

ESR Series Valve Terminal (IO-Link)



1

ESR

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Valve Terminal (IO-Link)



Product Features

- * Compatible Protocols: I/O-Link, general-purpose 5-wire unshielded cables are used for connection I/O-Link master and exchange data with PLC.
- * 16 outputs, Max. 16pcs single control/8pcs double control/16pcs stations.
- * Support hot swap, data is stored in the I/O-Link master, no need to reconfigure parameters to replace the valve terminal, the newly replaced is automatically identified and start to work at once, reduce equipment downtime, reduce maintenance costs, and improve production efficiency.
- * Diagnostic functions: system diagnosis, communication error, short circuit protection.
- * Independent of fieldbus, possess strong industrial network compatibility, supply popular fieldbus and industry Ethernet.
- * Simple installation and configuration, easy to operate.
- * Communication is completely digitally transmitted, reduce the accuracy loss of analog-to-digital conversion, possess strong anti-interference ability.

How to Order?

Series No.	Body Size	ID code	Communication Protocol			Port Size	Voltage	Manual Button	Mounting	Thread Type
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ES: Valve Terminal

R:RV series valve

1: 1 Series
2: 2 Series

Code	Communication Protocol	Output
LK16	IO-Link	16

Qty

(Max. 16 stations for same valve of single control
Max. 8 stations for same valve of double control
Max. 16 stations manifold mixed.
Noted: every double control valve with 2 stations.)

Code	Function	Remark
S	5/2 single	Assembly sequence, station 1 start from U side
D	5/2 double	
C	5/3 center closed	
P	5/3 center pressure	
E	5/3 center exhaust	
B	Blind plate	

M5:M5
06:1/8"
08:1/4"

E4: DC24V

Blank: Press & Rotate Lock
H: Without Lock

Blank: G

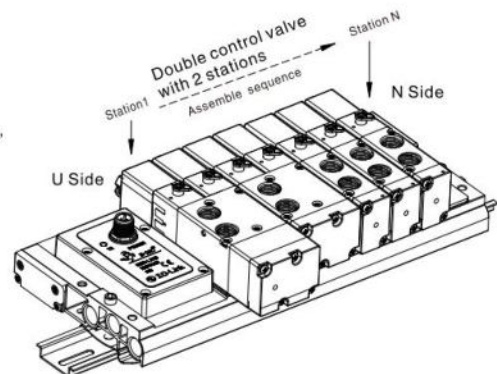
Blank: Without accessories

D: With DIN guide rail clip and 1M guide rail
D0: With DIN guide rail clip, no guide rail
(DIN guide rail packed separately)

Order Example:

1. Same valve: ES Fieldbus Valve Terminal, 1 series, IO-Link, 16 outputs, 6pcs 5/2 single control RV5211, port size 1/8", DC24V, without accessories, G thread. The ERP code is ES1R-LK16-6S-06E4.

2. Mixed different valves: ES Fieldbus Valve Terminal, 1 series, IO-Link, 16 outputs, see right picture: station 1 & station 2 are 5/3 center closed SR5312C, station 3 & station 4 are 5/2 double control SR5212, station 5 & station 6 & station 7 are 5/2 single control RV5211, port size 1/8", DC24V, with DIN guide rail clip and 1M guide rail, G thread. The ERP code is ES1R-LK16-CD3S-06E4-D.

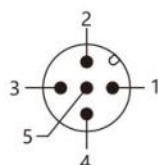


Specifications

Code	ES1R-LK16 ES2R-LK16
Output	16
Protocols	IO-Link
Baud rate	COM2 (38.4kbps)
Configuration files	IODD file
Specification version	V1.1(Compatible with 1.0)
Control power supply	Voltage DC24V(DC21.6~26.4V) Current consumption Below 150mA
Output voltage (valve)	DC24V(DC22.8 ~ 26.4V)
Interface	M12, 5 pins, code A
Interface type	Class B
Device diagnosis	System diagnosis, communication error, short circuit protection
Protection	IP65
Storage temperature	-20 ~ 70°C
Working temperature	-10 ~ 50°C

Interface

Interface (M12, code A, Class B)

