

## RFID Tags & Readers Data Sheet - Passive Low Frequency (LF) For:



**R<sup>3-2</sup> = 125 KHz Smart Antennas**

**R<sup>3-1</sup> = 125 KHz Legacy Readers**

**R<sup>3</sup> = 148 KHz Legacy Readers**

**134.2 KHz ISO 11784 & 11785**

EEPROM memories ranging from 10 bytes RO (read only) to 2048 bytes RW (read write)

NXP - Hitag1, Hitag2, HitagS

Atmel - T5557, T5567, ATA5575/5577

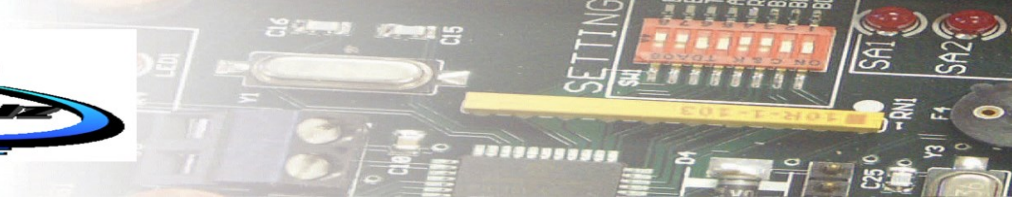
EM - EM4100, EM4102, EM4200

EM - EM4105, EM4205, EM4305, EM4450

**Frequency** - All Tags are 125 KHz unless specifically called out as 134.2 KHz or 148 KHz although any Tag can be customized to be 134.2 KHz or 148 KHz.

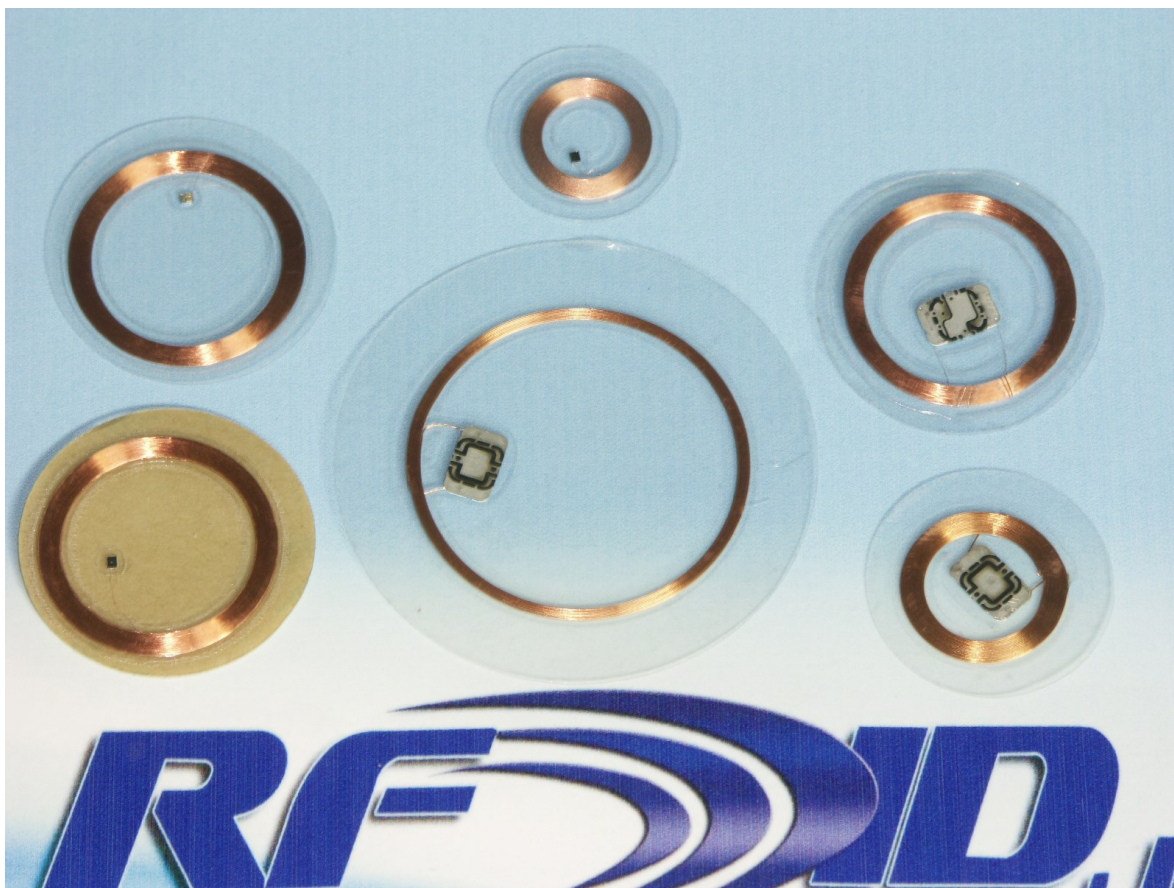
**Memory Chip** - All part numbers referenced in this document contain RFID, Inc.'s proprietary EEPROM. Add suffix to part number with chips above to order a specific chip, for example -Hitag1 or -EM4450. Also HID compatible. **Read Ranges** - See Matrix on page 23.





## Clear Laminate Disc Tags

## Model 1760 Series



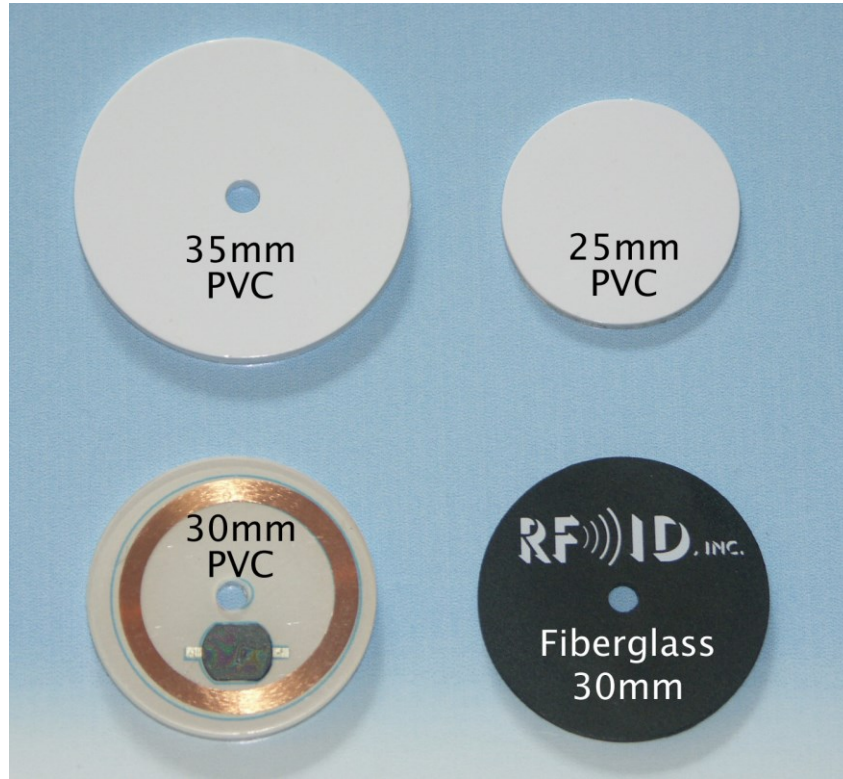
<b>Specifications:</b>	Dimensions:	20mm, 30mm, 50mm	Custom Sizes Available
	Material:	Clear Laminate	Option Peel & Stick Backing
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-67	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	20mm RO	1760-20-RO	800-0119-02
RW = Read Write	20mm RW	1760-20-RW	800-0119-03
P/S = Peel & Stick	20mm P/S RO	1760-20-P/S-RO	800-0119-04
	20mm P/S RW	1760-20-P/S-RW	800-0119-05
For 134.2 KHz add suffix to P/N of -134	30mm RO	1760-30-RO	800-0100-00
	30mm RW	1760-30-RW	800-0100-01
	30mm P/S RO	1760-30-P/S-RO	800-0100-02
	30mm P/S RW	1760-30-P/S-RW	800-0100-03
	50mm RO	1760-50-RO	800-0100-04
	50mm RW	1760-50-RW	800-0100-05
	50mm P/S RO	1760-50-P/S-RO	800-0100-06
	50mm P/S RW	1760-50-P/S-RW	800-0100-07



## PVC Laminate & Fiberglass Disc Tags

## Model 1761 Series



<b>Specifications:</b>	Dimensions:	25mm x 1mm, 30/35mm x 2mm	Custom Sizes Available
	Material:	PVC Laminate (white) Fiberglass (black)	Option Peel & Stick Backing
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	25mm RO, PVC	1761-25-RO	800-0101-00
RW = Read Write	25mm RW, PVC	1761-25-RW	800-0101-01
P/S = Peel & Stick	25mm P/S RO, PVC	1761-25-P/S-RO	800-0121-00
	25mm P/S RW, PVC	1761-25-P/S-RW	800-0121-01
For 134.2 KHz add suffix to P/N of -134	30mm RO w/center hole, PVC	1761-30-RO	800-0101-10
	30mm RW w/center hole, PVC	1761-30-RW	800-0101-11
	30mm P/S RO w/center hole, PVC	1761-30-P/S-RO	800-0121-10
	30mm P/S RW w/center hole, PVC	1761-30-P/S-RW	800-0121-11
	30mm RW w/center hole, Fiberglass	1761-30-RW-FIBER	800-0100-05-FIBER
	35mm RO w/center hole, PVC	1761-35-RO	800-0075-00
	35mm RW w/center hole, PVC	1761-35-RW	800-0075-01
	35mm RW w/center hole, PVC	1761-35-RW	800-0083-00 (148 KHz)



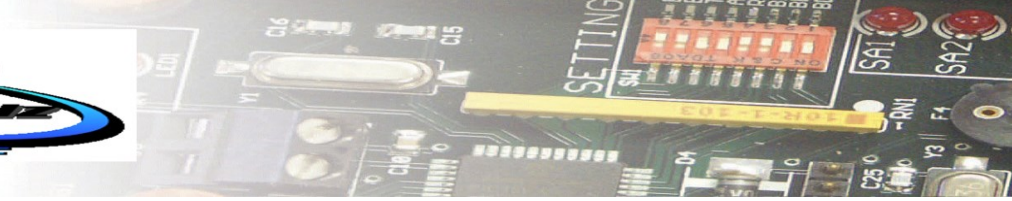
**ABS Disc Tags**

**Model 1762 Series**



<b>Specifications:</b>	Dimensions:	30mm x 2mm w/4mm hole 30mm x 5mm w/5mm hole 35mm x 4mm w/4mm hole 50mm x 8mm w/5mm hole	Custom Sizes Available
	Material:	ABS - Sonically Welded	Polycarbonate - Global Tag
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-67	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	30mm RO Global Tag	1762-30-RO	800-0118-00
RW = Read Write	30mm RW Global Tag	1762-30-RW	800-0118-01
	30mm RO ABS Disc Tag	1762-30-RO-WHT or -BLK	800-0118-02-WHT or -BLK
	30mm RW ABS Disc Tag	1762-30-RW-WHT or -BLK	800-0118-03-WHT or -BLK
	35mm RO ABS Disc Tag	1762-35-RO-WHT or -BLK	800-0118-04-WHT or -BLK
	35mm RW ABS Disc Tag	1762-35-RW-WHT or -BLK	800-0118-05-WHT or -BLK
For 134.2 KHz add suffix to P/N of -134	50mm RO ABS Disc Tag	1762-50-RO-WHT or -BLK	800-0118-06-WHT or -BLK
	50mm RW ABS Disc Tag	1762-50-RW-WHT or -BLK	800-0118-07-WHT or -BLK



**Potted Dome Tags**

**Model 1763 Series**



<b>Specifications:</b>	Dimensions:	20mm x 2mm 50mm x 2mm 5mm center hole	Custom Sizes Available
	Material:	Potting Compound	
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

<b>Part Numbering</b>	<b>Description</b>	<b>Model Number</b>	<b>Part Number</b>
RO = Read Only	20mm P/S RO	1763-20-P/S-RO	800-0119-00
RW = Read Write	20mm P/S RW	1763-20-P/S-RW	800-0119-01
P/S = Peel & Stick	50mm P/S RO	1763-50-P/S-RO	800-0102-00
C/H = Center Hole	50mm P/S RW	1763-50-P/S-RW	800-0102-01
For 134.2 KHz add suffix to P/N of -134	50mm C/H-RO	1763-50-C/H-RO	800-0102-00wHole
	50mm C/H RW	1763-50-C/H-RW	800-0102-01wHole



## Keyfobs      Model 1768 Series



<b>Specifications:</b>	Material:	See Description Below	Customized graphics or logo when applicable
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-65 to P-68	

Part Numbering	Description	Part Number RO	Part Number RW
RO = Read Only	1 Fiberglass Keyfob	800-0109-04-RED or -BLK	800-0109-05-RED or -BLK
RW = Read Write	2 Epoxy Rectangle Small	800-0109-06	800-0109-07
	2 Epoxy Rectangle Large	800-0109-08	800-0109-09
HID compatible add suffix to P/N of -HID	3 Baseball Bat, ABS	800-0109-02	800-0109-03
	4 Leather Keyfob	800-0109-10-RED or -BLK -GRN	800-0109-11-RED or -BLK -GRN
	5 Aquatic Keyfob, ABS	800-0109-00-BLUE or -RED	800-0109-01-BLUE or -RED
	6 Teardrop Keyfob, ABS	800-0109-12-(assorted colors)	800-0109-13 (assorted colors)
	7 Epoxy Surfboard Keyfob	800-0109-14	800-0109-15
	8 Arch Keyfob, PVC Laminate	800-0109-16	800-0109-17



Photographed is ISO Card with Top Slot

<b>Specifications:</b>	Dimensions:	ISO Card - 86mm x 54mm	Clamshell - 86 x 54 x 2mm
	Material:	PVC, Laminate	Optional Printing
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-67	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	ISO Card - No Slot – RW	1770-RW	800-0077-00
RW = Read Write	ISO Card – w/Slot – RW	1770-TS-RW	800-0077-01
MS = Mag Swipe	ISO Card - MS – RO	1770-MS-RO	800-0106-00
TS = Top Slot	ISO Card - MS – RW	1770-MS-RW	800-0106-01
HID compatible	ISO Card - Top Slot – RO	1770-TS-RO	800-0107-00
Add HID Suffix	ISO Card - Top Slot – RW	1770-TS-RW	800-0107-01



**Wrist Band Tags**

**Model 1771 Series**



<b>Specifications:</b>	Material:	Soft Silicon Rubber	ABS w/Velcro Strap
		Private Label Options	ABS w/Watch Strap
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

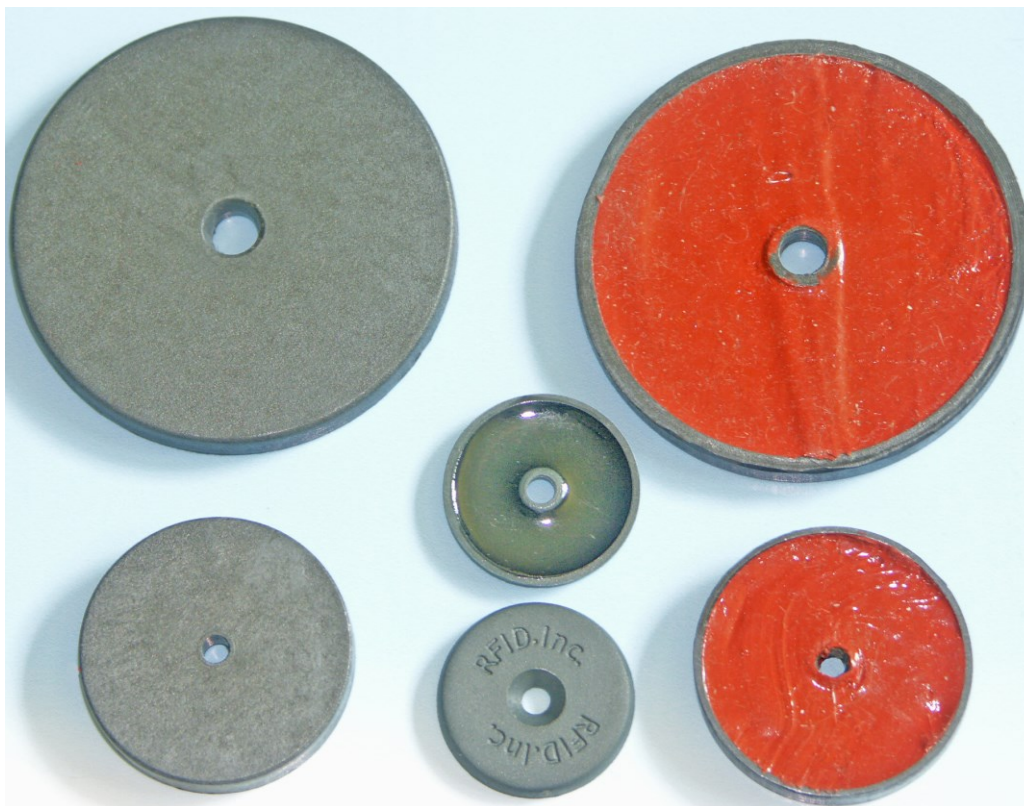
<b>Part Numbering</b>	<b>Description</b>	<b>Model Number</b>	<b>Part Number</b>
RO = Read Only	ABS w/Watch Strap RO	1771-WS-RO	800-0110-00
RW = Read Write	ABS w/Watch Strap RW	1771-WS-RW	800-0110-01
Add -Color to	ABS w/Velcro Strap RO	1771-VL-RO	800-0110-03
Part Number	ABS w/Velcro Strap RW	1771-VL-RW	800-0110-04
HID compatible	Soft Silicon Rubber RO	1771-SL-RO	800-0110-05
add suffix to P/N of -HID	Soft Silicon Rubber RW	1771-SL-RW	800-0110-06





## High Temperature Tags

## Model 1772 Series



<b>Specifications:</b>	Dimensions:	22mm x 3mm w/3mm center 30mm x 5.8mm w/3mm center 50.2mm x 5.8mm w/5mm center	Countersunk Hole
	Material:	Proprietary	
	Storage Temperature 30 & 50mm Tags w/red fill:	-40°F to 482°F	-40°C to +250°C
	Operating Temperature 30 & 50mm Tags w/red fill:	-40°F to +446°F 15 hours 1x or 30 minute cycles	-40°C to +230°C
	Storage Temperature 22mm Tag w/black fill:	-40°F to +365°F	-40°C to +185°C
	Operating Temperature 22mm Tag w/black fill:	-40°F to +365°F Indefinite	-40°C to +185°C
	Ingress Protection:	IP-68	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	22mm RO, Black	1772-22-RO-CS-HT	800-0074-00-CS-HT
	22mm RO, Black w/red fill	1772-22-RO-CS-UHT	800-0074-02-CS-UHT
RW = Read Write	22mm RW, Black	1772-22-RW	800-0074-02-CS
	22mm RW (148 KHz, Grey)	1772-22-RW	800-0080-01-CS (148 KHz)
CS = Countersunk	30mm RO, Black w/red fill	1772-30-RO	800-0074-07-HT
	30mm RW, Black w/red fill	1772-30-RW	800-0074-06-HT
	50mm RO, Black w/red fill	1772-50-RO	800-0074-08-HT
	50mm RW, Black w/red fill	1772-50-RW	800-0074-05-HT



