Electro-Pneumatic Regulator

Series ITV1000/2000/3000

How to Order

ITV 3 0 1 0 – 0 1 F 2 S –

Model

1	1000 type
2	2000 type
3	3000 type

Pressure range

1	0.1 MPa
3	0.5 MPa
5	0.9 MPa

Power supply voltage

0	24 VDC
1	12 to 15 VDC

Note) Communication models (CC, DE PR, RC) 16 points preset input and 10 bit digital input are available only for 24 VDC.

Input signal/ Communication model

0	Current type 4 to 20 mA DC (Sink type)
1	Current type 0 to 20 mA DC (Sink type)
2	Voltage type 0 to 5 VDC
3	Voltage type 0 to 10 VDC
40	4 points preset input
52	16 points preset input (Switch output/NPN output)
53	16 points preset input (Switch output/PNP output)
60	10 bit digital input
CC	CC-Link
DE	DeviceNet™
PR	PROFIBUS DP
RC	RS-232C communication

Monitor output

1	Analogue output 1 to 5 VDC
2	Switch output/NPN output
3	Switch output/PNP output
4	Analogue output 4 to 20 mA DC (Sink type/+COM type)Note 1)
—	None

Note) For -COM type, see page 25 for details.

Thread type

—	Rc
N	NPT
T	NPTF
F	G

Port size

1	1/8 (1000 type)
2	1/4 (1000, 2000, 3000 type)
3	3/8 (2000, 3000 type)
4	1/2 (3000 type)

Bracket

—	Without bracket
B	Flat bracket
C	L-bracket

Cable connector type

S	Straight type 3 m
L	Right angle type 3 m
N	Without cable connector

Note) Order communication cable (other than RS-232C) separately. See below.

Pressure display unit

—	MPa
2	kgf/cm²
3	bar
4	psi
5	kPa

Note) For the communication models, CC, DE, PR and RC, only "—" is available as it does not have a pressure display.

Made to Order Specifications

Refer to pages 11, 25, 26 and 27 for details.

For communication cables, use the parts listed below
(refer to the catalogue [M8/M12 Connector] CAT.ES100-73 for details)
or order the product certified for the respective protocol (with M12 connector) separately.

Application	Communication cable part number	Remarks
CC-Link compatibility	PCA-1567720 (Socket type)	Dedicated Bus adapter supplied with the product.
	PCA-1567717 (Plug type)	
DeviceNet™ compatibility	PCA-1557633 (Socket type)	T-branch connector not supplied.
	PCA-1557646 (Plug type)	
PROFIBUS DP compatibility	PCA-1557688 (Socket type)	T-branch connector not supplied.
	PCA-1557691 (Plug type)	

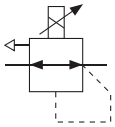
ITV1000

ITV2000

ITV3000

Fieldbus-compatible model

JIS Symbol



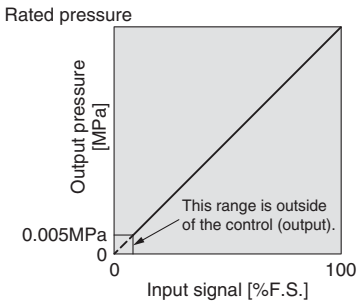


Figure 1. Input/output characteristics chart

Standard Specifications

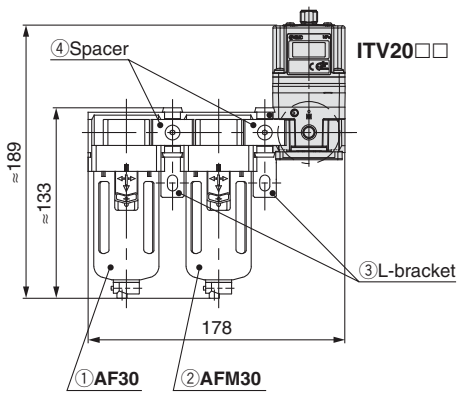
Model		ITV101□ Note 10)	ITV103□ Note 10)	ITV105□ Note 10)
		ITV201□	ITV203□	ITV205□
		ITV301□	ITV303□	ITV305□
Minimum supply pressure		Set pressure +0.1 MPa		
Maximum supply pressure		0.2 MPa	1.0 MPa	
Set pressure range Note 1)		0.005 to 0.1 MPa	0.005 to 0.5 MPa	0.005 to 0.9 MPa
Power supply	Voltage	24 VDC ±10%, 12 to 15 VDC		
	Current consumption	Power supply voltage 24 VDC type: 0.12 A or less Note 8) Power supply voltage 12 to 15 VDC type: 0.18 A or less		
Input signal	Current type Note 2)	4 to 20 mA DC, 0 to 20 mA DC (Sink type)		
	Voltage type	0 to 5 VDC, 0 to 10 VDC		
	Preset input	4 points (Negative common), 16 points (No common polarity)		
	Digital input	10 bit (parallel)		
Input impedance	Current type	250 Ω or less Note 6)		
	Voltage type	Approx. 6.5 kΩ		
	Preset input	Power supply voltage 24 VDC type: Approx. 4.7 kΩ; Power supply voltage 12 VDC type: Approx. 2.0 kΩ		
	Digital input	Approx. 4.7 kΩ		
Output signal (monitor output) Note 3)	Analogue output	1 to 5 VDC (Output impedance: Approximately 1 kΩ) 4 to 20 mA DC (Sink type) (Load impedance: 250Ω or less) Output accuracy within ±6% (Full span)		
	Switch output	NPN open collector output: Max. 30 V, 80 mA PNP open collector output: Max. 80 mA		
Linearity		Within ±1% (Full span)		
Hysteresis		Within 0.5% (Full span)		
Repeatability		Within ±0.5% (Full span)		
Sensitivity		Within 0.2% (Full span)		
Temperature characteristics		Within ±0.12% (Full span)/C		
Output pressure display Note 4)	Accuracy	±2%F.S. ±1 digit		
	Minimum unit	MPa: 0.001, kgf/cm^2: 0.01, bar: 0.01, psi: 0.1 Note 5) , kPa: 1		
Ambient and fluid temperature		0 to 50°C (No condensation)		
Enclosure		IP65		
Weight Note 9)	ITV10□□	Approx. 250 g (without options)		
	ITV20□□	Approx. 350 g (without options)		
	ITV30□□	Approx. 645 g (without options)		

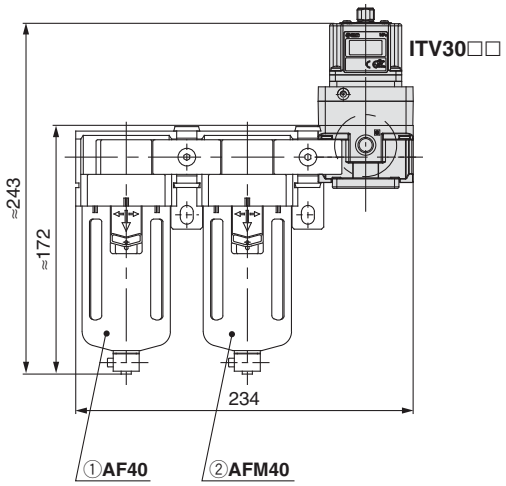
Note 1) Please refer to Figure 1 for the relationship between set pressure and input. Because the maximum set pressure differs for each pressure display, refer to page 45.
Note 2) 2-wire type 4 to 20 mA DC is not available. Power supply voltage (24 VDC or 12 to 15 VDC) is required.
Note 3) Select either analogue output or switch output.
Further, when switch output is selected, select either NPN output or PNP output.
Note 4) Adjustment of numerical values such as the zero/span adjustment or preset input type is set based on the minimum units for output pressure display (e.g. 0.01 to 0.50 MPa). Note that the unit cannot be changed.
Note 5) The minimum unit for 0.9 MPa (130 psi) types is 1 psi.
Note 6) Value for the state with no over current circuit included. If an allowance is provided for an over current circuit, the input impedance varies depending on the input current. This is 350 Ω or less for an input current of 20 mA DC.
Note 7) The above characteristics are confined to the static state. When air is consumed on the output side, the pressure may fluctuate.
Note 8) For communication models, the maximum current consumption is 0.16 A or less.
Note 9) For communication models, add roughly 80 g to the weight (100 g for the PROFIBUS DP).
Note 10) The ITV1000 series is a Grease-free specification (Wetted parts).

Communication Specifications (CC, DE, PR, RC)

Model	ITV□0□0-CC	ITV□0□0-DE	ITV□0□0-PR	ITV□0□0-RC
Protocol	CC-Link	DeviceNet™	PROFIBUS DP	RS-232C
Version Note 1)	Ver 1.10	Volume 1 (Edition 3.8), Volume 3 (edition 1.5)	DP-V0	—
Communication speed	156 k/625 k 2.5 M/5 M/10 M bps	125 k/250 k/500 k bps	9.6 k/19.2 k/45.45 k 93.75 k/187.5 k/500 k 1.5 M/3 M/6 M/12 M bps	9.6 kbps
Configulation file Note 2)	—	EDS	GSD	—
I/O occupation area (input/output data)	4 word/4 word, 32 bit/32 bit (per station, remote device station)	16 bit/16 bit	16 bit/16 bit	—
Communication data resolution	12 bit (4096 resolution)	12 bit (4096 resolution)	12 bit (4096 resolution)	10 bit (1024 resolution)
Fail safe	HOLD Note 3)/CLEAR (Switch setting)	HOLD/CLEAR (Switch setting)	CLEAR	HOLD
Electric insulation Note 4)	No	No	Yes	No
Terminating resistor	—		Built into the product (Switch setting)	—

Note 1) Note that version information is subject to change.
Note 2) Configulation files can be downloaded from the SMC's website: http://www.smcworld.com
Note 3) The output HOLD value when a CC-Link communications error occurs can be set based on the bit area data.
Note 4) The insulation between the electrical signal of the communication system and ITV power supply.





Modular Products and Accessory Combinations

∗ ITV10□□ models are not applicable.

Applicable products and accessories	Applicable model	
	ITV20□□	**ITV30□□**
① **Air filter**	AF30-A	AF40-A
② **Mist separator**	AFM30-A	AFM40-A
③ **L-bracket**	B310L	B410L
④ **Spacer**	Y30	Y40
⑤ **Spacer with L-bracket (③ + ④)**	Y30L	Y40L
⑥ **Spacer with T-bracket**	—	Y40T

Accessories (Option)/Part No.

[Bracket]

Applicable model	Description	Part No.
ITV10□□	Flat bracket assembly (including mounting screws)	P398010-600
ITV20□□, 30□□		P398020-600
ITV10□□	L-bracket assembly (including mounting screws)	P398010-601
ITV20□□, 30□□		P398020-601

[Cable connector]

Applicable model	Description		Part No.
Current type Voltage type 4 points preset input	**Cable connector (4 cores)**	**Straight type 3 m**	P398020-500-3
		Right angle type 3 m	P398020-501-3
16 points preset input	**Power cable (4 cores)**	**Straight type 3 m**	P398020-500-3
		Right angle type 3 m	P398020-501-3
	Signal cable (5 cores)	**Straight type 3 m**	P398020-502-3
		Right angle type 3 m	P398020-503-3
10 bit digital input	**Cable connector (13 cores)**	**Straight type 3 m**	INI-398-0-59
CC-Link PROFIBUS DP DeviceNet™	**Power cable (4 cores)**	**Straight type 3 m**	P398020-500-3
		Right angle type 3 m	P398020-501-3
RS-232C	**Power cable (4 cores)**	**Straight type 3 m**	P398020-500-3
		Right angle type 3 m	P398020-501-3
	Communication cables connector (5 cores)	**Straight type 3 m**	P398020-502-3
		Right angle type 3 m	P398020-503-3

Note 1) For the 10-bit digital type, there is no right angle type cable connector.
Note 2) Even when "with cable connector" is selected the communication cable is not included in the communication model (CC, DE, PR). Please order separately.

[Bus adapter]

Applicable model	Description	Part No.
CC-Link	**Bus adapter (Bus adapter supplied with the product.)**	EX9-ACY00-MJ

Made to Order

(Refer to pages 25, 26 and 27 for details.)

