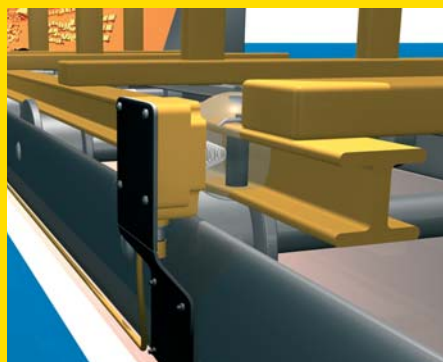


Housing	Part Number	ID Number	Memory Size	Memory Organization	Operating Temperature	Function	Reference
	TW-R16-B128	M6900501	128 Byte	EEPROM	-25 to +85°C (-13 to +185°F)	Read/write	1
	TW-R20-B128	M6900502	128 Byte	EEPROM	-25 to +85°C (-13 to +185°F)	Read/write	2
	TW-R30-B128	M6900503	128 Byte	EEPROM	-25 to +85°C (-13 to +185°F)	Read/write	3
	TW-R50-B128	M6900504	128 Byte	EEPROM	-25 to +85°C (-13 to +185°F)	Read/write	4
	TW-R20-K2	M6900505	2 kByte	FRAM	-20 to +85°C (-4 to +185°F)	Read/write	2
	TW-R30-K2	M6900506	2 kByte	FRAM	-20 to +85°C (-4 to +185°F)	Read/write	3
	TW-R50-K2	M6900507	2 kByte	FRAM	-20 to +85°C (-4 to +185°F)	Read/write	4
	TW-R50-90-HT-B128	M1542326	128 Byte	EEPROM	-40 to +210°C (-40 to +410°F)	Read/write	5
	TW-R50-90-HT-K2	M1542329	2 kByte	FRAM	-40 to +210°C (-40 to +410°F)	Read/write	5



Extreme Temperatures

What can you do when the temperatures are below -20°C or above 70°C?

BL ident data carriers from **TURCK** are designed for extreme temperatures. A specially developed jacket protects the data carriers against extreme temperatures, from -40 to 210°C (-40 to 410°F) for 30 min.

TURCK data carriers can even be used in applications such as painting lines in the automotive industry, which prohibited use of RFID products until now.

Housing	Part Number	ID Number	Description	Material	For Sensor Types
	SG40/2	M6900369	Temperature resistant protective housing for CP40	Ultem	Rectangular CK40
	JS 025/037	M69429	Mounting rail for housing CK40	Stainless steel	Rectangular CK40
	DS-R30	M6900512	Spacer ring for data carrier Ø 30 mm ¹	Plastic	
	DS-R50	M6900386	Spacer ring for data carrier Ø 50 mm*	Plastic	
	BST-BS	M6947220	Labeling plate for BST- fixing clamps	Plastic	All

* Spacer to provide minimum distance required between data carrier and metal ferrous mounting surface.



RFID System - Data Carrier (Read/Write)

- Data Carrier (Read/Write)
- Memory Size 128 Byte
- EEPROM



Housing	Part Number	Function Principle
<p> $\varnothing.630$ [16.0] $.118$ [3.0] </p>	TW-R16-B128	<p>The BL ident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .157-2.48 in. (4-63 mm).</p>

