

1880S Series Intelligent Valve Positioner

- **Compact Design**
- **SideShow Technology**
- **Easy to Start-up**



1880S series intelligent valve positioner is compact designed controller for integral pneumatic control valves, particularly suitable for angle seat valves and diaphragm valves.

The product is easy to operate and has rich software functions. It can easily be operated via the display and keypad.

The positioner adjusts the valve position quickly and accurately through detecting the position sensor signal.

Technical data	
Material	PC、PA6-GF30、SI
Power supply	24V DC $\pm 10\%$
Set-point signal	0/4-20mA
Input resistance for set-point signal	120 Ω
Control medium Dust concentration Particle density Pressure condensation point Oil concentration	neutral gases, air DIN ISO 8573-1 Solid particle size and density Class 3 Dew point Class 3 Oil content Class 3
Ambient temperature	0-60°C
Pneumatic connection	Plug-in hose connector G1/4(internal $\Phi 6\text{mm}$)
Electrical connection	M12 2-pins B-coded(cable $\varnothing 4-6\text{mm}$) M12 4-pins D-coded(cable $\varnothing 4-6\text{mm}$)
Supply pressure	3~7 bar, specific values depending on the actuator
Air flow rate	17 l/min(Air supply of 0.6Mpa)
Stroke control range	Linear 5-25mm
Installation	As required, Preferably with actuator in upright position, Screw
Protection class	IP67
Power consumption	<5W
Linearity & Hysteresis	Linearity: $\leq 0.5\%$ Hysteresis: $\leq 0.5\%$

