

! Contact our sales office for delivery dates and prices as this is a special model.

Specialized Product

Point to Group
P.G. information

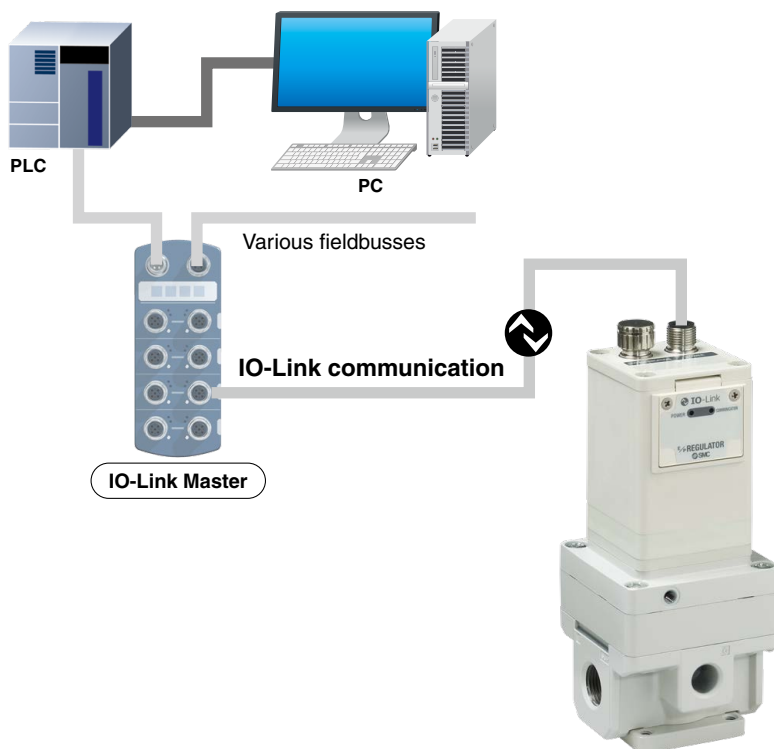
IO-Link Compatible Electro-Pneumatic Regulator



ITV10□0/20□0/30□0-X395

Features

IO-Link communication enables users to check device information and monitor device status in addition to performing pressure control.



IO-Link Compatible Device:
Electro-Pneumatic Regulator
ITV10□0/20□0/30□0-X395

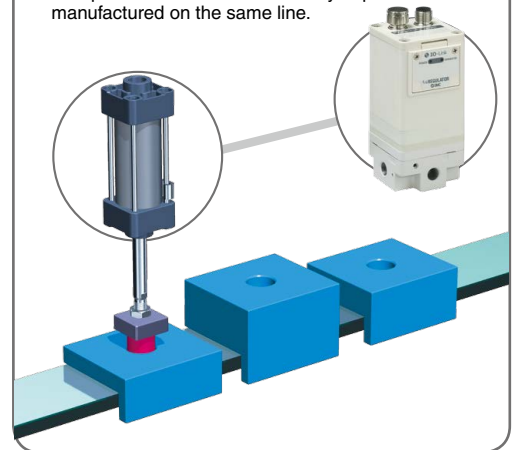


IO-Link is an open communication interface technology between the sensor/actuator and the I/O terminal that is an international standard, IEC61131-9.

Applications

● For the manufacturing of various products

The set pressure analog value can be changed to control the indentation pressure applied to each workpiece. This allows for a variety of products to be manufactured on the same line.



Send and receive pressure control signals, device information, and the set contents.

Sending and receiving of device information, the set contents, and condition monitoring data

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

<Set Contents> Set pressure value, gain/sensitivity adjustment

<Conditioning Monitoring> Output pressure value

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

Only a single cable combining the communication wire and the power supply wire is required.

Uses 4-wire unshielded cables

Special communication cables are not necessary.

A conventional 4-wire unshielded cable can be used for input and output of sensors, switches, etc.

(Recommended specifications: Conductor resistance 3Ω, Wire-to-wire capacitance 3 nF or less, 20 m or less)



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

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SP175X-006E
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Specifications


Standard Specification

Item	ITV1010	ITV1030	ITV1050
	ITV2010	ITV2030	ITV2050
	ITV3010	ITV3030	ITV3050
Minimum supply pressure	Set pressure +0.1 MPa		
Maximum supply pressure	0.2 MPa	1.0 MPa	
Set pressure range	0.005 to 0.1 MPa	0.005 to 0.5 MPa	0.005 to 0.9 MPa
Power supply	Voltage	24 VDC ±10%	
	Current consumption	0.12 A or less	
Linearity	±1% F.S. or less		
Hysteresis	0.5% F.S. or less		
Repeatability	±0.5% F.S. or less		
Sensitivity	0.2% F.S. or less		
Temperature characteristics	±0.12% F.S./°C or less		
Ambient and fluid temperatures	0 to 50°C (No condensation)		
Enclosure	IP65		
Weight	ITV10□□	355 g	
	ITV20□□	455 g	
	ITV30□□	750 g	
Standards	CE marking, UL		