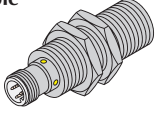
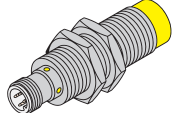
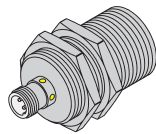
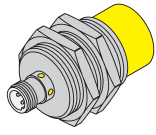
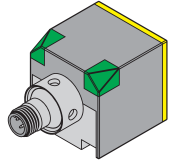
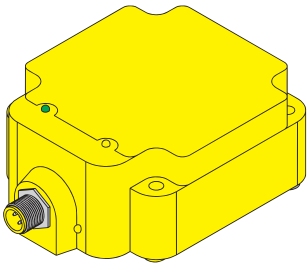
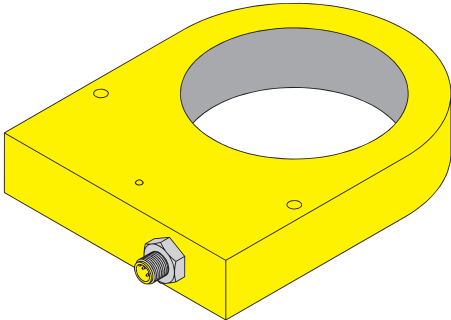
Part Number	TW-R16-B128
ID Number	M6900501

Storage Data	
Operating frequency	13.56 MHz
Memory size	128 Byte
Number of read operations	unlimited
Number of write operations	10 ⁵
Read time (typical)	2 ms/Byte
Write time (typical)	3 ms/Byte
Memory organization	EEPROM

Installation Guidelines	
Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)

General Data	
Color	Black
Storage temperature	-25 to +85°C (-13 to +185°F)
Ambient temperature	-25 to +120°C (-13 to +248°F)
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	Epoxyd, molded plastic

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹ inches (mm)
18 mm - Embeddable 	TB-M18-H1147	M7030001	.236 (6)	.157 (4)	.512 (13)	.551 (14)	.709 (18)	2.835 (72)
18 mm - Nonembeddable 	TN-M18-H1147	M7030002	.472 (12)	.157 (4)	.984 (25)	.827 (21)	1.063 (27)	4.252 (108)
30 mm - Embeddable 	TB-M30-H1147	M7030003	.433 (11)	.354 (9)	.866 (22)	.709 (18)	.866 (22)	3.465 (88)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	.630 (16)	.354 (9)	1.260 (32)	1.102 (28)	1.417 (36)	5.669 (144)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	.866 (22)	.433 (11)	1.772 (45)	1.260 (32)	1.575 (40)	6.299 (160)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	1.220 (31)	.512 (13)	2.480 (63)	1.968 (50)	2.480 (63)	9.921 (252)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	1.220 (31)	.630 (16)	2.480 (63)	2.835 (72)	3.543 (90)	14.173 (360)

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

RFID System - Data Carrier (Read/Write)

- Data Carrier (Read/Write)
- Memory Size 128 Byte
- EEPROM



Housing	Part Number	Function Principle
<p> $\phi .787 [20.0]$ $.098 [2.5]$ </p>	TW-R20-B128	<p>The BLident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .157-2.835 in. (4-72 mm). TAGs available with EEPROM or FRAM memory.</p>

Part Number	TW-R20-B128
ID Number	M6900502

Storage Data

Operating frequency	13.56 MHz
Memory size	128 Byte
Number of read operations	Unlimited
Number of write operations	10 ⁵
Read time (typical)	2 ms/Byte
Write time (typical)	3 ms/Byte
Memory organization	EEPROM

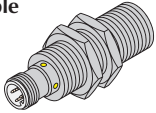
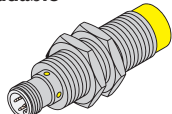
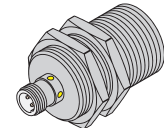
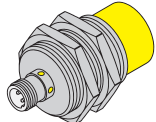
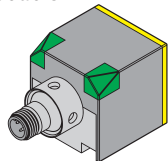
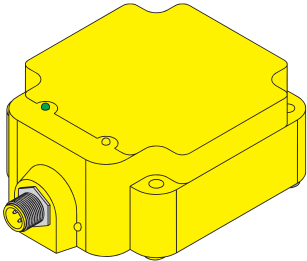
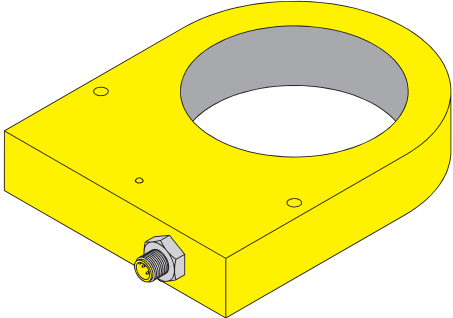
Installation Guidelines

Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)
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General Data

Color	Black
Storage temperature	-40 to +85°C (-40 to +185°F)
Ambient temperature	-25 to +85°C (-13 to +185°F)
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	Epoxyd

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹ inches (mm)
18 mm - Embeddable 	TB-M18-H1147	M7030001	.236 (6)	.157 (4)	.512 (13)	.630 (16)	.827 (21)	3.307 (84)
18 mm - Nonembeddable 	TN-M18-H1147	M7030002	.512 (13)	.197 (5)	1.024 (26)	.906 (23)	1.142 (29)	4.567 (116)
30 mm - Embeddable 	TB-M30-H1147	M7030003	.472 (12)	.394 (10)	.945 (24)	.748 (19)	.945 (24)	3.780 (96)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	.630 (16)	.394 (10)	1.299 (33)	1.102 (28)	1.299 (33)	5.197 (132)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	.945 (24)	.472 (12)	1.929 (49)	1.457 (37)	1.850 (47)	6.299 (160)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	1.299 (33)	.709 (18)	2.638 (67)	2.244 (57)	2.835 (72)	9.921 (252)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	1.417 (36)	.709 (18)	2.835 (72)	3.228 (82)	4.055 (103)	16.220 (412)

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

RFID System - Data Carrier (Read/Write)

- Data Carrier (Read/Write)
- Memory Size 128 Byte
- EEPROM



Housing	Part Number	Function Principle
<p> $\varnothing 1.181 [30.0]$ $.098 [2.5]$ </p>	TW-R30-B128	<p>The BLident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .236-3.543 in. (6-90 mm). TAGs available with EEPROM or FRAM memory.</p>

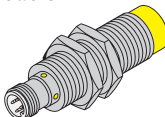
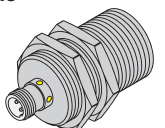
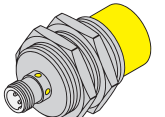
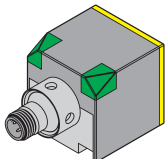
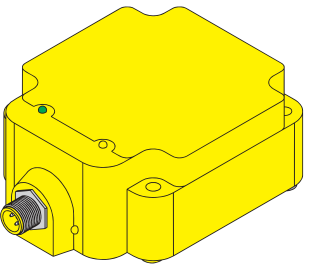
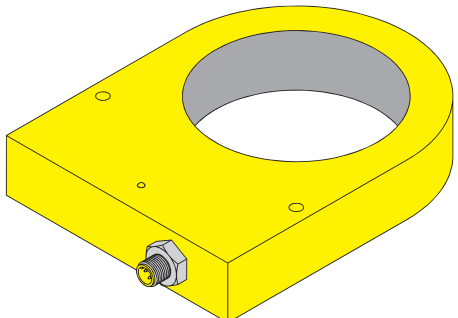
Part Number	TW-R30-B128
ID Number	M6900503

Storage Data	
Operating frequency	13.56 MHz
Memory size	128 Byte
Number of read operations	Unlimited
Number of write operations	10 ⁵
Read time (typical)	2 ms/Byte
Write time (typical)	3 ms/Byte
Memory organization	EEPROM

Installation Guidelines	
Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)

General Data	
Color	Black
Storage temperature	-40 to +85°C (-40 to +185°F)
Ambient temperature	-25 to +85°C (-13 to +185°F)
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	Epoxyd

