

Electro-Pneumatic Regulator ITV1000/2000/3000-X420



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

Application examples

**Pressure management for
thrust control, etc.**

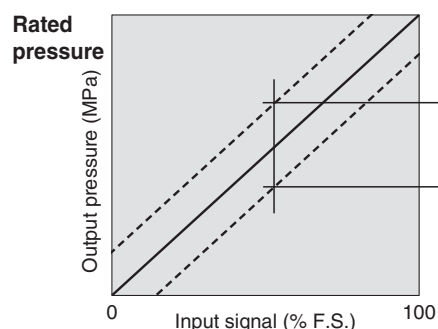
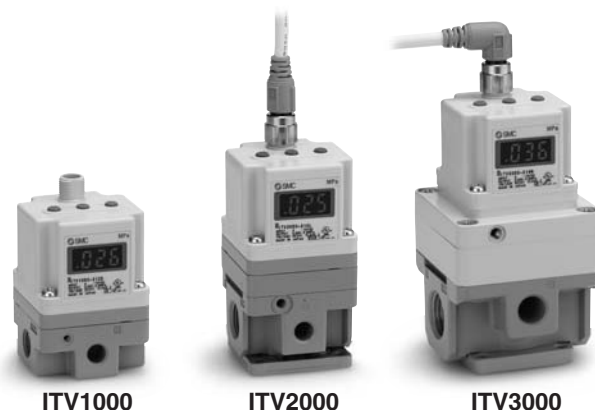


Figure 1. Alarm output range

Alarm detection range:
Detects output pressure
outside the $\pm 10\%$ F.S. range.
For example, in the case of
ITV2050 (0.9 MPa), a 50%
input (0.45 MPa) creates a
detectable range of 0.36 to
0.54 MPa.

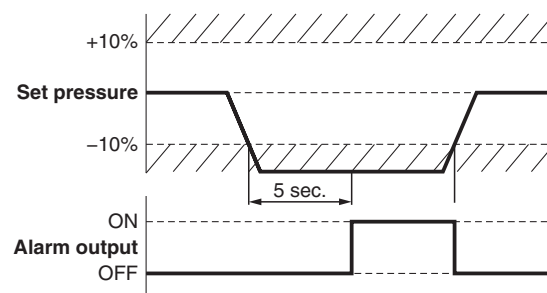


Figure 2. Relationship between output
pressure and alarm output

Specifications

Fluid	Air	
Minimum supply pressure	Set pressure +0.1 MPa	
Maximum supply pressure	1.0 MPa (Pressure range 0.1 MPa type: 0.2 MPa)	
Proof pressure	(Supply side)	1.5 MPa (Pressure range 0.1 MPa type: 0.3 MPa)
	(Output side)	1 MPa (Pressure range 0.1 MPa type: 0.2 MPa)
Set pressure range	1: 0.005 to 0.1 MPa, 3: 0.005 to 0.5 MPa, 5: 0.005 to 0.9 MPa	
Power supply voltage	0: 24 VDC $\pm 10\%$, 1: 12 to 15 VDC	
Current consumption	0.12 A or less (24 VDC $\pm 10\%$ type)	
	0.18 A or less (12 to 15 VDC type)	
Input signal	0: 4 to 20 mA, 1: 0 to 20 mA, 2: 0 to 5 VDC, 3: 0 to 10 VDC	
Input impedance	Voltage type: Approx. 6.5 k Ω , Current type: 250 Ω or less	
Output signal	Alarm output (NPN/PNP)	
Linearity	$\pm 1.0\%$ or less (Full span)	
Hysteresis	0.5% or less (Full span)	
Repeatability	$\pm 0.5\%$ or less (Full span)	
Sensitivity	0.2% or less (Full span)	
Temperature characteristics	$\pm 0.12\%$ or less (Full span)/ $^{\circ}\text{C}$	
Output pressure display	Accuracy	$\pm 2\%$ F.S. ± 1 digit
	Minimum unit	MPa: 0.001, kgf/cm 2 : 0.01, bar: 0.01, psi: 0.1, kPa: 1
Ambient and fluid temperature	0 to 50 $^{\circ}\text{C}$ (No condensation)	
Enclosure	IP65	
Weight	ITV10□□: Approx. 250 g, ITV20□□: Approx. 350 g, ITV30□□: Approx. 645 g (without brackets)	

The above characteristics (specifications) are confined to the static state. When air is consumed on the output side, the pressure may fluctuate.

