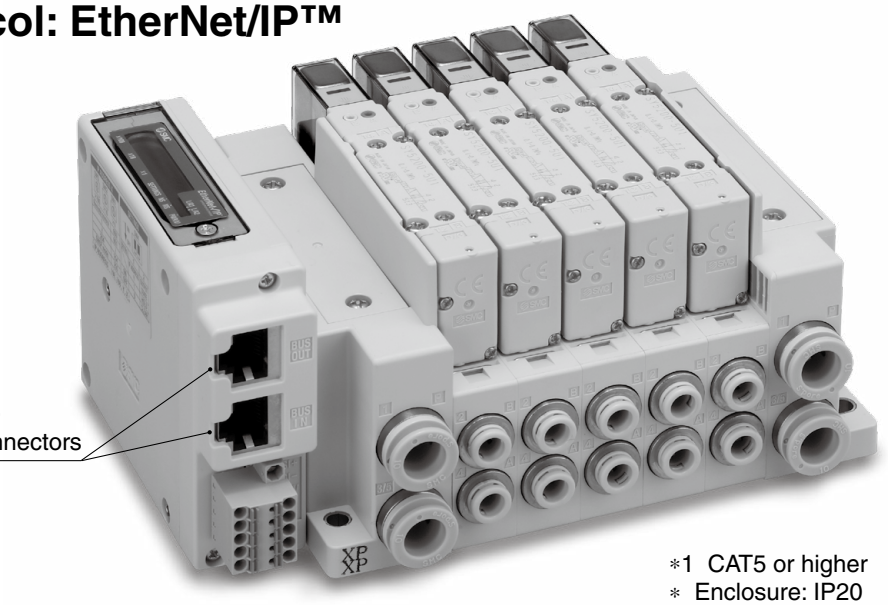
Fieldbus System *EX260 Series* SI Unit

CE RoHS

LAN cable connectable RJ45 communication connectors

Communication protocol: EtherNet/IP™

Number of outputs: 32



■**Trademark**
EtherNet/IP™ is a trademark of ODVA.
QuickConnect™ is a trademark of ODVA.

∗1 CAT5 or higher
∗ Enclosure: IP20

Applicable Valve Series

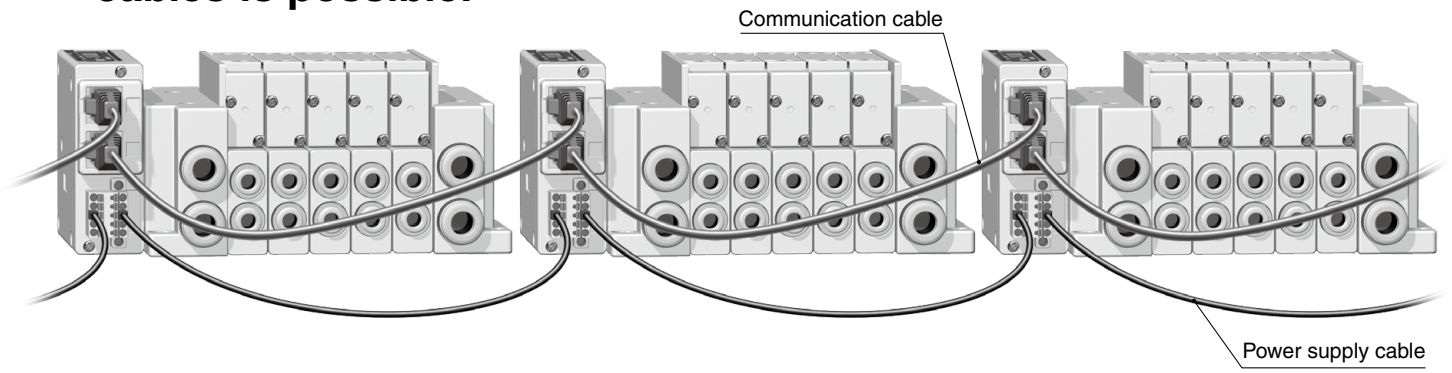
Series		Flow rate characteristics (4/2 → 5/3)		Max. number of solenoids	Power consumption [W]	Applicable cylinder size
		C [dm³/(s·bar)]	b			
JSY Series∗2	JSY1000	0.91	0.48	32	0.2 (With power-saving circuit)	ø40
	JSY3000	2.77	0.27		0.4 (Standard) 0.1 (With power-saving circuit)	ø50
	JSY5000	6.59	0.22			ø80
SY Series	SY3000	1.6	0.19	32	0.35 (Standard) 0.1 (With power-saving circuit)	ø50
	SY5000	3.6	0.17			ø63
	SY7000	5.9	0.20			ø80
VQC Series∗2	VQC1000	1.0	0.30	24	0.4 (Standard)	ø40
	VQC2000	3.2	0.30			ø63
	VQC4000	7.3	0.38		0.95 (Standard) 0.4 (Low-wattage type)	ø160
	VQC5000	17	0.31			ø180

∗2 The assembly of JSY and VQC series valves should be requested separately by the customer. Specify “without SI unit” and “positive common” or “non-polar” for the valve manifold specifications.