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	Length		
						min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹
								inches (mm)
18 mm - Nonembeddable 	TN-M18-H1147	M7030002	.512 (13)	.236 (6)	1.063 (27)	.945 (24)	1.220 (31)	4.882 (124)
30 mm - Embeddable 	TB-M30-H1147	M7030003	.551 (14)	.433 (11)	1.102 (28)	.827 (21)	1.102 (28)	4.409 (112)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	.787 (20)	.433 (11)	1.575 (40)	1.260 (32)	1.614 (41)	6.457 (164)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	1.063 (27)	.512 (13)	2.126 (54)	1.693 (43)	2.126 (54)	8.504 (216)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	1.575 (40)	.866 (22)	3.150 (80)	2.520 (64)	3.189 (81)	12.756 (324)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	1.772 (45)	.866 (22)	3.543 (90)	3.661 (93)	4.606 (117)	18.425 (468)

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

RFID System - Data Carrier (Read/Write)

- Data Carrier (Read/Write)
- Memory Size 128 Byte
- EEPROM



Housing	Part Number	Function Principle
	TW-R50-B128	<p>The BL ident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .354-5.669 in. (9-144 mm). TAGs available with EEPROM or FRAM memory.</p>

Part Number	TW-R50-B128
ID Number	M6900504

Storage Data

Operating frequency	13.56 MHz
Memory size	128 Byte
Number of read operations	Unlimited
Number of write operations	10 ⁵
Read time (typical)	2 ms/Byte
Write time (typical)	3 ms/Byte
Memory organization	EEPROM

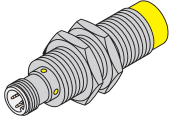
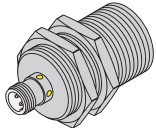
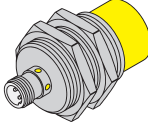
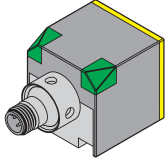
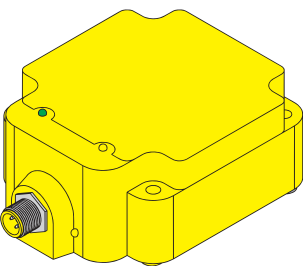
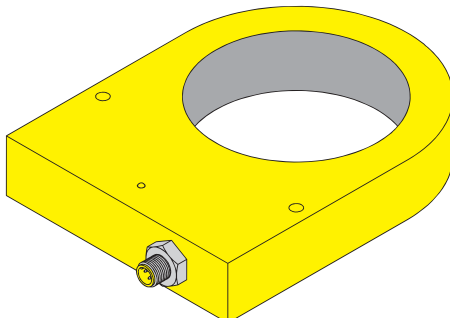
Installation Guidelines

Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)
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General Data

Color	Black
Storage temperature	-40 to +85°C (-40 to +185°F)
Ambient temperature	-25 to +85°C (-13 to +185°F)
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	Epoxyd

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹ inches (mm)
18 mm - Nonembeddable 	TN-M18-H1147	M7030002	.709 (18)	.354 (9)	1.417 (36)	1.535 (39)	1.929 (49)	7.717 (196)
30 mm - Embeddable 	TB-M30-H1147	M7030003	.709 (18)	.512 (13)	1.417 (36)	1.220 (31)	1.535 (39)	6.142 (156)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	1.063 (27)	.512 (13)	1.260 (32)	1.968 (50)	2.480 (63)	9.921 (252)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	1.575 (40)	.866 (22)	1.772 (45)	2.520 (64)	3.189 (81)	12.756 (324)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	2.283 (58)	1.220 (31)	4.606 (117)	3.661 (93)	4.606 (117)	18.425 (468)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	2.835 (72)	1.417 (36)	5.669 (144)	4.803 (122)	6.024 (153)	24.094 (612)

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

RFID System - Data Carrier (Read/Write)

- Data Carrier (Read/Write)
- Memory Size 2 kByte
- FRAM



Housing	Part Number	Function Principle
<p> $\varnothing.787$ [20.0] $.098$ [2.5] </p>	TW-R20-K2	<p>The BLident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .157-2.520 in. (4-64 mm). TAGs available with EEPROM or FRAM memory.</p>

