

Lynx Shielded Machine Interface Modules

ID7-M-SEQ, OR2-M, IA1-M-V and OA1-M-V

Installation Guide



GENERAL DESCRIPTION

The ID7-M-SEQ, OR2-M, IA1-M-V and OA1-M-V modules contain all the inputs and outputs needed to interface molding machines to the RJG eDART® System. They feature shielded metal enclosures and cables. This design allows for ease of installation and troubleshooting. They also have increased immunity to interference in electrically noisy environments and feature DIN Rail mounting with easy to read status LEDs.

Technical Specifications	
All Modules	Max. Temp. (Operating) 140 °F (60 °C)
ID7-M-SEQ 7 Sequence Inputs	Maximum Input Voltage 36 VDC, Minimum Trigger-On Voltage 18 VDC
	Electrically isolated inputs
IA1-M-V 1 Analog Input	0 -10 VDC
	Accuracy ±1%
	Electrically isolated input
OR2-M 2 Relay Outputs	Contact Rating 1A 30 VDC
	Fused Dry Contacts
OA1-M-V 1 Analog Output	0 -10 VDC
	Accuracy ±1%
	Electrically isolated output

Table 1: Technical Specifications

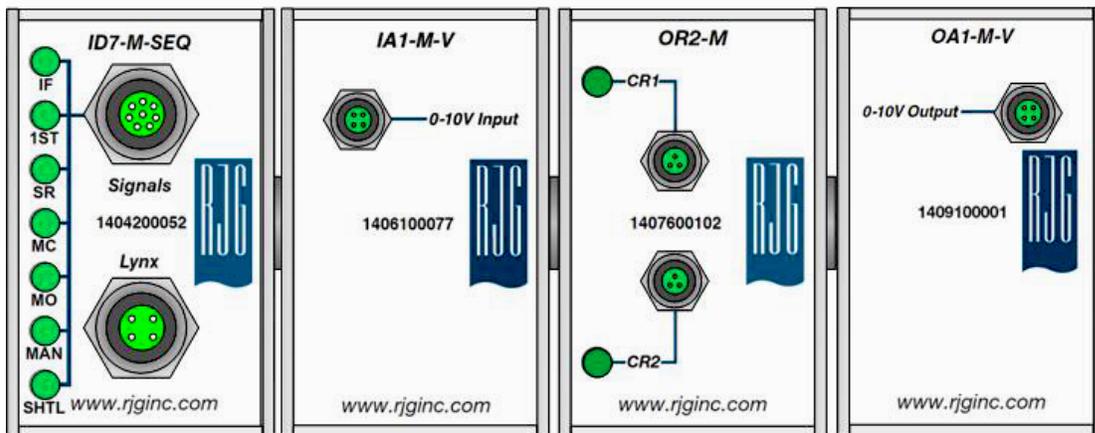


Figure 1: Lynx Machine Interface Modules

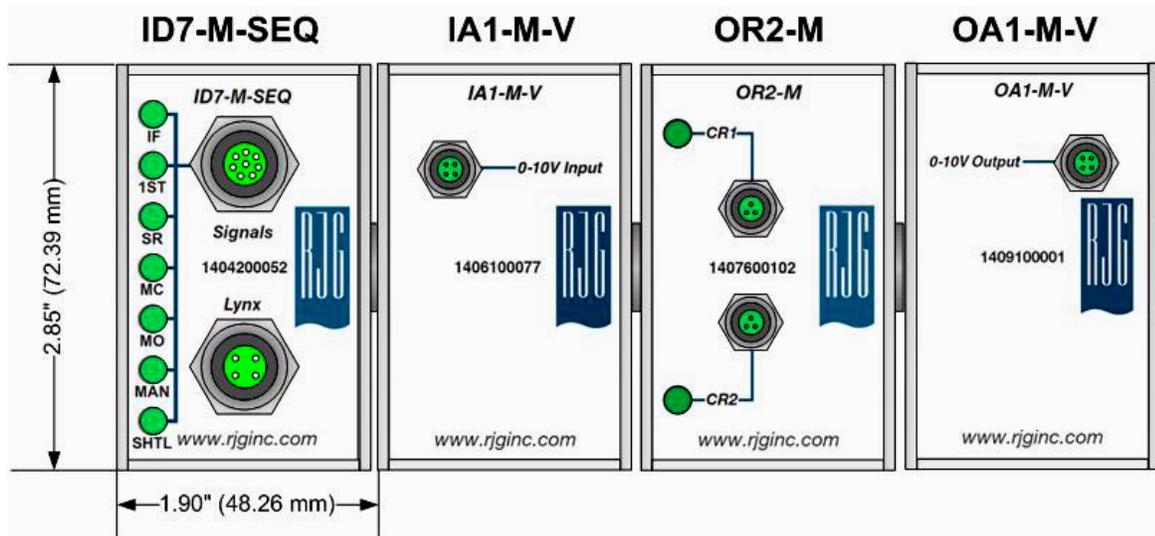


NOTE: Make sure that these modules, and any connecting cables, are out of the way of any sources of static such as feeder tubes and material hoppers.

HARDWARE INSTALLATION

Step One: Mount the Modules

Mount the modules to a solid surface, such as the molding machine frame, using the supplied DIN rail. Refer to drawing below for clearances needed.



Recommended clearance height from face of modules is 6" (152.4 mm)

Step Two: Attach the machine sequence signals to the ID7-M-SEQ

Typically these signals can be obtained from a machine output card. The inputs on ID7-M-SEQ are completely isolated.

Input Type	Function	Color
24 V on, 0 V off	INJ Forward	Blue
24 V on, 0 V off	1st Stage	Pink
24 V on, 0 V off	Screw Run	Red
24 V on, 0 V off	Mold Clamped	Brown
24 V on, 0 V off	Mold Opening	Yellow
24 V on, 0 V off	Manual	White
24 V on, 0 V off	Shuttle Position	Green
DC Common	Input Common	Gray
Maximum Input Voltage 36 V, Minimum Trigger on Voltage 18 V		