How to Order

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

Nil	Rc
N	NPT
T	NPTF
F	G

With alarm output

Pressure display unit

Nil	MPa
2 Note)	kgf/cm ²
3	bar
4 Note)	psi
5	kPa

Note) 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

Nil	Without bracket
B	Flat bracket
C	L-bracket

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)

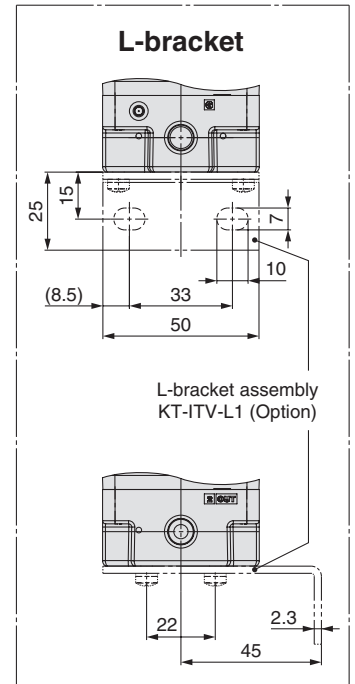
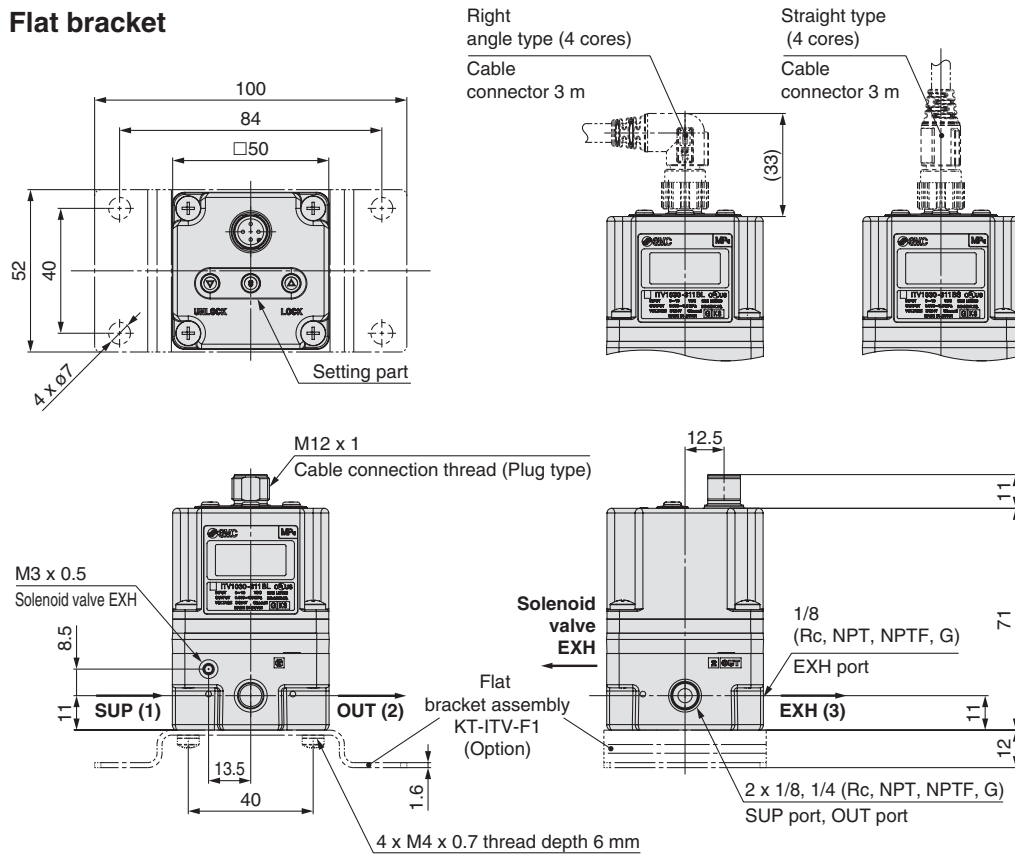
Electro-Pneumatic Regulator *ITV1000/2000/3000-X420*