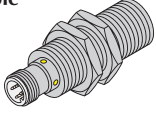
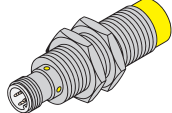
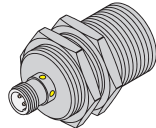
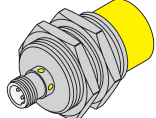
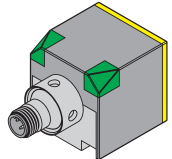
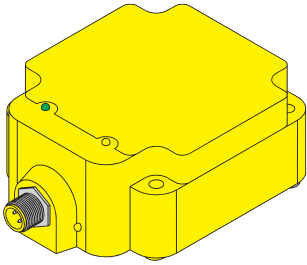
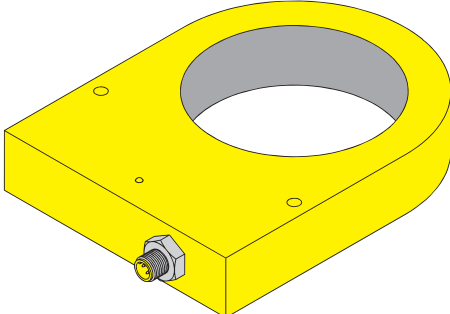
Part Number	TW-R20-K2
ID Number	M6900505

Storage Data	
Operating frequency	13.56 MHz
Memory size	2 kByte
Number of read operations	Unlimited
Number of write operations	10 ¹⁰
Read time (typical)	0.5 ms/Byte
Write time (typical)	0.5 ms/Byte
Memory organization	FRAM

Installation Guidelines	
Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)

General Data	
Color	Black
Storage temperature	-40 to +85°C (-40 to +185°F)
Ambient temperature	-25 to +85°C (-13 to +185°F)
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	PA6

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	Length		
						min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹
								inches (mm)
18 mm - Embeddable 	TB-M18-H1147	M7030001	.197 (5)	.157 (4)	.433 (11)	.433 (11)	.709 (18)	2.835 (72)
18 mm - Nonembeddable 	TN-M18-H1147	M7030002	.433 (11)	.157 (4)	.906 (23)	.551 (14)	1.024 (26)	4.094 (104)
30 mm - Embeddable 	TB-M30-H1147	M7030003	.394 (10)	.236 (6)	.827 (21)	.630 (16)	.827 (21)	3.307 (84)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	.551 (14)	.315 (8)	1.142 (29)	1.024 (26)	1.142 (29)	4.567 (116)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	.866 (22)	.394 (10)	1.732 (44)	1.299 (33)	1.654 (42)	6.614 (168)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	1.181 (30)	.630 (16)	2.362 (60)	2.008 (51)	2.520 (64)	9.842 (250)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	1.260 (32)	.630 (16)	2.520 (64)	2.913 (74)	3.701 (94)	14.803 (376)

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

RFID System - Data Carrier (Read/Write)

- Data Carrier (Read/Write)
- Memory Size 2 kByte
- FRAM



Housing	Part Number	Function Principle
<p> $\varnothing 1.181 [30.0]$ $.098 [2.5]$ </p>	TW-R30-K2	<p>The BLident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .236-3.189 in. (6-81 mm). TAGs available with EEPROM or FRAM memory.</p>

