

## Cylindrical M18 Transceiver

### High Frequency 13.56 MHz ICODE Transceivers



#### Description

The cylindrical M18 transceiver is designed for use with the Allen-Bradley high frequency 13.56 MHz RFID system. This transceiver is ISO 15693 compliant and can read/write ICODE tags SL1 and SL2, allowing infinite tag configuration options from various manufacturers. Local LEDs allow for quick visual diagnosis of module status and read/write status.

Cylindrical M18 transceivers are recommended for panel mounting and for use with smaller tags with a diameter of 10...30 mm. Transceivers can be mounted up to 300 ft (91.4 m) away from the interface module, and tags are readable from distances up to 2.2 in. (55 mm). This transceiver has an enclosure rating of IP67 and is designed to withstand harsh industrial environments.

#### Features

- 13.56 MHz high frequency RFID solution
- ICODE ISO 15693/ISO 18000-3 M1 Compliant
- Read/write speeds up to 625 B/s
- Transceivers can be mounted up to 300 ft away from interface modules
- Built-in LEDs for diagnostics
- Reliable performance in harsh environments

#### Typical Applications

- Asset tracking
- Data acquisition
- Product handling
- Tool management
- Automotive
- Food and pharmaceutical
- Security and entrance

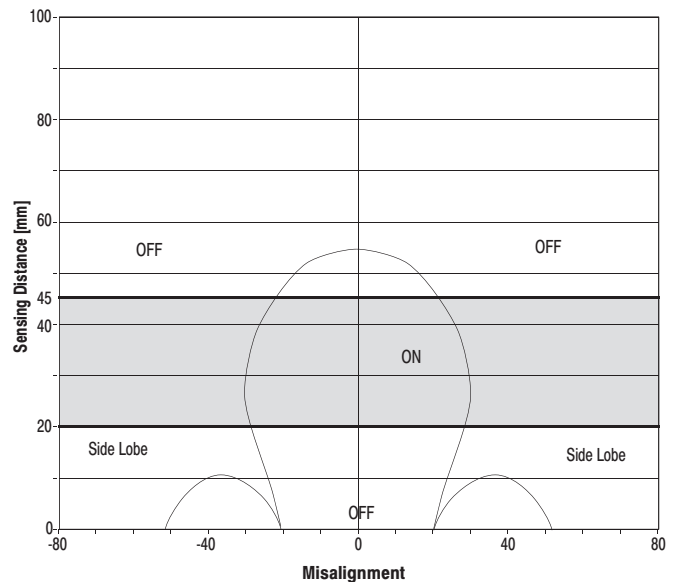
#### Specifications

<b>Supply Voltage</b>	24V DC
<b>Max. Current Consumption</b>	100 mA
<b>Tag Compatibility</b>	ICODE tags SL1, SL2 ISO 15693/ISO 18000-3 M1
<b>Connector</b>	M12 4-Pin Male
<b>Communication Systems</b>	Half duplex communication system (RS-485)
<b>Baud Rate (Host)</b>	9600, 19200, 38400, and 115200 bps
<b>Frequency</b>	13.56 MHz
<b>Baud Rate (Tag)</b>	26.48 Kbps
<b>Data Length</b>	8-bit
<b>Operating Temperature</b>	-25...+70 °C (-13...+158 °F)
<b>Storage Temperature</b>	-40...+85 °C (-40...+185 °F)
<b>Operating Humidity</b> ★	35...95% RH
<b>Storage Humidity</b> ★	25...85% RH
<b>Vibration</b>	10 g at 10...500 Hz
<b>Shock Resistance</b>	50 g
<b>Enclosure Rating</b>	IP67
<b>Recommended Sensing Distance</b> ‡	30 mm
<b>Max. Sensing Distance</b> ‡	55 mm
<b>Max. Distance from Interface Module</b>	300 ft
<b>Compliance</b>	CE

★ Non-condensing

‡ Range reference for a 50 mm diameter tag.

#### Scanning Area



**Note:** Ideal tag distance for maximum performance is 20...45 mm.



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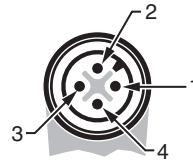
## Product Selection

Description	Cat. No.
M18 cylindrical transceiver	56RF-TR-M18

## LED Illumination Pattern

LED Display	Content	
Module Status LED	Green light	Power ON
	No illumination	No power
Read/Write LED	Green light	Normal operation
	Flashing green (short interval)	Communicating
	Flashing amber (short interval)	Sensing tag
	Flashing red (long interval)	Communication error
	Flashing green (long interval)	No tag

## Connector Pinout



Pin	Signal
1	24V DC
2	Data +
3	GND
4	Data -

## Accessories

## Cordsets

No. of Pins	Color Code	Shield	Wire Size [AWG]	Cat. No. ★			
				Straight Female	Right Angle Female	Straight Male	Right Angle Male
4-pin	A	Foil Shield	22	889D-F5FC-J2	889D-R5FC-J2	889D-M5FC-J2	889D-E5FC-J2

★ The 2 at the end of the cat. no. is for 2 m cable length. Replace the 2 with 5 (5 m) or 10 (10 m) for standard cable lengths. Example: Cat. No. 889D-F5FC-J2 becomes Cat. No. 889D-F5FC-J10.

## Patchcords

No. of Pins	Color Code	Shield	Wire Size [AWG]	Cat. No. ★			
				Straight Female Straight Male	Straight Female Right Angle Female	Right Angle Female Straight Male	Right Angle Female Right Angle Male
4-pin	A	Foil Shield	22	889D-F5FCDM-J2	889D-F5FCDE-J2	889D-R5FCDM-J2	889D-R5FCDE-J2

★ The 2 at the end of the cat. no. is for 2 m cable length. Replace the 2 with **0M3** (0.3 m), **1** (1 m), **5** (5 m), or **10** (10 m) for standard cable lengths. Example: Cat. No. 889D-F5FCDM-J2 becomes Cat. No. 889D-F5FCDM-J**0M3**.

**Note:** Stainless steel connectors may be ordered by adding an **S** to the cat. no. (e.g. Cat. No. 889D**S**-F5FCDM-J\*).

## Mounting Brackets

Description	Cat. No.
Swivel/tilt style	60-2649
Right angle style	871A-BRN18

## Approximate Dimensions

Dimensions are not intended to be used for installation purposes.

