IO-Link Compatible Products

IO-Link

3-Screen Display

High-Precision Digital Pressure Switch

ZSE20B(F)-L/ ISE20B-L Series

3-Screen Display

High-Precision Digital Pressure Switch

ISE7□ Series

For Air

3-Screen Display

High-Precision Digital Pressure Switch

ISE7□G Series

For General Fluids

3-Color Display

Digital Flow Switch for Water

PF3W7□-X445

Actuator Position Sensor

D-MP□ Series

SI Unit

EX260-SIL1-X207/ X210

Electro-Pneumatic Regulator

ITV10□0/20□0/ 30□0-X395

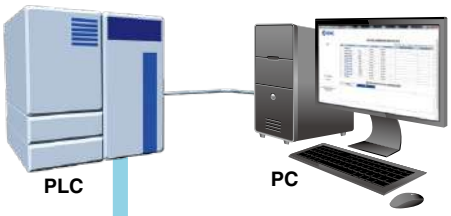
Step Motor Controller

JXCL1 Series

IO-Link Master

EX600-GILB-X60

IO-Link Compatible Products



Configuration File (IODD File*1)
- Manufacturer
- Product part no.
- Set value

*1 **IODD File:** IODD is an abbreviation of IO Device Description. This file is necessary for setting the device and connecting it to a master. Save the IODD file on the PC to be used to set the device prior to use.

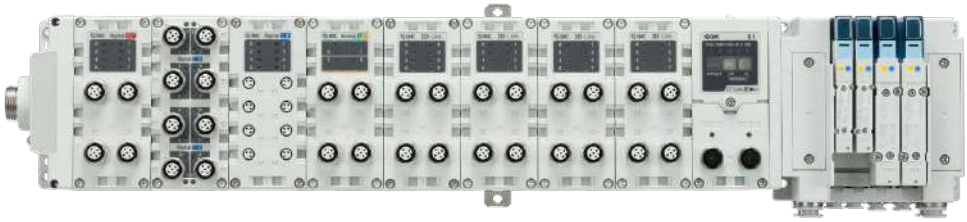
IO-Link
IO-Link is an open communication interface technology between the sensor/actuator and the I/O terminal that is an international standard, IEC61131-9.

Various fieldbusses

Device settings can be set by the master.
- Threshold value
- Operation mode, etc.

Read the device data.
- Switch ON/OFF signal and analog value
- Device information: Manufacturer, Product part number, Serial number, etc.
- Normal or abnormal device status

SMC IO-Link Master **EX600-GILB-X60** **Fieldbus** CC-Link IE Field



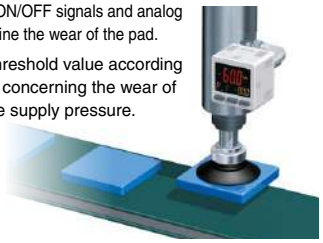
IO-Link Master (Commercially available)

Product	3-Screen Display High-Precision Digital Pressure Switch	3-Screen Display High-Precision Digital Pressure Switch for Air	3-Screen Display High-Precision Digital Pressure Switch for General Fluids	3-Color Display Digital Flow Switch for Water
Series	p. 03  **ZSE20B(F)** **ISE20B**	p. 03 1.0 MPa 1.6 MPa  **ISE70/ISE71**	p. 03 1.0 MPa 2.0 MPa 5.0 MPa 10 MPa  **ISE70G/ISE75G** **ISE76G/ISE77G**	p. 03  **PF3W704-X445** **PF3W720-X445** **PF3W740-X445**
Process data size	2-byte input	2-byte input	2-byte input	6-byte input
Diagnostic/Status monitoring function — Event data — Internal failure	●	●	●	●
Event data — Abnormal internal temperature	●	●	●	●
Event data — Outside of rated range	●	●	●	●
Event data — Short-circuit detection		● OUT2	● OUT2	
Event data — Open-circuit detection				
Event data — External power supply failure				
Event data — Other				
Process data — Diagnostic bit	●	●	●	●