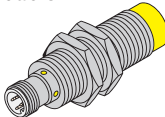
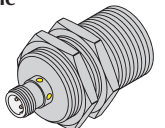
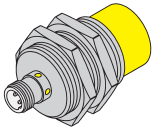
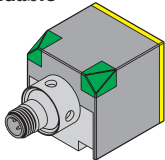
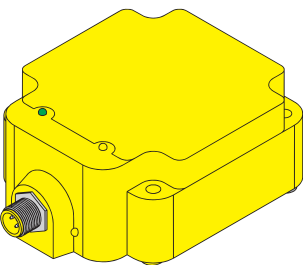
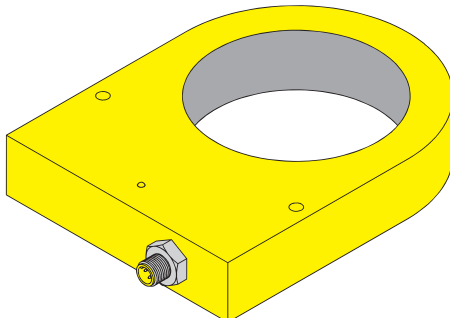
Part Number	TW-R30-K2
ID Number	M6900506

Storage Data	
Operating frequency	13.56 MHz
Memory size	2 kByte
Number of read operations	Unlimited
Number of write operations	10 ¹⁰
Read time (typical)	0.5 ms/Byte
Write time (typical)	0.5 ms/Byte
Memory organization	FRAM

Installation Guidelines	
Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)

General Data	
Color	Black
Storage temperature	-40 to +85°C (-40 to +185°F)
Ambient temperature	-25 to +85°C (-13 to +185°F)
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	PA6

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	Length		
						min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹
								inches (mm)
18 mm - Nonembeddable 	TN-M18-H1147	M7030002	.472 (12)	.236 (6)	.945 (24)	.827 (21)	1.063 (27)	108
30 mm - Embeddable 	TB-M30-H1147	M7030003	.472 (12)	.354 (9)	.984 (25)	.748 (19)	.984 (25)	3.937 (100)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	.709 (18)	.394 (10)	1.417 (36)	1.102 (28)	1.417 (36)	5.669 (144)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	.945 (24)	.433 (11)	1.890 (48)	1.496 (38)	1.890 (48)	7.559 (192)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	1.417 (36)	.787 (20)	2.835 (72)	2.283 (58)	2.835 (72)	11.338 (288)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	1.575 (40)	.787 (20)	3.189 (81)	3.307 (84)	107	428

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

RFID System - Data Carrier (Read/Write)

- Data Carrier (Read/Write)
- Memory Size 2 kByte
- FRAM



Housing	Part Number	Function Principle
<p> $\phi 1.969 [50.0]$ $.126 [3.2]$ </p>	TW-R50-K2	<p>The BL ident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .315-5.079 in. (8-129 mm). TAGs available with EEPROM or FRAM memory.</p>

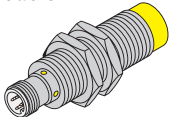
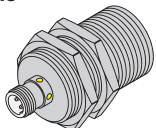
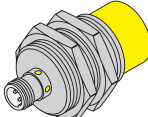
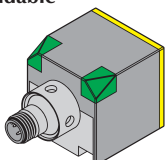
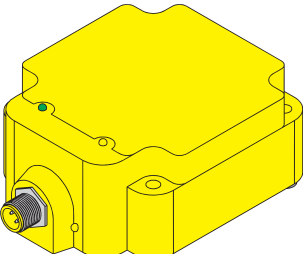
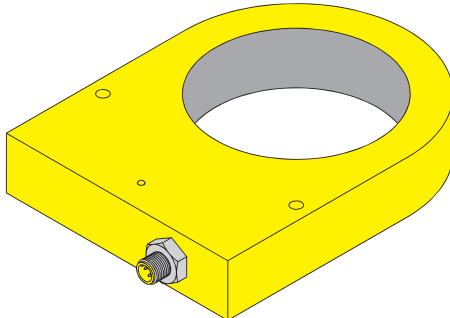
Part Number	TW-R50-K2
ID Number	M6900507

Storage Data	
Operating frequency	13.56 MHz
Memory size	2 kByte
Number of read operations	Unlimited
Number of write operations	10 ¹⁰
Read time (typical)	0.5 ms/Byte
Write time (typical)	0.5 ms/Byte
Memory organization	FRAM

Installation Guidelines	
Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)