**In Metal Pot Core Tag**

**Model 1773**



<b>Specifications:</b>	Dimensions:	8.5mm diameter x 5mm tall	
	Material:	Plastic shell with copper coil	
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	Inert to liquid	

<b>Part Numbering</b>	<b>Description</b>	<b>Model Number</b>	<b>Part Number</b>
RW = Read Write	In Metal Mount Pot Core RW	1773-RW	800-0210-00



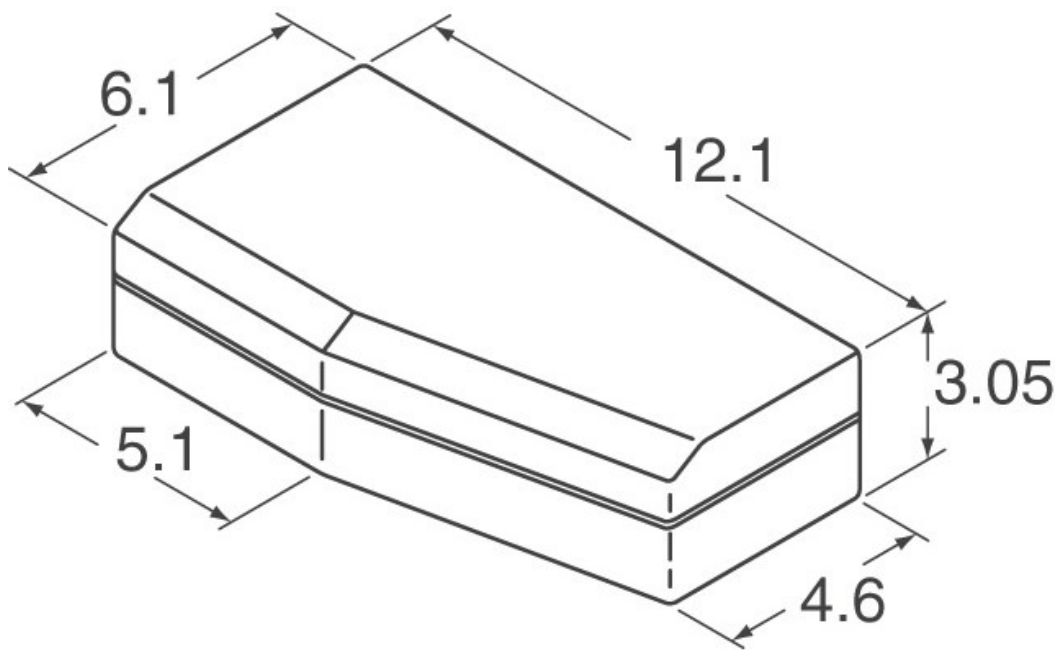
**Plastic Wedge or Coffin Tag**

**Model 1774 Series**



<b>Specifications:</b>  HID compatible add suffix to P/N of -HID	Dimensions:	12mm x 6mm x 3mm	
	Material:	Plastic	
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

Part Numbering	Description	Model Number	Part Number
RW = Read Write	Coffin Tag	1774-RW	800-0084-01





## Glass Ampoule Tags

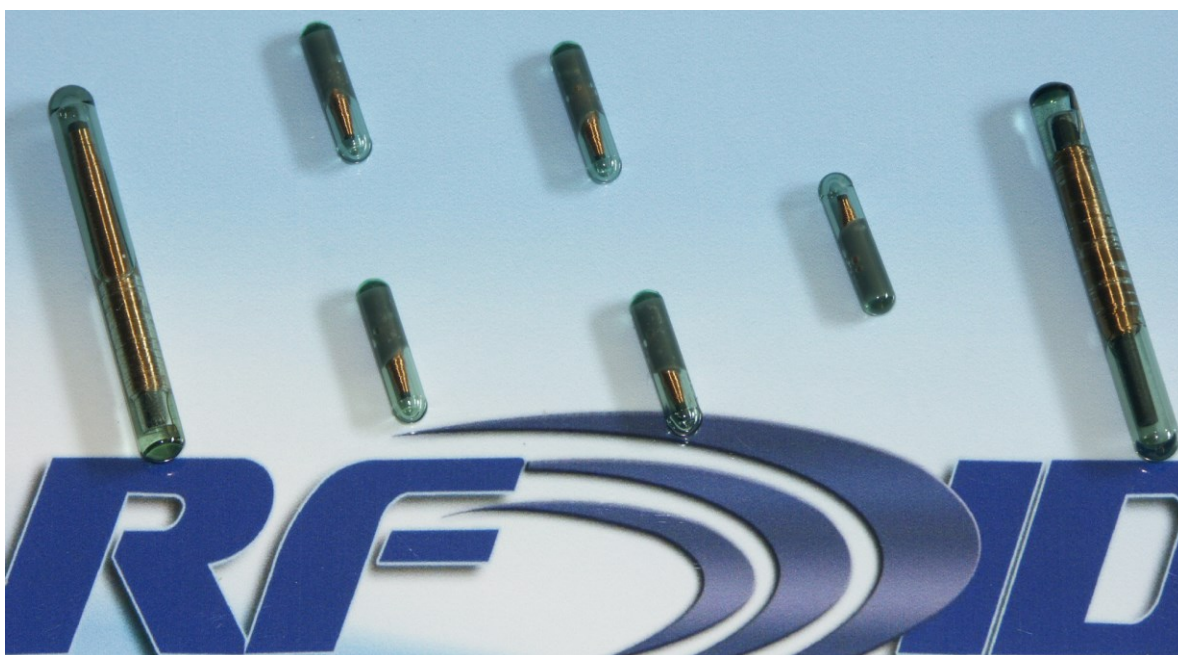
## Model 1775 Series



Depicted is 3 x 13 mm

<b>Environment:</b>	Dimensions:	2x12mm, 3x13mm, 3x34mm	Custom Sizes Available
	Material:	Glass	
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	3x13mm Glass Ampoule RO	1775-313-RO	800-0073-00
RW = Read Write	3x13mm Glass Ampoule RW	1775-313-RW	800-0073-01
HTS = HitagS	2x12mm Glass Ampoule RO	1775-212-RO	800-0073-02
	2x12mm Glass Ampoule RW	1775-212-RW	800-0073-05-SA
For 134.2 KHz add suffix to P/N of -134	2x12mm Glass Ampoule RW w/HitagS chip	1775-212-HTS-RW	800-0073-05
	4x34mm Glass Ampoule RO	1775-434-RO	800-0073-04
	4x34mm Glass Ampoule RW	1775-434-RW	800-0073-03



**Animal Tags - ISO 11784/11785**

**Model 1776 Series**



<b>Specifications:</b>	Dimensions:	Round - 30mm diameter	Square - 71mm x 81mm
		Rectangle - 54mm x 19mm	
	Material:	TPU	
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
<b>ISO 11784</b>			
<b>ISO 11785</b>			
<b>HDX</b>			
<b>FDX &amp; FDX-B</b>	Ingress Protection:	IP-68	

Part Numbering	Description	Model Number	Part Number
All Tags Come With 134.2 KHz Chip	Round Ear Tag	1776-RND	800-0126-00
	Rectangular Ear Tag	1776-RECT	800-0126-01
	Square Ear Tag	1776-SQR	800-0126-02
	Ear Tag Applicator	1776-APP	800-0126-50
	2x12mm Tag w/Syringe	1776-SYR	800-0127-00



Syringe Kit comes with 3 bar code labels



## Nail, Screw & Specialty Tags

## Model 1777 Series



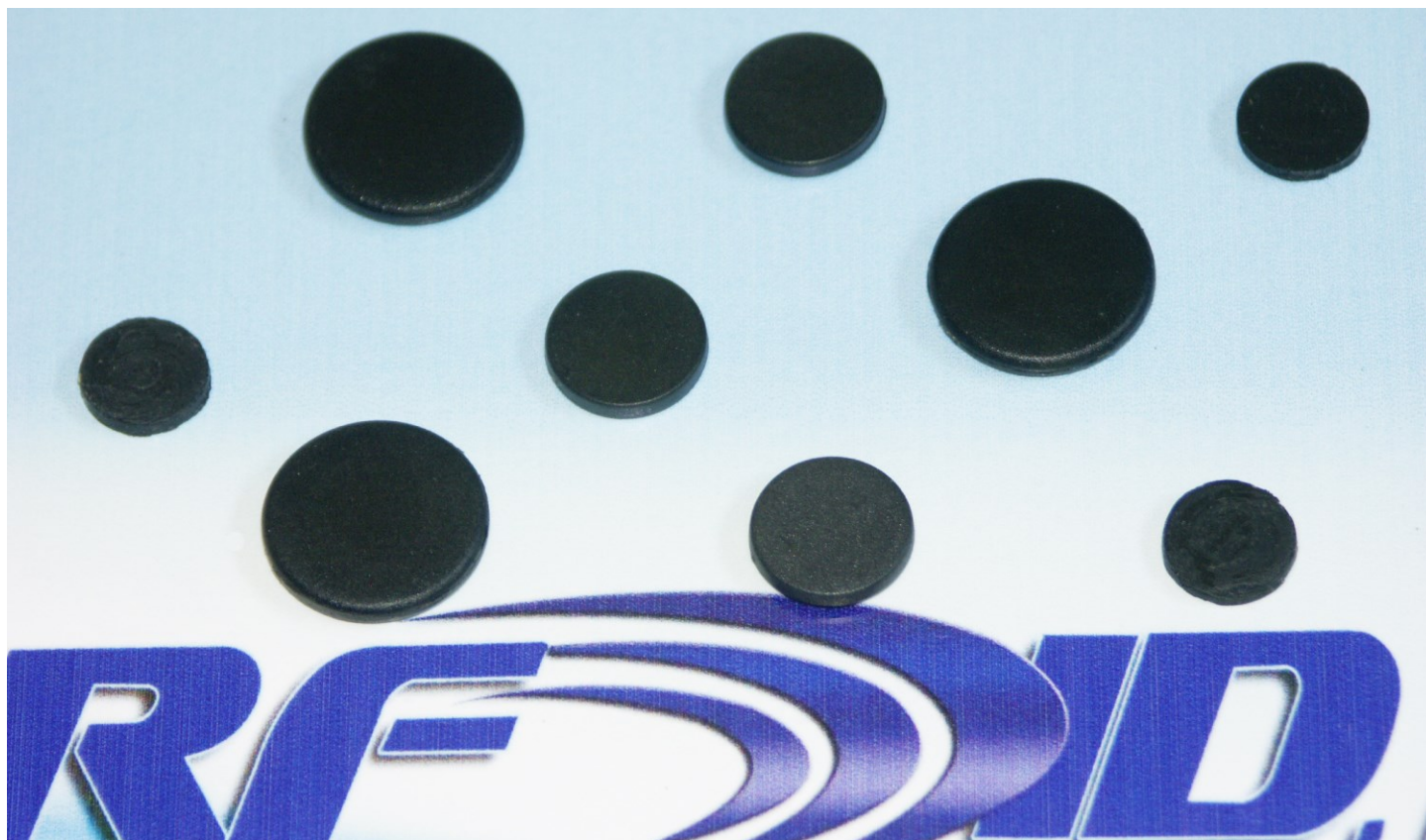
<b>Specifications:</b>	Dimensions:	See Description Below	
	Material:	ABS, PC Nylon	2 Part Epoxy
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

Part Numbering	Description	Model Number	Part Number
RO = Read Only RW = Read Write  For 134.2 KHz add suffix to P/N of -134	1 Threaded Plug Tag, 30x15mm RO	1777-TP-RO	800-0130-00
	1 Threaded Plug Tag, 30x15mm RW	1777-TP-RW	800-0130-01
	2 Threaded Bolt Tag, 16x25mm RO	1777-TB16-RO	800-0131-00
	2 Threaded Bolt Tag, 16x25mm RW	1777-TB16RW	800-0131-01
	3 Threaded Screw Tag, 11x26mm RO	1777-TS11-RO	800-0132-00
	3 Threaded Screw Tag, 11x26mm RW	1777-TS11-RW	800-0132-01
	4 Threaded Bolt Tag, 13x25mm RO	1777-TB13-RO	800-0133-00
	4 Threaded Bolt Tag, 13x25mm RW	1777-TB13-RW	800-0133-01
	5 Nail Tag, 35x4mm RO	1777-NT-RO	800-0111-00
	5 Nail Tag, 35x4mm RW	1777-NT-RW	800-0111-01
	6 8.7mm ID Poultry or Cable Tag RO	1777-PC87-RO	800-0140-00
	6 8.7mm ID Poultry or Cable Tag RW	1777-PC87-RW	800-0140-01
	7 7.8mm ID Poultry or Cable Tag RO	1777-PC78-RO	800-0141-00
	7 7.8mm ID Poultry or Cable Tag RW	1777-PC78-RW	800-0141-01
	8 20mm ID Poultry or Cable Tag RO	1777-PC20-RO	800-0142-00
	8 20mm ID Poultry or Cable Tag RW	1777-PC20-RW	800-0142-01



**12mm Pill Tag  
Laundry Tags**

**Model 1778 Series  
Model 1779 Series**



<b>Specifications:</b>	Dimensions: Laundry Tag	9, 10, 11, 12, 13, 14, 15, 16, 17mm	18, 20, 22, 24, 26, 28, 30mm
	Pill Tag	12mm	Custom Sizes Available
	Material:	PPS + Epoxy	
	Storage Temperature:	-20°F to +248°F indefinite -20°C to +320°F 30 min-200x -20°C to +392°F 30 sec-200x	-20°C to +120°C indefinite -20°C to +160°C 30 min-200x -20°C to +200°C 30 sec-200x
	Operating Temperature:	-40°F to +185°F	-40°C to +85°C
	Ingress Protection:	IP-68	
	Water Pressure:	300 Bars - 5 minutes	45 Bars - 10 hours
	Axial Compression Strength:	1000 N - 10 seconds	
Radial Compression Strength:	1000 N - 10 seconds		

Part Numbering	Description	Model Number	Part Number
RO = Read Only	xxmm Laundry Tag RO	1779-xx-RO (xx=diameter in mm's)	800-0113-00/xx (dia in mm's)
RW = Read Write	xxmm Laundry Tag RW	1779-xx-RW (xx=diameter in mm's)	800-0113-01/xx (dia in mm's)
	12mm Pill Tag RO	1778-12-RO	800-0112-00
	12mm Pill Tag RW	1778-12-RW	800-0112-01





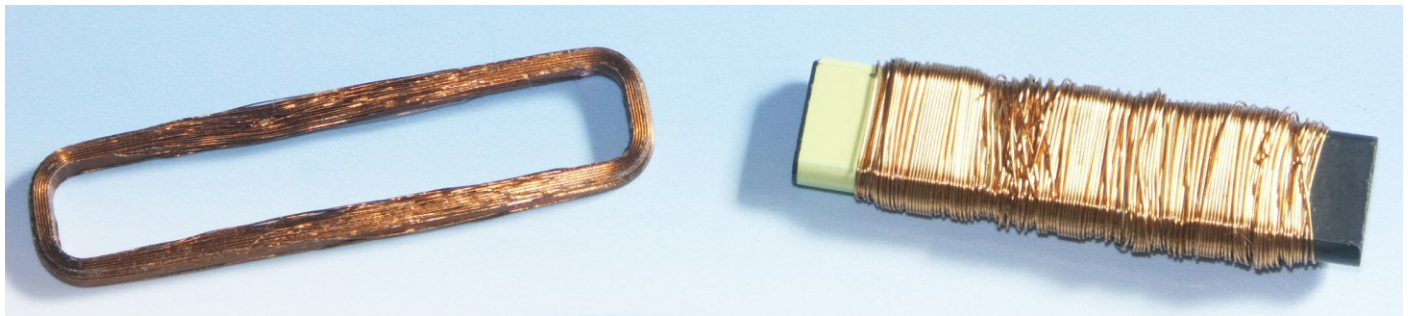
**Metal Mount Bar Tags**

**Models 1781M1 & 1781M2 Series**



<b>Specifications:</b>	Dimensions:	3.50" x 0.90" x 0.70"	89mm X 23mm x 17mm
	Material:	Rynite PET w/potting compound	
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

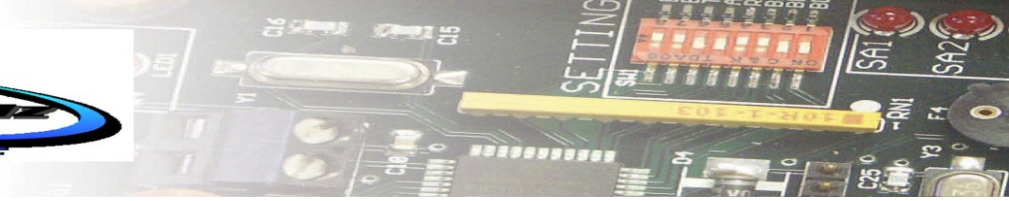
<b>Part Numbering</b>	<b>Description</b>	<b>Model Number</b>	<b>Part Number</b>
RW = Read Write	Bar Tag, ferrite coil, 148 KHz	1781M1-RW-148	800-0015-02 (148 KHz)
	Bar Tag, planar coil, 148 KHz	1781M2-RW-148	800-0015-03 (148 KHz)
	Bar Tag, ferrite coil, 125 KHz	1781M1-RW	800-0015-04
	Bar Tag, planar coil, 125 KHz	1781M2-RW	800-0015-05



**PLANAR COIL**

**FERRITE COIL**



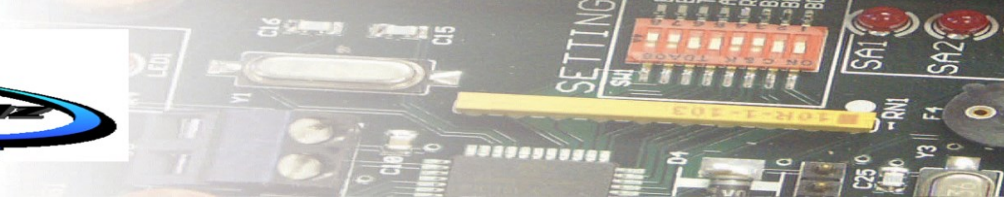


**TTT (Tough Thin Tag)                      Model 1783 Series**  
**With Black Attachment Housing**



<b>Specifications:</b>	Dimensions:            1783 Tag	3.38" x 2.13" x 0.16"	86mm x 54mm x 4mm
	1783 Attachment Housing	4.62" x 2.64" x 0.25" w/0.203 hole	117mm x 67mm x 6mm
	Material:	Polycarbonate Halves, Sonic Weld	ABS Attachment Housing
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-67	

<b>Part Numbering</b>	<b>Description</b>	<b>Model Number</b>	<b>Part Number</b>
RW = Read Write	Tough Thin Tag, RW	1783-RW-148	800-0007-03 (148 KHz)
	Tough Thin Tag, RW	1783-RW	800-0007-04
	Attachment Housing	1783H	473-0033-00



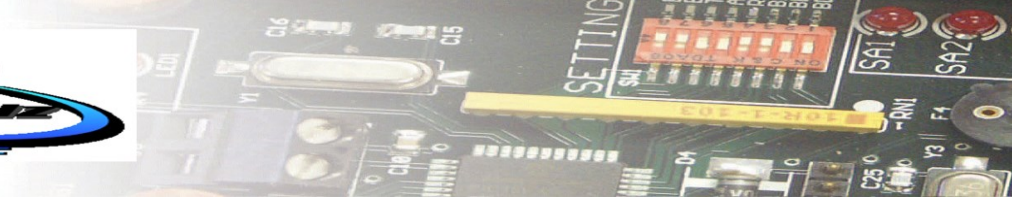
**Hockey Puck Tag**

**Model 1786 Series**



<b>Specifications:</b>	Dimensions:	3.35" x 1.19" w/0.265" holes	85mm x 30mm w/6.7mm holes
	Weight:	4.8 oz.	135 grams
	Material:	Housing: Nylon w/30% Glass Fill	Epoxy: 2 Part Compound
	Storage Temperature:	-40°F to 365°F	-40°C to +185°C
	Operating Temperature:	-40°F to +365°F	-40°C to +185°C
	Ingress Protection:	IP-68	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	Hockey Puck Tag RW 148 KHz	1786-RW-148	800-0059-00 (148 KHz)
RW = Read Write	Hockey Puck Tag RW 125 KHz	1786-RW-125	800-0059-04



**Lipstick Tag**

**Model 1787 Series**



<b>Specifications:</b>	Dimensions:	2.3" x 0.75"	58mm x 19mm
	Material:	Polycarbonate	2 Part Potting Compound
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	Lipstick Tag RW	1787-RW-148	800-0017-02 (148 KHz)
RW = Read Write	Lipstick Tag RW	1787-RW	800-0017-04

Specifically designed for in floor mount, AGV applications.