Applications

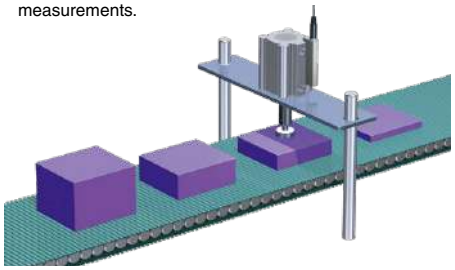
Pressure Sensor (Employs predictive maintenance for the early detection of declining adsorption capacity)

- Monitors switch ON/OFF signals and analog values to determine the wear of the pad.
- Changes the threshold value according to the situation concerning the wear of the pad and the supply pressure.



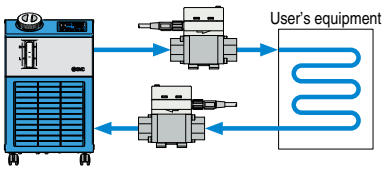
Actuator Position Sensor
(For the manufacturing of various machined products)

- Confirms the machining status and workpiece measurements.



For the predictive maintenance of cooling water problems

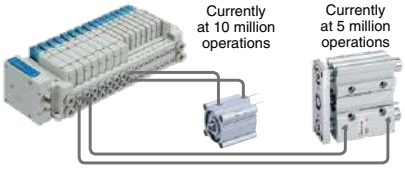
- Monitors flow rate and temperature “switch ON/OFF signals” and “analog values” to determine the cooling status. The process and cooling status can be compared.



Valve SI Unit (Employs preventive maintenance to prevent actuator malfunctions)

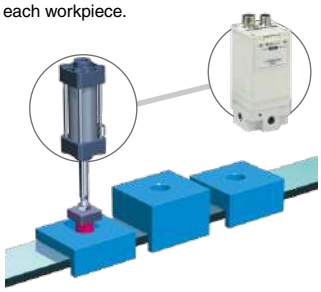
<Application Example>

- **Scheduled cylinder maintenance**
  The replacement time of the cylinder connected to the valve can be scheduled based on the valve cycle count. This enables scheduled maintenance to be performed before any unexpected cylinder failure occurs.



Electro-Pneumatic Regulator (For the manufacturing of various products)

- The set pressure value can be changed to control the indentation pressure applied to each workpiece.



Actuator Position Sensor	Valve SI Unit	Electro-Pneumatic Regulator	Step Motor Controller	Product		
p. 03	p. 04	p. 04	p. 04	Series		
						
D-MP025/D-MP050 D-MP100/D-MP200	EX260-SIL1-X207 EX260-SIL1-X210	ITV10□0-X395 ITV20□0-X395 ITV30□0-X395	JXCL1			
2-byte input	4-byte output	2-byte input 2-byte output	14-byte input 22-byte output	Process data size		
●	●	●		Internal failure	Event data	Diagnostic/Status monitoring function
●	●			Abnormal internal temperature		
●		●		Outside of rated range		
	● Valve output wiring			Short-circuit detection		
	● Valve output wiring			Open-circuit detection		
	● Valve power supply		● Control power supply	External power supply failure		
● Reduced magnetic field strength	● Number of valve operations exceeded		● Motor control related alarm	Other		
		● Set pressure reached	● Motor control related alarm	Diagnostic bit	Process data	

IO-Link Compatible Products

Pressure Switches

High-Precision Digital Pressure Switch

ZSE20B(F)-L/ISE20B-L

IP65

- IO-Link version V1.1
- Process data length 2-byte input
- Transmission speed COM2 (38.4 kbps)
- Minimum cycle time 2.3 ms
- IO-Link port type Class A

Series	Applicable fluid	Type	Rated pressure range
ZSE20BF-L	Air	Compound pressure	−100 to 100 kPa
ZSE20B-L		Vacuum pressure	0 to −100 kPa
ISE20B-L		Positive pressure	0 to 1 MPa