General Data	
Color	Black
Storage temperature	-40 to +85°C (-40 to +185°F)
Ambient temperature	-25 to +85°C (-13 to +185°F)
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	PA6

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹ inches (mm)
18 mm - Nonembeddable 	TN-M18-H1147	M7030002	.630 (16)	.315 (8)	1.260 (32)	.827 (21)	1.732 (44)	6.929 (176)
30 mm - Embeddable 	TB-M30-H1147	M7030003	.630 (16)	.472 (12)	1.260 (32)	.945 (24)	1.378 (35)	5.512 (140)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	.945 (24)	.472 (12)	1.890 (48)	1.772 (45)	2.205 (56)	8.819 (224)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	1.417 (36)	.748 (19)	2.835 (72)	2.244 (57)	2.835 (72)	11.339 (288)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	2.047 (52)	1.063 (27)	4.134 (105)	3.268 (83)	4.134 (105)	16.535 (420)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	2.520 (64)	1.181 (30)	5.079 (129)	4.370 (111)	5.433 (138)	21.732 (552)

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

RFID System - High Temperature Data Carrier (Read/Write)

- High Temperature Data Carrier (Read/Write)
- For High Temperatures Up to 210°C (410°F)
- Memory Size 128 Byte
- EEPROM

Housing	Part Number	Function Principle
	TW-R50-90-HT-B128	<p>The BL ident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .512-5.669 in. (13-144 mm). TAGs available with EEPROM or FRAM memory.</p>

Part Number	TW-R50-90-HT-B128
ID Number	M1542326

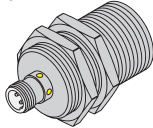
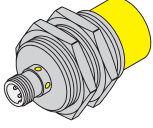
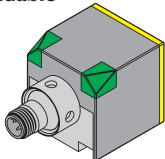
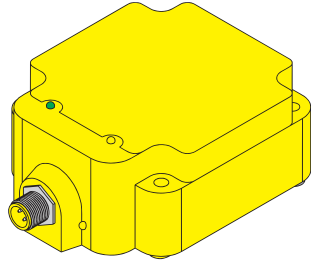
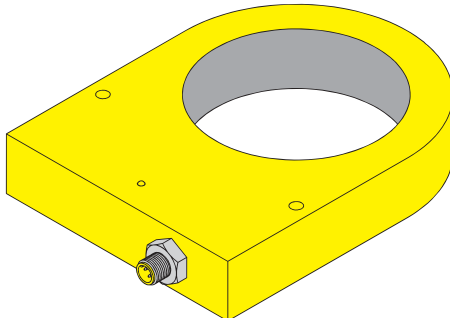
Storage Data	
Operating frequency	13.56 MHz
Memory size	128 Byte
Number of read operations	Unlimited
Number of write operations	10 ⁵
Read time (typical)	2 ms/Byte
Write time (typical)	3 ms/Byte
Memory organization	EEPROM

Installation Guidelines	
Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)

General Data	
Color	Black
Storage temperature	-40 to +85°C (-40 to +185°F)
Ambient temperature	-25 to +210°C (-13 to +410°F)*
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	PA66

* Can perform at 210°C (410°F) for 30 minutes.

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹ inches (mm)
30 mm - Embeddable 	TB-M30-H1147	M7030003	.709 (18)	.512 (13)	1.417 (36)	1.220 (31)	1.535 (39)	6.142 (156)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	1.063 (27)	.512 (13)	2.126 (54)	1.968 (50)	2.480 (63)	9.921 (252)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	1.575 (40)	.866 (22)	3.189 (81)	2.520 (64)	3.189 (81)	12.756 (324)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	2.283 (58)	1.220 (31)	4.606 (117)	3.661 (93)	4.606 (117)	18.425 (468)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	2.835 (72)	1.417 (36)	5.669 (144)	4.803 (122)	6.024 (153)	24.094 (612)