Dimensions

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

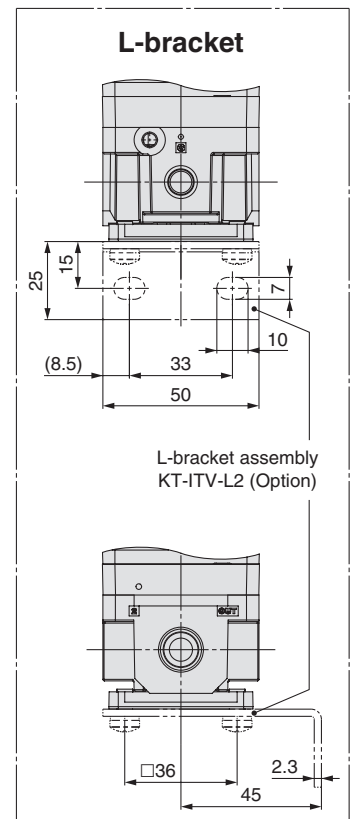
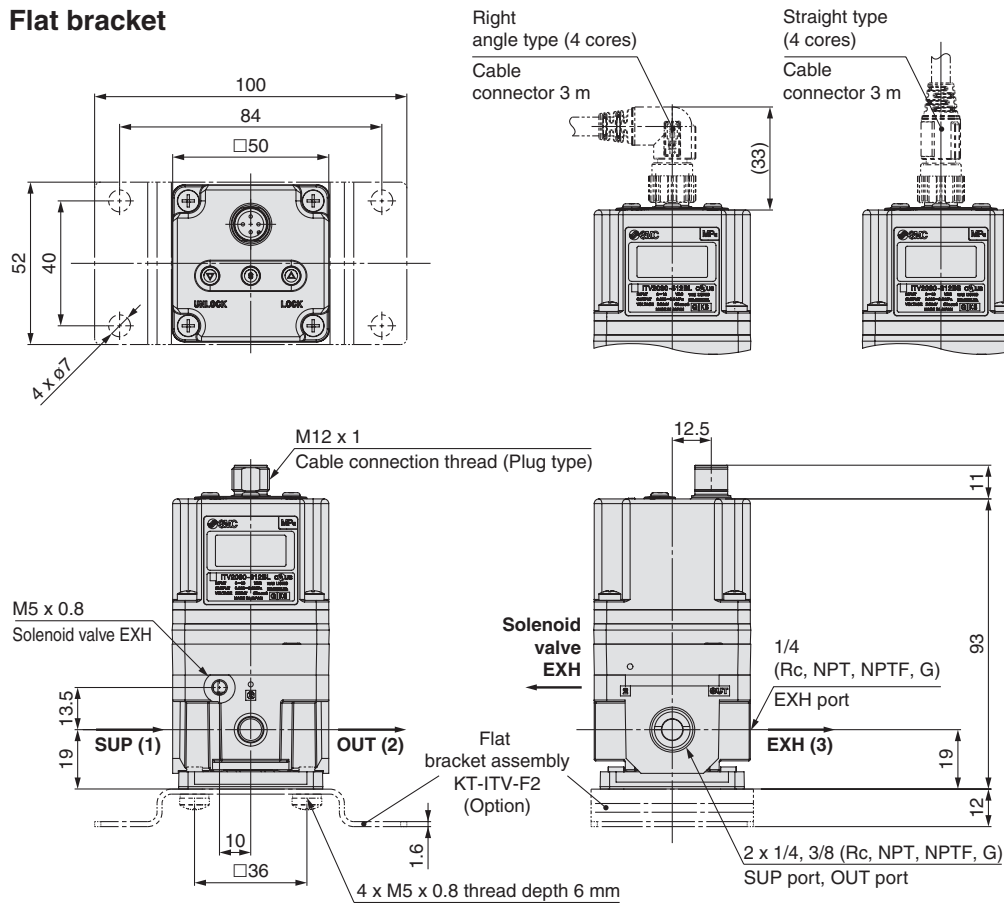
ITV10□□