High-Precision Digital Pressure Switch

ISE7□/7□G

IP67

- IO-Link version V1.1
- Process data length 2-byte input
- Transmission speed COM2 (38.4 kbps)
- Minimum cycle time 2.3 ms
- IO-Link port type Class A

Series	Applicable fluid	Type	Rated pressure range
ISE70	Air	Positive pressure	0 to 1 MPa
ISE71			0 to 1.6 MPa
ISE70G	Air General fluids		0 to 1 MPa
ISE75G			0 to 2 MPa
ISE76G			0 to 5 MPa
ISE77G			0 to 10 MPa

Digital Flow Switch

Digital Flow Switch for Water

PF3W7□-X445

IP65

- IO-Link version V1.1
- Process data length 6-byte input
- Transmission speed COM2 (38.4 kbps)
- Minimum cycle time 3.5 ms
- IO-Link port type Class A

Series	Applicable fluid	Rated flow range
PF3W704-X445	Water	0.5 to 4 L/min
PF3W720-X445		2 to 16 L/min
PF3W740-X445		5 to 40 L/min

Position Sensor

Actuator Position Sensor

Actuator stroke position is output with an analog signal.

D-MP025
D-MP050
D-MP100
D-MP200

IP67

- IO-Link version V1.1
- Process data length 2-byte input
- Transmission speed COM3 (230.4 kbps)
- Minimum cycle time 1.0 ms
- IO-Link port type Class A

Series	Measurement range
D-MP025	25 mm
D-MP050	50 mm
D-MP100	100 mm
D-MP200	200 mm

SI Unit

SI Unit

EX260-SIL1-X207
EX260-SIL1-X210

IP67

- IO-Link version V1.1
- Process data length 4-byte output
- Transmission speed COM3 (230.4 kbps)
- Minimum cycle time 0.8 ms

Series	Number of outputs	IO-Link port type
EX260-SIL1-X207	32 outputs	Class A
EX260-SIL1-X210	32 outputs	Class B

Electro-Pneumatic Regulator

Electro-Pneumatic Regulator

ITV10□0-X395
ITV20□0-X395
ITV30□0-X395

IP65

- IO-Link version V1.1
- Process data length 2-byte input/2-byte output
- Transmission speed COM3 (230.4 kbps)
- Minimum cycle time 0.7 ms
- IO-Link port type Class A

Series	Set pressure range
ITV1010/ITV2010/ITV3010-X395	0.005 to 0.1 MPa
ITV1030/ITV2030/ITV3030-X395	0.005 to 0.5 MPa
ITV1050/ITV2050/ITV3050-X395	0.005 to 0.9 MPa

Step Motor Controller

Step Motor Controller

JXCL1

IP40

- IO-Link version V1.1
- Process data length 14-byte input/22-byte output
- Transmission speed COM3 (230.4 kbps)
- Minimum cycle time 2.4 ms
- IO-Link port type Class A

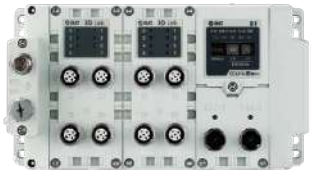
Series	Number of axes	Compatible motor
JXCL1	1 axis	Step motor (Servo/24 VDC)

IO-Link Master

IO-Link Master

EX600-GILB-X60

IP67



- IO-Link version V1.1
- Process data length 32-byte input/32-byte output (per port)
- IO-Link port type Class A

Series	Number of ports	PLC communication protocol
EX600-GILB-X60	4 ports	CC-Link IE Field

Accessories

Please contact SMC for the communication cable with connector.

IO-Link Compatible Products

IO-Link

SMC Corporation

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Specifications are subject to change without prior notice
and any obligation on the part of the manufacturer.

D-G

1st printing WU printing WU 9600KY Printed in Japan.