HMS827-04
Passive Conveyor Reader/Writer

Features

- Serial Reader/Writer
- Menu Configurable RS232 and RS485 Multidrop Interface
- 1000 Bytes/Second Data Transfer Speed
- NEMA 4 (IP65)
- 24VDC Operation
- 13.5″ Wide Reading Field
- Easily Mounts Underneath Conveyor
- No Moving Parts
- Long-Life Passive Tags
- Passive Tag Requires No Batteries

Applications

- Material Handling
- Sortation Systems
- Work-in-Progress Monitoring
- Quality Control

Use With

- HMS-Series Tags
- CM11 / CM12 DeviceNet Modules
- CM21 InterBus-S Module
- CM30-Series Profibus Modules
- CM40-Series Modbus Plus Modules
- CM52 Remote I/O Module
- CM900 / CM1000
- CM1746 RFID Module
- MM80MicroMux Bus Module
- Any RS232 or RS485 Host

Escort Memory Systems® (EMS) offers a complete family of field-proven Read/Write Radio Frequency Identification (RFID) products and network interface modules. The system consists of Tags, Reader/Writers and ancillary equipment. Tags can be attached to a product or its carrier and act as an electronic identifier, job sheet, portable database or manifest. Tags are read and updated via an EMS Reader/Writer through any non-conductive material while moving or stationary.

The HMS827-04 Passive Conveyor Reader/Writer is designed to provide cost effective RFID data collection to demanding material handling and automation applications.

The patent pending design of the Conveyor Reader/Writer addresses a prominent concern which has vexed the material handling industry for years. In the past, the positioning of a Reader/Writer relative to the passing totes was critical. Read/Write ranges had to accommodate different sized totes or the totes had to be positioned to pass near the Reader/Writer. Escort Memory Systems' Conveyor Reader/Writer solves this concern since the Reader/Writer can now be snugly mounted underneath the path of the tote. The 14.0″ wide Reader/Writer can substitute a roller's position or may even be installed between the conveyor rollers. Reader/Writer adjustments are a thing of the past, since the Conveyor Reader/Writer can track any size tote/pallet on the same path without time-consuming adjustments.

Equally important, the HMS827-04 Reader/Writer is compatible with Escort Memory Systems' Read/Write HMS100-Series Tags. These Tags are extremely durable, low-cost electronic identifiers that can be attached to any object, even in the harshest environments. The Read/Write Tags do not contain moving parts, and provide practically unlimited life with no maintenance requirements. In a typical application, the Read/Write Tag is attached to a tote/ pallet in a material handling

CONVEYOR ANTENNA ELIMINATES READING RANGE CONCERNS

process. Once attached, the Tag allows the RFID Reader/Writer to identify the pallet at any point in the process.

The Passive design of the HMS827-04 Conveyor Antenna uses its RF field from the Reader/Writer to power the Tag, eliminating the need for batteries. The HMS827 Reader/Writer uses the internationally recognized ISM frequency of 13.56 MHz to both power the Tag and to establish a radio link to transfer the data.

Error checking routines ensure that the Tag data is correctly received by the Antenna even in environments of heavy RF interference. A bi-color (red/green) LED provides continuous operational feedback. The HMS827's small size, multi-drop features and high data transfer speed, combined with a versatile assortment of Tags, provide a powerful solution for any application.

RFID Solutions for Your Application – Call: 831/438-7000   Fax: 831/438-5768   Web: www.ems-rfid.com

HMS827-04 Passive Conveyor Reader/Writer

Electrical	Supply Voltage	18-30VDC
	Current	160mA@24VDC (3.84W)

RF Interface	Data Transfer Rate	1000 Bytes/Second
	Error Detection	CRC and Parity Check
	Antenna Type	
	HMS827-04	356mm Rectangular Remote Reader/Writer, 2 Meter Cable

Interface	Serial Host Interface	RS232
		RS485/Mux32
	Baud Rate (RS232)	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
	Baud Rate (RS485/Mux32)	9600 or 346K

