

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

Specialized Product

Point to Group  
**P.G. information**

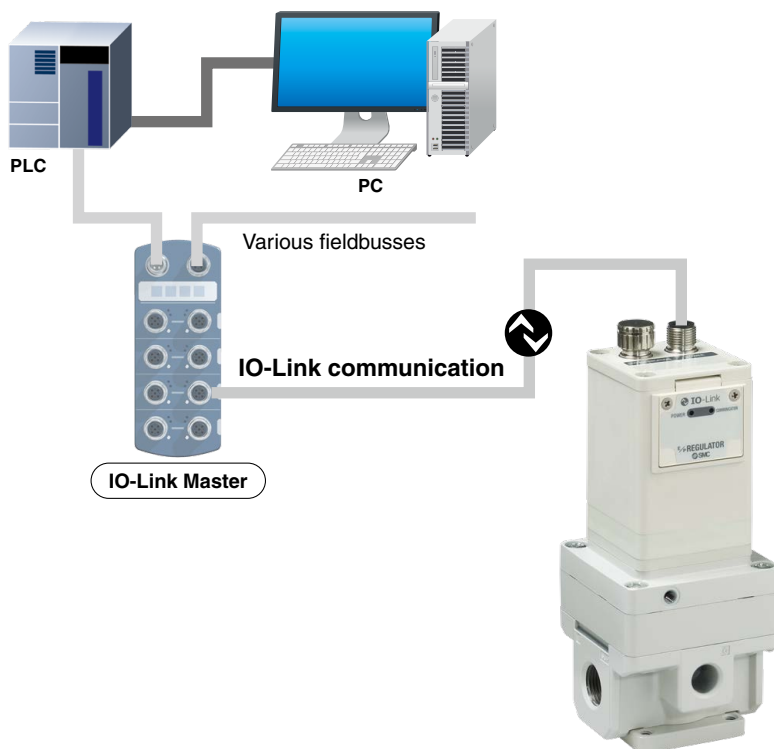
# IO-Link Compatible Electro-Pneumatic Regulator



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

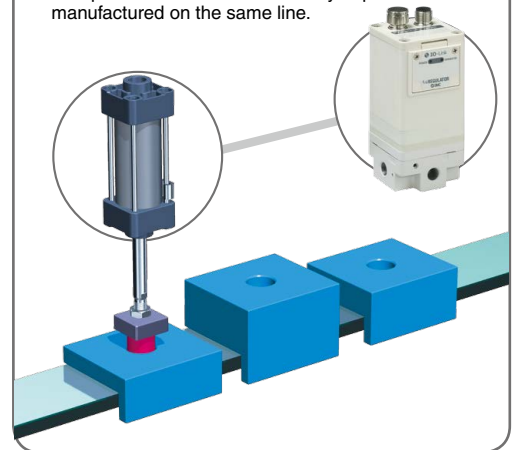


IO-Link is an open communication interface technology between the sensor/actuator and the I/O terminal that is an international standard, IEC61131-9.

## 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  
P: WR



## Specifications

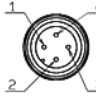
### Standard Specification

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			
	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	
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)			

\* IO-Link files are required to configure this product.  
Please contact SMC for the IO-Link files.  
Also, please contact SMC for the operation manual.

**This product uses the following system to check operation.**

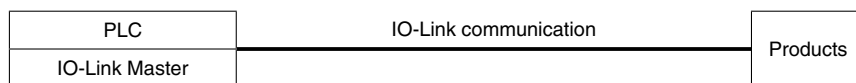
1. When IO-Link is used from the master Fieldbus via the IO-Link master



