2.29, 100 drops 1.8 m		Vibration IEC 68.2.6, Shock IEC 68.2.29, 100 drops 1.8 m	N/A	
Axial / Radial Force <sup>2</sup>	N/A			1000N / 1000N (10 sec)		1000N / 1000N (10 sec)	N/A	
Pressure <sup>2</sup>	N/A			70 bars (3 min, isostatic)		70 bars (10 sec.)	N/A	
Warranty <sup>3</sup>	2 years			2 years		2 years	2 years	

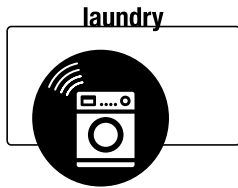
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1 Unique (64 bit RO), Q5 (264 bit RW), Hitag S (32 bit RO, 256 bit RW, 2048 bit RW), EM4305 (512 bit RW), I-Code SLix-L (512 bit EEPROM, incl. 256 bit user memory), I-Code SLix (1024 bit EEPROM, incl. 896 bit user memory), I-Code SLix-S (2048 bit EEPROM, incl. 1280 bit user memory), Vigo (1024 bit RW)  
 2 For further specification details, please see datasheets of the respective product.  
 3 Warranty: Storage condition must not exceed specification for temperature, chemical, mechanical, electrical condition, storage from -25°C to + 50°C, humidity 20% to 80%

PRODUCT COMPARISON CHART



Product Name	SlimFlex™ Laundry	Logi Tag 121	Logi Tag 141	Logi Tag 161	Logi Button Tag 162	Logi Tag 120	Logi Tag 160	
Application	Flexible but robust small UHF tag	Mechanical, chemical and temperature resistant tags for harsh environments such as laundries				Mechanical, chemical and temperature resistant tags for harsh environments such as laundries		
Frequency	860-960 MHz	13.56 MHz				125 kHz		
Size	55x12x2.3 mm	Ø12.4x2.0 mm	Ø14x2.9 mm	Ø16x3 mm	Ø16x2.5 mm	Ø12.4x2 mm	Ø16x3 mm	
Standards / Protocol Support	EPC C1G2, ISO 18000-6C	ISO 15693, ISO 18000-3, ATEX				ATEX		
Chip Type <sup>1</sup>	G2IM	Vigo	I-Code SLix-L	I-Code SLix-L, I-Code SLix	I-Code SLix-L	Hitag S, Q5, Unique	Unique	
Memory	96 bit TID, 256 bit EPC, 512 bit RW	1024 bit RW	512 bit RW	512 bit RW, 1024 bit RW	512 bit RW	64 Bit RO, 256 bit RW, 264 bit RW, 2048 bit RW	64 bit RO	
Anti-collision	Yes	Yes				Hitag S - Yes	N/A	
Reading Distance <sup>2</sup>	up to 8.2 ft (2.5 m)	N/A	Up to 12.6" (32 cm)	Up to 13.4" (34 cm)		N/A		
Mounting Method	Embed, glue	Embed in cloth			Sew-on	Embed in cloth		
Operating Temperature <sup>3</sup>	-40 °C to +85 °C	-40 °C to +85 °C				-25°C to +85°C	-40°C to +85°C	
Storage Temperature <sup>3</sup>	-40 °C to +85 °C	-40 °C to +85 °C				-40 °C to +130 °C	-40 °C to +120 °C	
Peak Temperature <sup>3</sup>	+120 °C (100h), heat patch +220 °C (30s)	N/A	+120 °C (100h), Heat patch +220°C (30s)		+120 °C (100h)	+160 °C (35h)		
Spin Dryer / Tunnel Finisher <sup>3</sup>	N/A	N/A	+175 °C (100 x 10 min)			N/A	+175 °C (100 x 10 min)	
Thermal Shock <sup>3</sup>	+20°C to +160°C (200 x 5 min)	-40°C to +90°C (100 x 5 min)	20°C to +160°C (100 x 5 min)				-20°C to +160°C (100 x 5 min)	
Housing Material	TPE	PPS				PPS with epoxy potting	Epoxy	
Chemical and Environmental Resistances <sup>3</sup>	Water IP68 (1m, 24h), mineral oil, petroleum, salt mist, vegetable oil, HCL (10%), bleach (5%); UV light; food compatible	Water IP68 (1m, 24h), Mineral oil, petroleum, salt mist, vegetable oil, food compatible	Water, IP68 (1m, 24h), Industrial laundry detergent pH 10-11, Neutralizing agent, Hydrogen peroxide 5%, Perchlorethylen			Water IP68 (1m, 24h), saltwater, gasoline, oil, HCL, bleach, formic acid, caustic soda		
Mechanical Resistances <sup>3</sup>	Vibration IEC 68.2.6, Shock IEC 68.2.29, 100 drops 1.8 m	Vibration IEC 68.2.6, Shock IEC 68.2.29, 100 drops 1.8 m				Vibration IEC 68.2.6, shock IEC 68.2.29		
Axial / Radial Force <sup>3</sup>	1000N / 1000N (10 sec)	800N / 500N (10 sec)	1000N / 1000N (10 sec)		N/A	800N / 500N (10 sec)	1000N / 1000N (10 sec)	
Pressure <sup>3</sup>	70 bars (10 sec.)	70 bars (10 sec., isostatic)				70 bars (3 min, isostatic)		
Warranty <sup>4</sup>	2 years	2 years				2 years		