Mechanical Specifications	HMS827 (W x H x D)	4.68 x 1.79 x 1.57in. (119 x 45 x 40mm)
	Conveyor Reader/Writer	
	(W x H x D)	14.50 x 2.80 x 0.91in. (368 x 71 x 23mm)
	Mounting	Four 1/4-20 x 3in. Screws
		Twelve 1/4-20, Hex Nuts

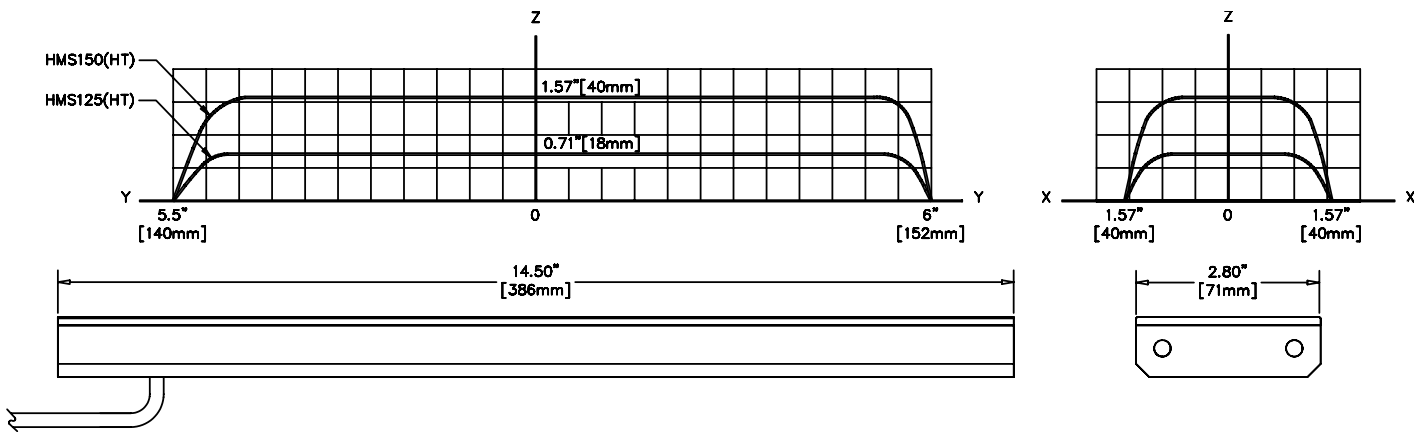| Environment	Operating Temperature	-4° to 120°F (-20° to 49°C)
	Storage Temperature	-40° to 185°F (-40° to 85°C)
	Humidity	95% Non-Condensing
	Protection Class	NEMA 12 (IP65)

