

Cylindrical M30 Transceiver

High Frequency 13.56 MHz ICODE Transceivers



Description

The cylindrical M30 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 SLI 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 M30 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 3.0 in. (75 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

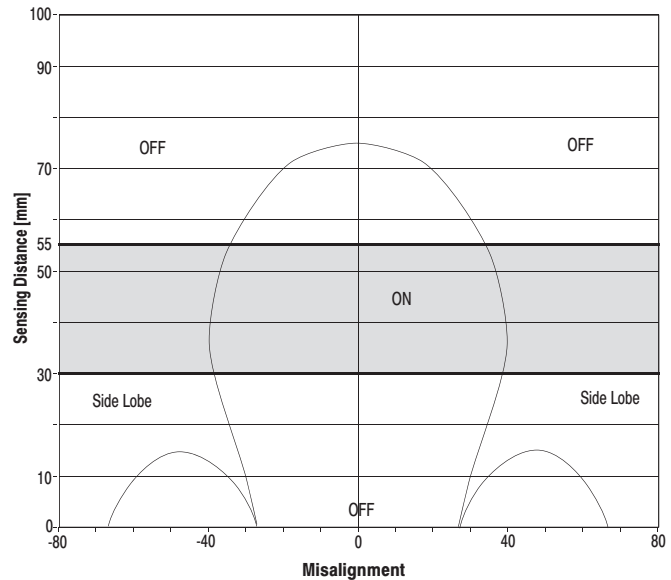
Specifications

Supply Voltage	24V DC
Max. Current Consumption	100 mA
Tag Compatibility	ICODE tags SLI, SL2 ISO 15693/ISO 18000-3 M1
Connector	M12 4-Pin Male
Communication Systems	Half duplex communication system (RS-485)
Baud Rate (Host)	9600, 19200, 38400, and 115200 bps
Frequency	13.56 MHz
Baud Rate (Tag)	26.48 Kbps
Data Length	8-bit
Operating Temperature	-25...+70 °C (-13...+158 °F)
Storage Temperature	-40...+85 °C (-40...+185 °F)
Operating Humidity ★	35...95% RH
Storage Humidity ★	25...85% RH
Vibration	10 g at 10...500 Hz
Shock Resistance	50 g
Enclosure Rating	IP67
Recommended Sensing Distance ‡	45 mm
Max. Sensing Distance ‡	75 mm
Max. Distance from Interface Module	300 ft
Compliance	CE

★ Non-condensing

‡ Range reference for a 50 mm diameter tag.

Scanning Area



Note: Ideal tag distance for maximum performance is 30...55 mm.



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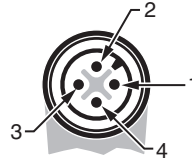
Product Selection

Description	Cat. No.
M30 cylindrical transceiver	56RF-TR-M30

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-J0M3.

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

Mounting Brackets

Description	Cat. No.
Swivel/tilt style	60-2439
Right angle style	871A-BRN30

Approximate Dimensions

Dimensions are not intended to be used for installation purposes.