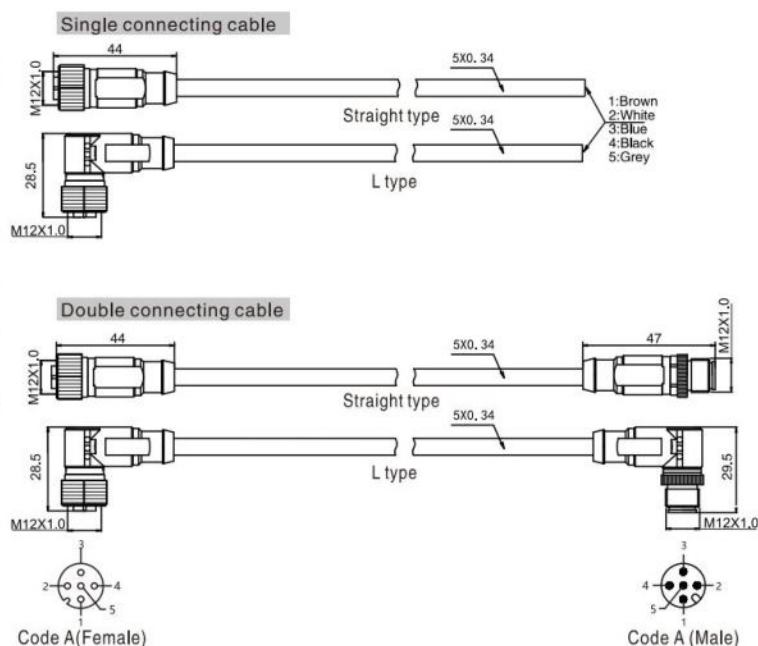
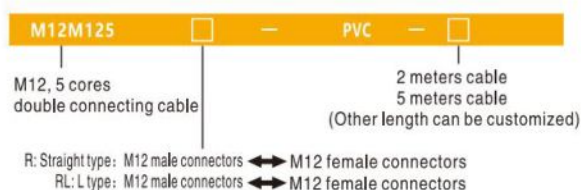
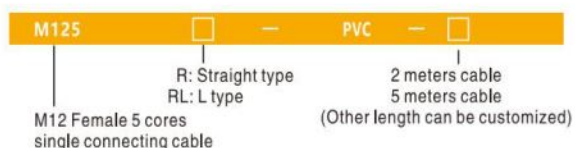


Pin	Type	Description
1	PS24	Control working voltage +24V
2	PL24	Working voltage of load valve +24V
3	PS0	Control working voltage 0V
4	C/Q	Data communication (IO-Link)
5	PL0	Working voltage of load valve 0V

LED Indicators

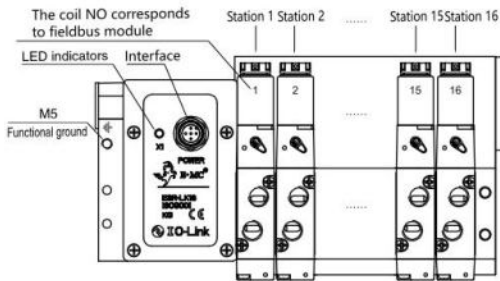
Indicators	Status	Meaning
X1	LED close	Abnormal power supply
	Green open	Normal power supply, no communication established
	Red open	Fault or abnormal load power supply
	Green Flash	Normal working

Wiring

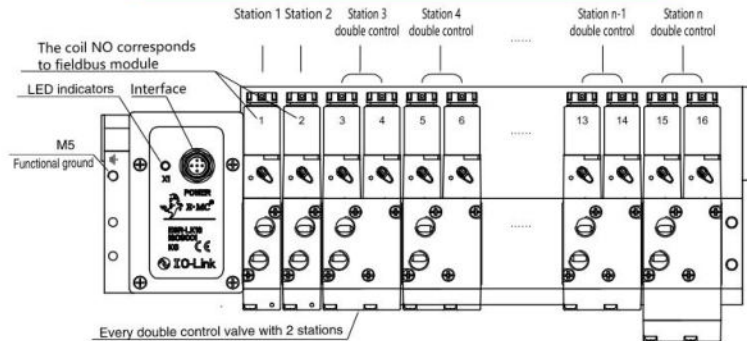


Wiring Diagram

Single control wiring (Max. 16 stations)



Single/Double control wiring mixed (Max. 8 stations for double control)

