

Smart Positioner MP300

Features

Compact Structure

LCD and Buttons for no-communicator operation

Analogue Feedback & HART Communication Function (Option)

Intrinsically Safe Protection (Option / Under Development)



Specification

Item	Specification
Input Signal	4~20mA (Min. Range : 4mA) / Min. Operating : 3.8mA *1 (Terminal Voltage 10.5V DC Typ. (Standard) / 9.1V DC (Exia))
Supply Pressure	0.14~0.70MPa
Stroke / Angle	Linear: 10~100mm (Feedback Lever Angle 30~100°) / Rotary: Feedback Lever Angle 30~100°
Pneumatic Connection	Standard: Rc 1/4 (Gauges: Rc 1/8) Option: 1/4 NPT (Gauges: 1/8 NPT)
Electric Connection	Standard: G 1/2 Option1: 1/2 NPT Option2: M20×1.5
Enclosure Protection	IP66 (IEC 60529 : 1989/AMD2 : 2013)
Housing Construction	Standard: Non Explosion proof ATEX/IECEX Intrinsically Safe: II 1G Ex ia IIC T6...T5 Ga
Ambient Temperature	Standard: -20°C~80°C ATEX/IECEX Intrinsically Safe: T6 -20°C~60°C T5 -20°C~80°C
Flow Characteristics	Linear / Equal % / Quick Open / User Specified (17 points setting)
Manual Operation	Auto / Manual Switching (Only available on single acting)
Mass	Approx. 2.5 kg
Housing Material	Aluminium die-casting

*1 Whenever input current falls below this value, the positioner goes stand-by. Setting needs at least 4 mA input.

* Supply air should be dry (dew point under than -30°C) and clean.

* Air filter (smaller than 5μm) shall be placed just precading of supply port.

* Precision regulators are recommended for smart positioners.

Options

Function	Item	Specification
Analogue Feedback Function	Output Signal	DC 4~20 mA (Invertible)
	Input Voltage	Standard: 12~36VDC Exia: 11~VDC (@20mA)
	Accuracy	±1.0 % to recognised value
Communication Function	HART Communication	HART7

* Whenever input current falls below 3.8 mA, the output current goes stand-by.

Performances

Item	Single Acting	Double Acting
Linearity	±1.0% F.S. *1	
Hysteresis	1.0% F.S. *1	
Air Consumption	SUP 0.14 MPa : 3.0 NI/min SUP 0.40 MPa : 6.5 NI/min (50% Output)	SUP 0.40 MPa : 10 NI/min (75% Output)
Maximum Airflow Capacity	SUP 0.14 MPa: 0 NI/min SUP 0.40 MPa: 200 NI/min	SUP 0.40 MPa: 200 NI/min
Surge Immunity	IEC61000-4-5 Level 2 (1.0kV ±10%) *2	

* Actual performance depends on each actuator.

*1: At sensor angle range 90 deg.

*2: Temporary malfunction may be occurred at surging but automatically recovers.



Buttons for setting and/or operation equipped



Notation Table

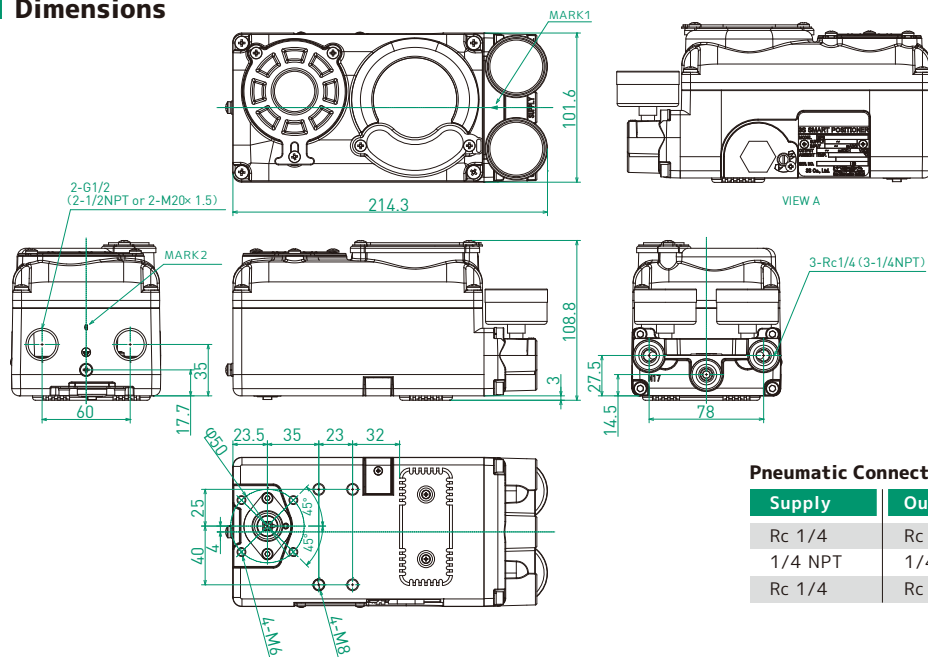
1	2	3a	3b	3c	4	5	6
MP3							

	Item	Specification	Notation
1	Series	Smart Positioner MP300	MP3
2	Housing Construction	Standard (Non Explosion proof)	0
		Intrinsically Safe: II 1 G Ex ia IIC T6...T5 Ga	4
3a	Pneumatic Connection	Single Acting Rc 1/4 (Gauge: Rc 1/8)	1
		Double Acting Rc 1/4 (Gauge: Rc 1/8)	2
		Single Acting 1/4 NPT (Gauge: 1/8 NPT)	3
		Double Acting 1/4 NPT (Gauge: 1/8 NPT)	4
3b	Electric Connection	G1/2	1
		1/2 NPT	2
		M20×1.5	3
3c	Options	None	1 (A, B) *2
		HART function	3
		Analogue + HART function	4 (D,E,F) *2
4	Ambient Temperature	Standard: -20°C~80°C ATEX/IECEx Intrinsically Safe: T6 -20°C~60°C T5 -20°C~80°C	S
5	Actuator	Linear	L
		Rotary	R
6	Pressure Gauges	0.2MPa, 0.4MPa, 1.0MPa	M2, M4, M0
		200kPa, 400kPa, 1000kPa	K2, K4, K0
		30psi, 60psi, 150psi *1	P2, P4, P0
		2bar, 4bar, 10bar	B2, B4, B0

*1 No domestic sales in Japan due to Non-SI unit.

*2 Details of options of Intrinsically safe model shall be provided based on details of inquiries.

Dimensions



Electric Connection

Conduit Entry	MARK 2
G1/2	G
1/2 NPT	N
M20×15	M

Pneumatic Connection

Supply	Output	Gauge	MARK1
Rc 1/4	Rc 1/4	Rc 1/8	A
1/4 NPT	1/4 NPT	1/8 NPT	B
Rc 1/4	Rc 1/4	1/8 NPT	C

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