**[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**

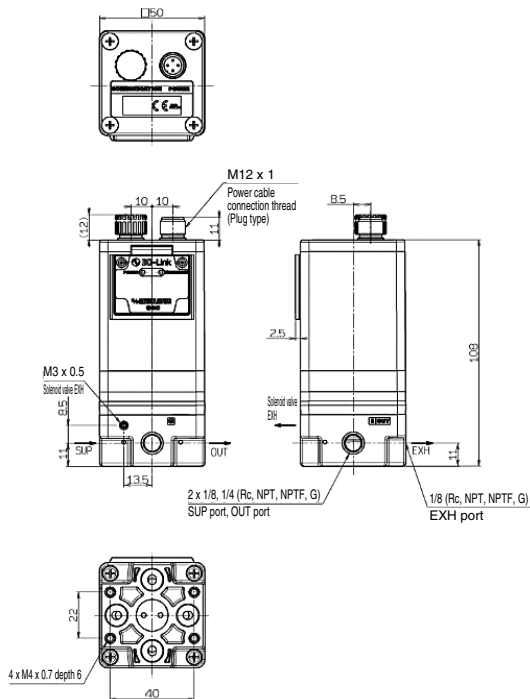
<p><b>Model</b></p> <table border="1"> <tr><td>1</td><td>1000 type</td></tr> <tr><td>2</td><td>2000 type</td></tr> <tr><td>3</td><td>3000 type</td></tr> </table> <p><b>Pressure range</b></p> <table border="1"> <tr><td>1</td><td>0.1 MPa</td></tr> <tr><td>3</td><td>0.5 MPa</td></tr> <tr><td>5</td><td>0.9 MPa</td></tr> </table> <p><b>Power supply voltage</b></p> <table border="1"> <tr><td>0</td><td>24 VDC</td></tr> </table> <p><b>Communication model</b></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><b>Cable connector type</b></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><b>Bracket</b></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><b>Port size</b></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><b>Thread type</b></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.

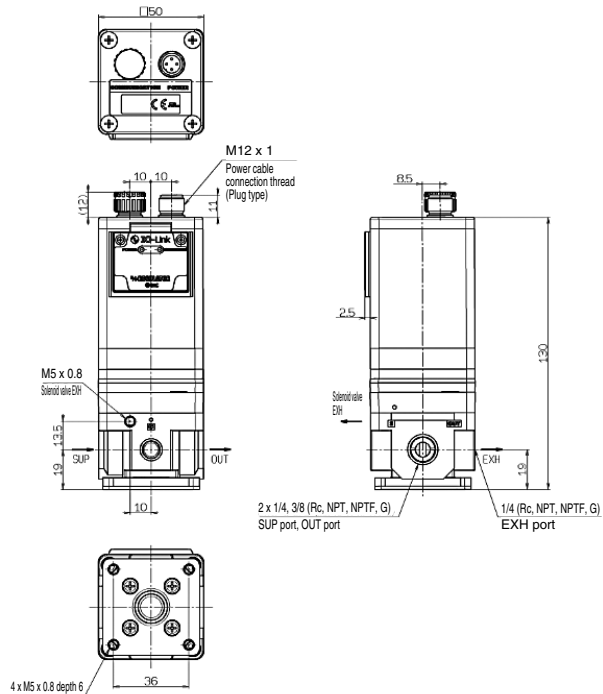
## Dimensions

[mm]

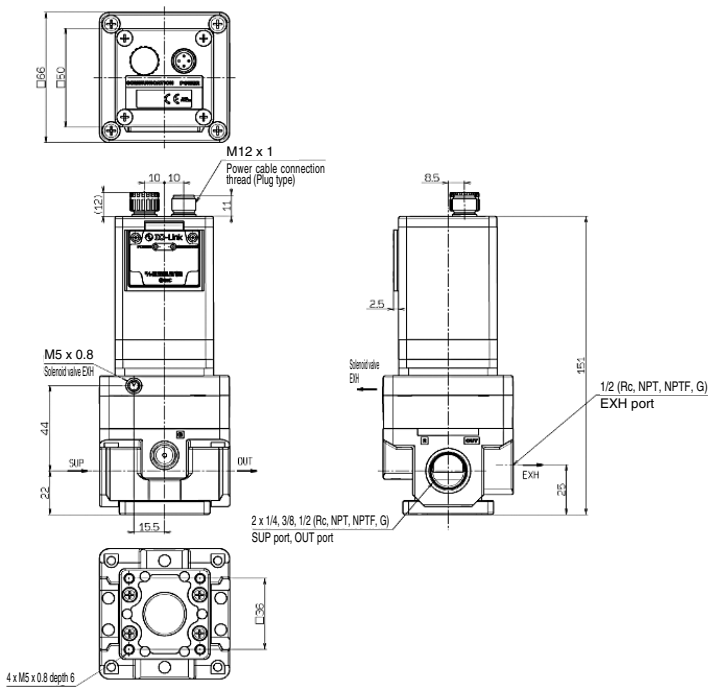
### ITV10□0-X395



### 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.