EX260-SEN2-X205

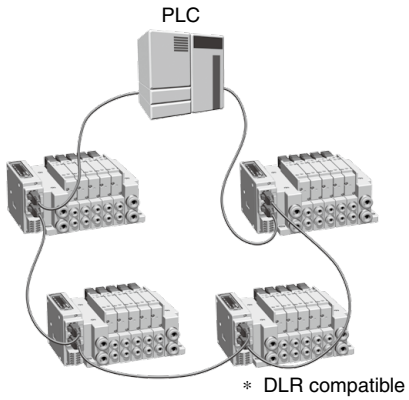
SMC

Daisy-chain wiring of communication cables and power supply cables is possible.

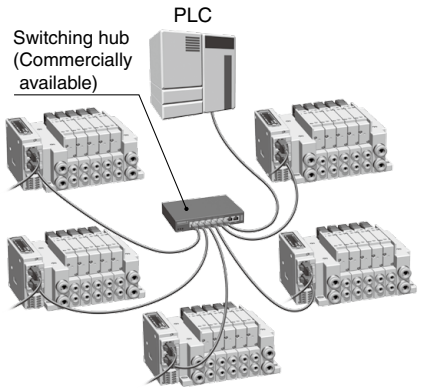


Compatible Topologies

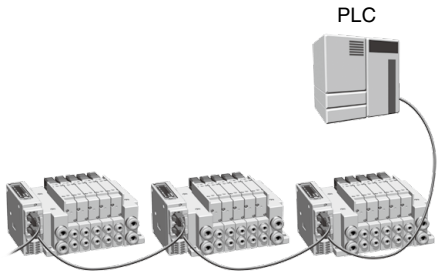
Ring type



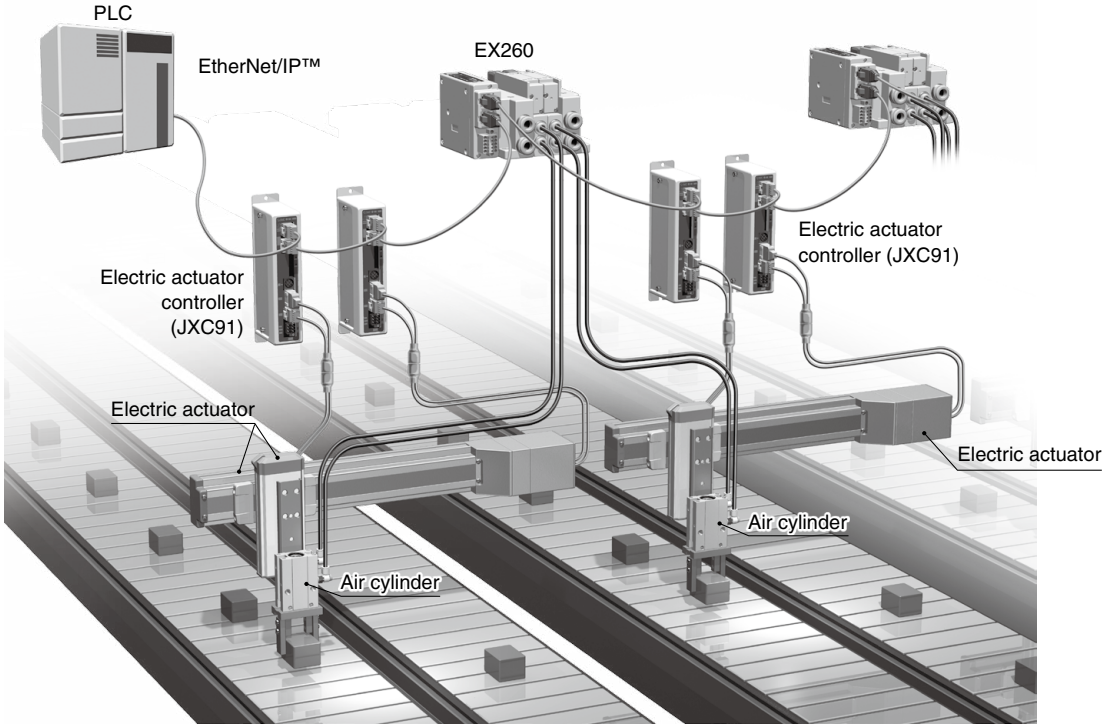
Star type



Linear type



Both air and electric systems can be constructed with RJ45 communication cables.