Communication Specifications

Item	ITV10□0/20□0/30□0-X395
Protocol	IO-Link version 1.1
Communication speed	COM3 (230.4 kbps)
IO-Link port	Class A
IO-Link type	Device
Vendor ID	131
Process data	Input: 2 bytes, Output: 2 bytes

Wiring Specifications

Power supply connector																
M12 4-pin plug, A-coded																
	<table border="1"> <thead> <tr> <th>No.</th> <th>Designation</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>L+ (Vcc)</td> <td>+24 V for control unit</td> </tr> <tr> <td>2</td> <td>-</td> <td>Not used</td> </tr> <tr> <td>3</td> <td>L- (GND)</td> <td>0 V for control unit</td> </tr> <tr> <td>4</td> <td>C/Q</td> <td>IO-Link communication data</td> </tr> </tbody> </table>	No.	Designation	Function	1	L+ (Vcc)	+24 V for control unit	2	-	Not used	3	L- (GND)	0 V for control unit	4	C/Q	IO-Link communication data
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Mating cable examples [M12 connector (socket) — Separate lines] : P398020-500-3 (3 m, straight, 4 cores) : P398020-501-3 (3 m, angle, 4 cores) : EX500-AP010-S (1 m, straight, 5 cores) : EX500-AP010-A (1 m, angle, 5 cores) : EX500-AP050-S (5 m, straight, 5 cores) : EX500-AP050-A (5 m, angle, 5 cores)																
[M12 connector (socket) — M12 connector (plug)] : PCA-1557769 (3 m, straight, 4 cores)																

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

This product uses the following system to check operation.

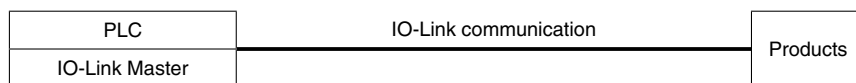
1. When IO-Link is used from the master Fieldbus via the IO-Link master



[IO-Link Master List]

Manufacturer	Master Fieldbus	Part number
Balluff	Profinet	BNI PNT-508-105-Z015
	Profibus	BNI PBS-502-101-Z001

2. When the IO-Link master is mounted on the PLC to use IO-Link



[IO-Link Master List]

Manufacturer	PLC Series
Siemens	ET200SP



How to Order

ITV 2 0 1 0 - IO □ 2 □ S - X395

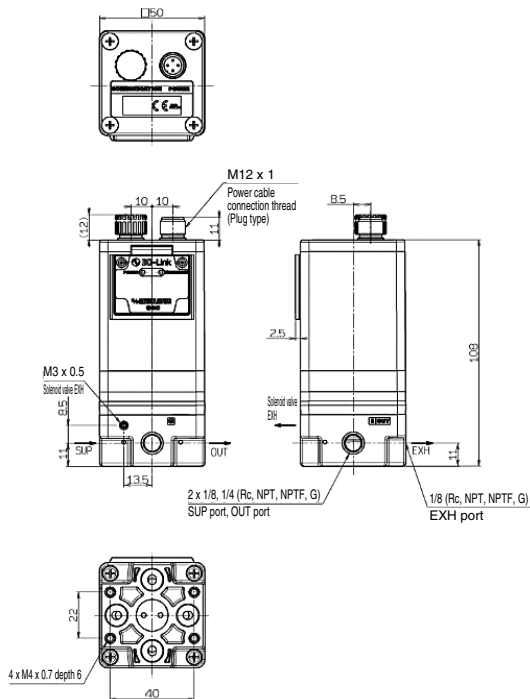
<p>Model</p> <table border="1"> <tr><td>1</td><td>1000 type</td></tr> <tr><td>2</td><td>2000 type</td></tr> <tr><td>3</td><td>3000 type</td></tr> </table> <p>Pressure range</p> <table border="1"> <tr><td>1</td><td>0.1 MPa</td></tr> <tr><td>3</td><td>0.5 MPa</td></tr> <tr><td>5</td><td>0.9 MPa</td></tr> </table> <p>Power supply voltage</p> <table border="1"> <tr><td>0</td><td>24 VDC</td></tr> </table> <p>Communication model</p> <table border="1"> <tr><td>IO</td><td>IO-Link</td></tr> </table>	1	1000 type	2	2000 type	3	3000 type	1	0.1 MPa	3	0.5 MPa	5	0.9 MPa	0	24 VDC	IO	IO-Link	<p>Cable connector type</p> <table border="1"> <tr><td>S</td><td>Straight type 3 m</td></tr> <tr><td>L</td><td>Right angle type 3 m</td></tr> <tr><td>N</td><td>Without cable connector</td></tr> </table> <p>Bracket</p> <table border="1"> <tr><td>Nil</td><td>Without bracket</td></tr> <tr><td>B</td><td>Flat bracket</td></tr> <tr><td>C</td><td>L-bracket</td></tr> </table> <p>Port size</p> <table border="1"> <tr><td>1</td><td>1/8 (1000 type)</td></tr> <tr><td>2</td><td>1/4 (1000, 2000, 3000 type)</td></tr> <tr><td>3</td><td>3/8 (2000, 3000 type)</td></tr> <tr><td>4</td><td>1/2 (3000 type)</td></tr> </table> <p>Thread type</p> <table border="1"> <tr><td>Nil</td><td>Rc</td></tr> <tr><td>N</td><td>NPT</td></tr> <tr><td>T</td><td>NPTF</td></tr> <tr><td>F</td><td>G</td></tr> </table>	S	Straight type 3 m	L	Right angle type 3 m	N	Without cable connector	Nil	Without bracket	B	Flat bracket	C	L-bracket	1	1/8 (1000 type)	2	1/4 (1000, 2000, 3000 type)	3	3/8 (2000, 3000 type)	4	1/2 (3000 type)	Nil	Rc	N	NPT	T	NPTF	F	G
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* Refer to the **Web Catalog** for brackets and cables.