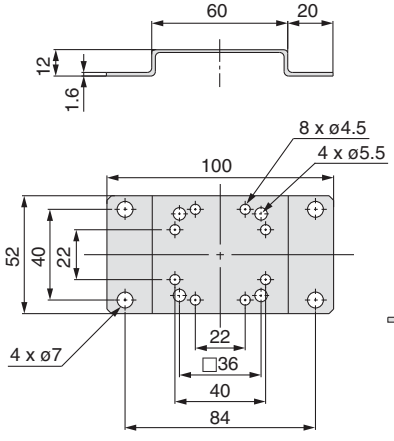
Symbol	Specifications
X256	Monitor analogue output 4-20mA (source type/-COM type)
X102	Reverse type
X224	High pressure type (SUP 1.2 MPa, OUT 1.0 MPa)
X25	Set pressure range 1 to 100 kPa (Except Series ITV3000)
X410	Linearity ±0.5% F.S. or less
X420	With alarm output
X88	High speed response type (Except Series ITV3000)
X26	For manifold mounting (Except Series ITV3000)

Note 1) Manifolds are compatible with 2 to 8 stations. Consult with SMC for 9 stations or more.
Note 2) Products without symbols are also compatible. Consult with SMC separately.

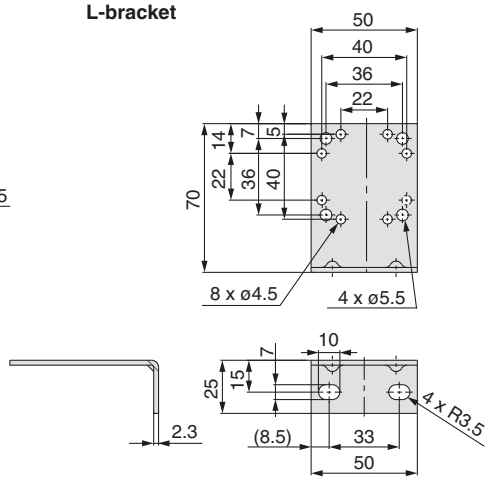
Model	Bracket tightening torque
ITV1000	0.76 ± 0.05 N·m
ITV2000/3000	1.5 ± 0.05 N·m

Dimensions

Flat bracket



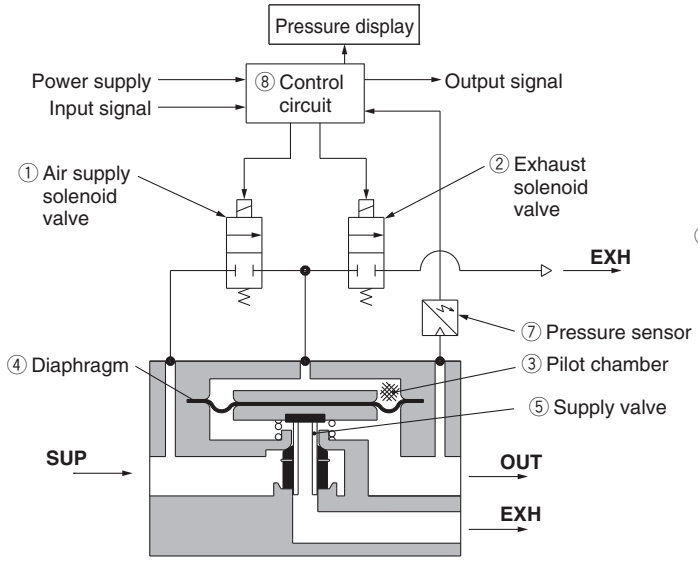
L-bracket



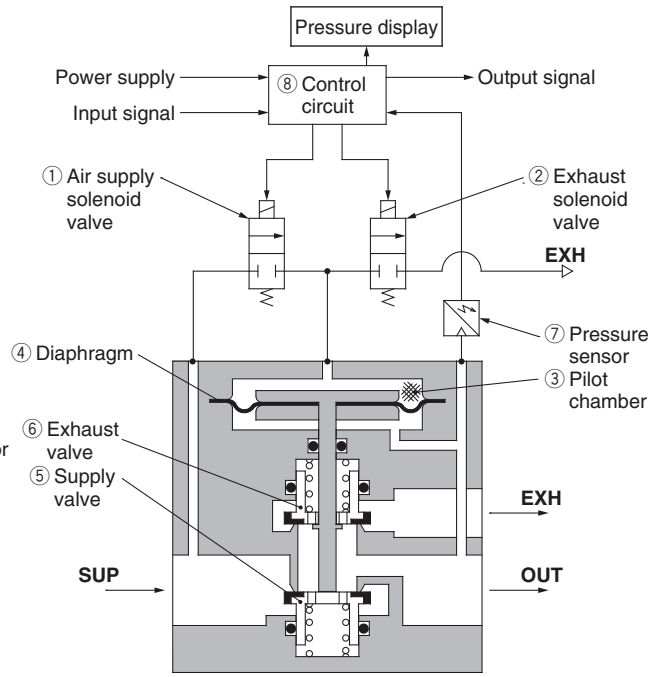
Working Principles

When the input signal rises, the air supply solenoid valve ① turns ON, and the exhaust solenoid valve ② turns OFF. Therefore, supply pressure passes through the air supply solenoid valve ① and is applied to the pilot chamber ③. The pressure in the pilot chamber ③ increases and operates on the upper surface of the diaphragm ④.
As a result, the air supply valve ⑤ linked to the diaphragm ④ opens, and a portion of the supply pressure becomes output pressure.
This output pressure feeds back to the control circuit ⑧ via the pressure sensor ⑦. Here, a correct operation functions until the output pressure is proportional to the input signal, making it possible to always obtain output pressure proportional to the input signal.