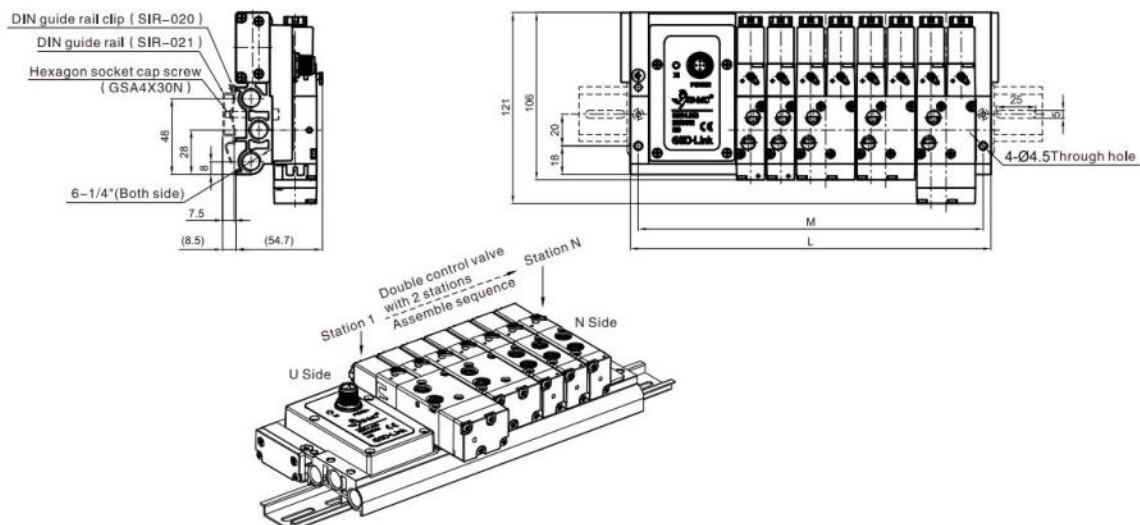


Precautions for Use

- Do not disassembly, modify (including replacing printed circuit boards) or replace without authorization, which may result in injury or failure.
- Do not operate the product exceeding the parameters (limited value), and do not use it for flammable or harmful liquids, which may cause fire, malfunction or damage to the product. Please verify the instructions before use.
- Do not operate in an environment containing flammable and explosive gases, which may cause fire or explosion. This product is not designed of explosion-proof.
- If use this product in the interlocking circuit:
 - Provide double interlocking systems, such as mechanical system;
 - Check regularly whether the product is operating normally; Otherwise, malfunctions may occur and lead to accidents.
- The following instructions must be followed during maintenance: (1) turn off the power; (2) stop providing gas, remove the remaining pressure and make sure that there is no air supply before maintenance; Otherwise, it may cause injury.
- After the maintenance is completed, perform proper functional checks. If the equipment does not work properly, Please stop the operation. In case of unexpected failure, safety cannot be guaranteed.
- The product designed used for industries. Except under industrial environments, when used under environments such as: mixed commercial and residential areas, measures must be taken to prevent radio interference.
- The bus manifold and power cord must be functionally grounded to ensure the safety and anti-noise performance of the fieldbus system.
- IO-Link valve terminal provides the load voltage through the B-type port, using A-type port, adding power supply should be provided.

Main Dimension

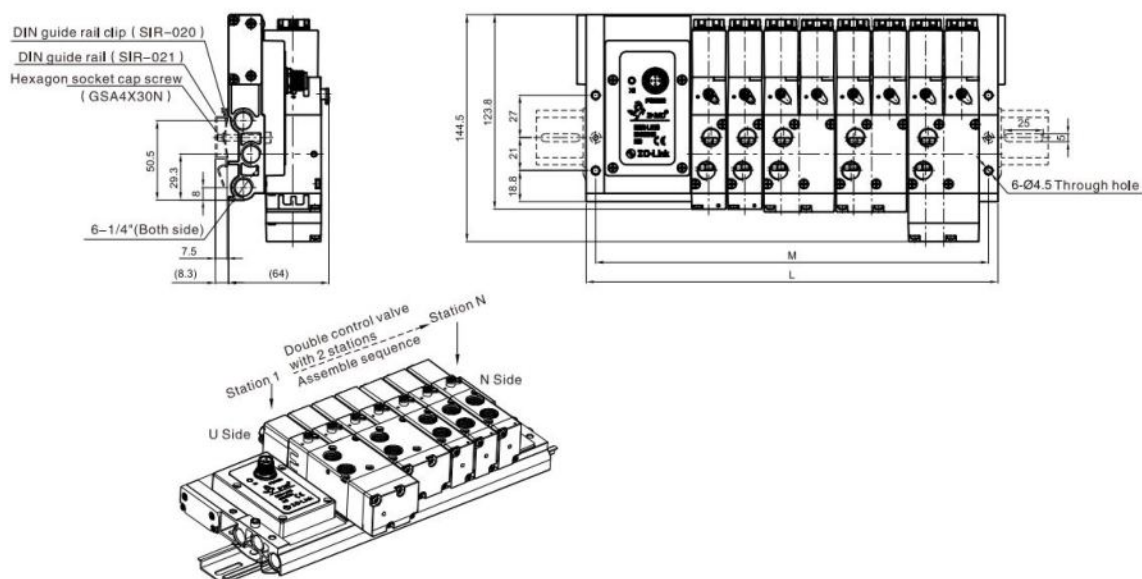
ES1R Series



Note: N means valve link

Sign	Model	ES1R3S	ES1R4S	ES1R5S	ES1R6S	ES1R7S	ES1R8S	ES1R9S	ES1R10S	ES1R11S	ES1R12S	ES1R13S	ES1R14S	ES1R15S	ES1R16S
L		123	142	161	180	199	218	237	256	275	294	313	332	351	370
M		133	152	171	190	209	228	247	266	285	304	323	342	361	380

ES2R Series



Note: N means valve link

Sign	Model	ES2R3S	ES2R4S	ES2R5S	ES2R6S	ES2R7S	ES2R8S	ES2R9S	ES2R10S	ES2R11S	ES2R12S	ES2R13S	ES2R14S	ES2R15S	ES2R16S
L		135	158	181	204	227	250	273	296	319	342	365	388	411	434
M		147	170	193	216	239	262	285	308	331	354	377	400	423	446