How to Order SI Units

EX260 – S EN 2 – X205

Communication protocol

EN	EtherNet/IP™

Output specification

2	32 outputs, NPN (Positive common)/Sink

Connector specification

X205	Communication connector: RJ45 Power connector: Spring type connector

Specifications

Item		Specifications
Protocol		EtherNet/IP™ Volume 1 (Edition 3.25) Volume 2 (Edition 1.23)
Transmission medium		Standard Ethernet cable (CAT5 or higher) (100BASE-TX)
Transmission speed		100 Mbps/10 Mbps (Automatic negotiation)
Transmission method		Full duplex/Half duplex (Automatic negotiation)
Device information		Vendor ID: 7 (SMC Corp.) Device type: 27 (Pneumatic Valve)
Applicable function		QuickConnect™ DLR
EDS file		ex260_sen2_X205_24_v*.eds
Output	**Number of outputs**	32
	Output type	Sink/NPN (Positive common)
	Connected load	Solenoid valve with surge voltage suppressor of 24 VDC and 1.5 W or less (manufactured by SMC)
	Power supply for solenoid valve	22.8 to 26.4 VDC 2.0 A or less, according to the solenoid valve station specification
	Residual voltage	0.4 VDC or less
Power supply for control		21.6 to 26.4 VDC 0.1 A or less
Enclosure		IP20 (with manifold assembled)
Weight		200 g or less (including accessories)

EtherNet/IP™ communication connector
BUS OUT: RJ45 8 pins, socket

No.	Designation	No.	Designation
1	**Tx+**	**5**	**–**
2	**Tx–**	**6**	**Rx–**
3	**Rx+**	**7**	**–**
4	**–**	**8**	**–**

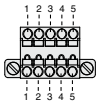
EtherNet/IP™ communication connector
BUS IN: RJ45 8 pins, socket

No.	Designation	No.	Designation
1	**Tx+**	**5**	**–**
2	**Tx–**	**6**	**Rx–**
3	**Rx+**	**7**	**–**
4	**–**	**8**	**–**

Accessory

Description	Qty.
Hexagon socket head cap screw (M3 x 30)	2
RJ45 cap	1
Power connector	1

Power connector PWR: 5 pins, socket

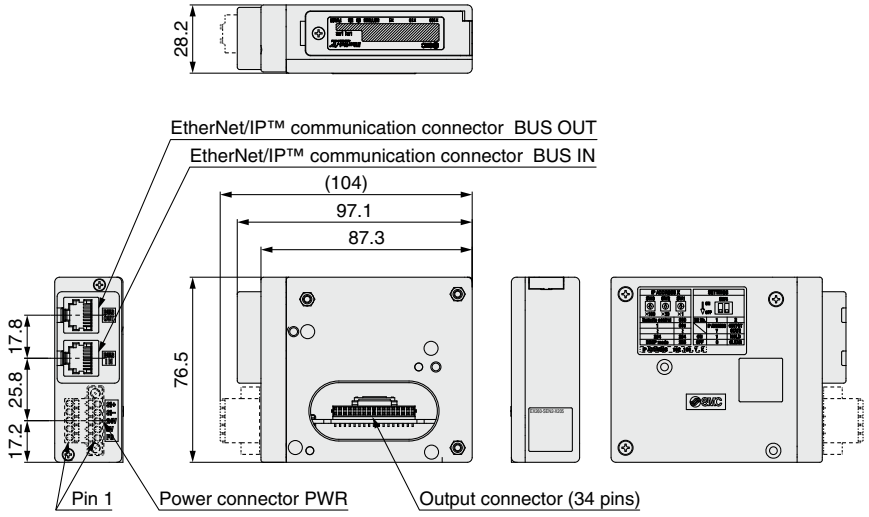


No.	Designation	Function	No.	Designation	Function
1	**FE**	Grounding	**4**	**SI0V**	0 V for control unit
2	**SV0V**	0 V for solenoid valve	**5**	**SI24V**	+24 V for control unit
3	**SV24V**	+24 V for solenoid valve			

Applicable wire for power supply connector

Wire gauge (Solid cable/Flexible cable)	0.2 to 1.5 mm^2/AWG24 to 16

Dimensions



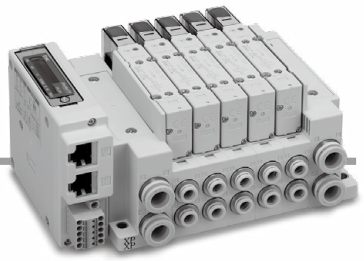
⚠Caution

· The dimensions when combined with the valve manifold are the same as the dimensions of the valve manifold with a standard EX260 series unit mounted.
· For the JSY and VQC series, order the valve manifold separately.
Specify "without SI unit" and "positive common" or "non-polar" for the valve manifold specifications.