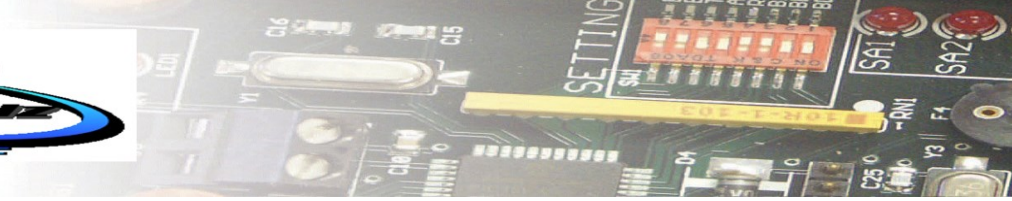
**Tank Tag**

**Model 1788**



<b>Specifications:</b>	Dimensions:	1.225" diameter x .0.325"	31mm x 8mm
	Material:	ABS	2 Part Potting Compound
	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	

<b>Part Numbering</b>	<b>Description</b>	<b>Model Number</b>	<b>Part Number</b>
RO = Read Only	Cylinder Tank Tag, RO	1788-RO	800-0092-00
RW = Read Write	Cylinder Tank Tag, RW	1788-RW	800-0092-01



**Deck of Cards Tag  
Models 1791 & 1791M Series**



**Frisbee Tag  
Model 1795 Series**

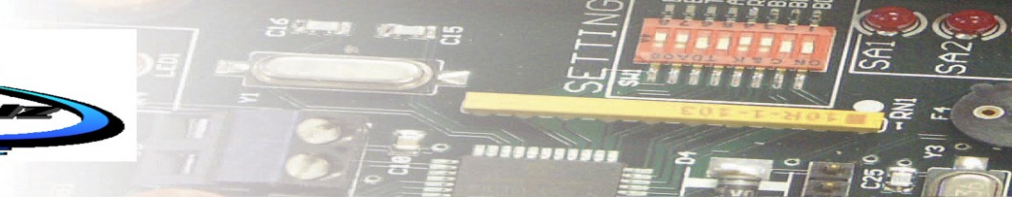


Ferrite Coil sits in the center

Planar Coil is larger flat Coil

<b>Specifications:</b>	Dimensions:	1791	4" x 2.12" x 0.54" w/0.18"holes	101 x 54mm w/4.6mm holes
		1795	6" diameter x 0.6" w/0.30" holes	152 x 15mm w/7.6mm holes
	Material:		Polycarbonate	2 Part Potting Compound
	Storage Temperature:		-40°F to 185°F	-40°C to +85°C
	Operating Temperature:		-40°F to +131°F	-40°C to +55°C
	Ingress Protection:		IP-68	

Part Numbering	Description	Model Number	Part Number
RO = Read Only	Deck of Cards Tag, Planar Coil	1791-RW-148	800-0020-00 (148 KHz)
RW = Read Write	Deck of Cards Tag, Planar Coil	1791-RW	800-0020-04
	Deck of Cards Tag, Ferrite Coil	1791M-RW-148	800-0020-01 (148 KHz)
	Deck of Cards Tag, Ferrite Coil	1791M-RW	800-0021-04
	Frisbee Tag	1795-RW-148	800-0026-00 (148 KHz)
	Frisbee Tag	1795-RW	800-0026-04



## Clear Laminate Monster Tags

## Models 1796 & 1796SM Series



The Model 1796SM is shown laying atop the Model 1796.

These Tags were made for the sole purpose of maximizing read ranges when needed.

Specifications:	Dimensions:	1796	8" x 6.75"	203mm x 170mm
		1796SM	5.125" x 3.5625"	130mm x 90mm
	Material:	Clear Laminate		Custom Sizes Available
	Storage Temperature:	-40°F to 185°F		-40°C to +85°C
	Operating Temperature:	-40°F to +131°F		-40°C to +55°C
	Ingress Protection:	IP-67		

Part Numbering	Description	Model Number	Part Number
RO = Read Only	Monster Tag, P/S Tape, RO	1796RO	800-0114-00
RW = Read Write	Monster Tag, P/S Tape, RW	1796-RW	800-0114-01
P/S = Peel & Stick	Small Monster, RO	1796SM-RO	800-0122-00
	Small Monster, RW	1796SM-RW	800-0122-01



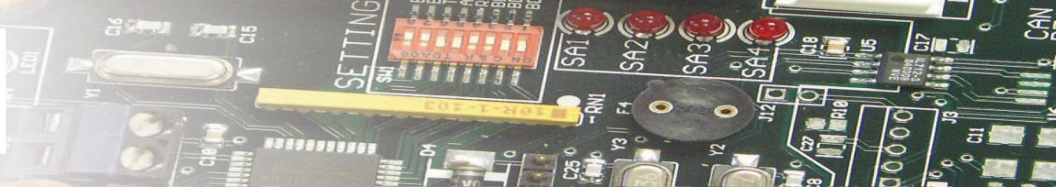
**Read Range Matrix (in Inches)** (Write Range is 5% to 30% less than Read Range dependent upon combination)

**Valid only for R3-2 125 KHz Smart Antenna Systems**

**For R3-1 125 KHz Legacy & R3 148 KHz Legacy Read Ranges, See Those Reader Line Data Sheets**

Tag Model Number	Smart Antenna Model	5100	5110	5120	5130	5131	5150	5155	5160	5180	5181
20mm diameter Tags 1760 – 1761 – 1763		1.0	1.25	.50	Dependent	.75	1.5	2.5	--	1.0	1.0
25mm diameter Tags 1761 -		1.0	1.5	.75	On	.75	2.25	3.0	--	1.25	1.0
30mm diameter Tags 1760 – 1761 – 1762		1.25	2.0	1.75	External	1.0	3.5	4.5	--	2.0	1.0
35mm diameter Tags 1761 - 1762		1.5	2.0	1.75	Antenna	1.25	3.75	4.5	1.25	2.0	1.0
50mm diameter Tags 1760 - 1763		2.0	3.75	3.0		1.5	5.5	6.5	5.0	3.25	1.0
1768 Keyfobs (based on average 20mm coil)		1.0	1.25	.5		.75	1.5	2.5	--	1.0	1.0
1770 Personnel Badge, ISO Card		2.0	3.0	3.25		1.5	6.0	7.0	5.25	3.5	1.0
1771 Wrist Bands		1.0	1.25	.5		.75	1.5	2.5	--	1.0	1.0
1772 22mm High Temp		1.25	2.0	1.25		1.0	3.25	4.0	--	1.5	1.0
1772-HT30 High Temp 30mm		1.5	2.0	1.5		1.0	3.5	4.0	1.0	1.0	1.0
1772-HT50 High Temp 50mm		2.0	2.5	2.5		1.5	5.0	5.5	4.5	3.5	1.0
1773 In Metal Pot Core		.25	.25	-		.25	--	--	--	.25	--
1774 Wedge/Coffin		.75	1.5	.50	Dependent	.50	1.25	3.0	--	.75	--
1775 Glass Ampoule (3x13mm)		1.0	1.25	-	On	1.0	1.0	2.0	--	1.25	--
1776 Animal Ear Tag					External						
1778 12mm Pill Tag		.75	1.00	--	Antenna	.50	--	3.25	--	.25	--
1779 Laundry Tag (based on 16mm version)		.75	1.25	.50		.50	1.0	2.0	--	1.0	--
1781M1 Bar Tag, Ferrite coil		1.0	2.25	4.0		.75	5.25	7.0	6.25	2.75	1.0
1781M2 Bar Tag, Planar coil		1.25	2.25	2.0		1.0	4.5	5.5	3.0	2.5	1.0
1783 TTT		2.25	3.5	4.0		1.75	7.0	7.0	7.5	4.0	1.0
1786 Hockey Puck		2.25	3.5	4.0		1.75	7.0	7.0	8.0	4.0	1.0
1787 Lipstick Tag		1.5	2.75	3.25		1.25	5.25	7.0	6.25	2.75	1.0
1788 Tank Tag		1.0	1.5	.50		.75	1.75	2.5	--	1.0	1.0
1791 Deck of Cards Planar Coil		2.25	3.5	4.0		1.75	7.0	7.0	7.5	4.0	1.0
1791M Deck of Cards Ferrite Coil		1.0	2.25	4.0	Dependent	.75	5.25	7.0	6.25	2.75	1.0
1795 Frisbee Tag, 6" diameter		3.0	5.0	7.0	On	2.25	11.0	13.0	14.0	7.5	1.0
1796SM Mini-Monster Tag		2.5	4.0	5.5	External	2.0	9.0	10.0	10.0	5.0	1.0
1796 Monster Tag, 8" x 6.75"		3.0	5.25	8.5	Antenna	2.25	12.0	15.0	15.0	8.0	1.0





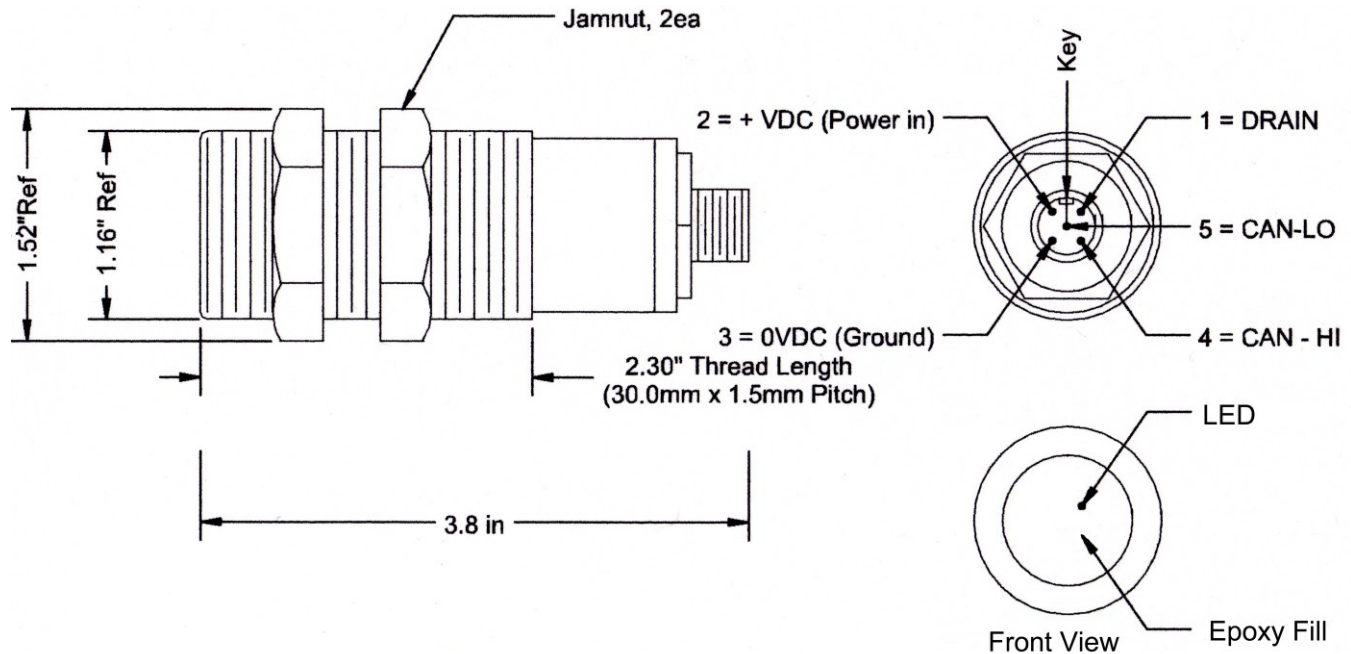
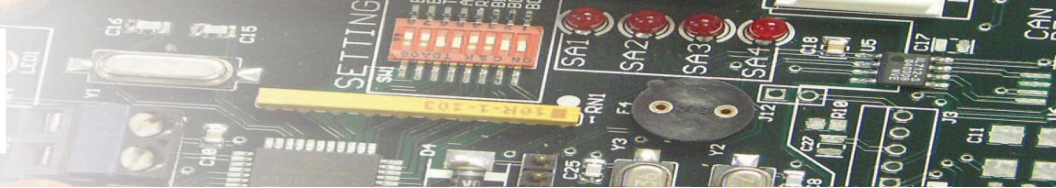
<b>Physical:</b>	Dimensions (w/o hex nuts):	3.8" length x 1.16" diameter	96.52mm length x 29.46mm
	Weight (w/o cable):	4 oz.	113 grams
	Connector Options:	CAN Data & Power:	Serial & Power:
	1' cabling standard Options up to 50'	M12 or Pigtails	9pin D-sub or Pigtails or M12 Quick Connect or Pigtails

<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials:</b>	Housing:	Polycarbonate	
	LED:	On = power	Blink = read achieved
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing

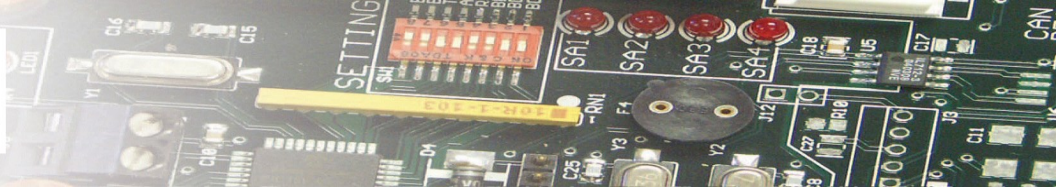
<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	



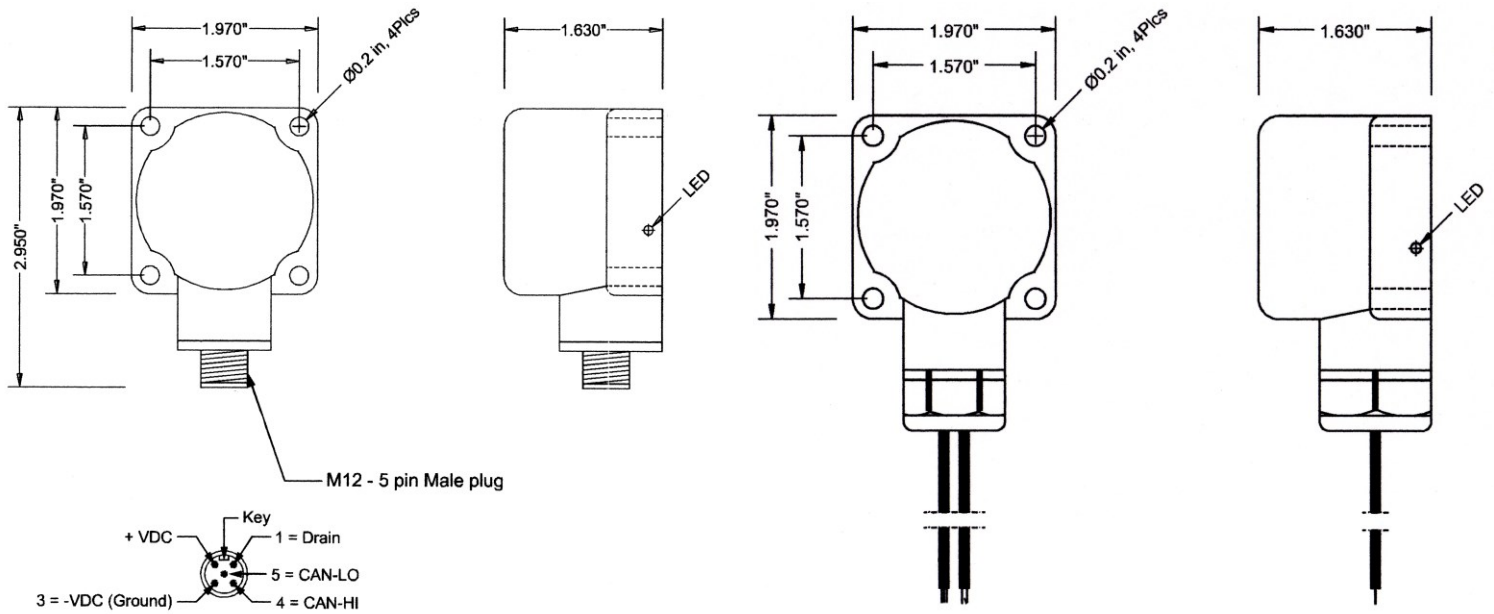
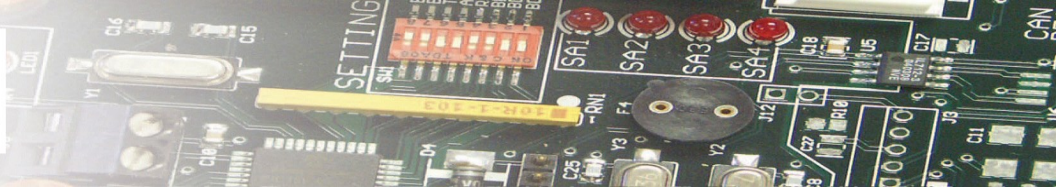