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2014-01-31-ldt-laundry-ct-en

1 Unique (64 bit RO), Q5 (264 bit RW), Hitag S (256 bit RW, 2048 bit RW), I-Code SLix-L (512 bit EEPROM, incl. 256 bit user memory), I-Code SLix (1024 bit EEPROM, incl. 896 bit user memory), I-Code SLix-S (2048 bit EEPROM, incl. 1280 bit user memory), Vigo (1024 bit RW)  
2 Read range is strongly dependent upon multiple parameters including reader, environment and application. HID Global tags are tested and proven to be at the top of their class.

3 For further specification details, please see datasheets of the respective products. Unique, and ICode SLix have a minimum operating temperature of -40°C, previous chip generations had -25°C.

4 Warranty: Storage condition must not exceed specification for temperature, chemical, mechanical, electrical condition, storage from -25°C to +50°C, humidity 20% to 80%

# Asset Tracking & Logistics



Product Name	InLine Ultra (Weld)	InLine Ultra Slim (Weld)	SlimFlex Tag Standard	Seal Tag	World Tag		Jewelry Tag	Tamper Evident Jewelry Tag	Epoxy Tag (key fob)	
<b>Application</b>	Robust high performance, general purpose UHF transponder for metal and non metal outdoor use		Flexible, ruggedized UHF tag for industrial / outdoor environments	SlimFlex tag with built-in tamper evident cable tie	Best general use price/performance ratio for indoor asset identification		Tag to track and inventory high-value merchandise like jewelry		Printable, engravable tag with high mechanical and thermal stability, suits most standard applications for access control or time and attendance	
<b>Frequency</b>	860 - 960 MHz (Worldwide)		860-960 MHz (Worldwide)		125 kHz		13.56 MHz		125 kHz	13.56 Mhz
<b>Size</b>	97x27x15 mm (Ultra) 105x35x15 mm (Ultra weld)	97x27x9 mm (Ultra) 105x35x9 mm (Ultra weld)	77x25x3 mm (screw) 83x25x3 mm (slot) 87x25x3 mm (cable tie hole)	83x25x3 mm	Ø20 or 30x2.1 mm	Ø50x2.1 mm	22x16.5x3.3 mm	Ø16.5x22.75x2.5 mm	45x30x1.6 mm	
<b>Screw Hole</b>	Ø5.2 mm or optional steel ring to weld		Ø3 mm (screw) 2x6 mm (slot) Ø7 mm (cable tie hole)	Cable Tie: 360x6.4x2.15 mm, black	none or Ø3.2 mm	Ø4.2 mm	85 mm (Nylon or cotton string optional)	60 mm wire length	Ø5 mm	
<b>Standards / Protocol Support</b>	ISO 18000-6C, EPC C1G2, ISO 17364, DIN 40050-9		EPC C1G2, ISO 18000-6C		N/A		ISO 15693, ISO 18000-3		N/A	ISO 15693, ISO 18000-3
<b>Chip Type</b>	Monza 4QT		Higgs 3		Hitag S, Q5, Titan, Unique		I-code SLIx-L		Hitag S, Unique	I-code SLIx
<b>Memory<sup>1</sup></b>	96 bit TID, 128 bit EPC, 512 bit RW		64 bit TID, 96 bit EPC, 512 bit RW		64 bit RO, 256 bit RW, 264 bit RW, 1024 bit RW, 2048 bit RW		512 bit RW		64 bit RO, 256 bit RW	1024 bit RW
<b>Anti-collision</b>	Yes		Yes		Hitag S - Yes		Yes		Hitag S - Yes	Yes
<b>Reading Distance<sup>2</sup></b>	up to 26.2 ft (8 m)	up to 16.4 ft (5 m)	Up to 26.3 ft (8 m)		N/A		N/A		N/A	
<b>Typical Use Environment</b>	Metal, Plastic, Wood, Glass		Plastic, dry wood		Plastic, glass		Valuable assets in stores e.g. jewelry		Access control & time attendance	
<b>Mounting Method</b>	Screw-on or Weld		Glue or screw-on	Integrated cable tie	Glue or screw-on	Screw-on	Attach with string		Keyring, chain	
<b>Operating Temperature<sup>3</sup></b>	-40°C to +80°C		-40°C to +70°C		-25 °C to +70 °C		0 °C to +60 °C		-25 °C to +85 °C	
<b>Storage Temperature<sup>3</sup></b>	-40°C to +80°C		-40°C to +70°C		-40 °C to +90 °C		-20 °C to +85 °C		-40 °C to +95 °C	
<b>Peak Temperature<sup>3</sup></b>	Shock -40° to +85°		Shock -40°C to +70°C		+130 °C (100h)	+100 °C (100h)	N/A		+140 °C (1x24h)	
<b>Housing Material</b>	PC-ABS		TPE		PC		PC		Epoxy	
<b>Chemical and Environmental Resistances<sup>3</sup></b>	Water, IP69K (100 bar at 80°C, 30 sek., 16 l/min), salt mist, petroleum, oils, humidity 70%/80%		Water, IP68 (1m, 24h), salt mist, petroleum, mineral and vegetable oils		N/A		N/A		Water, IP67 (1m, 1h), mineral oil, ethanol, petrol, fuel	
<b>Mechanical Resistances<sup>3</sup></b>	Vibration IEC 68.2.6, shock IEC 68.2.29, impact IEC 62262-IK09		Vibration IEC 68.2.6, shock IEC 68.2.29, impact IEC 62262-IK06		Vibration IEC 68.2.6, shock IEC 68.2.29,		N/A		Drop test 1.8m (10x10 cycles)	
<b>Axial / Radial Force<sup>3</sup></b>	1000N		1000N		500N / 300N (10 sec)	500N / 100N (10 sec)	N/A		N/A	
<b>Warranty<sup>4</sup></b>	7 years		2 years		2 years		2 years		2 years	