Combinations

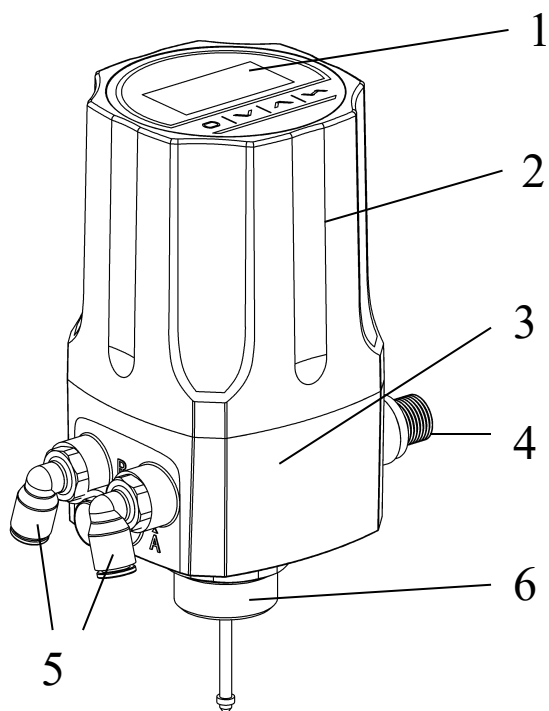


Diaphragm control valve



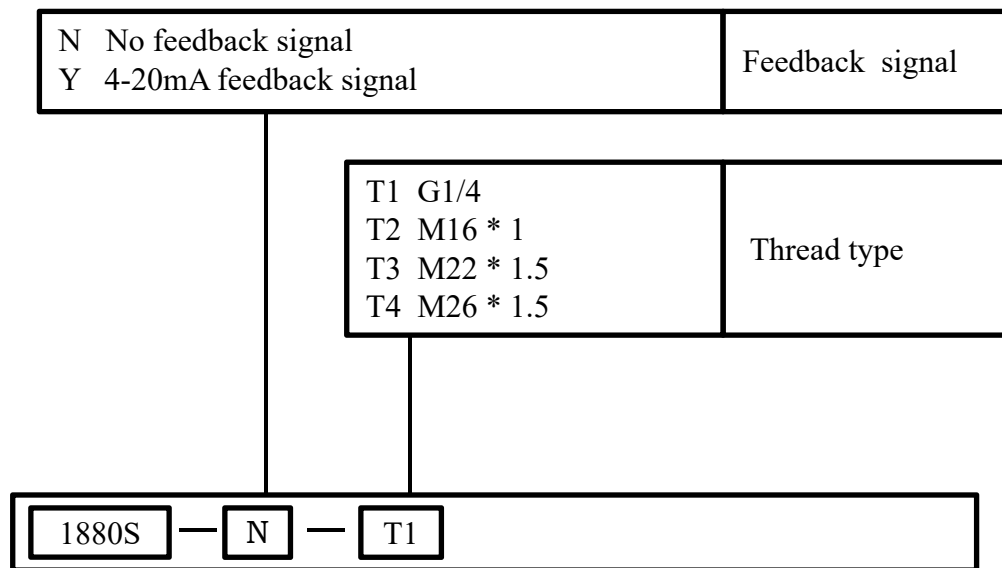
Angle seat control valve

Structure



1. **Display screen and key panel**
2. **Transparent body casing**
3. **Main body casing**
4. **Electrical connection**
5. **Pneumatic connection**
6. **Actuator connection**

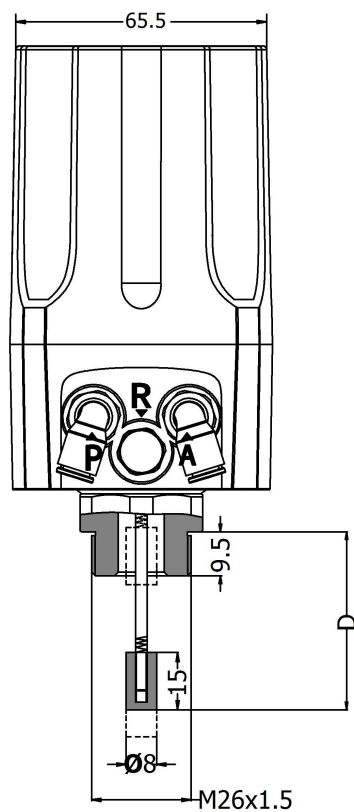
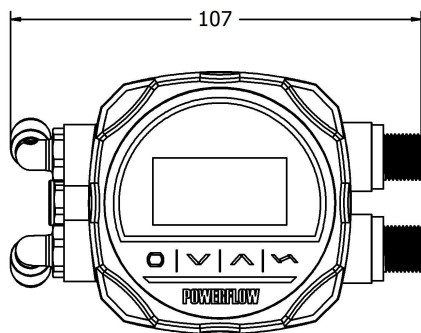
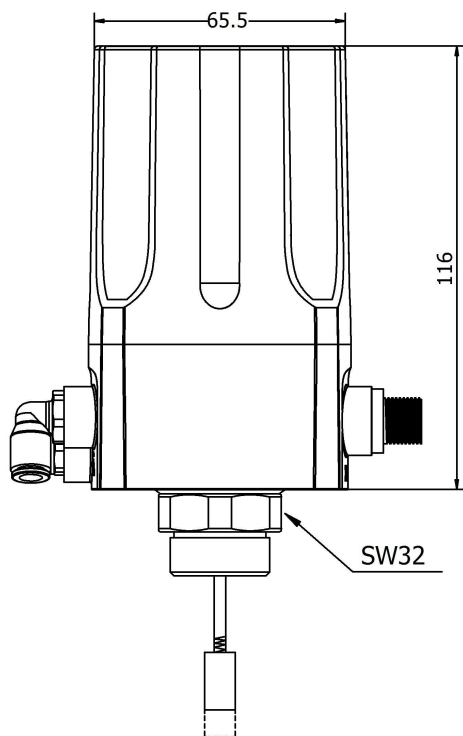
Selection and ordering data



Remark:

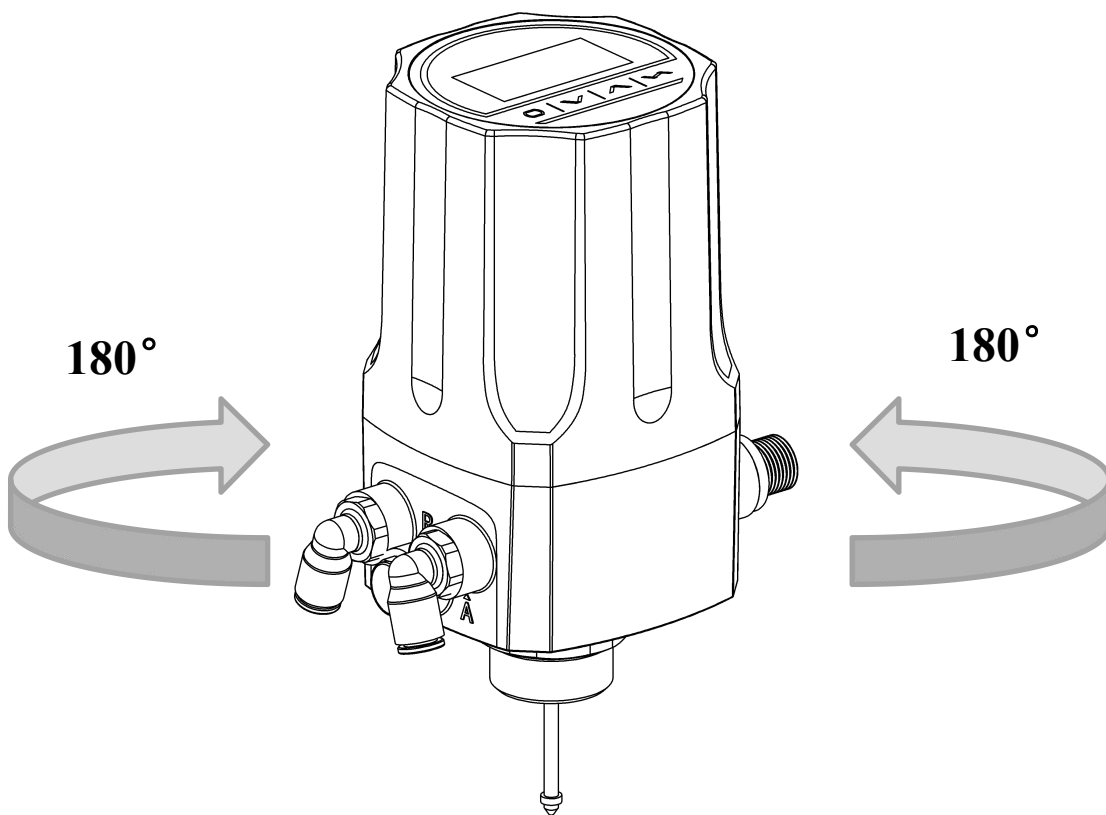
The product is only used for single-acting line stroke actuator. Fail-safe when power-off.
It is suggested to match the actuator of 40-100 mm internal gas chamber diameter.

Dimensions

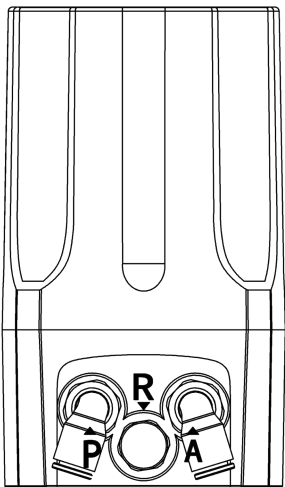
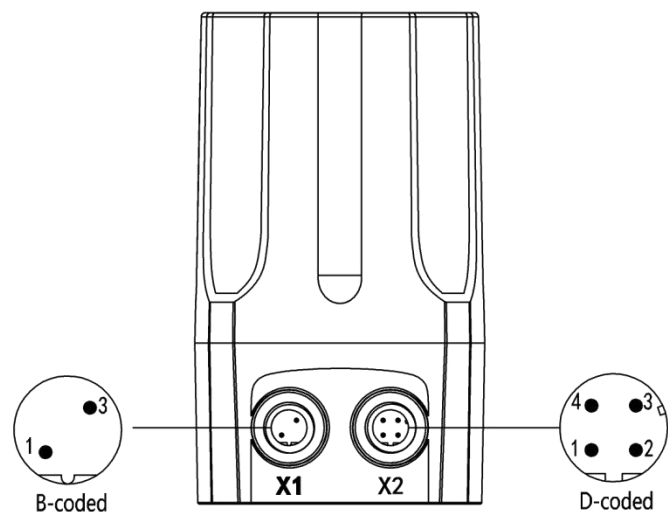


Interface angle adjustment

The angle can be adjusted between the positioner and the valve. If need to adjust the interface angle, rotate the main body casing clockwise or counter-clockwise in 180° range.



