IO-Link Compatible SI Unit

EX260-SIL1-X207/X210

Features

IO-Link communication enables users to check unit information and monitor unit status, in addition to ON/OFF valve control.

PLC

PC

Various fieldbusses

IO-Link master

IO-Link communication

IO-Link Compatible Device: SI Unit EX260-SIL1-X207/X210
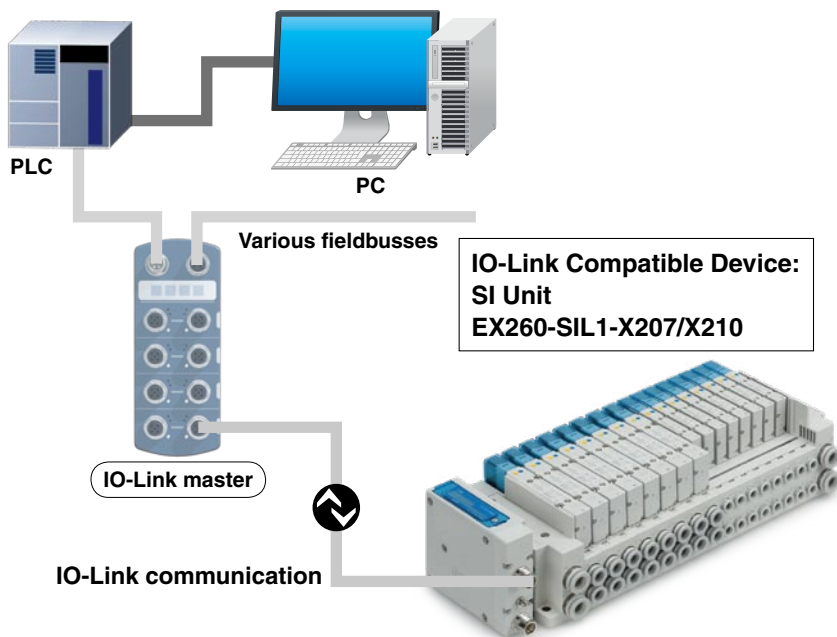
IO-Link

IO-Link is an open communication interface technology between the sensor/actuator and the I/O terminal that is an international standard IEC61131-9.

Port class B compliant: X210

Port class A compliant: X207

Send and receive ON/OFF signals + unit information/status

Sending and receiving of unit information, error detection, or condition monitoring data

<Unit Information> Manufacturer's name, product number, version information

<Error Detection> Output wiring disconnection, short circuit

<Conditioning Monitoring> Number of valve operations, operation threshold exceeded

Application Example

● **Supporting periodic cylinder maintenance**

The replacement time of the cylinder connected to the valve can be predicted by counting the number of valve operation instructions. This enables periodic maintenance to be performed before any unexpected cylinder failure occurs.

Currently at 10 million operations

Currently at 5 million operations
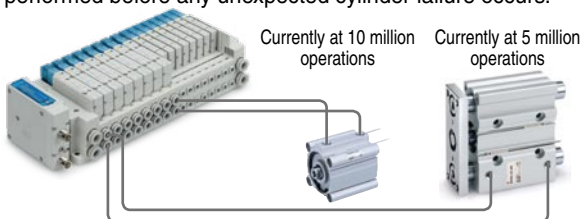
Supports data update cycles of 1 ms or less

Shortest data update cycle: 0.8 ms

The data update cycle can be set for the IO-Link master based on the SI unit's shortest data update cycle of 0.8 ms.

IO-Link master and SI unit can be connected with one cable

Signal wire and valve power supply wire can be connected with the same cable. (Port class B compliant: X210 specifications)

Also applicable to the types in which the signal wire and valve power supply wire are connected with individual cables. (Port class A compliant: X207 specifications)

Uses 4-wire or 5-wire unshielded cables

Special communication cables are not necessary.

A conventional 4-wire or 5-wire unshielded cable can be used for input and output of sensors, switches, etc. (Recommended specifications: Conductor resistance 3 Ω, Wire-to-wire capacitance 3 nF or less, 20 m or less)

⚠ **Caution** To ensure the safest possible operation of this product, please be sure to thoroughly read the **"Safety Instructions"** in our "Best Pneumatics" catalog before use.