<b>Part Numbers:</b>	719-0013-04SA08	CAN, M12 connector	8 characters data
	719-0013-14SA08	CAN, pigtail wiring	8 characters data
	719-0013-24SA08	CAN, dual pigtail wiring	8 characters data
	719-0013-04SA16	CAN, M12 connector	16 characters data
	719-0013-14SA16	CAN, pigtail wiring	16 characters data
	719-0013-24SA16	CAN, dual pigtail wiring	16 characters data
	719-0013-25SA	Serial, pigtail wiring	8, 16, or 32 characters data
	719-0013-26SA	Serial, pigtail serial, pwr conn	8, 16, or 32 characters data
	719-0013-27SA	Serial, 9pin D-sub, pwr pigtails	8, 16, or 32 characters data
	719-0013-28SA	Serial, 9pin D-sub, pwr conn	8, 16, or 32 characters data
	719-0013-29SA	Serial, M12 connector	8, 16, or 32 characters data
	Add -485 suffix for RS485	Add -OCAN suffix for Can Open	

### Model 5110-SA Hockey Puck Smart Antenna

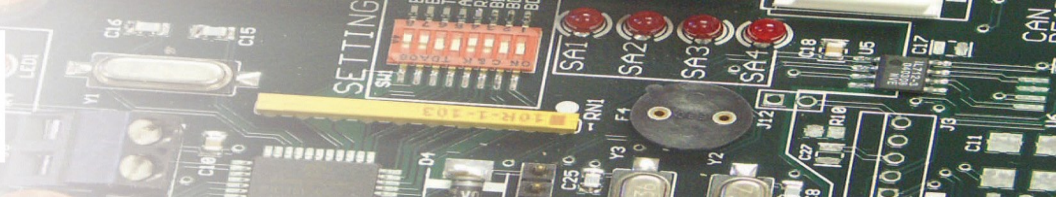


<b>Physical:</b>	Dimensions:	2.95" x 1.97" x 1.63"	7.5cm x 5cm x 4.1cm
	Weight (w/o cable):	5.8 oz.	166 grams
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  M12 or Pigtails	Serial & Power: 9pin D-sub or Pigtails or M12 Quick Connect or Pigtails
<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical
<b>Materials &amp; Functions:</b>	Housing:	Nylon w/20% glass fill	All units are potted
	LED:	On = power	Blink = read achieved
	Relay Driver (NO):	5vdc @ 60mA max.	Option - Specify at Order
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing
<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-65	



M12 - FRONT VIEW

<b>Part Numbers:</b>	719-0015-04SA08	CAN, M12 connector	8 characters data
	719-0015-14SA08	CAN, pigtail wiring	8 characters data
	719-0015-24SA08	CAN, dual pigtail wiring	8 characters data
	719-0015-04SA16	CAN, M12 connector	16 characters data
	719-0015-14SA16	CAN, pigtail wiring	16 characters data
	719-0015-24SA16	CAN, dual pigtail wiring	16 characters data
	719-0015-25SA	Serial, pigtail wiring	8, 16, or 32 characters data
	719-0015-26SA	Serial, pigtail serial, pwr conn	8, 16, or 32 characters data
	719-0015-27SA	Serial, 9pin D-sub, pwr pigtails	8, 16, or 32 characters data
	719-0015-28SA	Serial, 9pin D-sub, pwr conn	8, 16, or 32 characters data
	719-0015-29SA	Serial, M12 connector	8, 16, or 32 characters data
	Add -485 suffix for RS485	Add -OCAN suffix for Can Open	



## Model 5120-SA White Tubular Smart Antenna

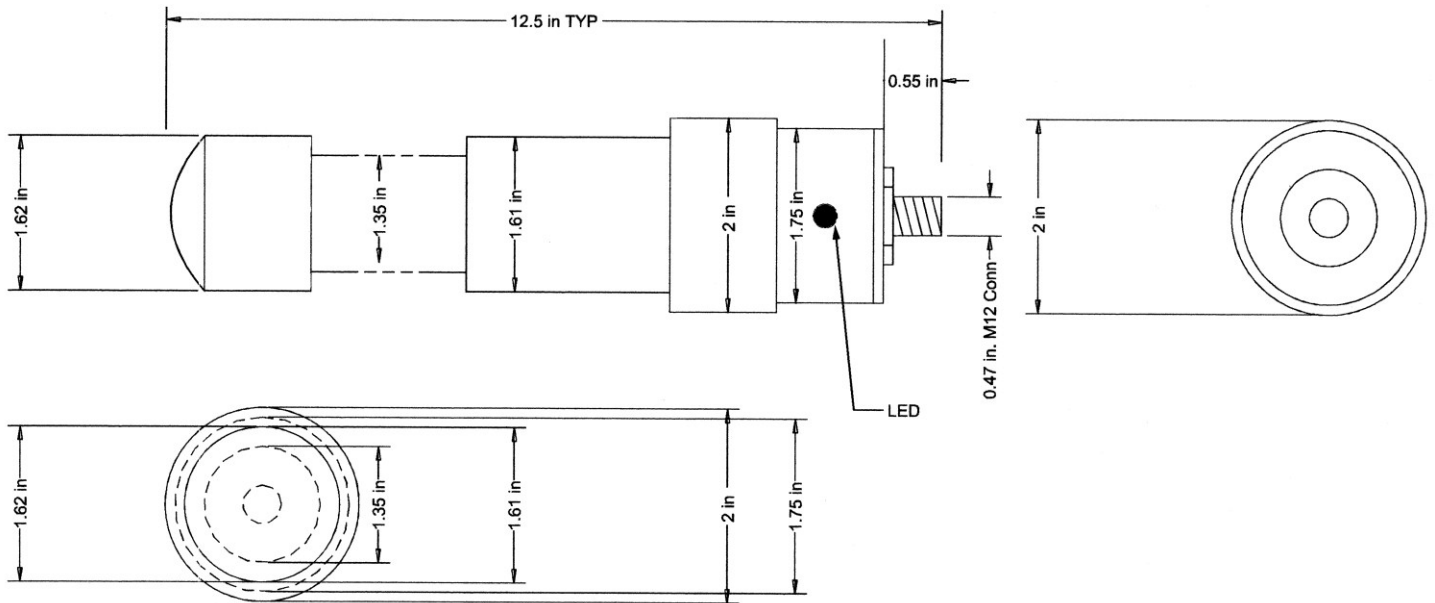
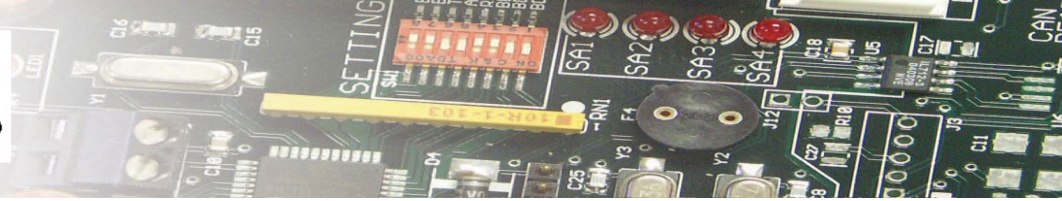


<b>Physical:</b>	Dimensions:	12.5" x 2"	31.75cm x 5.08cm
	Weight:	1.3 lbs.	550 grams
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  M12 or Pigtails	Serial & Power: 9pin D-sub or Pigtails or M12 Quick Connect or Pigtails

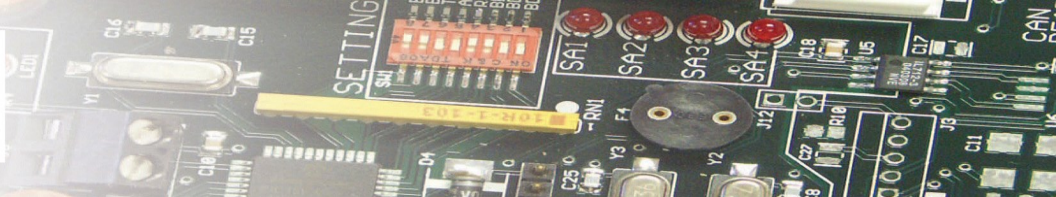
<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials &amp; Functions:</b>	Housing:	PVC	All units are potted
	LED:	On = power	Blink = read achieved
	Relay Driver (NO):	5vdc @ 60mA max.	Option - Specify at Order
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing

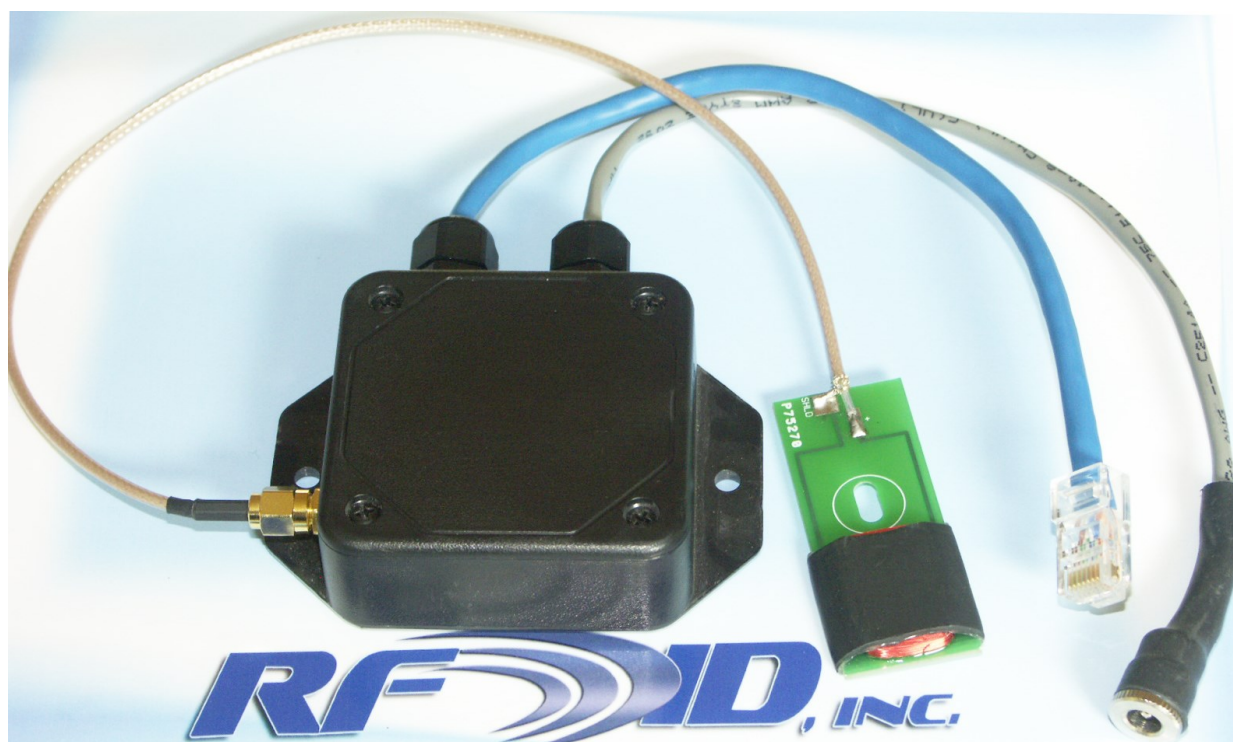
<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-68	



<b>Part Numbers:</b>	719-0016-04SA08	CAN, M12 connector	8 characters data
	719-0016-14SA08	CAN, pigtail wiring	8 characters data
	719-0016-24SA08	CAN, dual pigtail wiring	8 characters data
	719-0016-04SA16	CAN, M12 connector	16 characters data
	719-0016-14SA16	CAN, pigtail wiring	16 characters data
	719-0016-24SA16	CAN, dual pigtail wiring	16 characters data
	719-0016-25SA	Serial, pigtail wiring	8, 16, or 32 characters data
	719-0016-26SA	Serial, pigtail serial, pwr conn	8, 16, or 32 characters data
	719-0016-27SA	Serial, 9pin D-sub, pwr pigtails	8, 16, or 32 characters data
	719-0016-28SA	Serial, 9pin D-sub, pwr conn	8, 16, or 32 characters data
	719-0016-29SA	Serial, M12 connector	8, 16, or 32 characters data
	Add -485 suffix for RS485	Add -OCAN suffix for Can Open	



**Model 5130-SA Smart Antenna –  
with optional external Antenna for tight spaces designed to your size specifications**



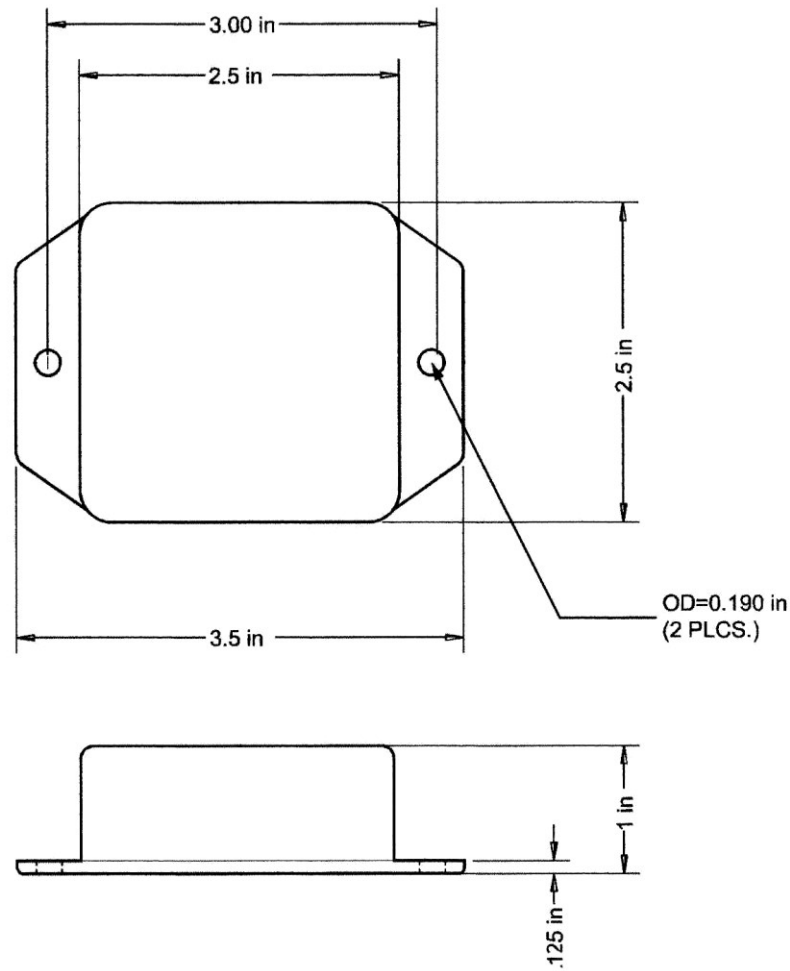
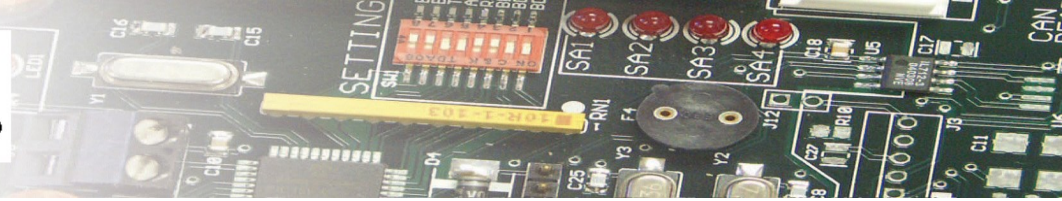
<b>Physical:</b>	Dimensions w/ears:	3.50" x 2.50" x 1.00"	88.9mm x 63.5mm x 25.4mm
	Weight w/o Antenna:	4.4 oz.	123 grams
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  M12 or Pigtails	Serial & Power: 9pin D-sub or Pigtails or M12 Quick Connect or Pigtails

<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

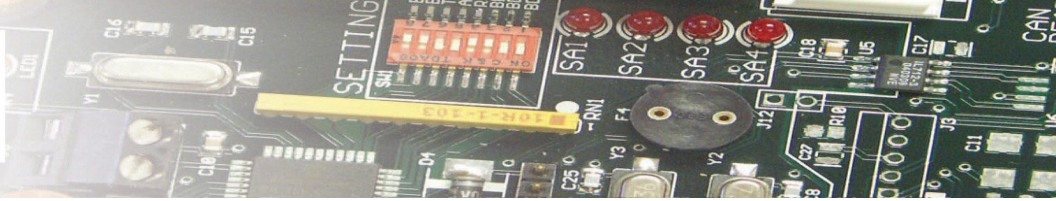
<b>Materials &amp; Functions:</b>	Housing:	ABS	
	LED:	On = power	Blink = read achieved
	Relay Driver (NO):	5vdc @ 60mA max.	Option - Specify at Order
	Output Communications:	CAN	RS232 or RS485
	Addressing:	Inherent with CAN	Both 232 & 485 Addressing

<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-65	





<b>Part Numbers:</b>	800-0243-04SA08	CAN, M12 connector	8 characters data
	800-0243-14SA08	CAN, pigtail wiring	8 characters data
	800-0243-24SA08	CAN, dual pigtail wiring	8 characters data
	800-0243-04SA16	CAN, M12 connector	16 characters data
	800-0243-14SA16	CAN, pigtail wiring	16 characters data
	800-0243-24SA16	CAN, dual pigtail wiring	16 characters data
	800-0243-25SA	Serial, pigtail wiring	8, 16, or 32 characters data
	800-0243-26SA	Serial, pigtail serial, pwr conn	8, 16, or 32 characters data
	800-0243-27SA	Serial, 9pin D-sub, pwr pigtails	8, 16, or 32 characters data
	800-0243-28SA	Serial, 9pin D-sub, pwr conn	8, 16, or 32 characters data
	800-0243-29SA	Serial, M12 connector	8, 16, or 32 characters data
	Add -485 suffix for RS485	Add -OCAN suffix for Can Open	