Electrical connections and pneumatic connections



X1		
Pin	Description	Signal type
1	Analogue signal output +	0/4 – 20 mA
3	Analogue signal output GND	GND

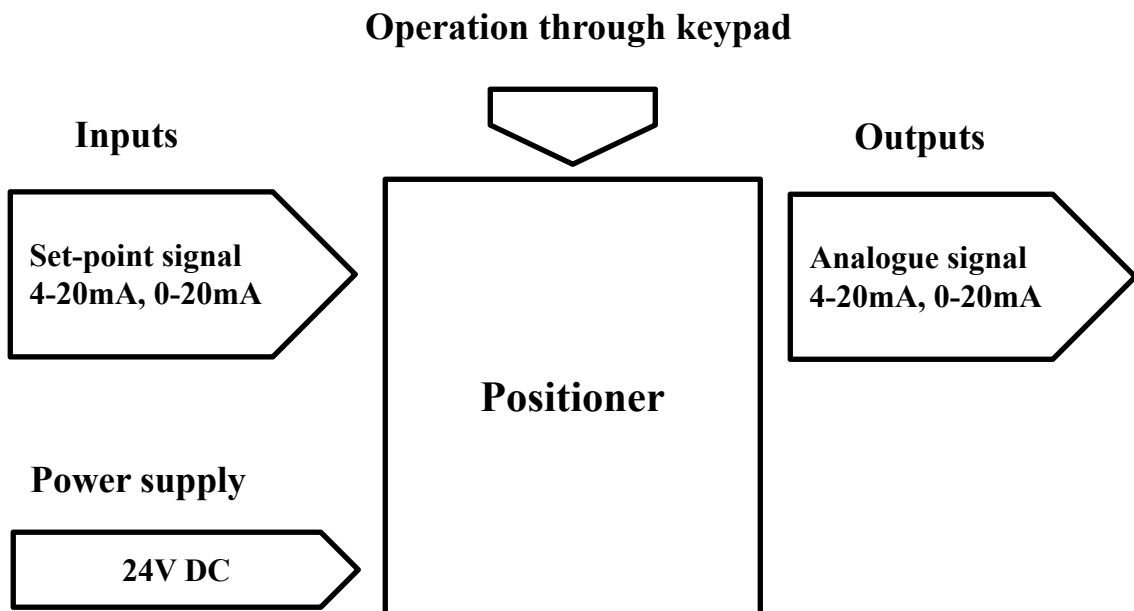
X2		
Pin	Description	Signal type
1	Power supply +	+24 V
2	Power supply GND	GND
3	Set signal input +	0/4 – 20 mA
4	Set signal input GND	GND

P	Air supply enter(built-in filter, filter size 5 µm)
R	Air exhaust
A	Pilot air outlet

Additional software functions

- Selection of the transfer characteristic between set-point value and stroke.
- Sealing function for position controller.
- Effective sense of direction between input signal and set-point value.
- Limit of the mechanical stroke range.
- Setting for control parameters.
- Safety position setting for the position controller.
- Configuration of signal level fault detection.
- Configuration of the outputs.
- Calibrating the control parameters.
- Setting for manual control rate.
- Code protection.

Schematic diagram



Function comparison for all types

FUNCTION	1600	1601	1500	1880S
Process control	×	√	×	×
4-20mA signal input	√	√	√	√
4-20mA signal output	○	○	○	○
Autotune	√	√	√	√
Valve position manual adjustment	√	√	√	√
Sealing function	√	√	√	√
Dead band setting	√	√	√	√
4-20mA input signal error detection	√	√	√	√
Factory setting	√	√	√	√
Characteristic curve setting	√	√	×	√
Direction of set-point value	√	×	×	√
Valve stroke range limiting	√	√	×	√
Safety position setting	√	√	×	√
Binary signal input/output	○	○	×	×
Input signal calibration	√	√	×	√
Speed setting of manual adjustment	√	√	×	√
Code protection	√	√	×	√

√	YES
×	NO
○	optional