SMC Information

SMC Corporation
Akihabara UDX 15F,
4-14-1, Sotokanda, Chiyoda-ku,
Tokyo 101-0021, JAPAN
URL http://www.smcworld.com

04-EU517-UK Issued: May, 2006
D-KS P-120(KS)

Smart Positioner (Rotary Type) Series IP8101

CE Ex (Optional)

Dual wire input - compatible with conventional facilities

Controllable by a conventional dual wire input signal (4 to 20 mA DC) which does not require a different power supply.

Calibration function integrated

Easier to perform zero/span adjustment than a conventional mechanical positioner.

Integrated parameter function

Numerous parameter setting functions are available.

Parameter Settings List

Function	Parameter
Standard functions	Normal/reverse run setting
	Split range setting
	Zero/span adjustment setting
	Forced fully-closed/fully-open setting
	Dead band setting
	Valve characteristic settings · Linearity chracteristics · Equal % characteristics (class 2) · Quick open characteristics (class 2) · User's point setting
	PID constant setting
	Calibration setting
Optional functions	Alarm 1 output setting
	Alarm 2 output setting
	Analog output (4 to 20 mA DC) setting

Output functions

The alarm point output function (2 points) and a continuous analog output (4 to 20 mA DC) function are available.

HART transmission mode

HART transmission mode is available.

ATEX compliant

ATEX intrinsically safe explosion protection type construction is available.

Displayable control condition

The positioning, deviation, input value are displayed on a LCD inside the body cover.

Interchangeable mountings

The dimensions for mounting the main body and the fork lever type fittings are identical to the conventional mechanical type, IP8100 electro-pneumatic positioner.

How to Order

Specifications

4	With intrinsically safe explosion protection construction + Output + HART transmission mode

Electrical connection port Note 2)

M	M20 x 1.5

Note 2) Please contact us if the NPT or G thread is required.

52 — IP8101 — 03 4 — □ — M

IP8101 — 03 0 — □ — Q

ATEX compliant

52	ATEX directive category 1 compliant

Type

101	Rotary smart type

Pressure gauge

3	1.0 MPa

Specifications

0	Basic
2	With output (Alarm output x 2 + Analog output (4 to 20 mA DC))
3	With HART transmission mode

Accessory Note 1)

Symbol	Description
-	None
C	Fork lever type fitting M
D	Fork lever type fitting S
H	With external scale

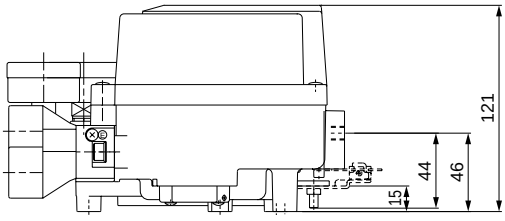
Note 1) If two or more accessories are required, the part numbers should be ordered according to alphabetical order.
Example: IP8101-030-CH

Specifications

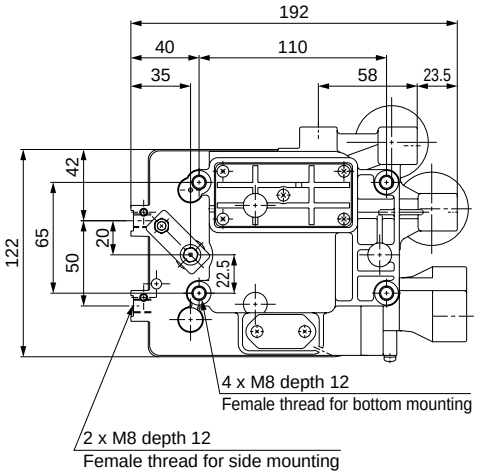
Model / Description	IP8101
	Smart positioner (Rotary type)
Input current	4 to 20 mA DC
Voltage between terminals	12 V DC (Input resistance equivalent to 600 Ω, at 20 mA DC)
Supply air pressure	0.3 to 0.7 MPa
Applicable actuator rotation angle	60 to 100°
Air consumption	11 ℓ/min (ANR) or less (SUP: at 0.4 MPa)
Linearity Note 2)	Within ±1% F.S.
Hysteresis Note 2)	Within 0.5% F.S.
Sensitivity Note 2)	Within ±0.2% F.S.
Enclosure Note 3)	ATEX intrinsically safe explosion protection construction CE Ex II1G EExia IICT4 Ta80°C II1D T63°C Ta60°C
Outer sheath protection class	JISF8007 IP65 (Conforming to IEC Pub.529)
Operating temperature range	–20 to 80°C –20 to 60°C (at ATEX/II1D)
Transmission mode Note 3)	HART

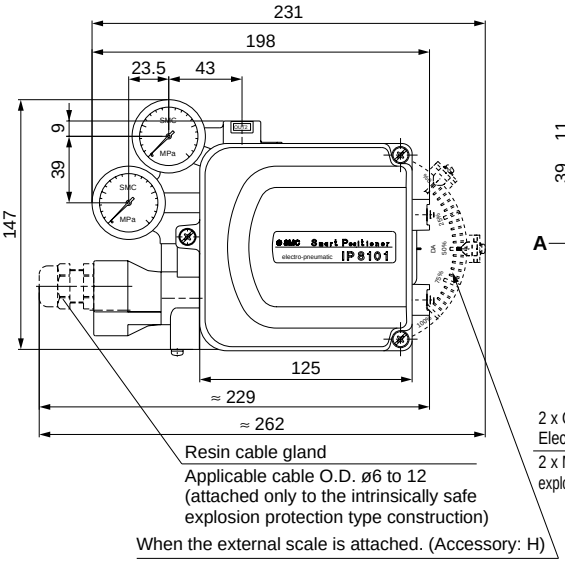
Note 1) Values in the specifications are at room temperature (20°C).
Note 2) Properties related to the precision may differ depending on the combination between a positioner and the loop components such as an actuator.
Note 3) It is required to select the model numbers for the intrinsically safe product with explosion protection type construction and the HART transmission mode.

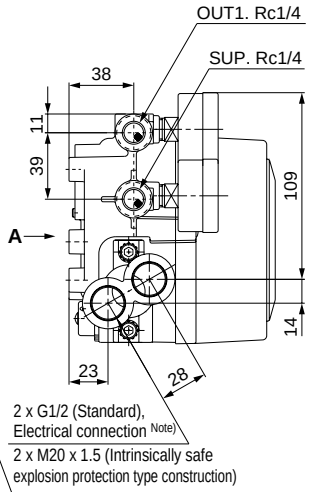
Dimensions



View A







Note) When either "0" or "3" is chosen in the model number, the number of the electrical connection ports will be one.