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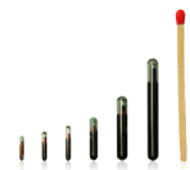
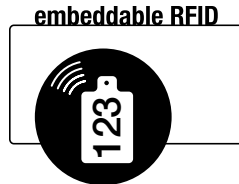
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<sup>1</sup> Unique (64 bit RO), Q5 (264 bit RW), Hitag S (32 bit RO, 256 bit RW, 2048 bit RW), EM4305 (512 bit RW), I-Code SLIx-L (512 bit EEPROM, incl. 256 bit user memory), I-Code SLIx (1024 bit EEPROM, incl. 896 bit user memory), I-Code SLIx-S (2048 bit EEPROM, incl. 1280 bit user memory), Titan (1024 bit RW)  
<sup>2</sup> Read range is strongly dependent upon multiple parameters including reader, environment and application. HID Global tags are tested and proven to be at the top of their class.

<sup>3</sup> For further specification details, please see datasheets of the respective products.  
<sup>4</sup> Warranty: Storage condition must not exceed specification for temperature, chemical, mechanical, electrical condition, storage from -25°C to +50°C, humidity 20% to 80%

PRODUCT COMPARISON CHART

Embeddable RFID



Product Name	Glass Tags								Glass Tag Ultra	Clear Disc				Piccolino Tag		E-Unit Rod	E-Unit Disc
Application	Small size with high chemical resistance provides an ideal solution for long term immersion into liquid or customized enclosures								Glass Tube with up to 35% better read range than standard tube of same size	Clear disc tag for custom housing				Tiny tag for custom housing with high memory capacity and fast anti-collision		N/A	
Frequency	125 kHz				131 kHz	134.2 kHz		13.56 MHz	134.2 kHz	125 kHz		13.56 MHz	13.56 MHz		N/A		
Size	Ø1.4x8 mm	Ø2x12 mm	Ø3x13 mm	Ø4x 22 mm	Ø3x13 mm	Ø3x13 mm, Ø4x22 mm	Ø3.85x22.5 mm	Ø4x22 mm	Ø2x9 mm, Ø2x12.5 mm	Ø20 or 30x0.6 mm	Ø22 or 30x0.6 mm	Ø25x0.75 mm	Ø7.5x1 mm, Ø9.5x1 mm	Ø9.5x1 mm	Ø1x7 mm, Ø1.8x15 mm	Ø 20, 24, 27, 28 mm or custom	
Standards / Protocol Support <sup>1</sup>	ATEX				EN14803, ATEX			ISO 15693, ISO 18000-3, ATEX	ATEX	EN14443				ISO 15693, ISO 18000-3	ISO 15693	ISO 11784, ISO 11785	
Chip type	EM 4305	Q5, Hitag S, Unique	Q5, Hitag S, Titan	Unique	Unique	FDX-b BDE	HDX BDE	I-Code SLiX	EM 4305	Hitag S, Unique	Q5	MIFARE 1K, DESFire EV1 4K	Legic MIM 256, 1024	I-Code SLiX, Vigo	F-Mem	Hitag S, EM4305	
Memory <sup>2</sup>	512 bit RW	64 bit RO, 256 bit RW, 264 bit RW, 2048 bit RW	256 bit RW, 264 bit RW, 1024 bit RW, 2048 bit RW	64 bit RO	64 bit RO	128 bit RO		1024 bit RW	512 bit RW	64 bit RO, 256 bit RW, 2048 bit RW	264 bit RW	1-4 kByte RW	256 or 1024 bit RW	1024 bit RW	16 Kbit RW	256 bit RW, 512 bit RW, 2048 bit RW	
Anti-collision	N/A	N/A	Hitag S - Yes	Hitag S - Yes	N/A			Yes		Hitag S - Yes	N/A	Yes	N/A	Yes		Hitag S - Yes	