SMC

SMC Corporation 4-14-1, SOTO-KANDA, CHIYODA-KU, TOKYO 101-0021, JAPAN **URL: http://www.smcworld.com**

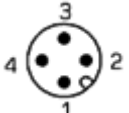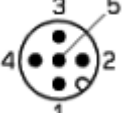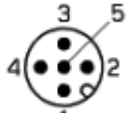## Specifications

Item	EX260-SIL1-X207	EX260-SIL1-X210
Protocol	IO-Link version 1.1	
Communication speed	COM2 (38.4 kbps)/COM3 (230.4 kbps) (Selected by DIP switch)	
IO-Link port class (Communication connector)	Class A (Valve power supplied from the valve power supply connector)	Class B (Valve power supplied from the communication connector)
IO-Link type	Device	
Vendor ID	131	
Process data size	0 byte input/4 bytes output	
Output / Number of outputs	32 outputs	
Output / Output type	PNP (Negative common)/Source	
Output / Connected load	Solenoid valve with surge voltage suppressor of 24 VDC and 1.5 W or less (manufactured by SMC)	
Output / Solenoid valve power supply	22.8 to 26.4 VDC 2 A or less (according to the solenoid valve station specification)	
Output / Residual voltage	0.4 VDC or less	
Control unit power supply	18 to 30 VDC 0.1 A or less	
Weight	200 g or less	
Standards	CE marking, UL/CSA	

IODD files are required to configure this product.
Please contact SMC for the IODD files.
Also, please contact SMC for the operation manual.

Wiring Specifications

Suffix	Communication connector	Power supply connector for solenoid valve
X207	M12 4-pin plug, A-coded <table> No. / Designation / Description: 1 / L+ / +24 V for control unit; 2 / — / Unused; 3 / L– / 0 V for control unit; 4 / C/Q / IO-Link communication data </table>	M12 5-pin plug, A-coded <table> No. / Designation / Description: 1 / — / Unused; 2 / SV24V / +24 V for solenoid valve; 3 / — / Unused; 4 / — / Unused; 5 / SV0V / 0 V for solenoid valve </table>
X210	M12 5-pin plug, A-coded <table> No. / Designation / Description: 1 / L+ / +24 V for control unit; 2 / SV24V / +24 V for solenoid valve; 3 / L– / 0 V for control unit; 4 / C/Q / IO-Link communication data; 5 / SV0V / 0 V for solenoid valve </table>	

How to Order

EX260‑S IL 1 ‑ X207

Communication protocol

IL	IO-Link

Output specification

1	32 outputs, PNP (Negative common)/Source

IO-Link port class

X207	IO-Link port Class A, Valve power supplied from another connector
X210	IO-Link port Class B

Dimensions

[mm]

EX260-SIL1-X207 (The X210 is not provided with a power supply connector.)