HMS827 Mechanical Dimensions
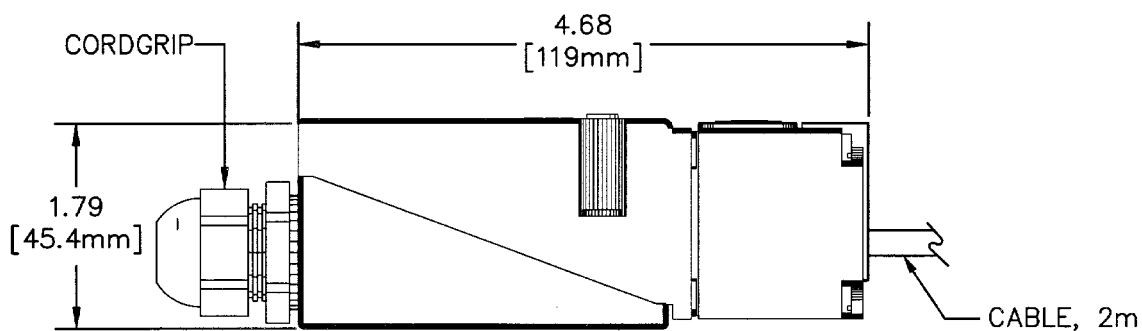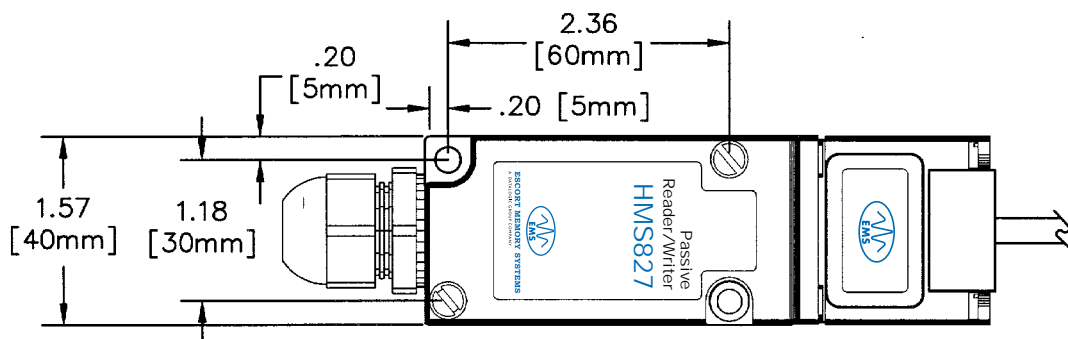
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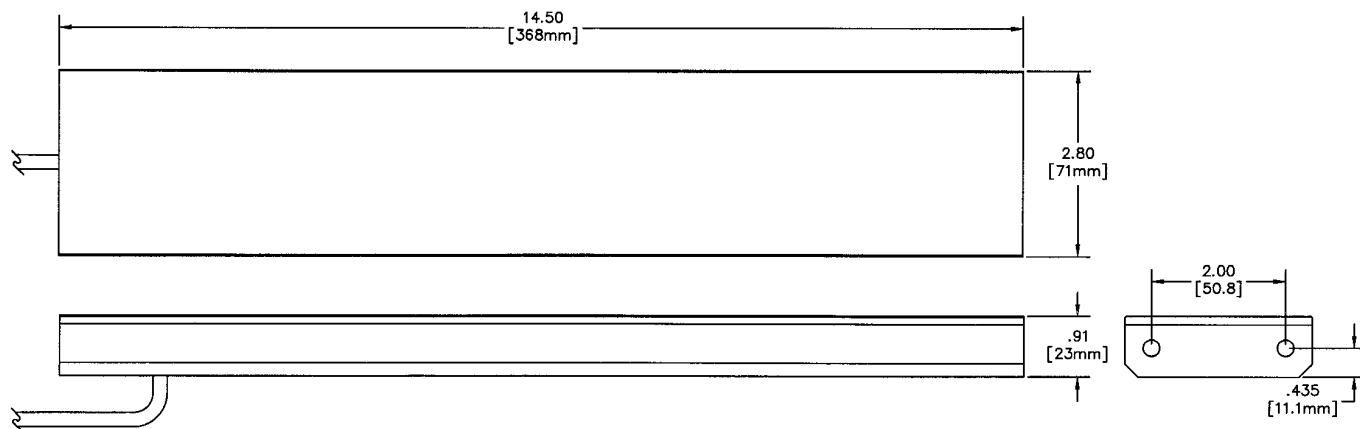
HMS827-04 Passive Conveyor Reader/Writer

HMS827-04 Passive Conveyor Reader/Writer
Reading/Writing Ranges with HMS100-Series Passive Read/WriteTags

Tags

	HMS108	HMS112	HMS125(HT)	HMS150(HT)
Typical Range (Z) (inches/mm)*	**	**	0.71/18	1.57/40
Guaranteed Operating Range	**	**	0.55/14	1.26/32
Reading Field (Y)	**	**	11.50/292	11.50/292
Reading Field (X)	**	**	3.14/80	3.14/80

* Proximity to metal, CRT devices and other sources of electromagnetic radiation may affect the range of the Antenna.
** Not recommended.

Available Models

Model	Description
HMS827-04	Passive Conveyor Reader/Writer