Working Principle Diagram

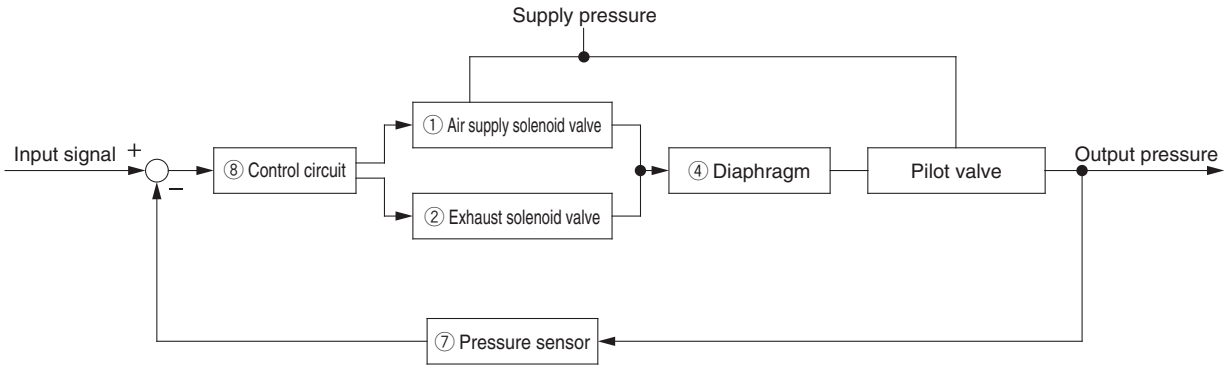


ITV1000



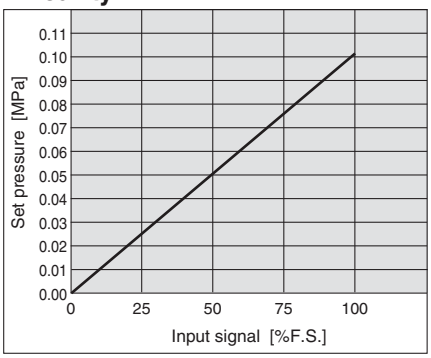
ITV2000, 3000

Block diagram

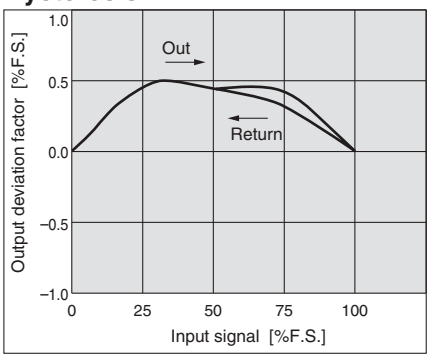


Series ITV101□

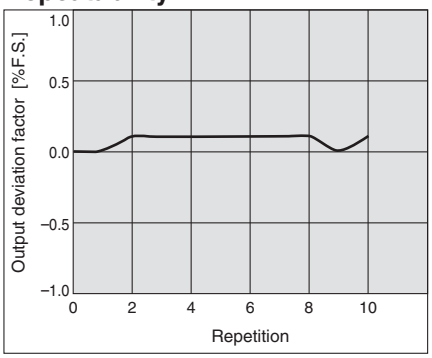
Linearity



Hysteresis

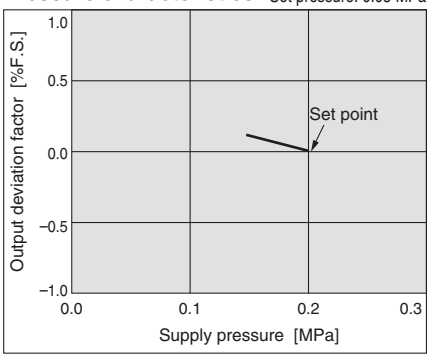


Repeatability



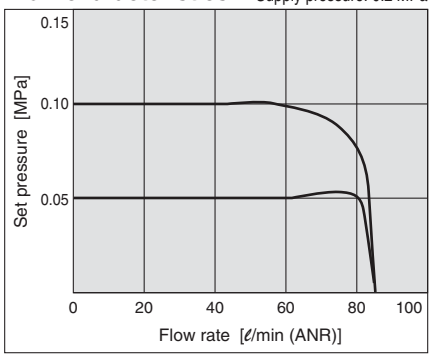
Pressure characteristics

Set pressure: 0.05 MPa



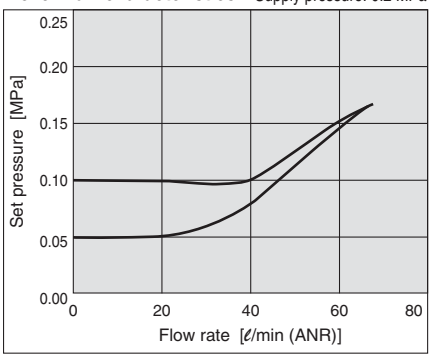
Flow characteristics

Supply pressure: 0.2 MPa



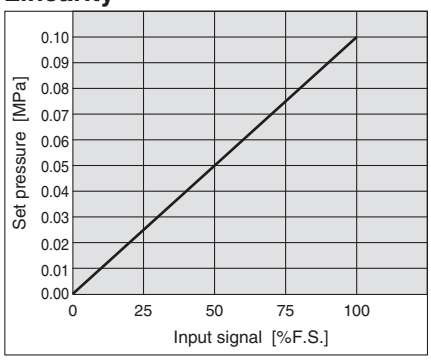
Relief flow characteristics

Supply pressure: 0.2 MPa

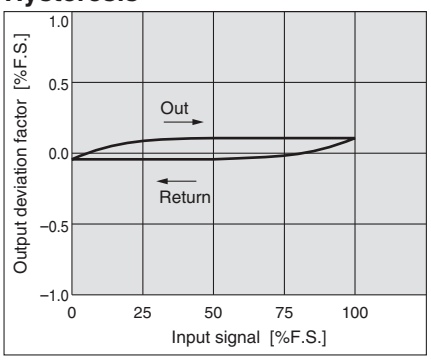


Series ITV201□

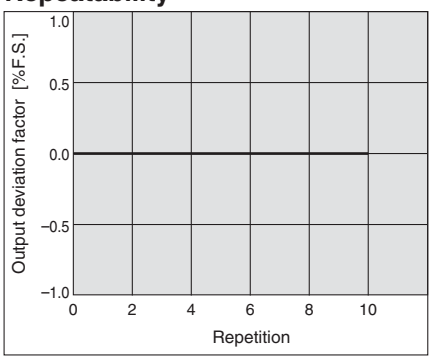
Linearity



Hysteresis

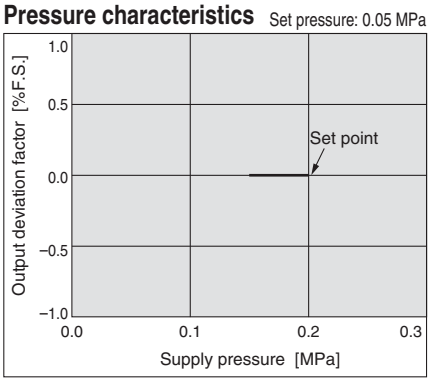


Repeatability



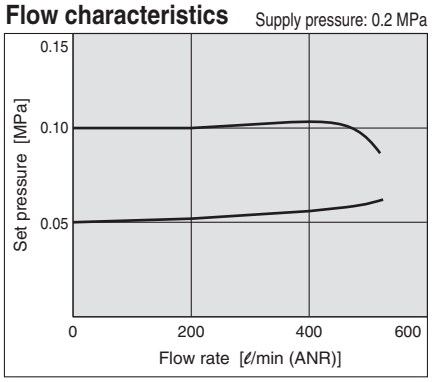
Pressure characteristics

Set pressure: 0.05 MPa



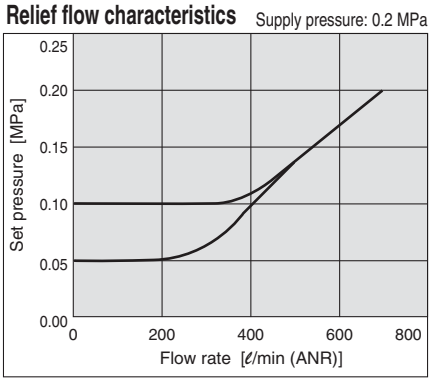
Flow characteristics

Supply pressure: 0.2 MPa



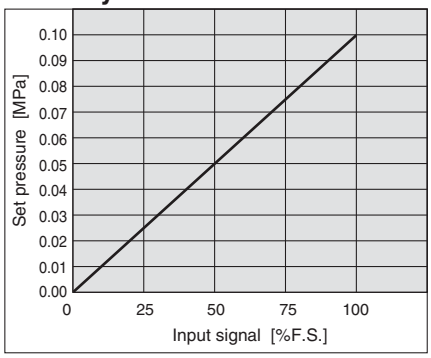
Relief flow characteristics

Supply pressure: 0.2 MPa

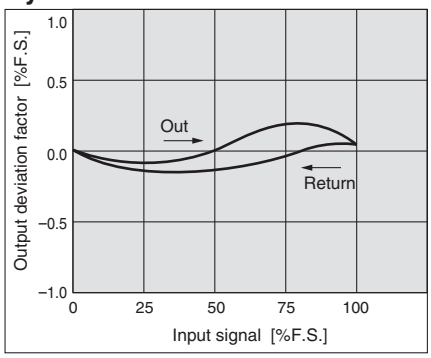


Series ITV301□

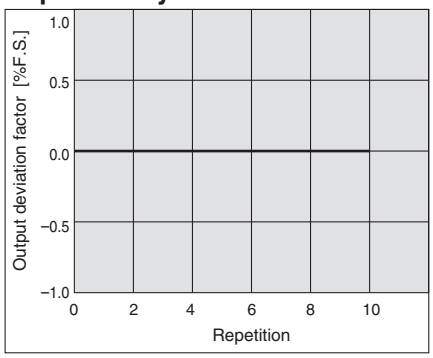
Linearity



Hysteresis

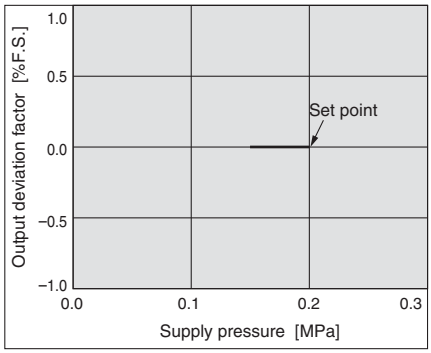


Repeatability



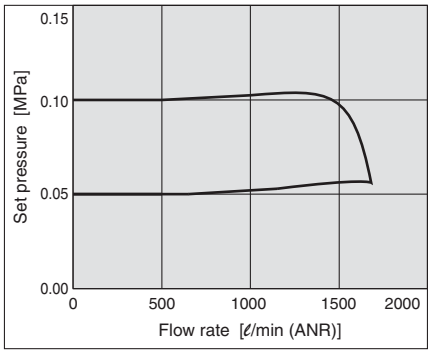
Pressure characteristics

Set pressure: 0.05 MPa



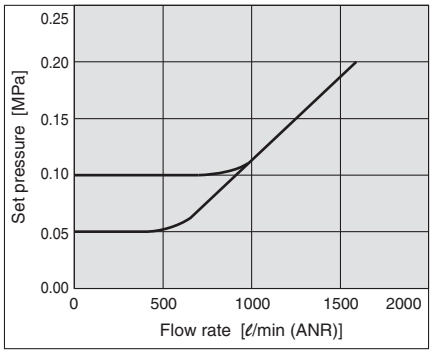
Flow characteristics

Supply pressure: 0.2 MPa



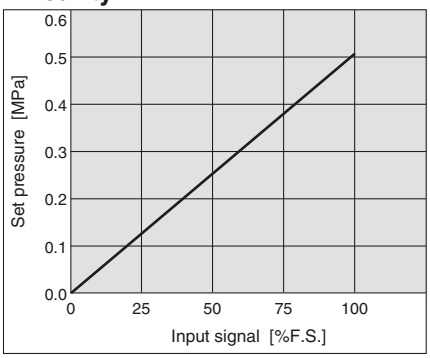
Relief flow characteristics

Supply pressure: 0.2 MPa

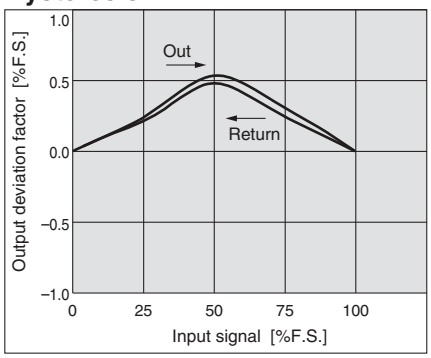


Series ITV103□

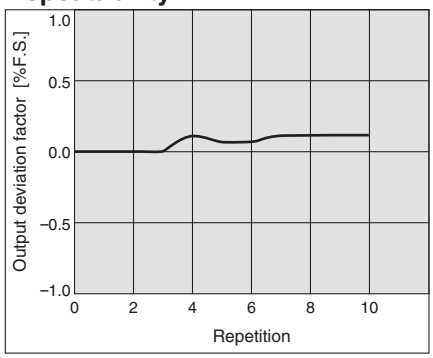
Linearity



Hysteresis

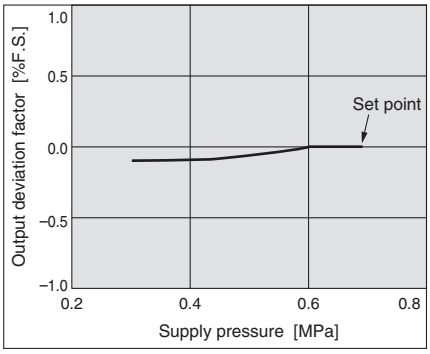


Repeatability



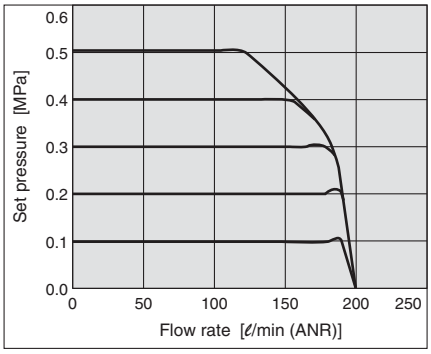