Communication connector

28.4
22.5

102.4
90.9

76.5

9 16.4 20.6

11.3

Ground terminal (M3)
Power supply connector (PWR)
Output connector (34 pins)
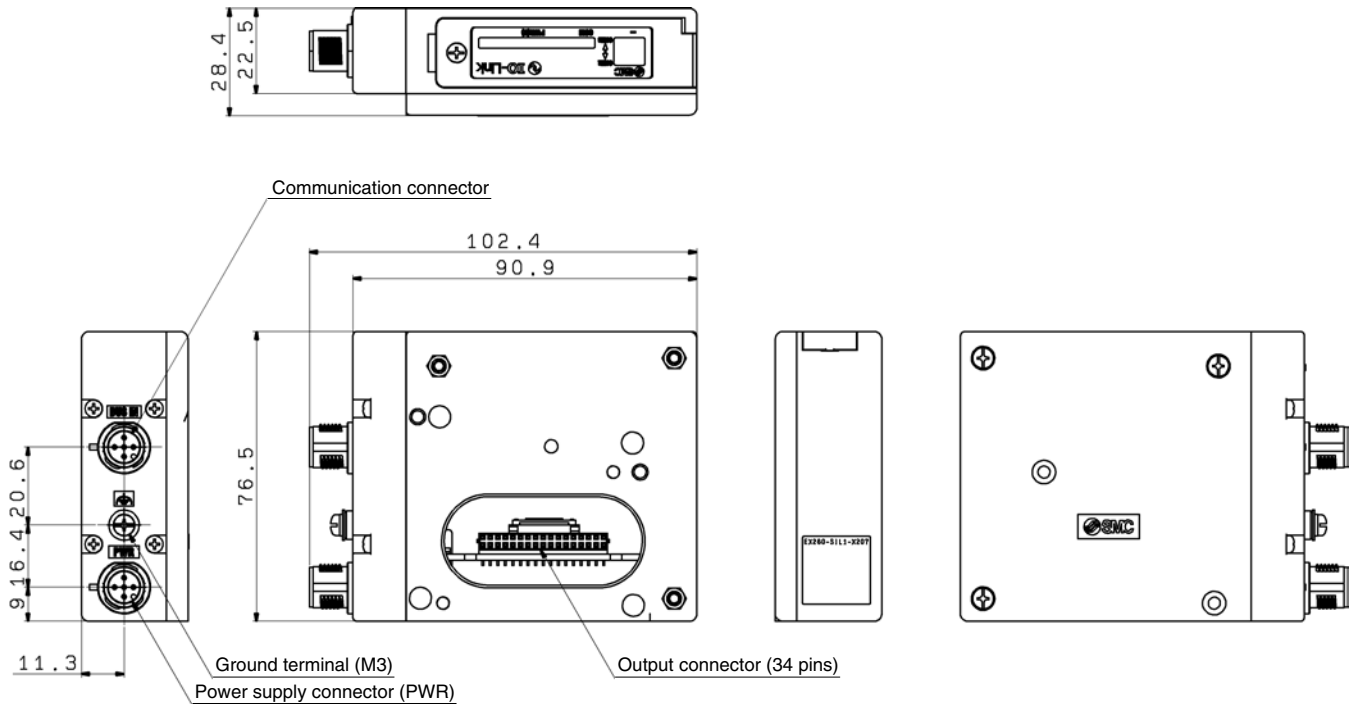
Output connector (34 pins, Receptacle)

33 1
34 2

No.	Designation	Description	No.	Designation	Description
1	COM.	Output common (0 V)	2	COM.	Output common (0 V)
3	OUT_00	Solenoid output 0	4	OUT_01	Solenoid output 1
5	OUT_02	Solenoid output 2	6	OUT_03	Solenoid output 3
7	OUT_04	Solenoid output 4	8	OUT_05	Solenoid output 5
9	OUT_06	Solenoid output 6	10	OUT_07	Solenoid output 7
11	OUT_08	Solenoid output 8	12	OUT_09	Solenoid output 9
13	OUT_0A	Solenoid output 10	14	OUT_0B	Solenoid output 11
15	OUT_0C	Solenoid output 12	16	OUT_0D	Solenoid output 13
17	OUT_0E	Solenoid output 14	18	OUT_0F	Solenoid output 15
19	OUT_10	Solenoid output 16	20	OUT_11	Solenoid output 17
21	OUT_12	Solenoid output 18	22	OUT_13	Solenoid output 19
23	OUT_14	Solenoid output 20	24	OUT_15	Solenoid output 21
25	OUT_16	Solenoid output 22	26	OUT_17	Solenoid output 23
27	OUT_18	Solenoid output 24	28	OUT_19	Solenoid output 25
29	OUT_1A	Solenoid output 26	30	OUT_1B	Solenoid output 27
31	OUT_1C	Solenoid output 28	32	OUT_1D	Solenoid output 29
33	OUT_1E	Solenoid output 30	34	OUT_1F	Solenoid output 31

⚠**Caution**

- For dimensions when combined with the valve manifold, use the dimensions of the valve manifold where the standard EX260 series unit is mounted.
- Order the valve manifold separately. Specify "no SI unit" and "negative common" for the valve manifold specifications.

SMC