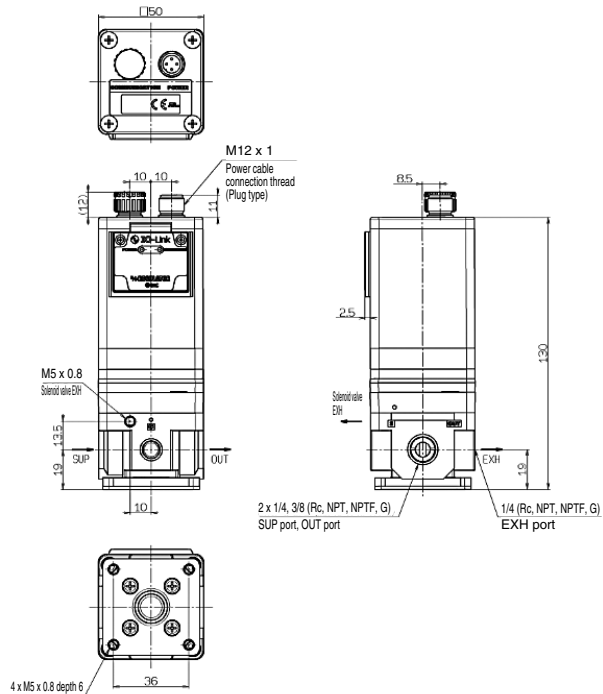
Dimensions

[mm]

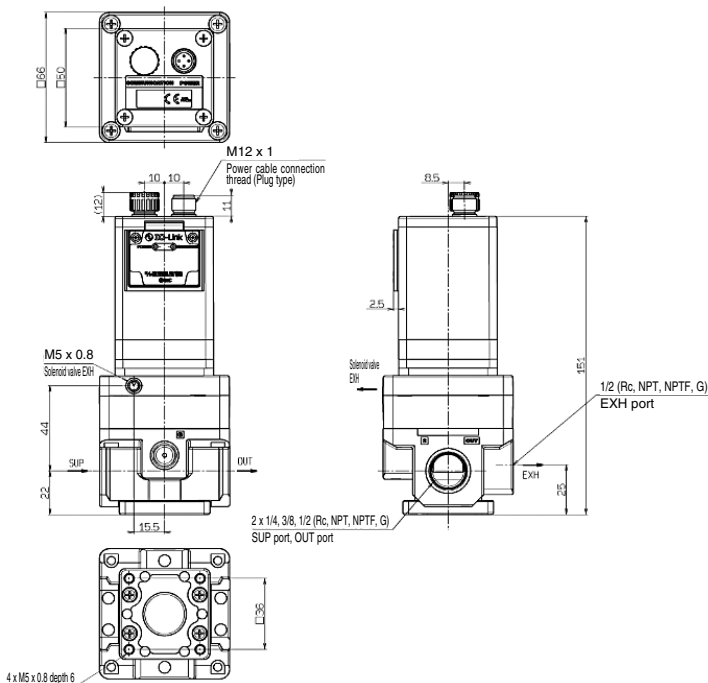
ITV10□0-X395



ITV20□0-X395



ITV30□0-X395



⚠ Caution

- When the product is in an “as-shipped” condition, the output pressure when a 0% input signal is applied is 0 MPa. However, there are some cases in which there is a residual pressure of 0.005 MPa or less.
If the pressure needs to be reduced to 0 MPa, install a 3-port valve on the output side to exhaust the residual pressure.
- The M12 connector on which the word “COMMUNICATION” is printed should not be used, so do not remove the cap.