Flat bracket



ITV20□□

Flat bracket



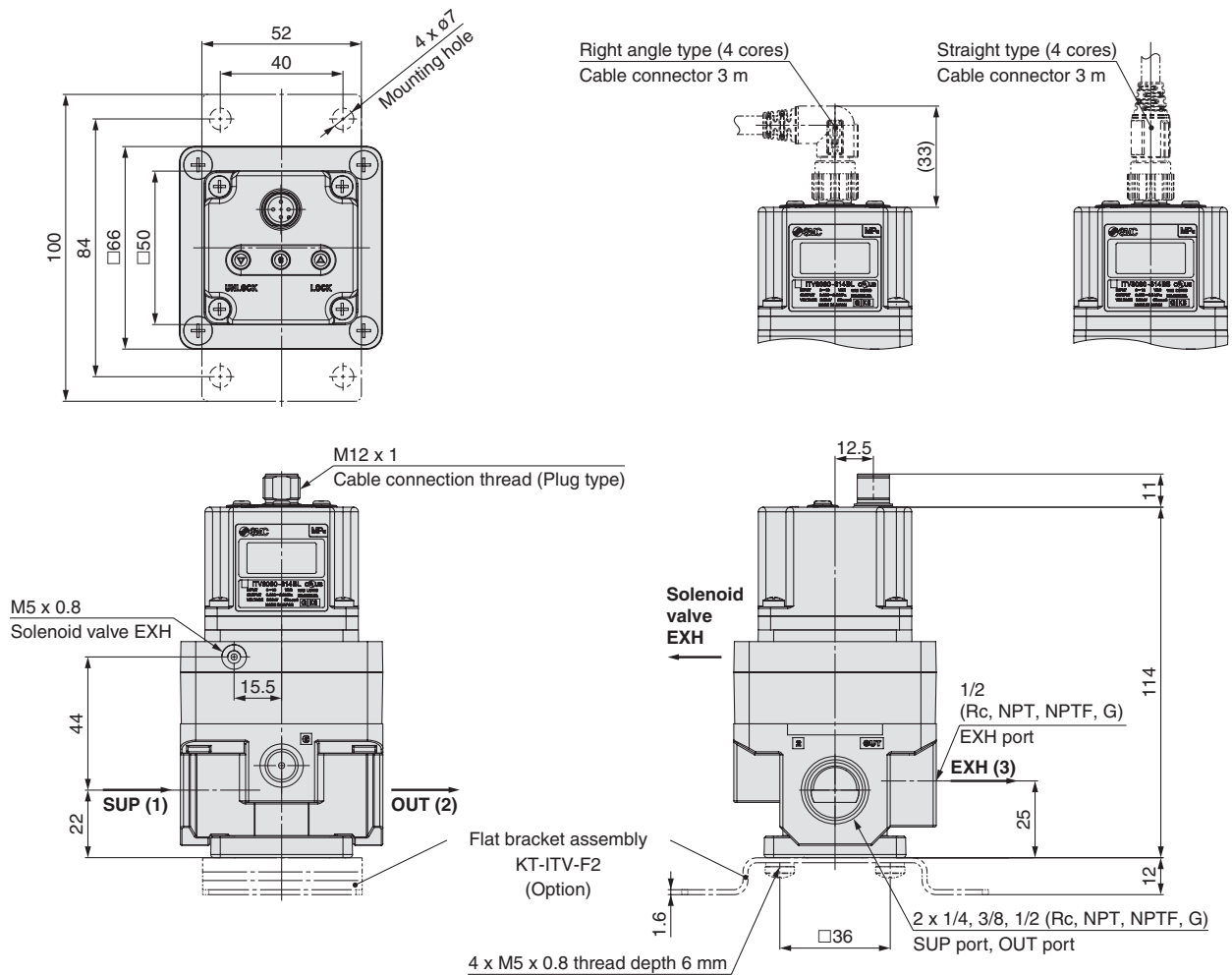
ITV1000/2000/3000-X420

Dimensions

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ITV30□□

Flat bracket



L-bracket