## Model 5131-SA Nano Reader Smart Antenna



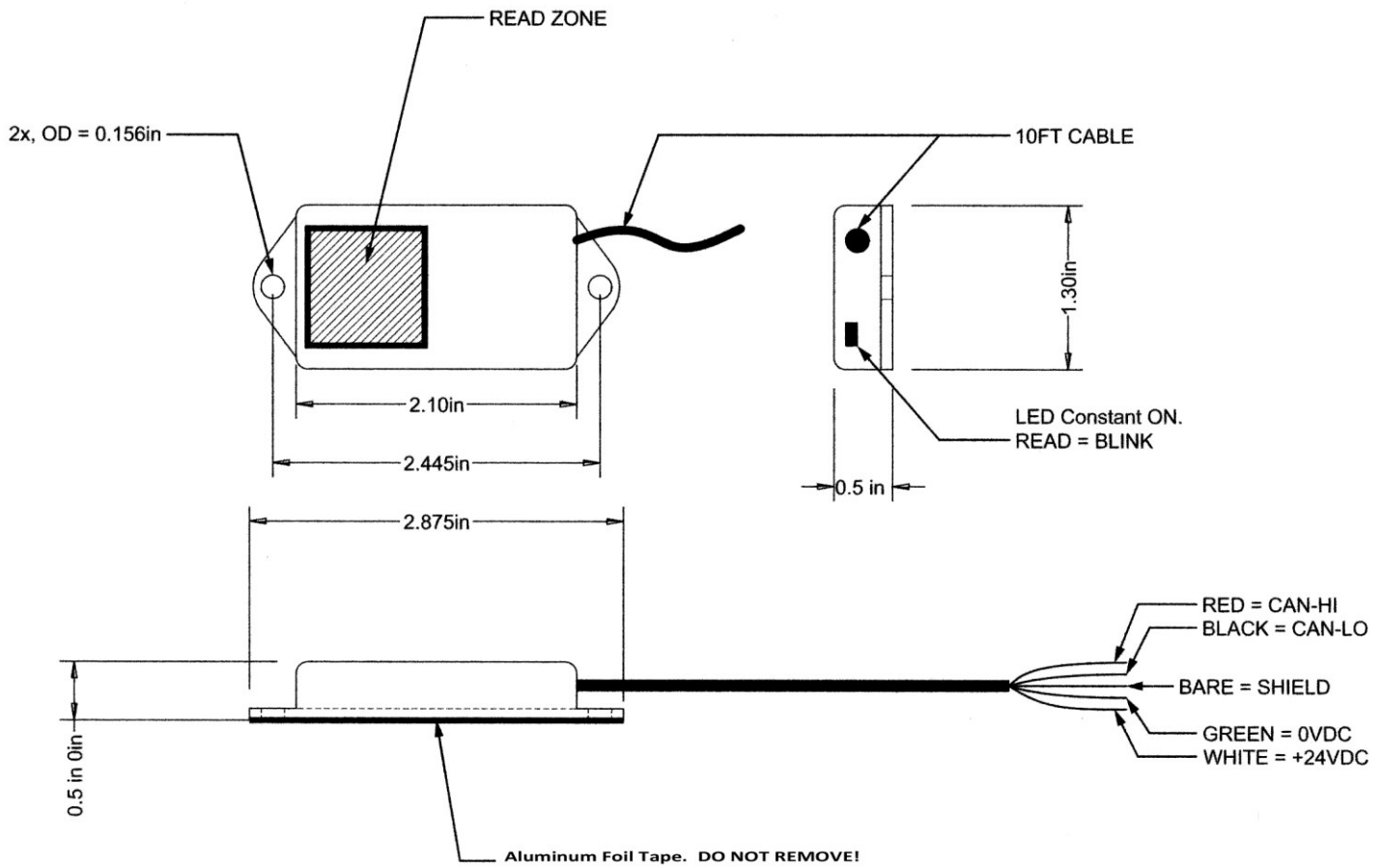
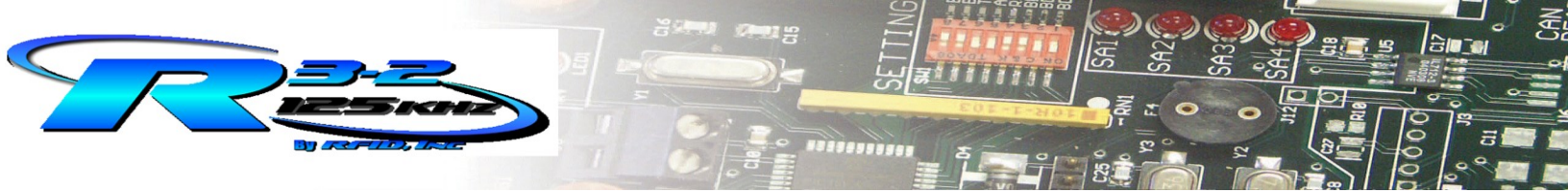
<b>Physical:</b>	Dimensions (w/o flanges):	2.1" x 1.3" x 0.5"	53mm x 33mm x 12.7mm
	Weight (w/o cable):	1.3 oz.	37 grams
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  Pigtails or M12 on Cable	Serial & Power: 9pin D-sub or Pigtails or M12 Quick Connect or Pigtails

<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials &amp; Functions:</b>	Housing:	ABS	Aluminum Back Plate
	LED:	On = power	Blink = read achieved
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing

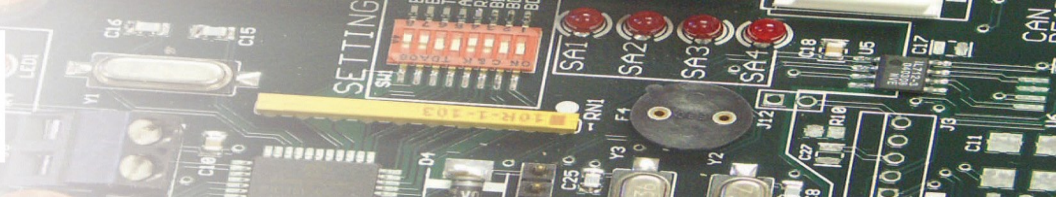
<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-67 Noncondensing	





<b>Part Numbers:</b>	719-0104-04SA08	CAN, M12 connector	8 characters data
	719-0104-14SA08	CAN, pigtail wiring	8 characters data
	719-0104-24SA08	CAN, dual pigtail wiring	8 characters data
	719-0104-04SA16	CAN, M12 connector	16 characters data
	719-0104-14SA16	CAN, pigtail wiring	16 characters data
	719-0104-24SA16	CAN, dual pigtail wiring	16 characters data
	719-0104-25SA	Serial, pigtail wiring	8, 16, or 32 characters data
	719-0104-26SA	Serial, pigtail serial, pwr conn	8, 16, or 32 characters data
	719-0104-27SA	Serial, 9pin D-sub, pwr pigtails	8, 16, or 32 characters data
	719-0104-28SA	Serial, 9pin D-sub, pwr conn	8, 16, or 32 characters data
	719-0104-29SA	Serial, M12 connector	8, 16, or 32 characters data
	Add -485 suffix for RS485	Add -OCAN suffix for Can Open	





## Model 5150-SA 7" Square Smart Antenna

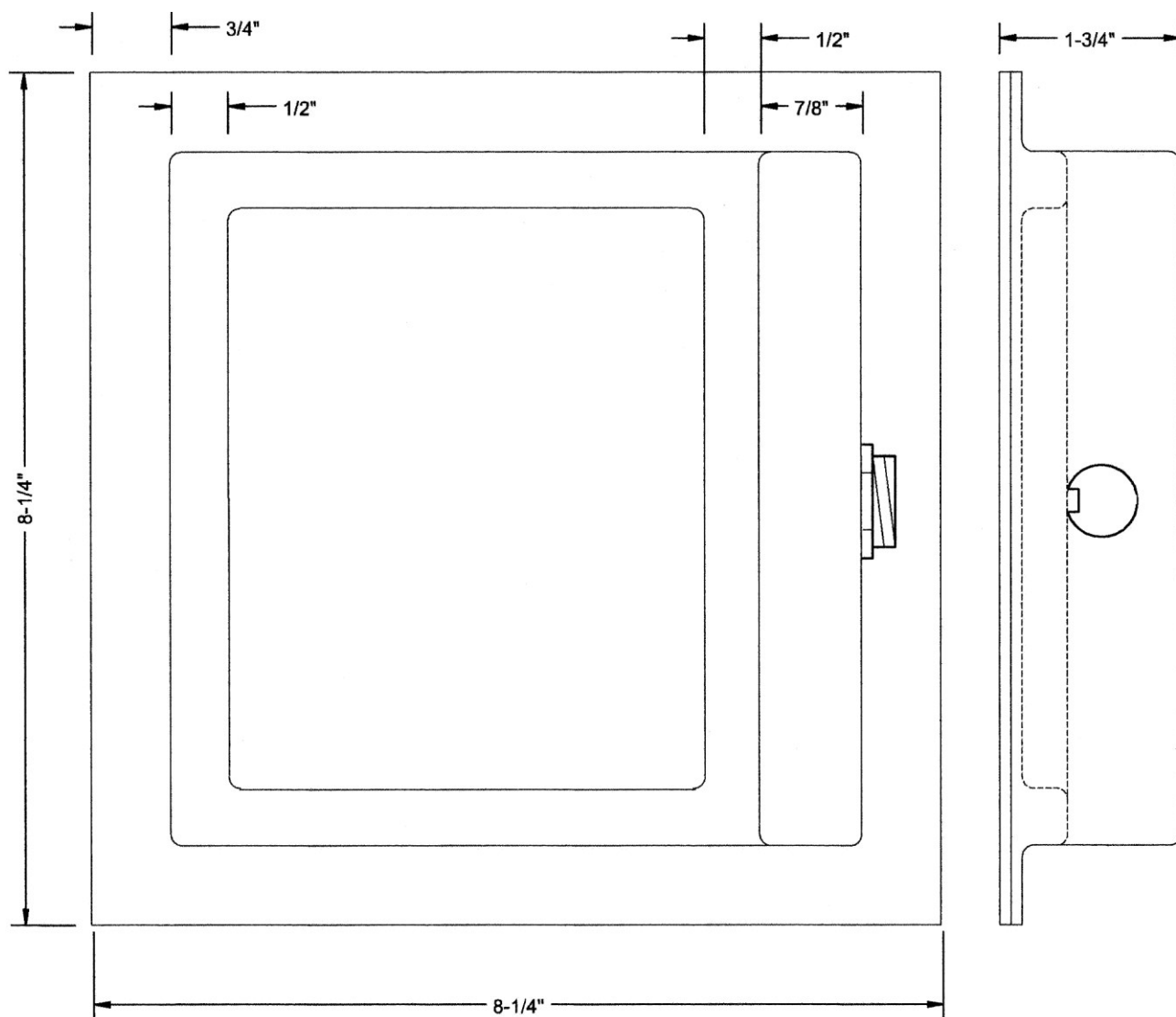
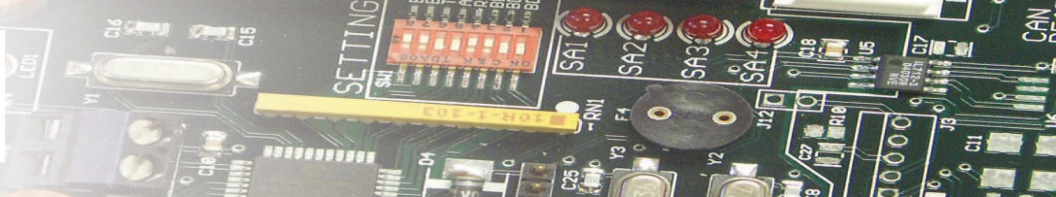


<b>Physical:</b>	Dimensions:	8.25" x 8.25" x 1.75"	21cm x 21cm x 4.5cm
	Weight (w/o cable):	15.7 oz.	446 grams
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  Pigtails or M12	Serial & Power: 9pin D-sub or Pigtails or M12 Quick Connect or Pigtails

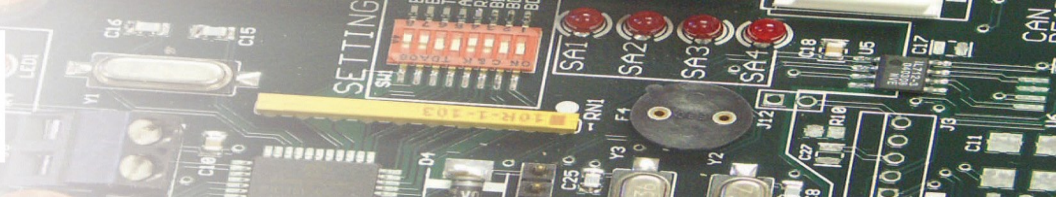
<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials &amp; Functions:</b>	Housing:	ABS	
	LED:	On = power	Blink = read achieved
	Relay Driver (NO):	5vdc @ 60mA max.	Option - Specify at Order
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing

<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-67 Noncondensing	



Part Numbers:			
	719-0026-04SA08	CAN, M12 connector	8 characters data
	719-0026-14SA08	CAN, pigtail wiring	8 characters data
	719-0026-24SA08	CAN, dual pigtail wiring	8 characters data
	719-0026-04SA16	CAN, M12 connector	16 characters data
	719-0026-14SA16	CAN, pigtail wiring	16 characters data
	719-0026-24SA16	CAN, dual pigtail wiring	16 characters data
	719-0026-25SA	Serial, pigtail wiring	8, 16, or 32 characters data
	719-0026-26SA	Serial, pigtail serial, pwr conn	8, 16, or 32 characters data
	719-0026-27SA	Serial, 9pin D-sub, pwr pigtails	8, 16, or 32 characters data
	719-0026-28SA	Serial, 9pin D-sub, pwr conn	8, 16, or 32 characters data
	719-0026-29SA	Serial, M12 connector	8, 16, or 32 characters data
	Add -485 suffix for RS485	Add -OCAN suffix for Can Open	



## Model 5155-SA FlatPack Smart Antenna

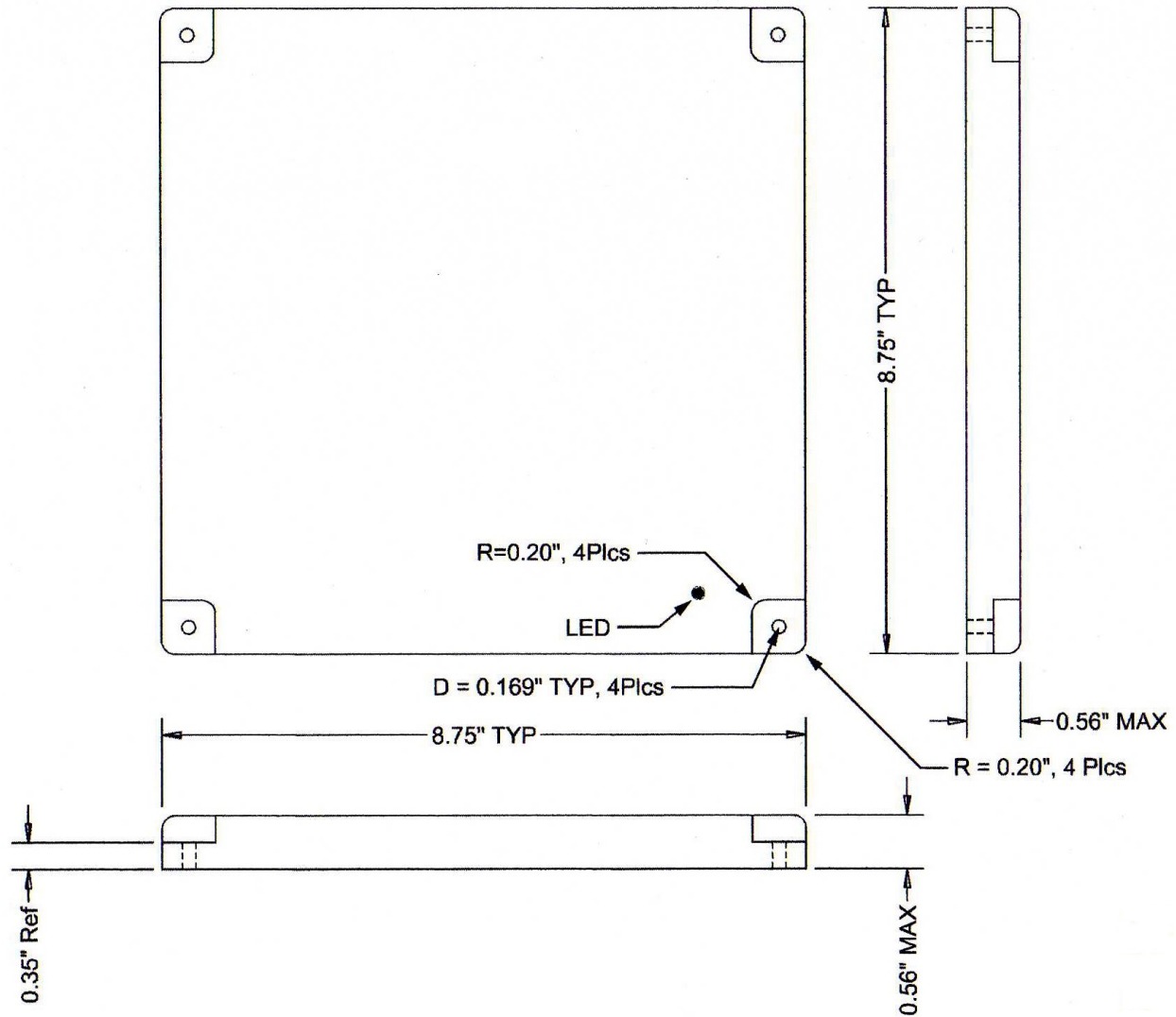
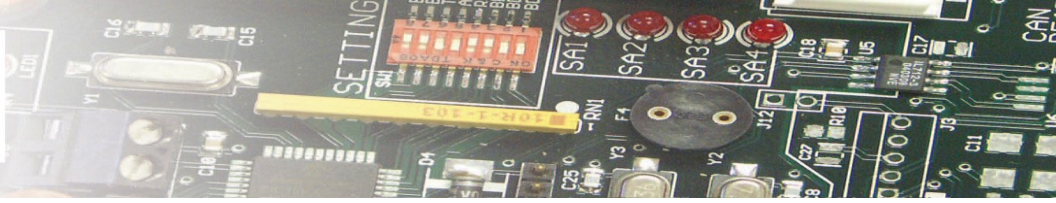


<b>Physical:</b>	Dimensions (w/o flanges):	8.75" x 8.0" x 0.56"	22.3cm x 20.3cm x 1.42cm
	Weight (w/o cable):	1.75 lbs.	794 grams
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  Pigtails or M12 on Cable	Serial & Power: 9pin D-sub or Pigtails or M12 Quick Connect or Pigtails

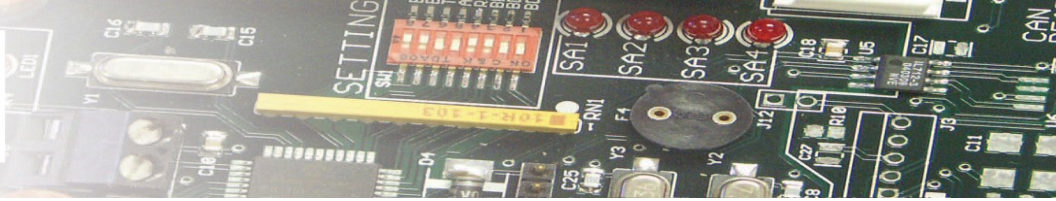
<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials &amp; Functions:</b>	Housing:	Polycarbonate	
	LED:	On = power	Blink = read achieved
	Relay Driver (NO):	5vdc @ 60mA max.	Option - Specify at Order
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing

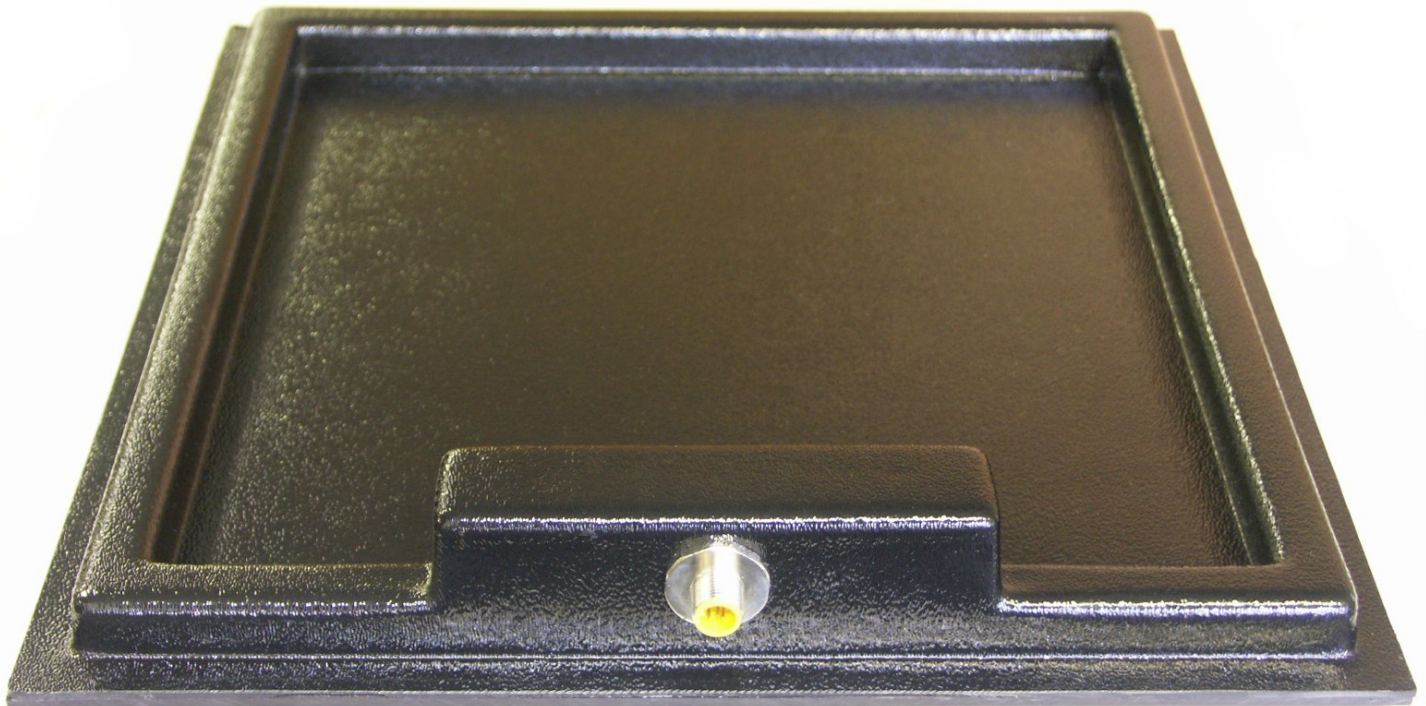
<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-65 Noncondensing	



Part Numbers:			
	719-0246-04SA08	CAN, M12 connector	8 characters data
	719-0246-14SA08	CAN, pigtail wiring	8 characters data
	719-0246-24SA08	CAN, dual pigtail wiring	8 characters data
	719-0246-04SA16	CAN, M12 connector	16 characters data
	719-0246-14SA16	CAN, pigtail wiring	16 characters data
	719-0246-24SA16	CAN, dual pigtail wiring	16 characters data
	719-0246-25SA	Serial, pigtail wiring	8, 16, or 32 characters data
	719-0246-26SA	Serial, pigtail serial, pwr conn	8, 16, or 32 characters data
	719-0246-27SA	Serial, 9pin D-sub, pwr pigtails	8, 16, or 32 characters data
	719-0246-28SA	Serial, 9pin D-sub, pwr conn	8, 16, or 32 characters data
	719-0246-29SA	Serial, M12 connector	8, 16, or 32 characters data
	Add -485 suffix for RS485	Add -OCAN suffix for Can Open	



## Model 5160-SA 12" Square Smart Antenna

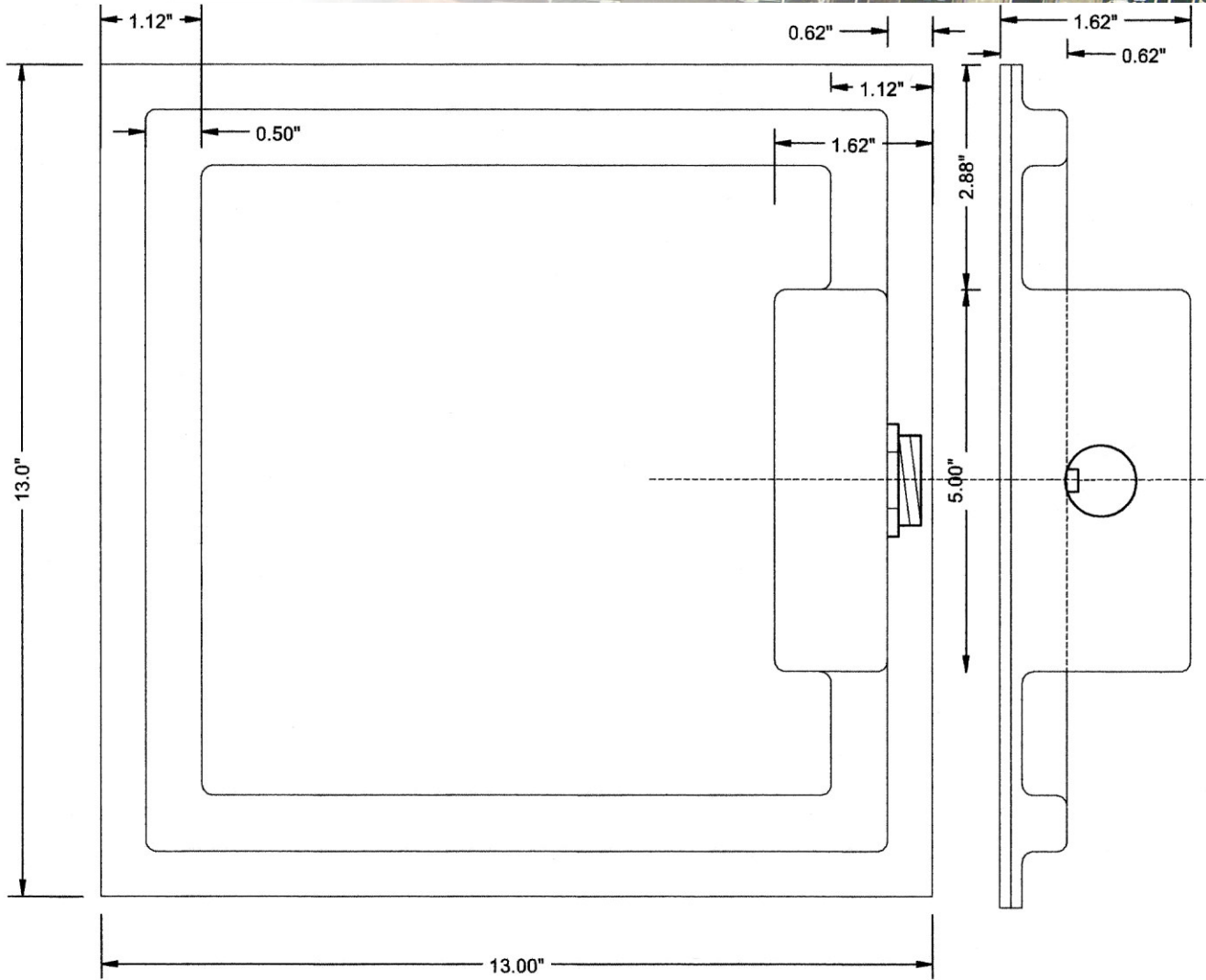
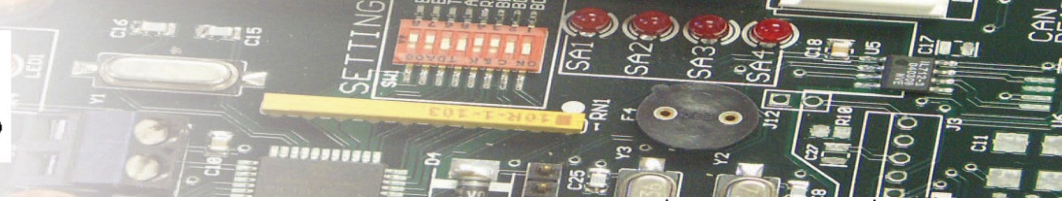


<b>Physical:</b>	Dimensions (w/o flanges):	13" x 13" x 1.62"	33cm x 33cm x 4.1cm
	Weight (w/o cable):	2 lbs.	907 grams
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  Pigtails or M12 on Cable	Serial & Power: 9pin D-sub or Pigtails or M12 Quick Connect or Pigtails

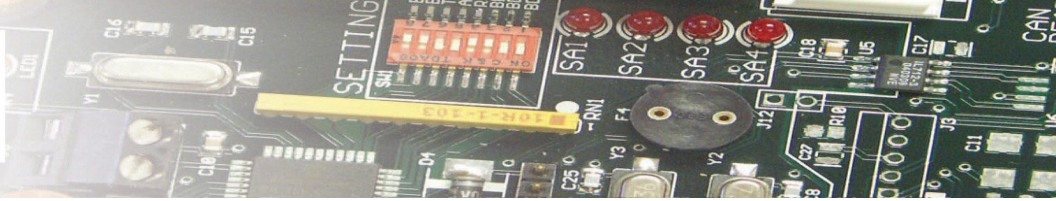
<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials &amp; Functions:</b>	Housing:	Black ABS	
	LED:	On = power	Blink = read achieved
	Relay Driver (NO):	5vdc @ 60mA max.	Option - Specify at Order
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing

<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-67 Noncondensing	



<b>Part Numbers:</b>	719-0027-04SA08	CAN, M12 connector	8 characters data
	719-0027-14SA08	CAN, pigtail wiring	8 characters data
	719-0027-24SA08	CAN, dual pigtail wiring	8 characters data
	719-0027-04SA16	CAN, M12 connector	16 characters data
	719-0027-14SA16	CAN, pigtail wiring	16 characters data
	719-0027-24SA16	CAN, dual pigtail wiring	16 characters data
	719-0027-25SA	Serial, pigtail wiring	8, 16, or 32 characters data
	719-0027-26SA	Serial, pigtail serial, pwr conn	8, 16, or 32 characters data
	719-0027-27SA	Serial, 9pin D-sub, pwr pigtails	8, 16, or 32 characters data
	719-0027-28SA	Serial, 9pin D-sub, pwr conn	8, 16, or 32 characters data
	719-0027-29SA	Serial, M12 connector	8, 16, or 32 characters data
	Add -485 suffix for RS485	Add -OCAN suffix for Can Open	



## Model 5180-SA Slim Line Reader (Smart Antenna)



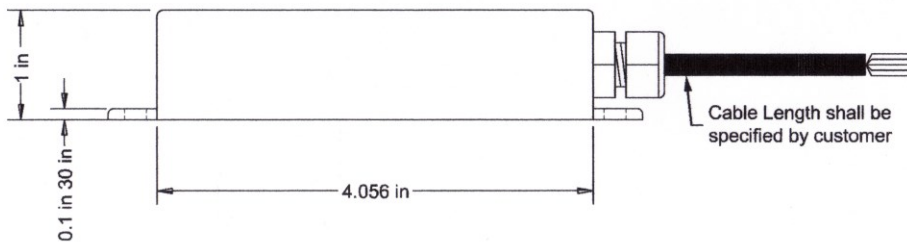
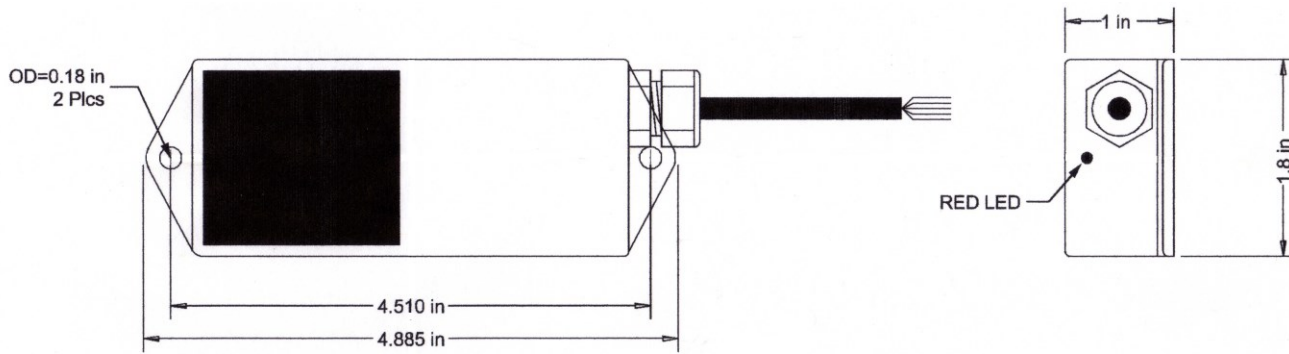
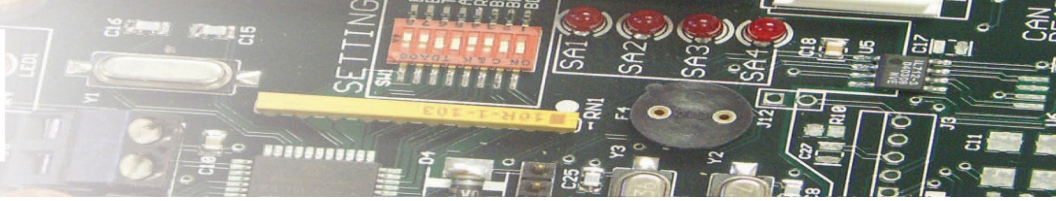
<b>Physical:</b>	Dimensions (w/o flanges):	4.056" x 1.8" x 1"	10.3cm x 4.57cm x 2.54cm
	Weight (w/o cable):	5.7 oz.	161 grams
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  Pigtails or M12 on Cable	Serial & Power: 9pin D-sub or Pigtails or M12 Quick Connect or Pigtails

<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials:</b>	Housing:	Black ABS	
	LED:	On = power	Blink = read achieved
	Relay Driver (NO):	5vdc @ 60mA max.	Option - Specify at Order
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing

<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +85°C
	Ingress Protection:	IP-67 Non-condensing	





NOTES: PN 719-0098-14SXDD Series  
 Where X=A= 125KHZ.  
 X=R=148KHZ.  
 DD=08=8Digits  
 DD=16=16Characters.

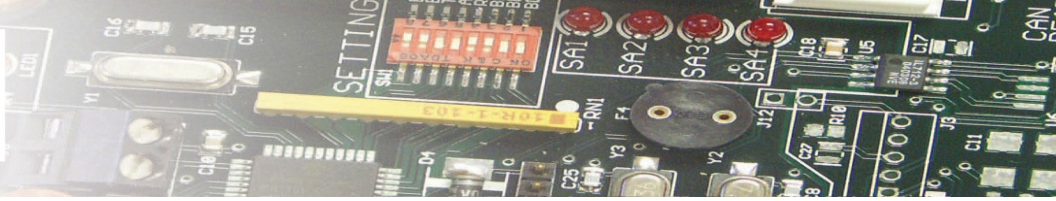
**WIRING CHART:**

CAN-HI : Red  
 CAN-LO : Black

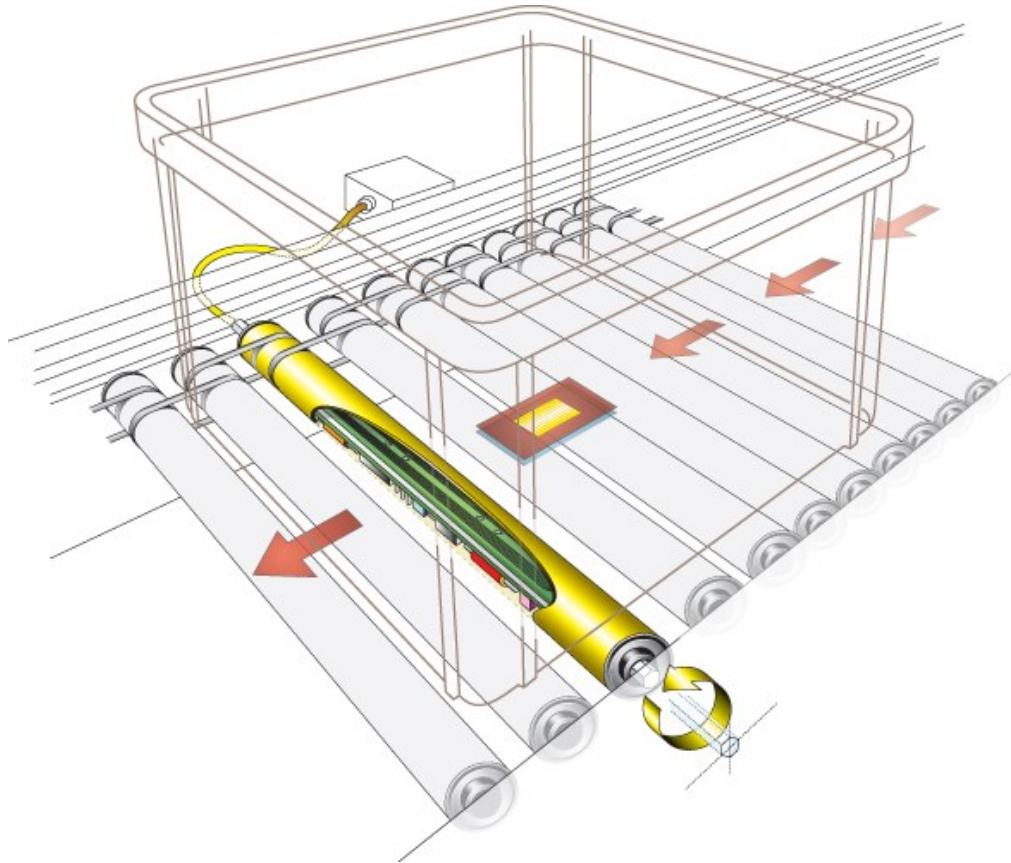
POWER + : White  
 GROUND 0V: Green

SHIELD: Bare Wire.