Pressure characteristics

Set pressure: 0.2 MPa



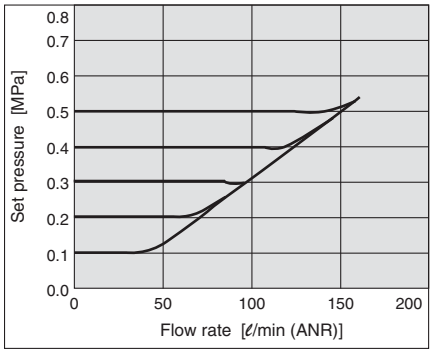
Flow characteristics

Supply pressure: 0.7 MPa



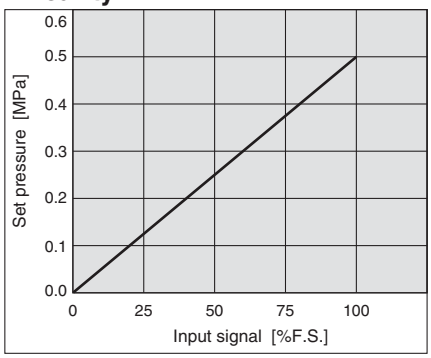
Relief flow characteristics

Supply pressure: 0.7 MPa

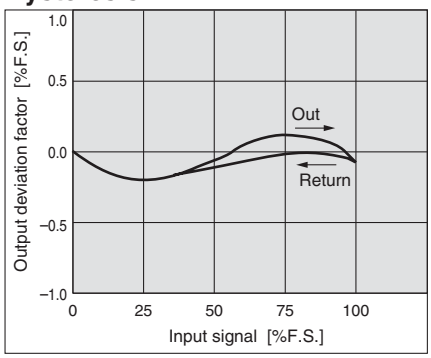


Series ITV203□

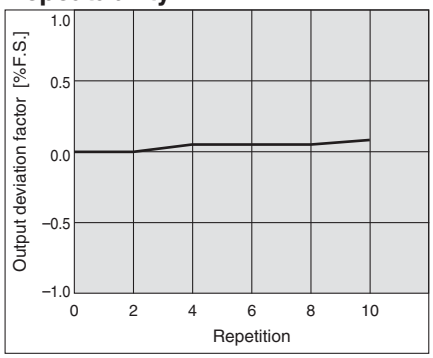
Linearity



Hysteresis

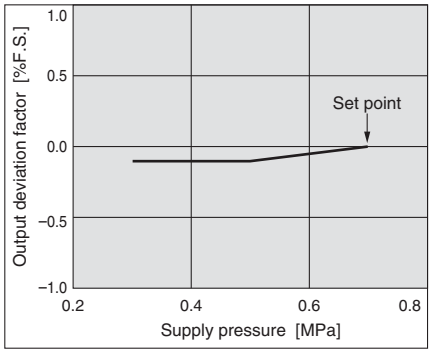


Repeatability



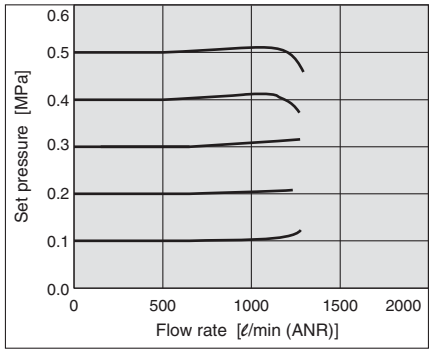
Pressure characteristics

Set pressure: 0.2 MPa



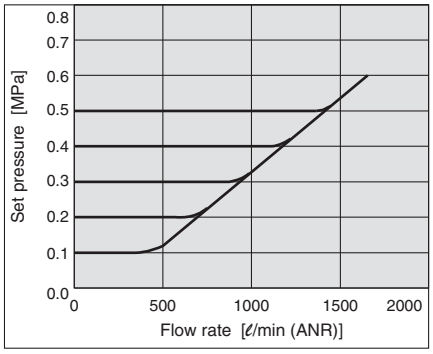
Flow characteristics

Supply pressure: 0.7 MPa



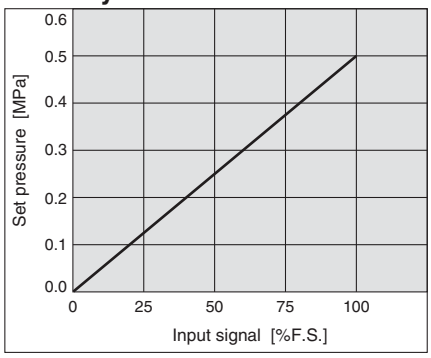
Relief flow characteristics

Supply pressure: 0.7 MPa

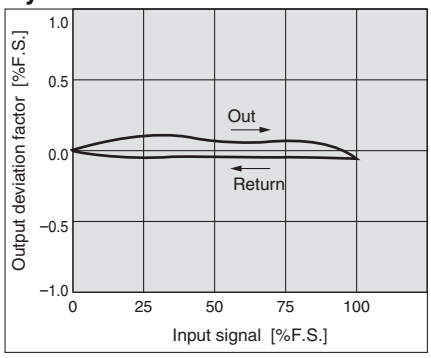


Series ITV303□

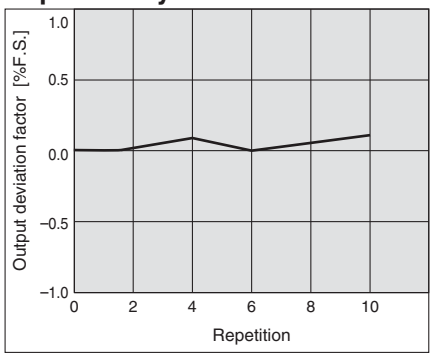
Linearity



Hysteresis

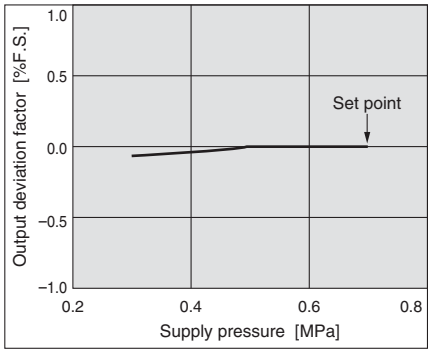


Repeatability



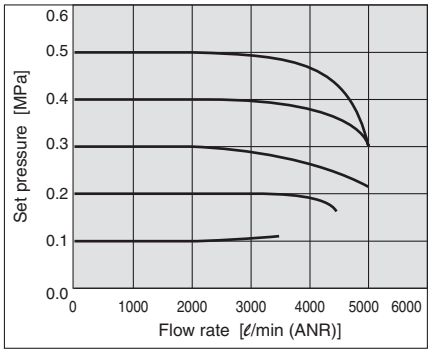
Pressure characteristics

Set pressure: 0.2 MPa



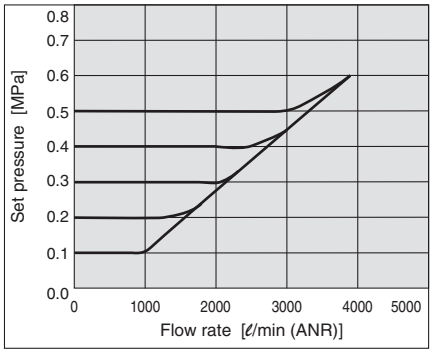
Flow characteristics

Supply pressure: 0.7 MPa



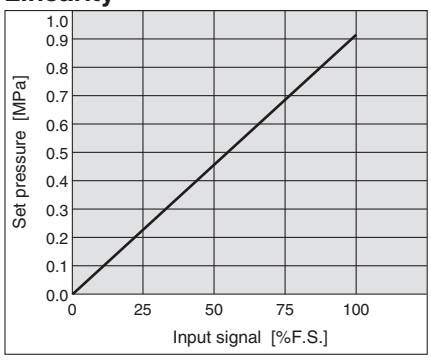
Relief flow characteristics

Supply pressure: 0.7 MPa

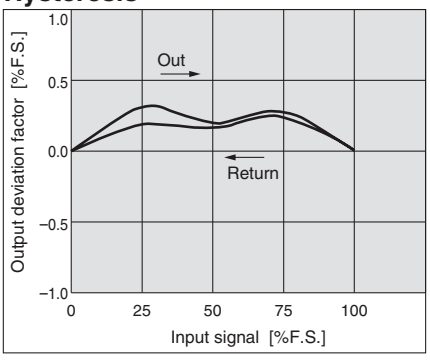


Series ITV105□

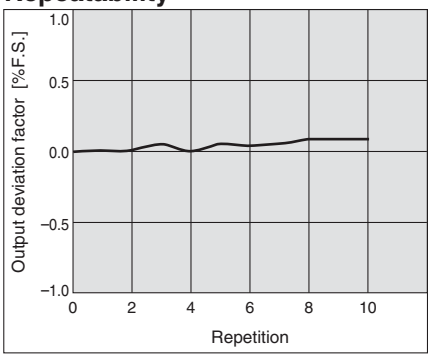
Linearity



Hysteresis

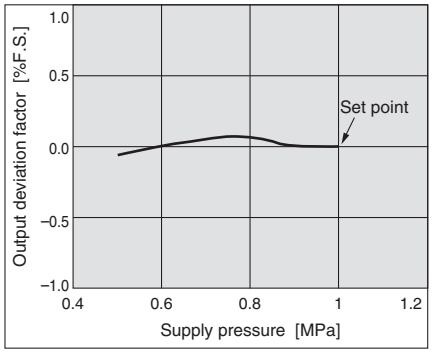


Repeatability



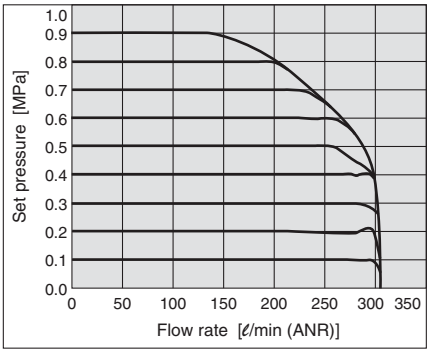
Pressure characteristics

Set pressure: 0.4 MPa



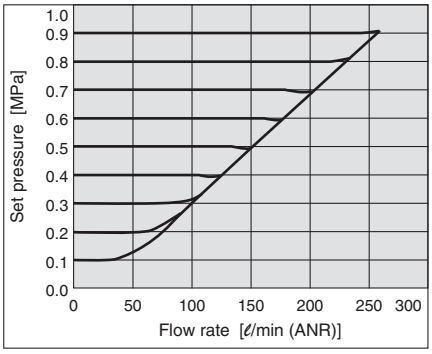
Flow characteristics

Supply pressure: 1.0 MPa



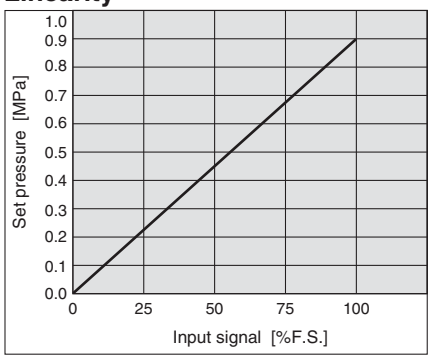
Relief flow characteristics

Supply pressure: 1.0 MPa

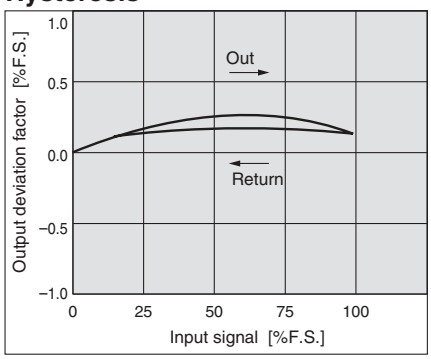


Series ITV205□

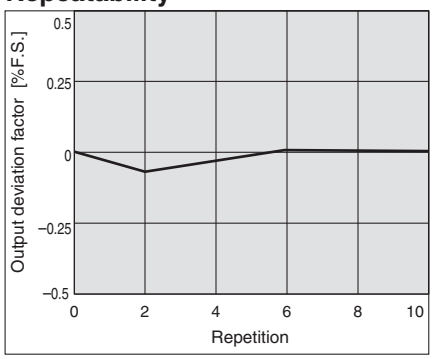
Linearity