Step Three: If Available - Connect Injection Pressure Signal to the IA1-M-V

The IA1-M-V is an isolated analog input module. Typically this will be used to obtain an Injection Pressure signal from an electric molding machine. (On an electric machine it would be hard-wired directly to the machine).

Input Type	Function	Color
0-10 VDC	Signal +	Blue
0 VDC Common	Signal -	White
No Connection	N/A	Brown
No Connection	N/A	Black

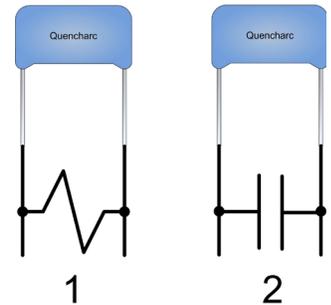
Step Four Part 1: For V to P Transfer, Inject Enable or Part Sorting

Attach the OR2-M to the machine for V to P transfer and inject enable. These signals can be supplied to a machine input card. Each comes with two sets of dry contacts. For Part Sorting, attach the OR2-M to the sorting equipment. Refer to the note below about the application of the supplied Quencharcs.

Relay	Signal	Color	
CR1	Normally Open	Brown	
CR1	Common	Black	
CR1	Normally Closed	Blue	
CR2	Normally Open	Brown	
CR2	Common	Black	
CR2	Normally Closed	Blue	
Contact Rating 1A 30 VDC			

Quencharcs Usage

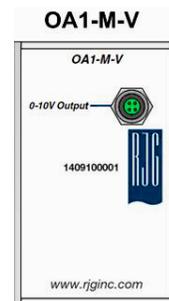
It is recommended that the included Quencharcs are used with the dry contacts. Quencharcs increase relay life and reduce emitted EMI. The preferred method is to attach across the load (see 1). However an alternative method is to place them across the contacts themselves by attaching to the cable pigtails (see 2).



Step Four Part 2: Optionally for V to P Transfer

Use the OA1-M-V when 0-10 V input is required. One analog output provided.

Output Type	Function	Color	
0-10 VDC	Signal +	Brown	
0 VDC Common	Signal -	Black	
No Connection	N/A	Blue	
No Connection	N/A	White	



Step Five: Attach modules to the eDART®

The ID7-M-SEQ has a Lynx connector for connection to the eDART® with a Lynx cable (CE-LX-XM).

For ordering information - see chart below.

Part Numbers	
Module	Cable - 3 Meter Length
ID7-M-SEQ	C-ID7-M-3M
IA1-M-V	C-IA1-M-3M
OR2-M	C-OR2-M-3M
OA1-M-V	C-OA1-M-3M

For further Information please contact RJG Customer Support at 231-947-3111 ext. 170 or visit our website at: <https://www.rjginc.com/edart/hardware> to obtain detailed manuals.