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

RFID System - High Temperature Data Carrier (Read/Write)

- High Temperature Data Carrier (Read/Write)
- For High Temperatures Up to 210°C (410°F)
- Memory Size 2 kByte
- FRAM

Housing	Part Number	Function Principle
	TW-R50-90-HT-K2	<p>The BL ident data carriers (TAGs) can be written and read without contact with appropriate read/write heads. The operating frequency is 13.56 MHz.</p> <p>The data carriers are passive, i.e. do not have a battery. When they enter the air interface of a read/write head, the power is transferred inductively and the data transfer initiated.</p> <p>The read/write interval varies between .472-5.079 (12-129 mm). TAGs available with EEPROM or FRAM memory.</p>

Part Number	TW-R50-90-HT-K2
ID Number	M1542329

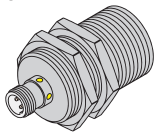
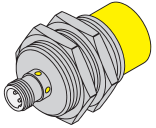
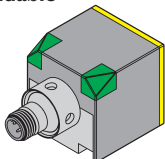
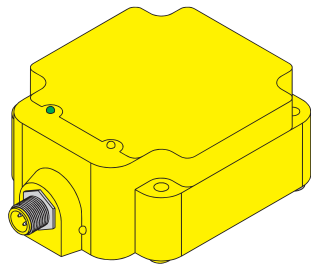
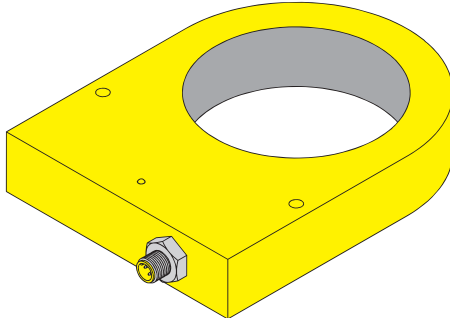
Storage Data	
Operating frequency	13.56 MHz
Memory size	2 kByte
Number of read operations	Unlimited
Number of write operations	10 ⁵
Read time (typical)	0.5 ms/Byte
Write time (typical)	0.5 ms/Byte
Memory organization	FRAM

Installation Guidelines	
Minimum distance between data carrier and metal surface (see accessories on page 26 for spacers)	.4 in (10 mm)

General Data	
Color	Black
Storage temperature	-40 to +85°C (-40 to +185°F)
Ambient temperature	-25 to +210°C (-13 to +410°F)*
Degree of protection (IEC 60529/EN 60529)	IP 68
Housing material	PA66

* Can perform at 210°C (410°F) for 30 minutes.

Associated Read/Write Heads

Housing	Part Number	ID Number	Read/Write Range			Zone Width		Distance
			Recomm. inches (mm)	min. inches (mm)	max. inches (mm)	min. inches (mm)	max. inches (mm)	minimum between two read/write heads ¹ inches (mm)
30 mm - Embeddable 	TB-M30-H1147	M7030003	.630 (16)	.472 (12)	1.260 (32)	.945 (24)	1.378 (35)	5.512 (140)
30 mm - Nonembeddable 	TN-M30-H1147	M7030004	.945 (24)	.472 (12)	1.890 (48)	1.772 (45)	2.205 (56)	8.819 (224)
40 mm - Nonembeddable 	TN-CK40-H1147	M7030006	1.417 (36)	.748 (19)	2.835 (72)	2.244 (57)	2.835 (72)	11.339 (288)
80 mm - Nonembeddable 	TN-Q80-H1147	M7030007	2.047 (52)	1.063 (27)	4.134 (105)	3.268 (83)	4.134 (105)	16.535 (420)
32 mm - Nonembeddable 	TN-S32XL-H1147	M7030008	2.520 (64)	1.181 (30)	5.079 (129)	4.370 (111)	5.394 (137)	21.732 (552)

¹ Smaller intervals are possible by alternating switching the read/write heads on and off with software.