Hysteresis

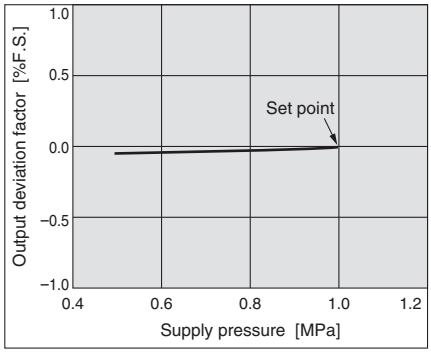


Repeatability



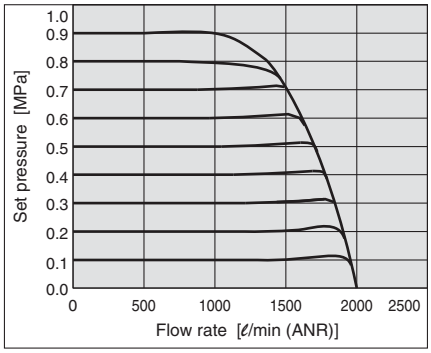
Pressure characteristics

Set pressure: 0.4 MPa



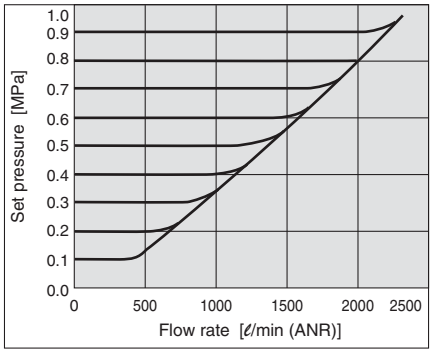
Flow characteristics

Supply pressure: 1.0 MPa



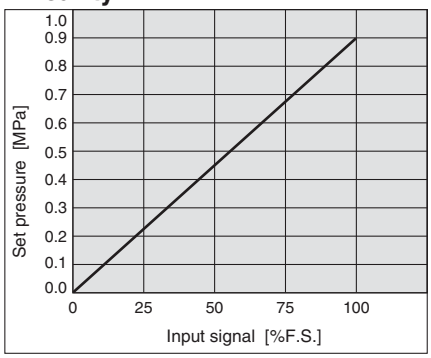
Relief flow characteristics

Supply pressure: 1.0 MPa

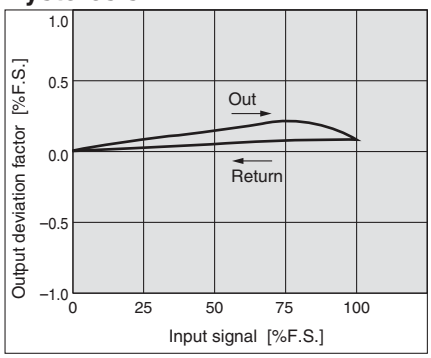


Series ITV305□

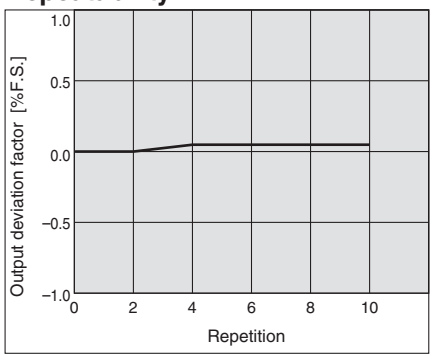
Linearity



Hysteresis

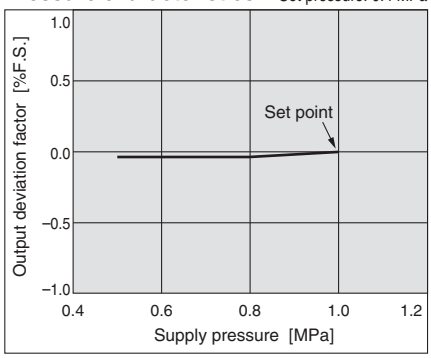


Repeatability



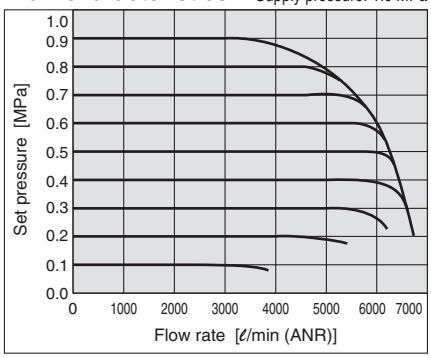
Pressure characteristics

Set pressure: 0.4 MPa



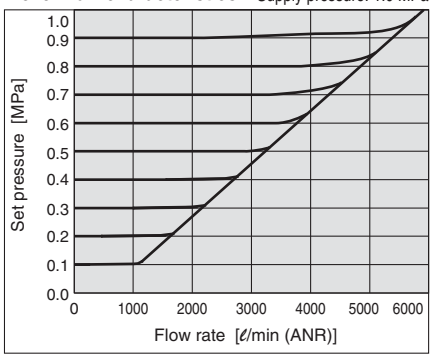
Flow characteristics

Supply pressure: 1.0 MPa



Relief flow characteristics

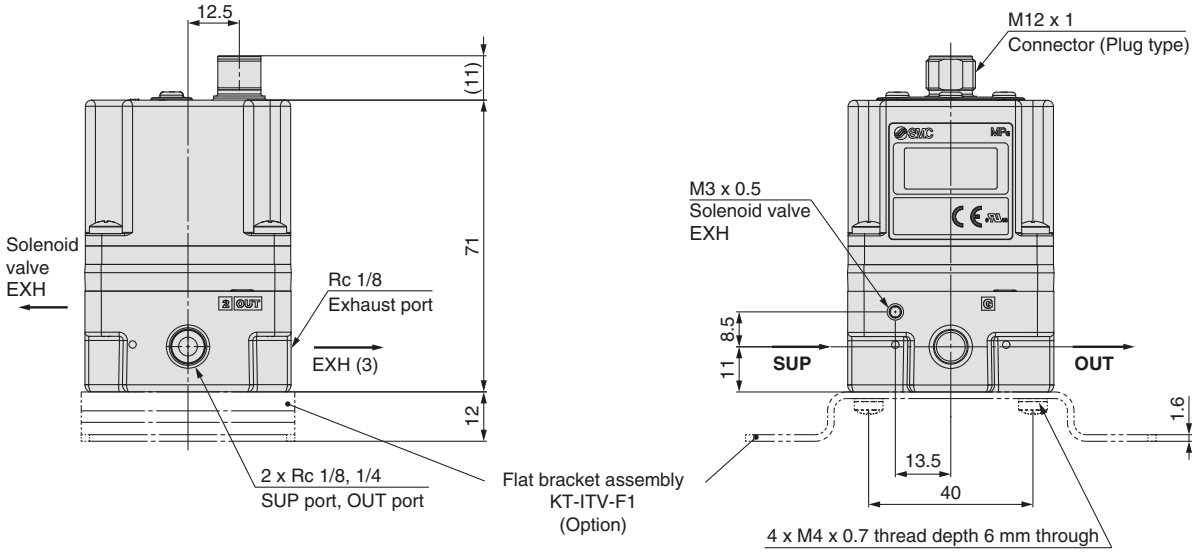
Supply pressure: 1.0 MPa

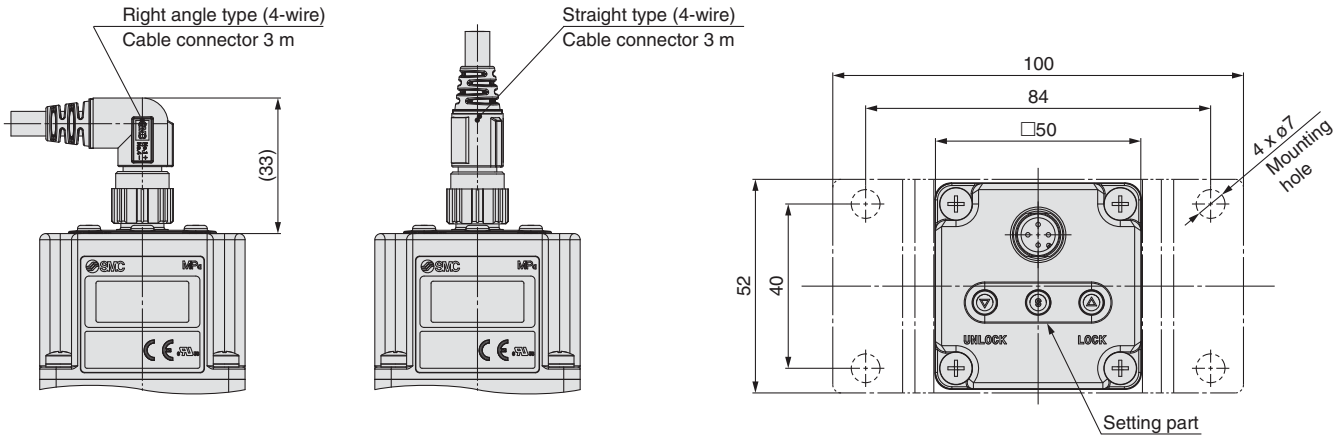


Dimensions

ITV10□□

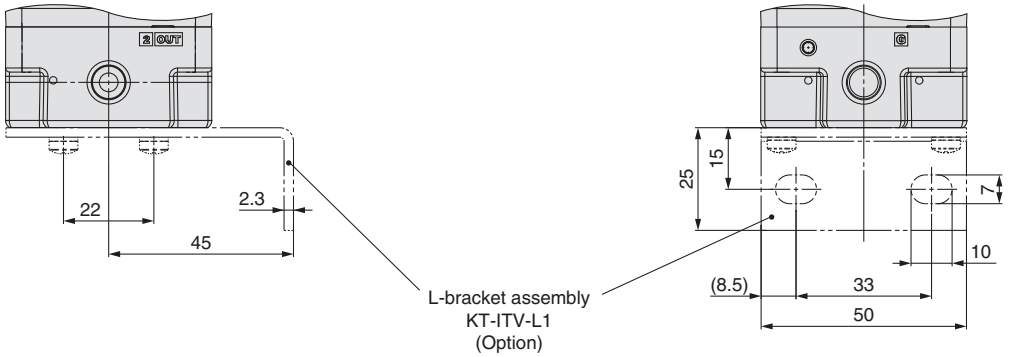
Flat bracket





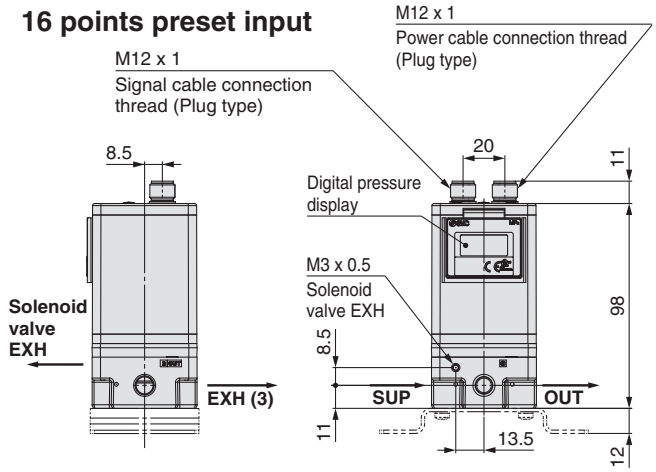
Note) Do not attempt to rotate, as the cable connector does not turn.

L-bracket

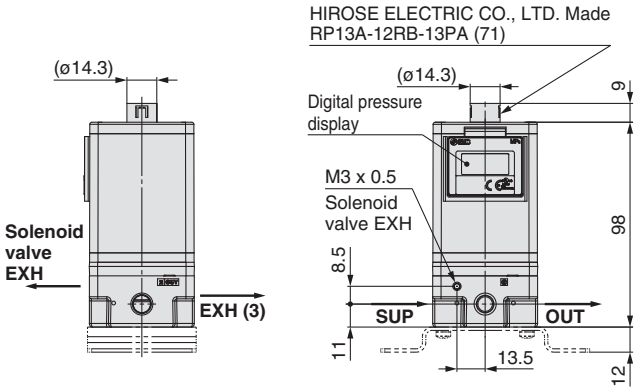


Dimensions (16 points preset input, 10 bit digital input, CC-Link, DeviceNet™, PROFIBUS DP and RS-232C)

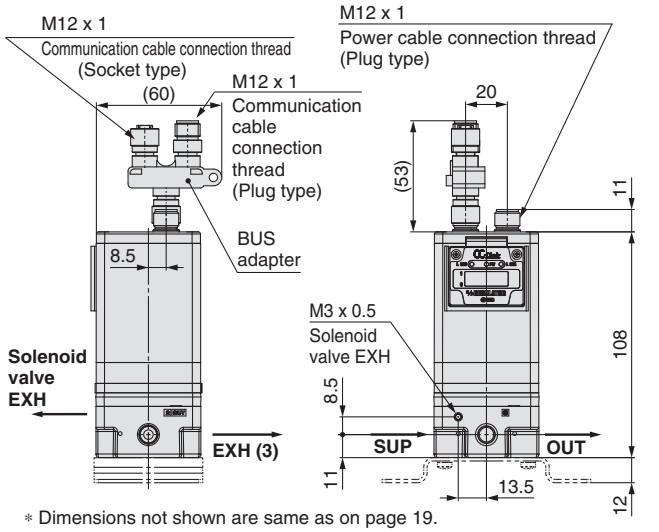
16 points preset input



10 bit digital input

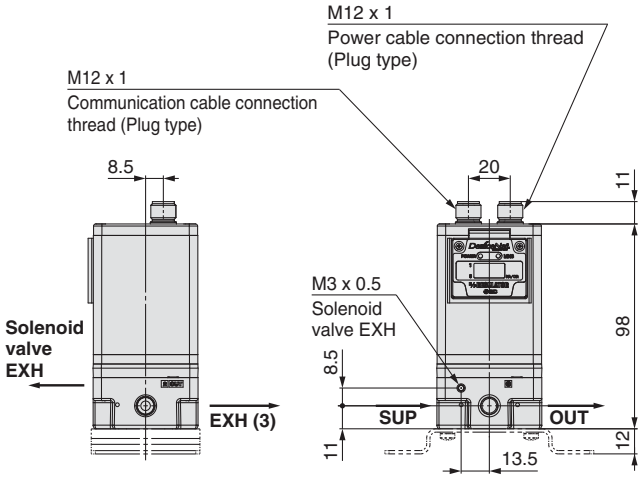


CC-Link/ITV10□0-CC



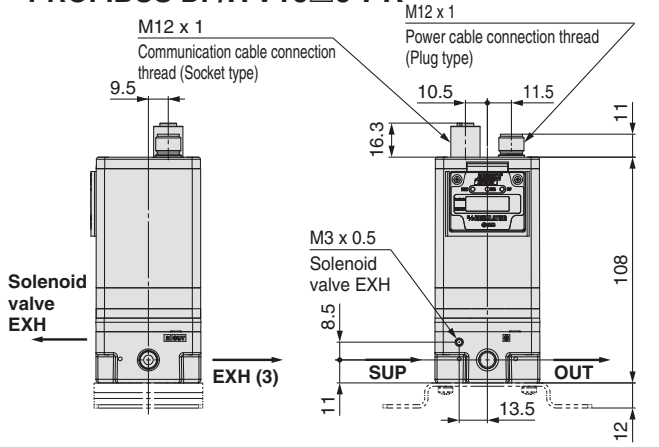
∗ Dimensions not shown are same as on page 19.

DeviceNet™/ITV10□0-DE



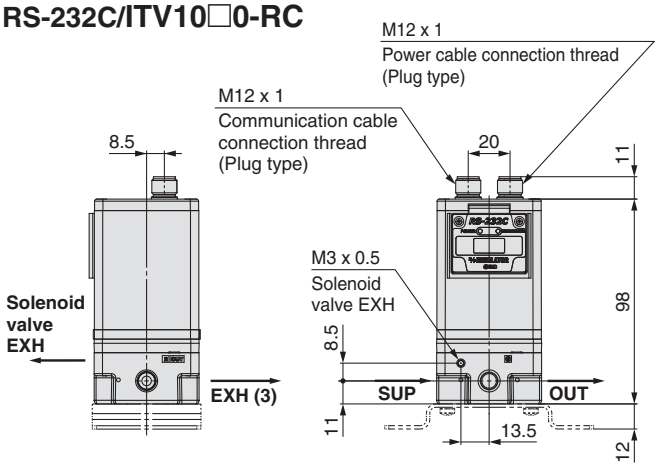
∗ Dimensions not shown are same as on page 19.

PROFIBUS DP/ITV10□0-PR



∗ Dimensions not shown are same as on page 19.

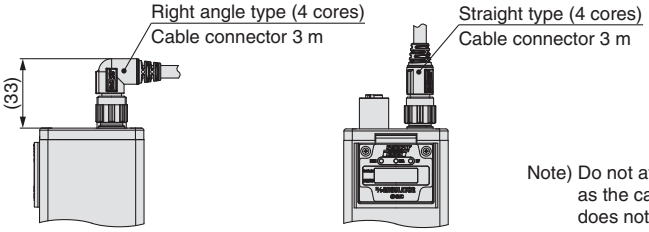
RS-232C/ITV10□0-RC



∗ Dimensions not shown are same as on page 19.