Part Numbers:			
719-0098-04SA08	CAN, M12 connector		8 characters data
719-0098-14SA08	CAN, pigtail wiring		8 characters data
719-0098-24SA08	CAN, dual pigtail wiring		8 characters data
719-0098-04SA16	CAN, M12 connector		16 characters data
719-0098-14SA16	CAN, pigtail wiring		16 characters data
719-0098-24SA16	CAN, dual pigtail wiring		16 characters data
719-0098-25SA	Serial, pigtail wiring		8, 16, or 32 characters data
719-0098-26SA	Serial, pigtail serial, pwr conn		8, 16, or 32 characters data
719-0098-27SA	Serial, 9pin D-sub, pwr pigtails		8, 16, or 32 characters data
719-0098-28SA	Serial, 9pin D-sub, pwr conn		8, 16, or 32 characters data
719-0098-29SA	Serial, M12 connector		8, 16, or 32 characters data
Add -485 suffix for RS485	Add -OCAN suffix for Can Open		



## Model 5181-SA SmartRoller

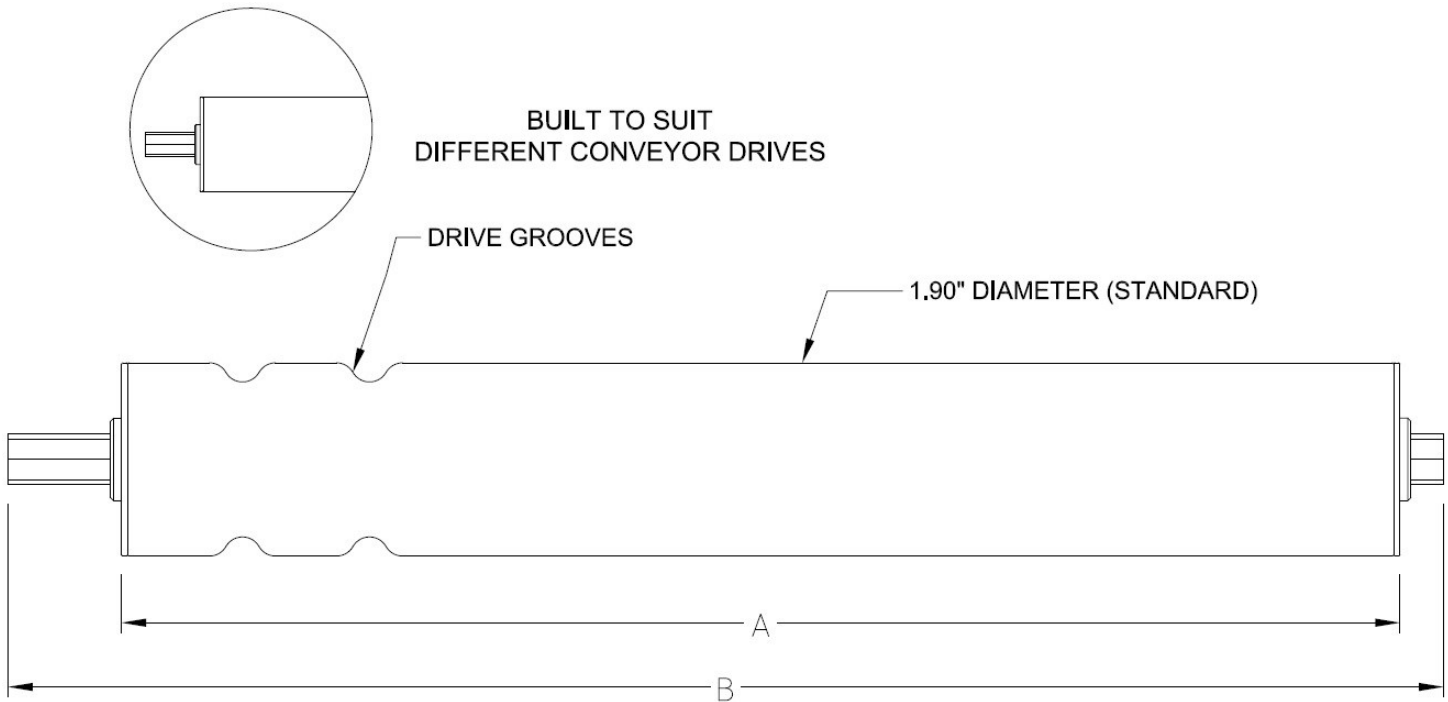
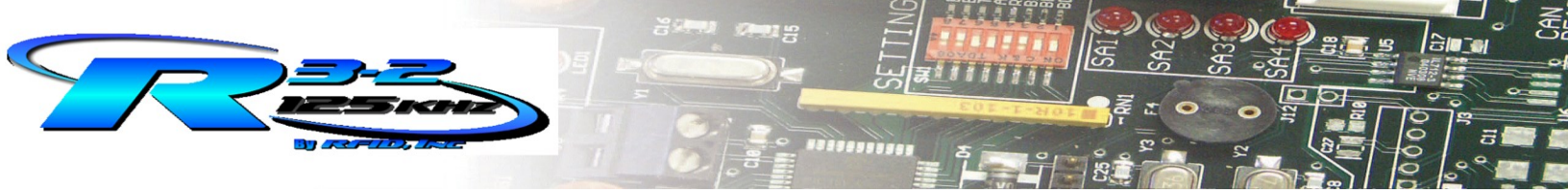


<b>Physical:</b>	Dimensions:	Custom	
	Weight:	Dependent on size	
	Connector Options: 1' cabling standard Options up to 50'	CAN Data & Power:  M8 or Pigtails	Serial & Power:  M8 or Pigtails

<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials &amp; Functions:</b>	Housing:	PVC	
	LED:	On = power	Blink = read achieved
	Output:	CAN	RS232 or RS485
	Addressing:	Inherent	Both 232 & 485 Addressing

<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-65	

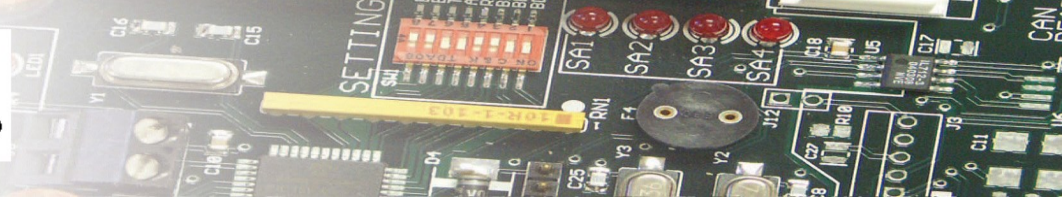


Conveyor B.R.	A	B
10" Smart Roller Assembly	9.625	11.125
13" Smart Roller Assembly	12.625	14.125
17" Smart Roller Assembly	16.625	18.125
21" Smart Roller Assembly	20.625	22.125

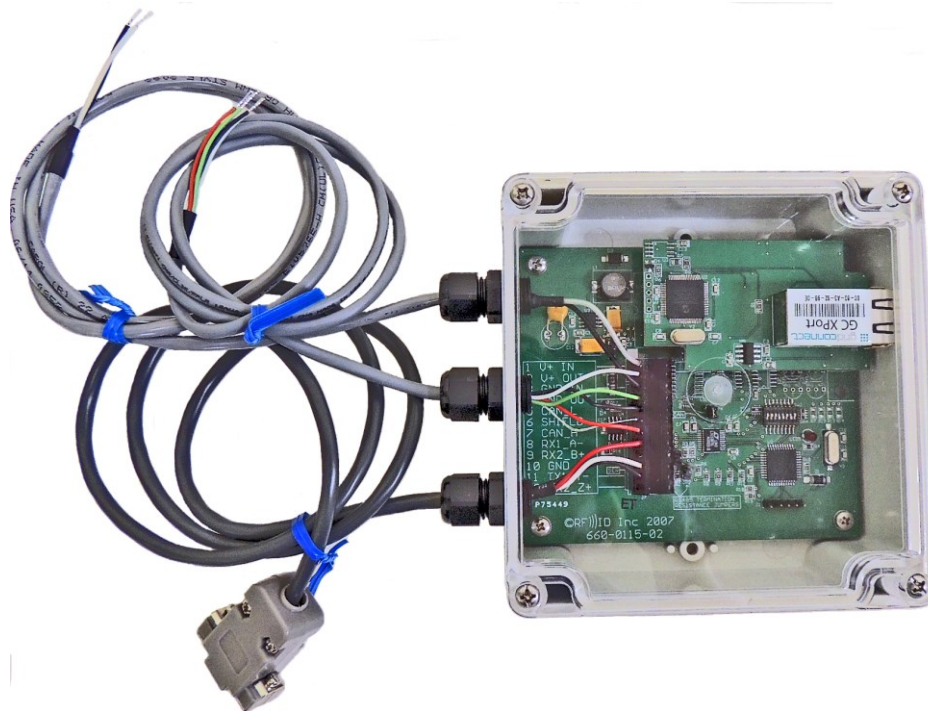
Note: The "12" in 1208 denotes 12.625" length in column A above. Substitute xx08 in part number below for different size. Contact us for the custom sizes.

Part Numbers:			
719-1208-04SA08	CAN, M8 connector	8 characters data	
719-1208-14SA08	CAN, pigtail wiring	8 characters data	
719-1208-24SA08	CAN, dual pigtail wiring	8 characters data	
719-1208-04SA16	CAN, M8 connector	16 characters data	
719-1208-14SA16	CAN, pigtail wiring	16 characters data	
719-1208-24SA16	CAN, dual pigtail wiring	16 characters data	
719-1208-25SA	Serial, pigtail wiring	8, 16, or 32 characters data	
719-1208-26SA	Serial, M8 connector	8, 16, or 32 characters data	
Add -485 suffix for RS485	Add -OCAN suffix for Can Open		





## Model 8000 Series Smart Antenna Interfaces



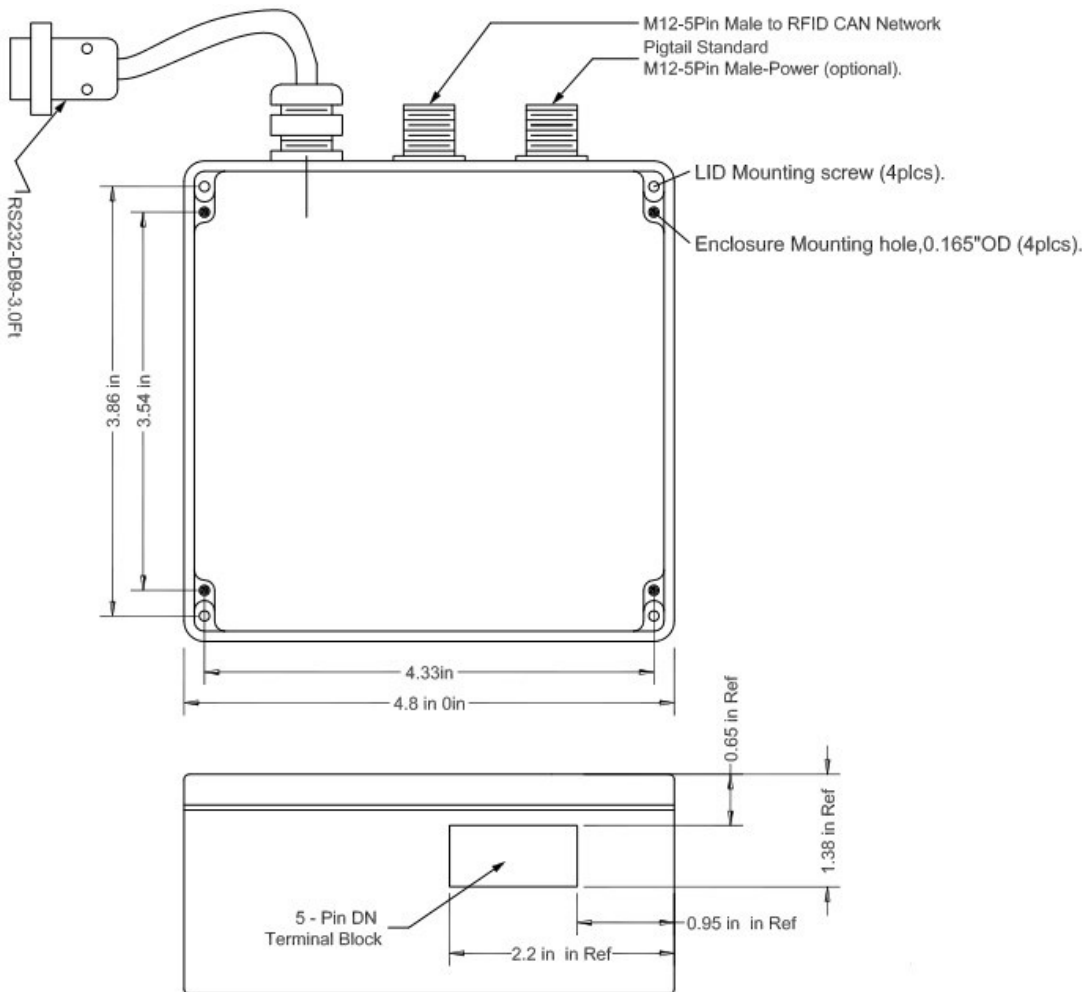
<b>Physical:</b>	Dimensions (w/o connectors):	4.8" square x 2.175"	122mm square x 55mm
	Weight (w/o cable):	11 oz.	312 grams
	Connector Options:	CAN Port(s): M12 or Pigtails RS232 Port: 9pin D-sub Ethernet/IP: RJ45 TCPIP: RJ45 DeviceNet: Profibus: Modbus TCP Port: RJ45 Modbus RTU: 9pin D-sub	Power: Quick Connect power jack or Pigtails or power thru M12

<b>Electrical:</b>	Input:	8VDC – 28VDC	
	Draw:	125mA min – 200mA max	150mA typical

<b>Materials:</b>	Housing, Base:	Polycarbonate, opaque	NEMA 4X
	Lid:	Polycarbonate, clear	
	LED:	On = power	Blink = read achieved

<b>Environment:</b>	Storage Temperature:	-40°F to 185°F	-40°C to +85°C
	Operating Temperature:	-40°F to +131°F	-40°C to +55°C
	Ingress Protection:	IP-50	

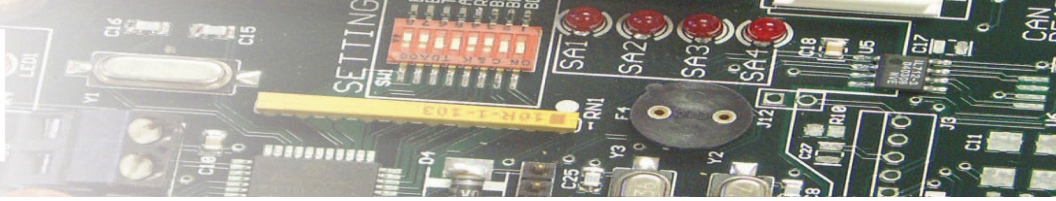
Ethernet/IP Interface w/M12 Connectors Drawing Shown



In the 2nd table below, substitute the 2<sup>nd</sup> field (8030) with the following for other communication protocols as follows:

8030 = RS232
8040 = Ethernet/IP
8050 = TCP/IP
8060 = DeviceNet
8070 = Profibus
8080 = Modbus TCP
8085 = Modbus RTU

<b>Part Numbers:</b>	801-8030-04SA08	M12 connector	8 characters data
	801-8030-14SA08	Pigtail wiring	8 characters data
	801-8030-04SA16	M12 connector	16 characters data
	801-8030-14SA16	Pigtail wiring	16 characters data
	801-8030-24SA08	Dual pigtail wiring	8 characters data
	801-8030-24SA16	Dual pigtail wiring	16 characters data

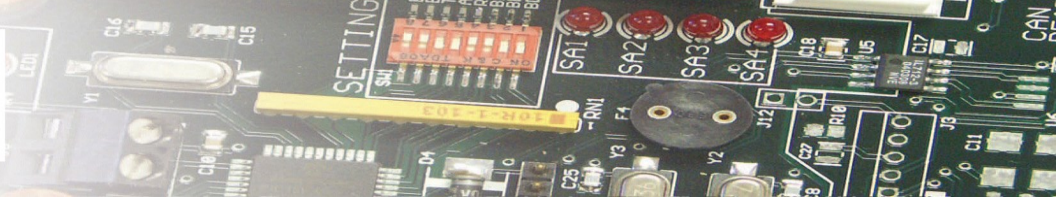


**Smart Antennas Read Range Matrix in Inches (Write Range is 5% to 50% less than Read Range dependent upon combination)**

Tag Model Number ↓ Smart Antenna Model →	5100	5110	5120	5130	5131
1762 – 1765 – 1768 - 1769 30mm diameter Tags	1.25	2.0	1.75	Dependent	1.0
1763 20mm Button Tag	1.0	1.25	0.5	On	0.75
1766 25mm PVC Laminate Tag	1.0	1.5	0.75	External	0.75
1767 50mm Potted Dome Tag	2.0	3.75	3.0	Antenna	1.5
1770 Credit Card (ISO)	2.0	3.0	3.25		1.5
1771 35mm PVC Laminate Tag	1.5	2.0	1.75		1.25
1772 22mm High Temp Tag	1.25	2.0	1.25		1.0
1772-HT30 High Temp 30mm Tag	1.5	2.0	1.5		1.0
1772-HT50 High Temp 50mm Tag	2.0	2.5	2.5		1.5
1773 Keyfobs	Dependent	Upon	Keyfob	Size	
1774 Coffin Tag	0.75	1.5	0.5		0.5
1776 Wrist Bracelet	1.25	2.0	1.75		1.0
1778 12mm Pill Tag	0.75	1.0	--		0.5
1779 16mm Laundry Tag	0.75	1.25	0.5		0.5
1781M1 Bar Tag, Ferrite coil	1.0	2.25	4.0		0.75
1781M2 Bar Tag, Planar coil	1.25	2.25	2.0		1.0
1786 Hockey Puck Tag	2.25	3.5	4.0		1.75
1787 Lipstick Tag	1.5	2.75	3.25		1.25
1788 Tank Tag	1.0	1.5	0.5		0.75
1791 Deck of Cards Tag	2.25	3.5	4.0		1.75
1795 Frisbee Tag, 6" diameter	3.0	5.0	7.0		2.25
1796SM Mini-Monster Tag	2.5	4.0	5.5		2.0
1796 Monster Tag, 8" x 6.75"	3.0	5.25	8.5		2.25