LED Indicator

LED	LED Status	Details
NS	OFF	Power is not being supplied or the IP address is not set.
	Green LED is ON	EtherNet/IP™ communication established
	Green LED is flashing	EtherNet/IP™ communication not established
	Red LED is flashing	EtherNet/IP™ connection time out
	Red LED is ON	IP duplicated
MS	OFF	Power is not being supplied.
	Green LED is ON	Operating normally
	Green LED is flashing	Setting error
	Red LED is flashing	Recoverable error
	Red LED is ON	Unrecoverable error
L/A1	OFF	BUS IN side: No link, No activity
	Green LED is ON	BUS IN side: Link, No activity
	Green LED is flashing	BUS IN side: Link, Activity
L/A2	OFF	BUS OUT side: No link, No activity
	Green LED is ON	BUS OUT side: Link, No activity
	Green LED is flashing	BUS OUT side: Link, Activity
PWR(V)	Yellow LED is ON	Power is being supplied to the valve.
	OFF	Power is not being supplied to the valve or is outside the tolerance range (19 V or less).

EX260-SEN2-X205



SY3000/5000/7000 Series

How to Order Manifold

Type

10	Side ported
11	Bottom ported*1

*1 The bottom-ported type is not available for the SY3000.

A, B port size
* Refer to the **Web Catalog**.

Side/Bottom ported

Type 10/11 **SS5Y 3 – 10 SEC – 05 U □ – C6 □ – X1100**

Top ported

Type 12 **SS5Y 3 – 12 SEC – 05 U □ – □□ – X1100**

Valve series

3	SY3000
5	SY5000
7	SY7000

Type

12	Top ported

Valve stations

Symbol	Stations	Note
02	2 stations	Double wiring*2
⋮	⋮	
16	16 stations	
02	2 stations	Specified layout*3 (Up to 32 solenoids available)
⋮	⋮	
24	24 stations	

P, E port entry

U	U side (2 to 10 stations)
D	D side (2 to 10 stations)
B	Both sides (2 to 24 stations)

SUP/EXH block assembly

Nil	Internal pilot
S	Internal pilot, Built-in silencer
R	External pilot

* For the type 12 top-ported type, the P and E ports are only available on the U and D sides for the built-in silencer type. The silencer exhaust port is located on the opposite side of the P and E port entry.
(Example: When the P and E port entry is on the D side, the silencer exhaust port is on the U side.)
The 3/5(E) port on the silencer mounting side of type 10/11/12 is plugged.
* When the built-in silencer type is used, keep the exhaust port from coming into direct contact with water or other liquids.

Mounting

Nil	Direct mounting	
D	DIN rail mounting (with DIN rail)	
D0	DIN rail mounting (without DIN rail)	
D3	For 3 stations	Specify a length longer than that of the standard rail.
⋮	⋮	
D24	For 24 stations	

* Only direct mounting is available for the type 11 bottom-ported type.

P, E port size (One-touch fitting)

Symbol	SY3000	SY5000	SY7000
Nil	ø8	ø10	ø12
N	ø5/16"	ø3/8"	ø1/2"

* For N, sizes are in inches.

*2 Double wiring: 2-position single, double, 3-position, and 4-position valves can be used on all manifold stations.
Use of a 2-position single solenoid will result in an unused control signal. If this is not desired, order with a specified layout.
*3 Double wiring is normally used for all the wiring of the manifold. If other wiring is required, specify on the manifold specification sheet.
* Valves do not come assembled for order no. "SS5Y□-□SEC-□□□-□□-X1100." Specify on the manifold specification sheet separately to request assembly.
* Produced upon receipt of order

How to Order Valves

SY □□□□□□□□ – 5 U □ 1 – □

Enter the standard product number.

Enter the standard product number.

Light/surge voltage suppressor and common specification

Symbol	With light	Surge voltage suppressor	Common specification
R	—	●	Non-polar
U	●		
S	—		Positive common
Z	●		

⚠ Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.