With power cable connector

∗ **ITV10□0-** **52 / 53 / CC / DE / PR / RC** **common dimensions**



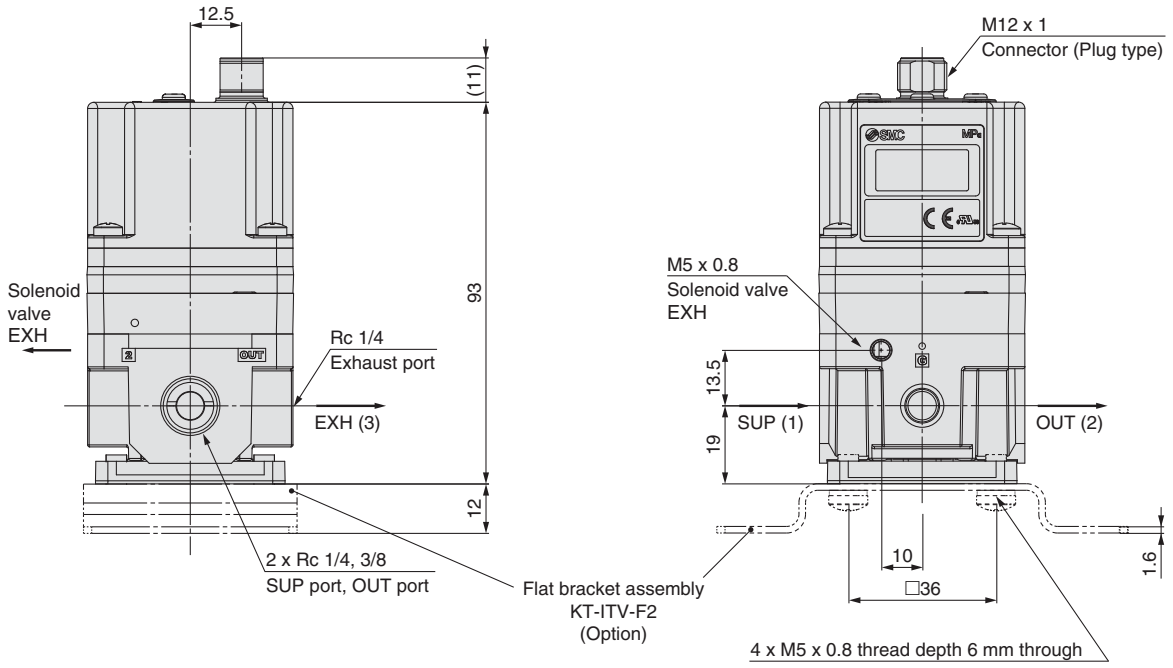
Note) Order communication cable (other than 16 points, RS-232C) separately. (Refer to page 9.)

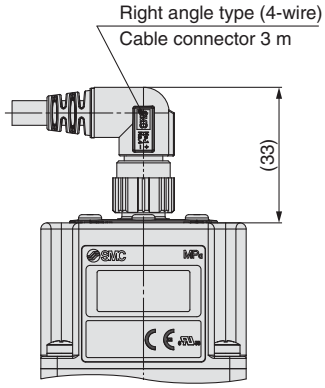
Note) Do not attempt to rotate, as the cable connector does not turn.

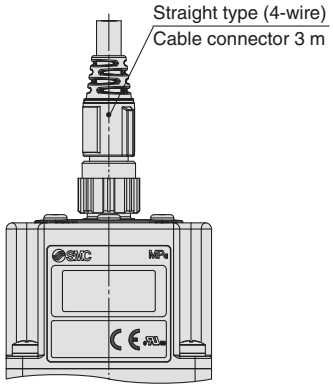
Dimensions

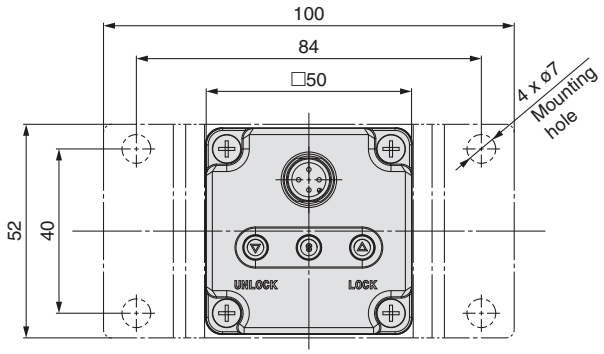
ITV20□□

Flat bracket



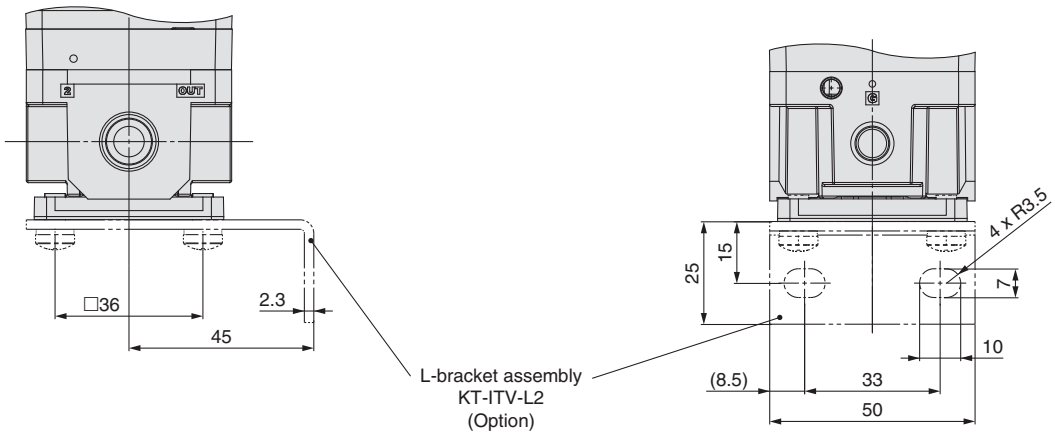






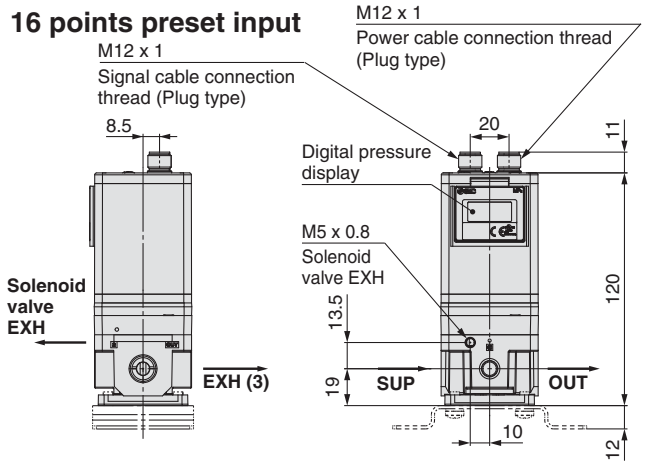
Note) Do not attempt to rotate, as the cable connector does not turn.

L-bracket

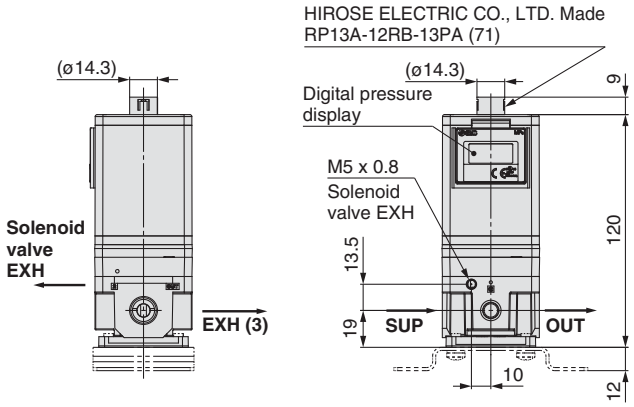


Dimensions (16 points preset input, 10 bit digital input, CC-Link, DeviceNet™, PROFIBUS DP and RS-232C)

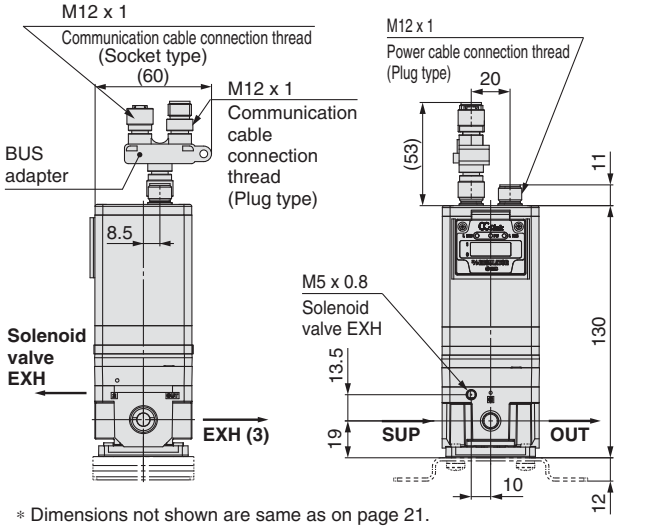
16 points preset input



10 bit digital input

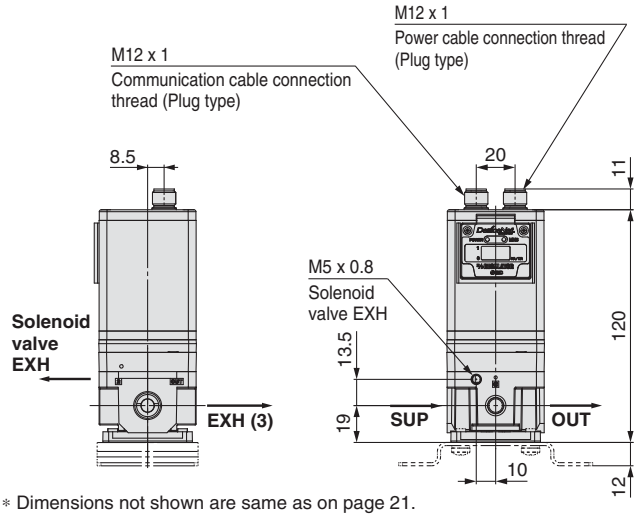


CC-Link/ITV20□0-CC



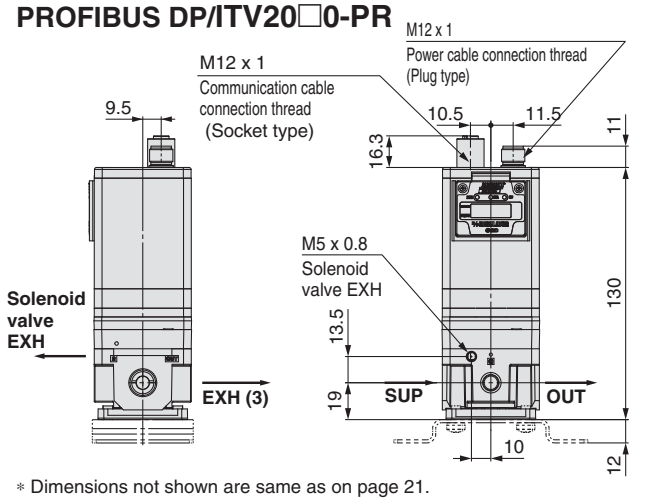
∗ Dimensions not shown are same as on page 21.

DeviceNet™/ITV20□0-DE



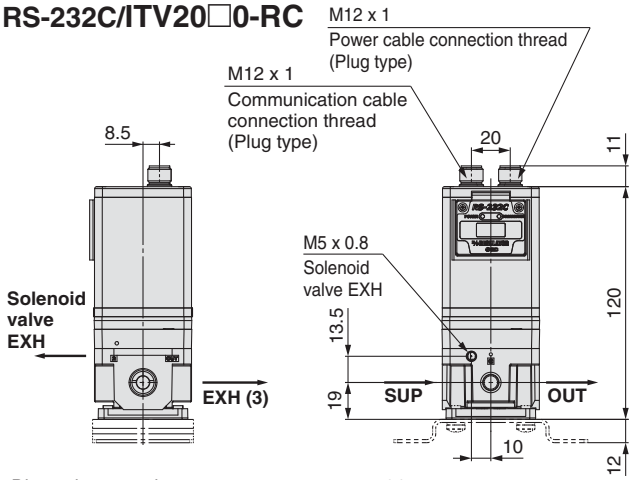
∗ Dimensions not shown are same as on page 21.

PROFIBUS DP/ITV20□0-PR



∗ Dimensions not shown are same as on page 21.