Tag Model Number ↓ Smart Antenna Model →	5150	5155	5160	5180	5181
1762 – 1765 – 1768 - 1769 30mm diameter Tags	3.5	4.5	--	2.0	1.0
1763 20mm Button Tag	1.5	2.5	--	1.0	1.0
1766 25mm PVC Laminate Tag	2.25	3.0	--	1.25	1.0
1767 50mm Potted Dome Tag	5.5	6.5	5.0	3.25	1.0
1770 Credit Card (ISO)	6.0	7.0	5.25	3.5	1.0
1771 35mm PVC Laminate Tag	3.75	4.5	1.25	2.0	1.0
1772 22mm High Temp Tag	3.25	4.0	--	1.5	1.0
1772-HT30 High Temp 30mm Tag	3.5	4.0	1.0	2.0	1.0
1772-HT50 High Temp 50mm Tag	5.0	5.5	4.5	3.50	1.0
1773 Keyfobs	Dependent	Upon	Keyfob	Size	
1774 Coffin Tag	1.25	3.0	--	0.75	1.0
1776 Wrist Bracelet	3.5	4.5	--	2.0	1.0
1778 12mm Pill Tag	--	3.25	--	0.25	1.0
1779 16mm Laundry Tag	1.0	2.0	--	1.0	1.0
1781M1 Bar Tag, Ferrite coil	5.25	7.0	6.25	2.75	1.0
1781M2 Bar Tag, Planar coil	4.5	5.5	3.0	2.5	1.0
1786 Hockey Puck Tag	7.0	7.0	8.0	4.0	1.0
1787 Lipstick Tag	5.75	7.0	6.75	3.25	1.0
1788 Tank Tag	1.75	2.5	--	1.0	1.0
1791 Deck of Cards Tag	7.0	7.0	7.5	4.0	1.0
1795 Frisbee Tag, 6" diameter	11.0	13.0	14.0	7.5	1.0
1796SM Mini-Monster Tag	9.0	10.0	10.0	5.0	1.0
1796 Monster Tag, 8" x 6.75"	12.0	15.0	15.0	8.0	1.0





**Model 3039E-SA USB Desktop Reader/Programmer**

Connection: USB B  
 Power: Power over USB  
 Enclosure: ABS Black, 3.5" x 2.5" x 1" w/ears  
 LED: Power & Read Indicator  
 Op Temp: -40 to +55°C  
 Non-Op Temp: -55 to +85°C



**Model 3036E Hand Held Reader Programmer**



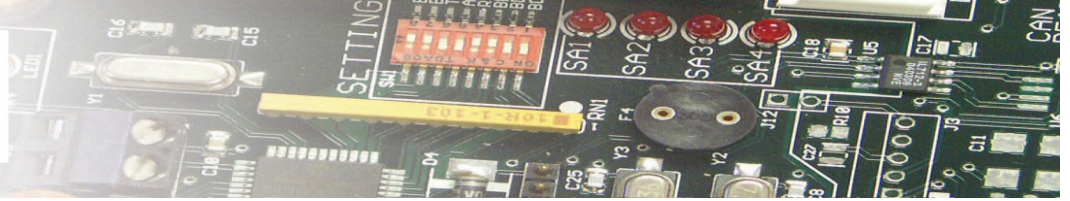
Operation: Stand alone, no need for software or PC  
 Power: Operates on rechargeable battery or via AC power supply  
 Power supply: Also acts as charger, 12vdc, 500mA  
 Enclosure: ABS Black, approximately 9" x 5" x 1.5"  
 LCD: 2 lines x 32 characters  
 Op Temp: -40 to +55°C  
 Non-Op Temp: -55 to +85°C

**Model 3047E Hand Held Computer with RFID Reader/Programmer with Bar Code**

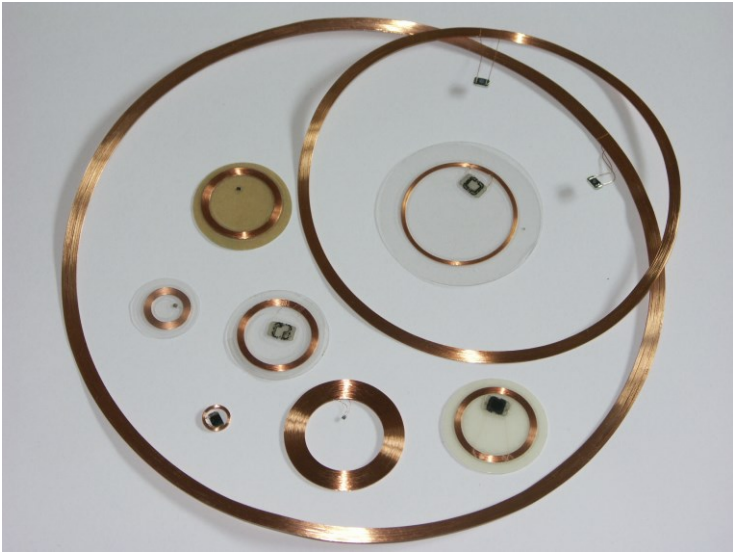
OS: Windows CE 5.0  
 Processor: Marvel XScale PXA270 624 MHz  
 Memory: 128 MB SDRAM + 512 MB Flash Built In  
 2 GB Compact Flash  
 WLAN: 802.11b WiFi + Bluetooth  
 Bar Code: Compact Flash  
 Battery: 9 hours

Op Temp: -20 to +50°C  
 St Temp: -20 to +70°C  
 Weight: 1 lb.  
 Ports: RS232, CF 2 expansion slot, Mini USB  
 Display: Touch screen, 320x240 pixel QVGA  
 -TFT color w/white LED backlight





Ask for separate literature piece to see our complete line of low frequency Tags



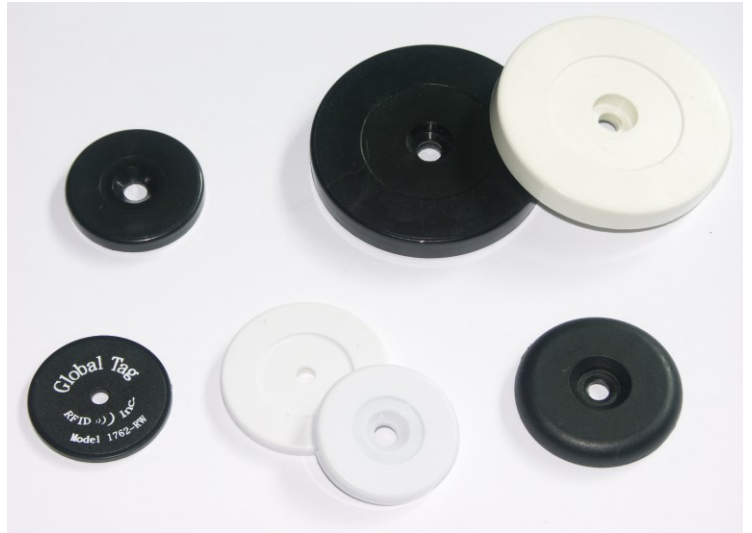
Coil & Chip, Clear Laminates, Peel & Stick, 9mm's to 180mm's



Potted Industrial Tags



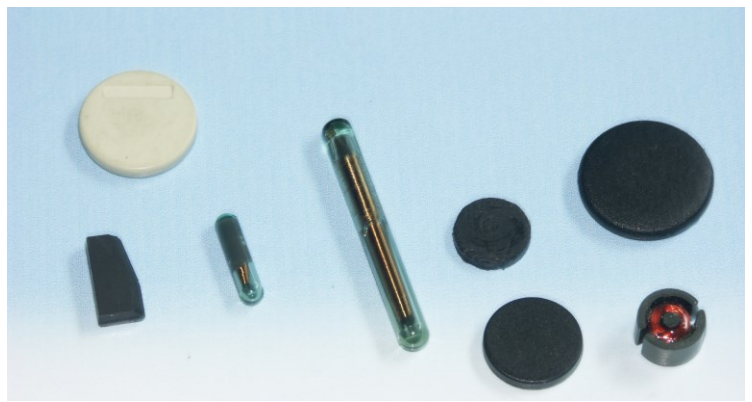
High Temperature Tags (up to 260°C)



ABS Tags, 20mm, 25mm, 30mm, 35mm, 50mm

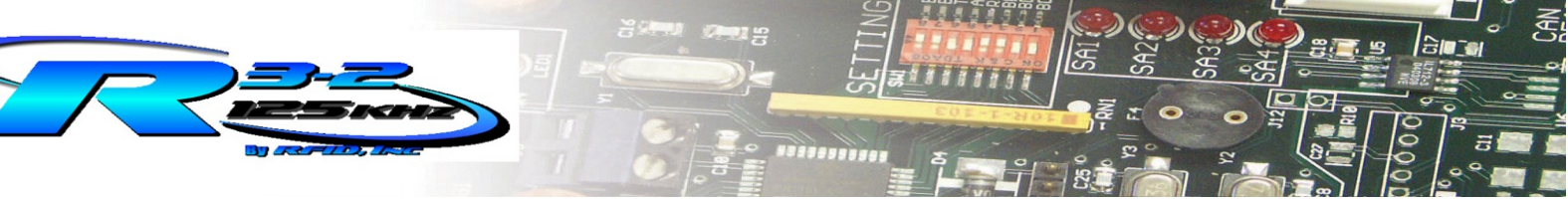


Bolt, Screw, Nail, Cable Tags



Small Tags - Glass Ampoules, Laundry, Flush Mount Metal Tags





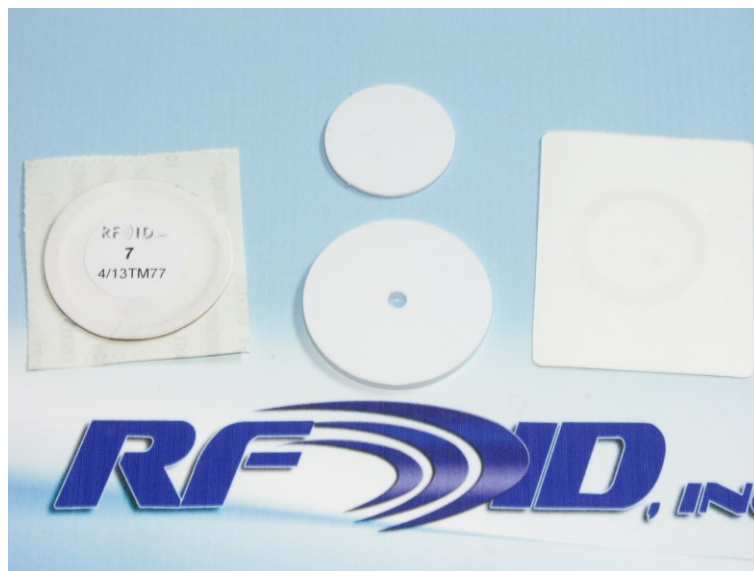
Wristbands



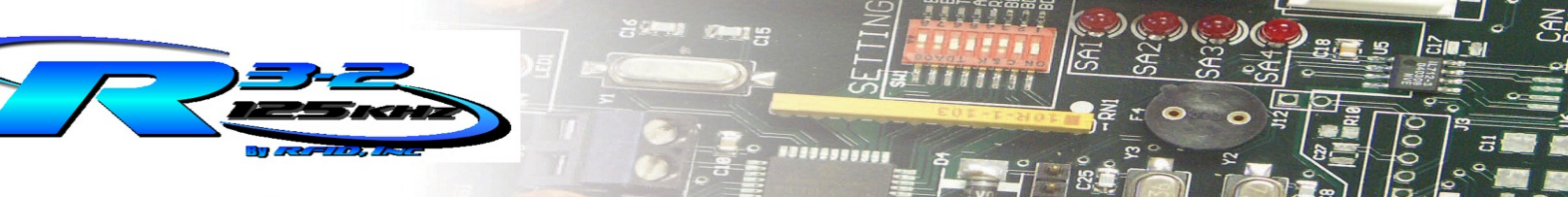
Personnel Badges, Hotel Cards, Museum Tickets



Keyfobs



PVC Laminates, Labels, Sticker Tags



**Client List (Partial)**

**USA Medical & Pharmacies:**

Abbot Labs  
 AmeriPharm  
 Amphenol  
 Anthem  
 BioCare  
 Boston Scientific  
 Cardinal Health  
 CASI  
 CDS/Procare  
 Cigna Tel-Drug  
 CR Bard  
 CVS  
 Eckerd Drug  
 Edward's Life Science  
 Excellerx  
 FamilyMeds.com  
 Humana  
 Intuitive Surgical  
 Kaiser Permanente  
 McKesson SI/Baker  
 Medtronic  
 Optum Rx  
 PacifiCare  
 Prescription Solutions  
 Providence  
 Rite Aid  
 Rx Direct  
 Smith's Medical  
 Tel-Drug  
 Veteran's Admin  
 Walgreens  
 Walmart  
 Wyeth Labs

**USA Automotive:**

Allen Bradley  
 ATS  
 Bendix  
 Caterpillar  
 Cummins Engines  
 Daimler AG  
 Decoma  
 Delphi  
 Detroit Diesel  
 Federal Mogul  
 Ford Motor Company  
 General Motors  
 Hirotec  
 Honda  
 Howmet  
 John Deere  
 Meridian Automotive  
 Michelin  
 Neaton Automotive  
 Polaris Industries  
 Toyota  
 Trident Automotive

Visteon  
 Volvo

**USA WIP:**

Alcoa  
 Amana  
 AT&T  
 Avtron  
 BAE Automation  
 Boeing Corporation  
 BorgWarner  
 BW Rogers  
 Carlton-Bates  
 CEI Automation  
 CharBroil  
 Copeland  
 Cutler-Hammer  
 Eastman Kodak  
 El DuPont  
 Electrolux  
 Eskay  
 Esselte  
 Estee Lauder  
 FlexLink Conveyors  
 Frigidaire  
 General Electric  
 Hagemeyer NA  
 Ingersoll Rand  
 Kim Automation  
 Knapp  
 Krauss-Maffei  
 Lear Jets  
 Marshall's  
 Maytag  
 Motorola  
 OshKosh B'Gosh  
 Osram Sylvania  
 Pepsi (Quaker)  
 Proctor & Gamble  
 Rockwell  
 Rockwell Automation  
 SCI Sanmina  
 Sears  
 SI/Handling Systems  
 Square D Company  
 Siemens  
 Stanley Tools  
 Swisslog  
 Texas Instruments  
 Schick  
 Tempur Pedic  
 Thomson Electronics  
 TJ Maxx  
 TRW  
 Valeo Sylvania  
 Wepco  
 Whirlpool  
 Wunderlich-Malec

**USA Discrete**

**Process Controls:**

Ace Hardware  
 Cargill  
 Conagra  
 Exxon Mobil  
 Inland Steel  
 Nestle  
 Nippon Steel  
 POM Wonderful  
 U.S. Steel

**USA Routing/ASRS:**

AGV Products  
 Amerden  
 Anheuser-Busch  
 Jervis Webb  
 JBT  
 Lemans  
 Los Angeles Times  
 Pilgrim's Pride  
 The Denver Post  
 The Boston Globe  
 Transbotics  
 Toyota AGV  
 U.S. Air Force

**USA Entertainment**

**Customer Loyalty:**

Bronx Zoo  
 CBS Television  
 Caesar's High Roller  
 Ferris Wheel  
 Electrosonic  
 Hard Rock Café  
 Heywood Engineering  
 Maltbie  
 NASCAR Hall of Fame  
 Northwest Airlines  
 Six Flags  
 Smithsonian Museum  
 Solomon Group  
 Strategic Systems  
 Technomedia  
 Vail Resorts  
 Walt Disney World  
 WWII Museum

**USA Other:**

Atmel/Temic  
 EFI Vutek  
 H.E. Butt Grocery  
 Hewlett Packard  
 Honeywell  
 Los Alamos Labs  
 Magic Chef  
 NASA  
 Nokia  
 Sandia National Labs

Timken  
 Tyco  
 U.S. Navy  
 Unilever

**AVI Scale Operations:**

American Scale  
 Apple Valley Scale  
 Avery Weigh-Tronix  
 Carlton Scale  
 Halliburton  
 Industrial Scale Systems  
 Meldrum Scale  
 Pacific Industrial Scale  
 Rice Lake Weighing  
 Sanstrom Scale  
 Standard Scale  
 Wingfield Scale

**Asia:**

IceGen (dist. India)  
 Electronic Corporation of India  
 FTRD (dist. China)  
 Tata Consultancy  
 Toyota (Japan)

**Australia/Africa:**

Alcoa World Alumina  
 BHP Billiton Iron Ore  
 Byrnescut Mining  
 CMA Systems  
 Dampier Salt  
 Fortescue Metals  
 Hamersley Iron  
 Harmonic (dist, S. Africa)  
 Logitech Consultants  
 Newcrest Telfer Gold Mine  
 Pacific Automation (dist, AUS)  
 Port Waratah  
 Queens Creek  
 Robe River Iron  
 Sinclair Knight Merz  
 ThyssenKrupp  
 Tomago Aluminum  
 Voest-Alpine

**Canada:**

AG Simpson Automotive  
 AMT Mach Tools (dist, Tor)  
 Aurora Bar Code  
 City of Fort St. John  
 CraneSmart  
 Dofasco  
 Kellogg's Cereal  
 Keilhauer  
 LSZ PaperTech  
 Rotalec (distributor)  
 Stelco Steel  
 U.S. Steel

**Central & South America:**

Fenwal (Dominican Rep.)  
 General Electric (Mexico)  
 Hylsa (Mexico)  
 IdeaNet (distributor, Chile)  
 Lasso (distributor, Mexico)  
 MABE Leiser (Mexico)  
 SCI Sanmina (Mexico)  
 Retex (Peru)  
 RSI (Mexico)  
 TecWise (distributor, Brazil)  
 TRW (Mexico)

**Europe:**

BMW (UK)  
 Efacec (Portugal)  
 FQ (distributor, Spain)  
 Infos (distributor, Portugal)  
 London Heathrow Airport  
 (Baggage)  
 MDA Systems (France)  
 Moncks & Crane (UK)  
 ProveIT  
 (distributor, UK)  
 SCI Sanmina (Hungary)  
 Securitas (Sweden)  
 Tempore (Austria)  
 TRW (UK & Germany)

**USA Distributors:**

Allied Automation (IN, KY)  
 Anixter  
 Applied Automation (NY)  
 Applied Controls (PA, MD, DE)  
 Automation, Inc. (MN, ND, SD, IA, WI)  
 Azure Solutions (east MI)  
 Burns Controls (TX)  
 C&E Sales (IN, OH, KY)  
 CodeSource (TX)  
 Cornerstone (TN, AL, GA, NC, SC, MS)  
 Gibson Eng. (MA, CT, ME, RI)  
 Industrial Controls (west MI)  
 Lakeland Engineering (MN, WI, IA, ND, SD, MO, KS, NE)  
 Midwest Engineering (Ohio)  
 MSI Tech (CO, UT, AZ)  
 Power Motion (MO, KS, AK, OK, LA)  
 Power/mation (MN, IA, WI, IL)  
 Precise Motion (FL)  
 Proud Company (western PA)  
 PRI (NY, NJ)  
 RR Floody (IL, IA)  
 Taylor Data (SC, NC, FL)  
 Valin Corporation (CA, AZ, UT, NV, WA, OR, ID)