Typical Use Environment	Used in customized housings for non-animal applications									Depends on finished product				N/A		Depends on finished product	
Mounting Method	External housing									Depends on finished product				N/A		Depends on finished product	
Operating Temperature <sup>3</sup>	-25°C to +85°C (-40°C minimum for Unique and Q5 chip)									-20 °C to +60 °C				-40 °C to +85 °C	-20 to +85°C	-25 °C to + 60 °C	
Storage Temperature <sup>3</sup>	-40 °C to +90 °C									-20 °C to +60 °C				-40 °C to +85 °C		-40 °C to + 60 °C	
Peak Temperature <sup>3</sup>	+120 °C (100h) +140 °C (10h)									N/A				N/A		N/A	
Housing Material	Glass								Bio Glass	Polyethylen + Polyester (outside)				Epoxy		N/A	
Chemical and Environmental Resistances <sup>3</sup>	Water, IP68 (1m, 24 h), saltwater, alcohol, HCL, fuel, ammonia									Depends on finished product				Depends on finished product		Depends on finished product	
Mechanical Resistances <sup>3</sup>	Vibration IEC 68.2.6, shock IEC 68.2.29									Depends on finished product				Depends on finished product		Depends on finished product	
Warranty <sup>4</sup>	2 years									2 years				2 years		2 years	

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1 ISO 11784, ISO 11785 for Hitag S and EM4305 chip only  
 2 Unique (64 bit RO), Q5 (264 bit RW), Hitag S (32 bit RO, 256 bit RW, 2048 bit RW), Titan (1024 bit RW), EM4305 (512 bit RW), Vigo (1024 bit RW)  
 3 For further specification details, please see datasheets of the respective products  
 4 Warranty: Storage condition must not exceed specification for temperature, chemical, mechanical, electrical condition, storage from -25°C to + 50°C, humidity 20% to 80%



# Industry & Logistics Readers



<b>Product Name</b>	<b>Multi-Tag</b>
<b>Product Type</b>	Reader Core
<b>Base Model Number</b>	701800013
<b>Dimensions</b>	25.5 mm x 30.5 mm x 6 mm
<b>Power Supply</b>	5VDC +/- 10% Regulated
<b>Power Supply Connector</b>	N/A
<b>Antenna Support</b>	Single External
<b>External Antenna Connector</b>	N/A
<b>RF Transmit Frequency</b>	125 kHz , 134.2 kHz
<b>Supported Standards</b>	ISO 11784, ISO 11785 ISO 18000-2
<b>Supported Tag-IC's</b>	Hitag 1, Hitag 2, Hitag S, Q5 EM4X02, EM4X05 (ISO FDX B), EM4X50 TI-RFID systems 134.2 kHz 64Bit R/O, TI-RFID systems 134.2 kHz 64Bit R/W TI-RFID systems 134.2 kHz 1088Bit multipage
<b>Communication Interface</b>	CMOS-TTL Serial Interface 9600Bits/s to 115kBits/s, 8, N, 1
<b>Global Certification</b>	RoHS, WEEE
<b>Software</b>	DLL (C++) & Reader Utility Program
<b>Warranty</b>	6 Months

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