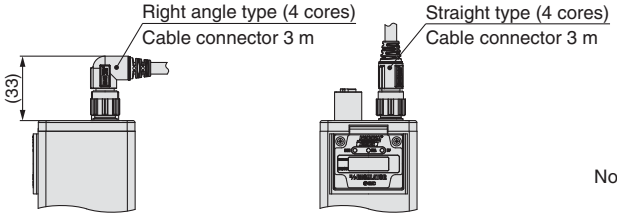
RS-232C/ITV20□0-RC



∗ Dimensions not shown are same as on page 21.

With power cable connector

∗ **ITV20□0-** **52 53 CC DE PR RC** **common dimensions**



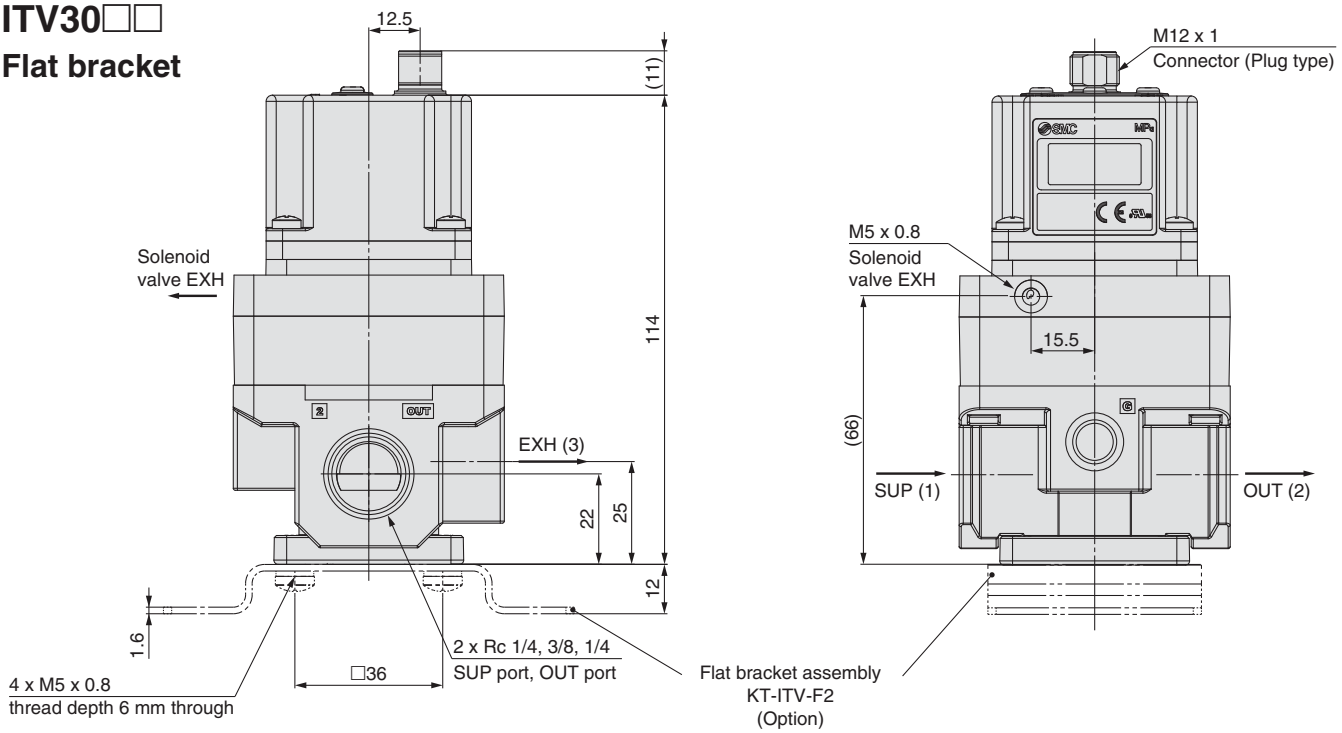
Note) Order communication cable (other than 16 points, RS-232C) separately. (Refer to page 9.)

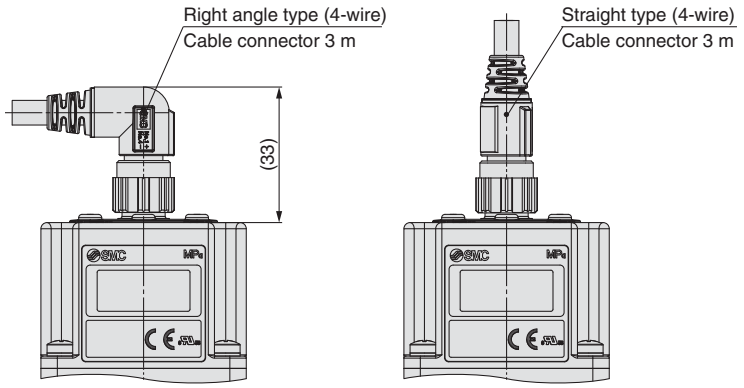
Note) Do not attempt to rotate, as the cable connector does not turn.

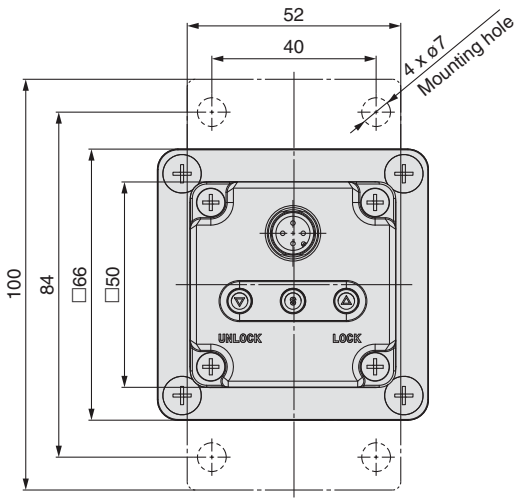
Dimensions

ITV30□□

Flat bracket

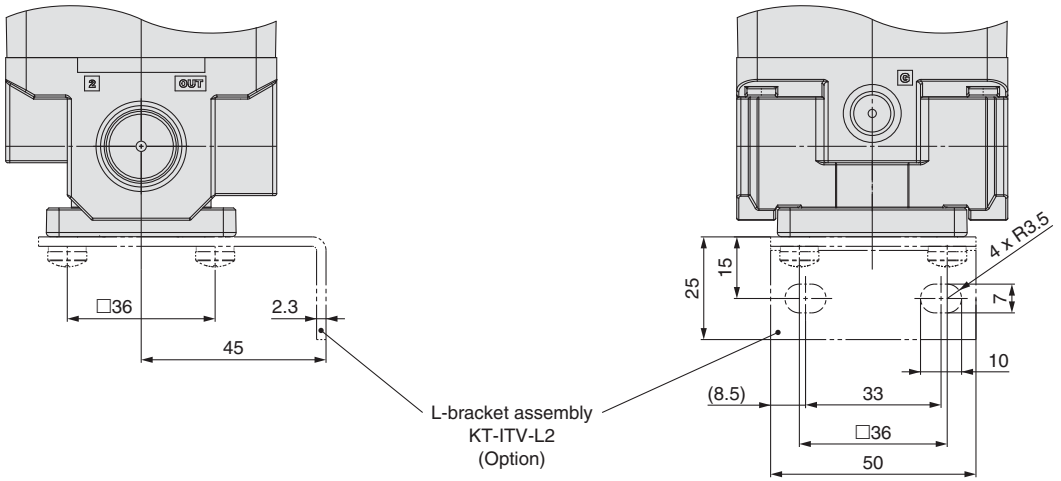






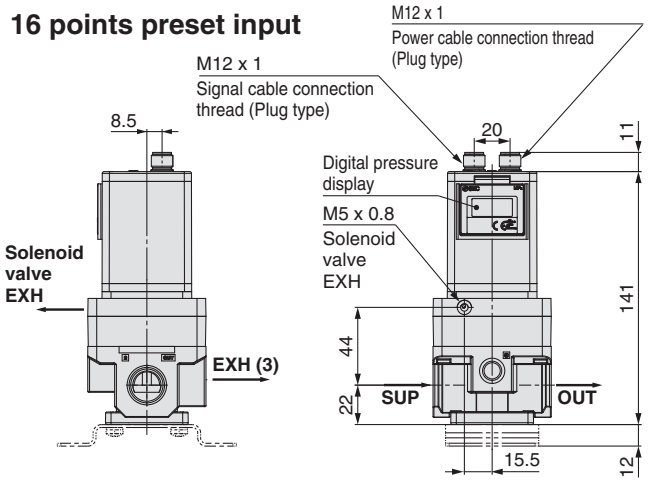
Note) Do not attempt to rotate, as the cable connector does not turn.

L-bracket

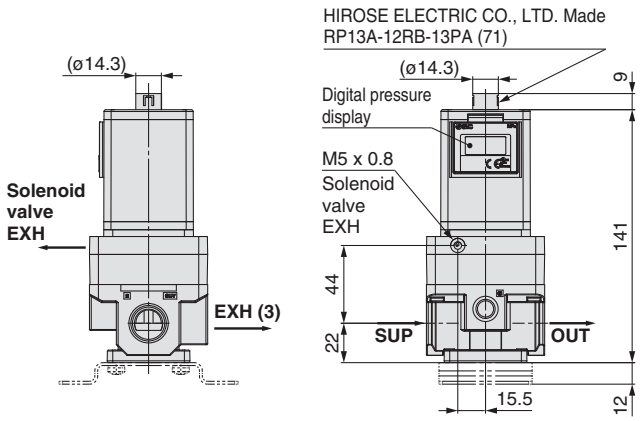


Dimensions (16 points preset input, 10 bit digital input, CC-Link, DeviceNet™, PROFIBUS DP and RS-232C)

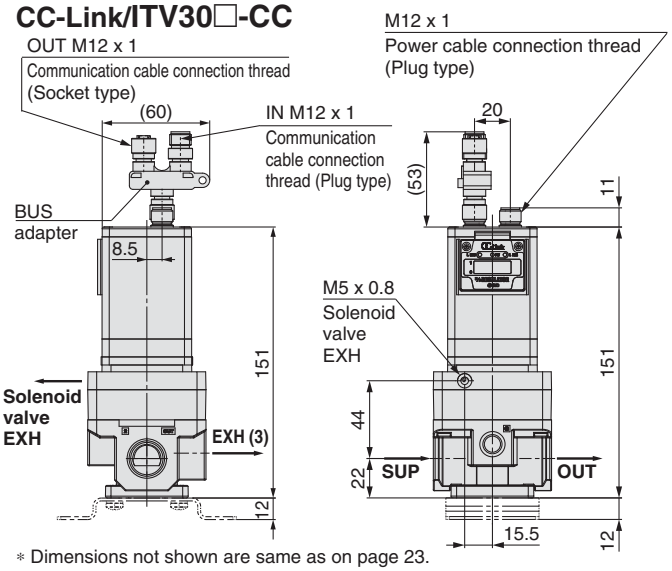
16 points preset input



10 bit digital input

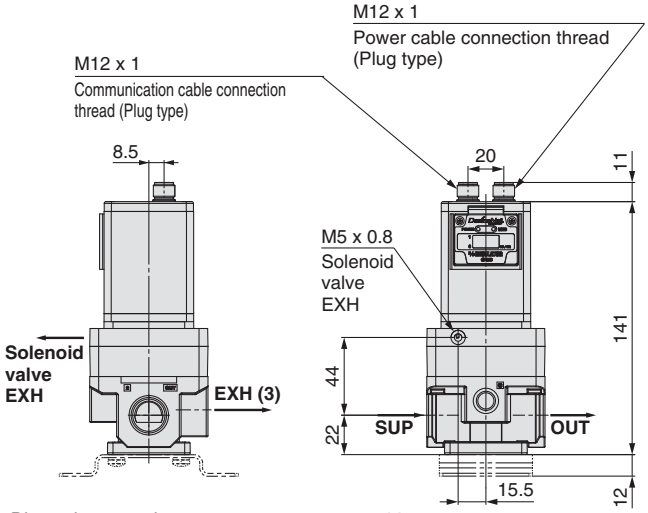


CC-Link/ITV30□-CC



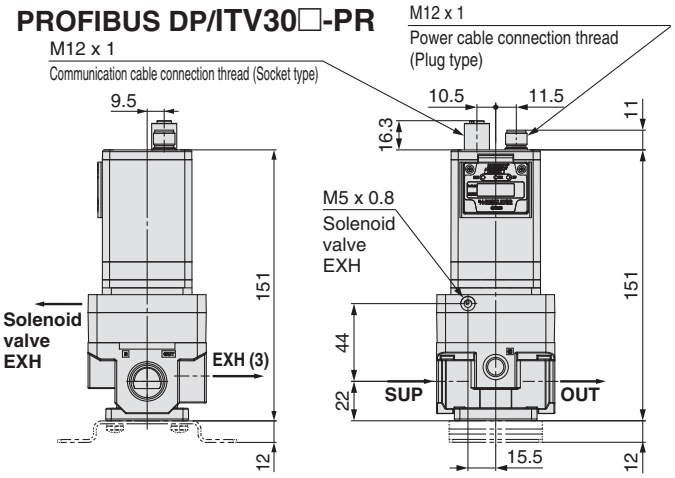
∗ Dimensions not shown are same as on page 23.

DeviceNet™/ITV30□-DE



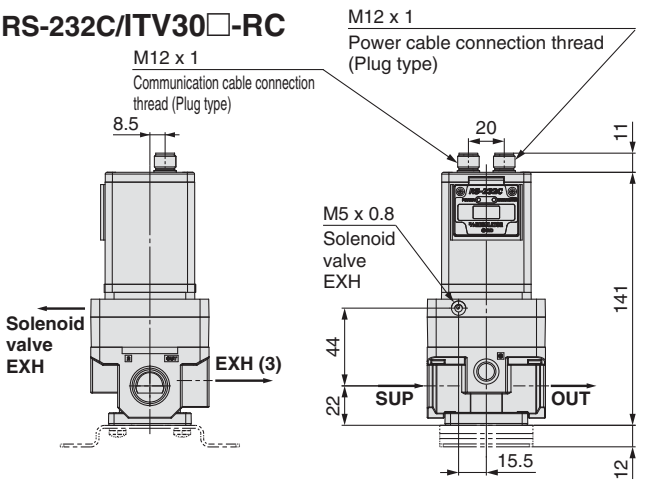
∗ Dimensions not shown are same as on page 23.

PROFIBUS DP/ITV30□-PR



∗ Dimensions not shown are same as on page 23.

RS-232C/ITV30□-RC

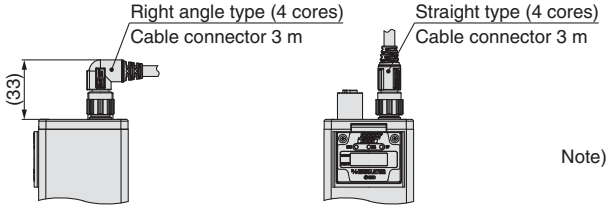


∗ Dimensions not shown are same as on page 23.

With power cable connector

∗ **ITV30□-** 52 / 53 / CC / DE / PR / RC **common dimensions**

Note) Order communication cable (other than 16 points, RS-232C) separately. (Refer to page 9.)



Note) Do not attempt to rotate, as the cable connector does not turn.

Series ITV1000/2000/3000
Made to Order Specifications 1

Please contact SMC for detailed dimensions, specifications and lead times.

1 Monitor Analogue output 4-20mA (source type/-COM)

ITV10□□-□4□□□□□-X256
ITV20□□-□4□□□□□-X256

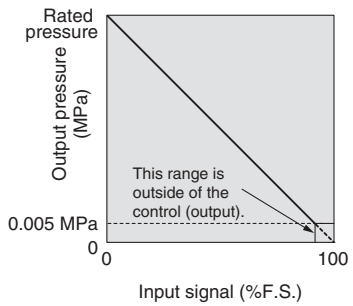
Note 1) □ in part number is the same model no. for the standard products.

2 Reverse Type

In compliance with input, inverse proportional pressure is displayed.

ITV10□□-□□□□□□□-X102
ITV20□□-□□□□□□□-X102
ITV30□□-□□□□□□□-X102

Reverse type



Input/output characteristics chart

Note 1) □ in part number is the same model no. for the standard products.
Note 2) Except for preset input type and digital input type.
Note 3) For communication models, consult SMC for availability.

3 High Pressure Type (SUP 1.2 MPa, OUT 1.0 MPa)

ITV10 5□-□□□□□□□-X224
ITV20 5□-□□□□□□□-X224
ITV30 5□-□□□□□□□-X224

High pressure type (SUP 1.2 MPa, OUT 1.0 MPa)

Note) For preset input type, digital input type and communication models, consult SMC for availability.

4 Set Pressure Range 1 to 100 kPa

ITV10 1□-□□□□□□□-X25
ITV20 1□-□□□□□□□-X25

Set pressure range 1 to 100 kPa

Note) For preset input type, digital input type and communication models, consult SMC for availability.

Series ITV1000/2000/3000
Made to Order Specifications 2

Please contact SMC for detailed dimensions, specifications and lead times.

5 Linearity: ±0.5% F.S. or less

ITV 3 0 1 0 – 0 1 □ 2 □ S □ – X410

Model

1	1000 type
2	2000 type
3	3000 type

Pressure range

1	0.1 MPa
3	0.5 MPa
5	0.9 MPa

Power supply voltage

0	24 VDC
1	12 to 15 VDC

Input signal

0	Current type 4 to 20 mA DC (Sink type)
1	Current type 0 to 20 mA DC (Sink type)
2	Voltage type 0 to 5 VDC
3	Voltage type 0 to 10 VDC

Monitor output

1	Analogue output 1 to 5 VDC
2	Switch output/NPN output
3	Switch output/PNP output
4	Analogue output 4 to 20 mA DC (Sink type)

Thread type

—	Rc
N	NPT
T	NPTF
F	G

Port size

1	1/8 (1000 type)
2	1/4 (1000, 2000, 3000 type)
3	3/8 (2000, 3000 type)
4	1/2 (3000 type)

Bracket

—	Without bracket
B	Flat bracket
C	L-bracket

Cable connector type

S	Straight type 3 m
L	Right angle type 3 m
N	Without cable connector

Pressure display unit

—	MPa
2	kgf/cm²
3	bar
4	psi
5	kPa

Linearity: ±0.5% F.S. or less

6 With Alarm Output

Alarm is output if the set pressure is not reached or maintained for 5 seconds or more.

ITV 3 0 1 0 – 0 2 □ 2 □ S □ – X420

Model

1	1000 type
2	2000 type
3	3000 type

Pressure range

1	0.1 MPa
3	0.5 MPa
5	0.9 MPa

Power supply voltage

0	24 VDC
1	12 to 15 VDC

Input signal

0	Current type 4 to 20 mA DC (Sink type)
1	Current type 0 to 20 mA DC (Sink type)
2	Voltage type 0 to 5 VDC
3	Voltage type 0 to 10 VDC

Monitor output

2	Alarm output/NPN output
3	Alarm output/PNP output

Thread type

—	Rc
N	NPT
T	NPTF
F	G

Port size

1	1/8 (1000 type)
2	1/4 (1000, 2000, 3000 type)
3	3/8 (2000, 3000 type)
4	1/2 (3000 type)

Bracket

—	Without bracket
B	Flat bracket
C	L-bracket

Cable connector type

S	Straight type 3 m
L	Right angle type 3 m
N	Without cable connector

Pressure display unit

—	MPa
2	kgf/cm²
3	bar
4	psi
5	kPa

With alarm output

Series ITV1000/2000/3000
Made to Order Specifications 3

Please contact SMC for detailed dimensions, specifications and lead times.

7 High-Speed Response Time Type

Pressure response with no load is approx. 0.1 sec.

ITV 2 0 1 0 – 0 1 □ 2 □ S □ – X88

Model

1	1000 type
2	2000 type

Pressure range

1	0.1 MPa
3	0.5 MPa
5	0.9 MPa

Power supply voltage

0	24 VDC
1	12 to 15 VDC

Input signal

0	Current type 4 to 20 mA DC (Sink type)
1	Current type 0 to 20 mA DC (Sink type)
2	Voltage type 0 to 5 VDC
3	Voltage type 0 to 10 VDC

Monitor output

1	Analogue output 1 to 5 VDC
2	Switch output/NPN output
3	Switch output/PNP output
4	Analogue output 4 to 20 mA DC (sink type)

Thread type

—	Rc
N	NPT
T	NPTF
F	G

Port size

1	1/8 (1000 type)
2	1/4 (1000, 2000 type)
3	3/8 (2000 type)

Pressure display unit

—	MPa
2 *	kgf/cm²
3	bar
4 *	psi
5	kPa

* Under Japan's new Measurement Act, this is only for overseas sales (SI units are to be used inside Japan).

Cable connector type

S	Straight type 3 m
L	Right angle type 3 m
N	Without cable connector

Bracket

—	Without bracket
B	Flat bracket
C	L-bracket

8 Manifold Specifications (Except Series ITV3000)

2 through 8 station manifold.

How to Order Manifolds

IITV20 – □ 02 – 5

ITV1000, 2000

Connection thread type

—	PT
N	NPT
F	PF

OUT port size

02	1/4
03	3/8

Stations

2	2 stations
⋮	⋮
8	8 stations

How to Order Manifold Mounted

ITV 1 0 □ □ – □ □ 1 □ □ – X26

ITV 2 0 □ □ – □ □ 2 □ □ – X26

Note 1) □ in part number is the same model no. for the standard products.
Note 2) For communication models, consult SMC for availability.
Note 3) The thread type is Rc only.
Note 4) For Series ITV1000, the port size is 1/8 only.
Note 5) For Series ITV2000, the port size is 1/4 only.
Note 6) The bracket accessory can not be selected.
Note 7) Not applicable to Series ITV3000

IITV20-02-3 .....1 set (3 station manifold base part no.)
*ITV1030-311S-X26 .....1 set (Electro-pneumatic regulator part no.) Note 2)
*P398020-13 .....1 set (Blanking plate assembly part no.)
*ITV2050-212S-X26 .....1 set (Electro-pneumatic regulator part no.) Note 2)

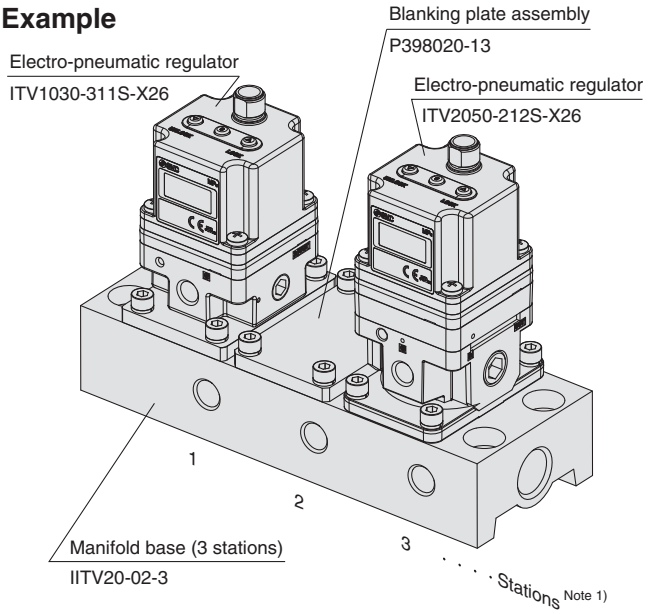
The * is the symbol for mounting. Add the * symbol at the beginning of part numbers for electro-pneumatic regulators, etc. to be mounted on the base.

Note) Refer to the table below for possible mixed combination.

Model	ITV101□	ITV103□	ITV105□	ITV201□	ITV203□	ITV205□
ITV101□	●	—	—	●	—	—
ITV103□	—	●	●	—	●	●
ITV105□	—	●	●	—	●	●
ITV201□	●	—	—	●	—	—
ITV203□	—	●	●	—	●	●
ITV205□	—	●	●	—	●	●

How to Order Manifold Assemblies

Example



Note 1) Electro-pneumatic regulators are counted starting from station 1 on the left side with the OUT ports in front.
Note 2) The port size for mounted electro-pneumatic regulators is Rc 1/8 (ITV1000), Rc 1/4 (ITV2000) only.
Note 3) When there is a large number of stations, use piping with the largest possible inside diameter for the supply side, such as steel piping.
Note 4) The use of the straight type cable connector is recommended. To mount right angle type, be certain to check that no possible interference occurs.
Note 5) When mounting a blanking plate and the regulator with different pressure set, please inform SMC of the order of a manifold station beside a purchase order.