

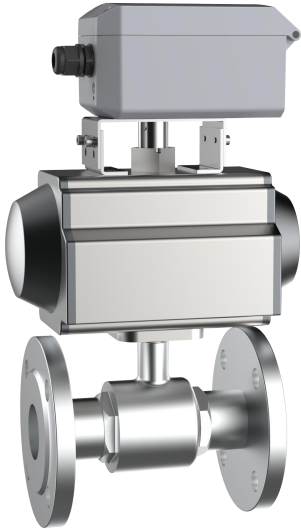
IP5500 Series Intelligent Valve Positioner



IP5500 intelligent valve positioner is mounted on pneumatic actuators. It's used to control air intake and exhaust of the pneumatic actuators to drive the valve position to the set point by calculating both data from 4-20mA DC signal and feedback position.

Technical Data	
Material	Aluminum
Power supply	24V DC $\pm 10\%$
Set-point signal	4-20mA DC
Stroke	Linear Stroke:10-100mm Rotary Stroke:30-100°
Ambient temperature	0° C ~ +50° C
Gas source requirement	neutral gases, air DIN ISO 8573-1 Solid particle size and density Class 3 Dew point Class 3 Oil content Class 3
Vibration resistance	0.15mm, 10Hz-60Hz, 20 cycle/axis 20m/s ² , 60Hz-500Hz, 20 cycle/axis Recommended range for control valve $\leq 20 \text{ m/s}^2$, no resonance peak
Supply pressure	0.14-0.7MPa
Flow	75L/min (Sup=0.14MPa)
Basic error	$\leq 1.0\%$
Hysteresis error	$\leq 1.0\%$
Electrical connection	M20×1.5
Pneumatical connection	G1/4
Protection class	IP67

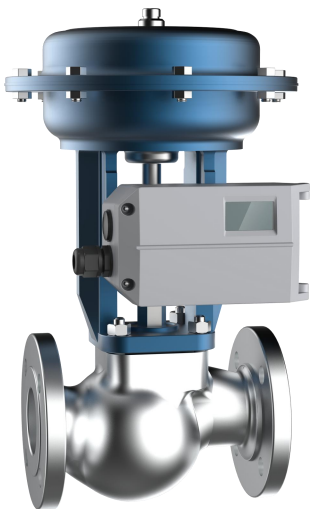
Combinations



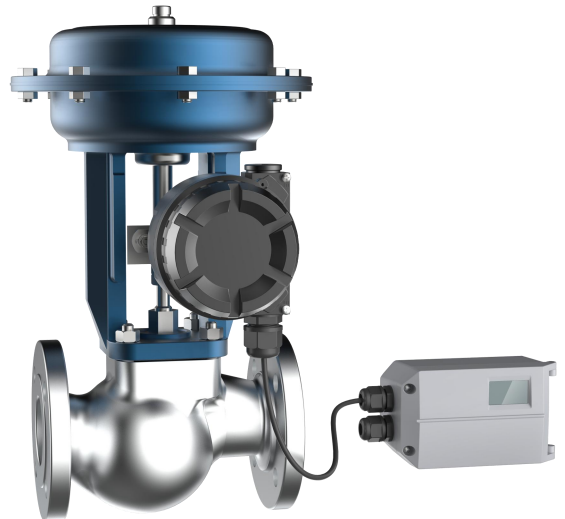
Normal rotary version



Remote rotary version

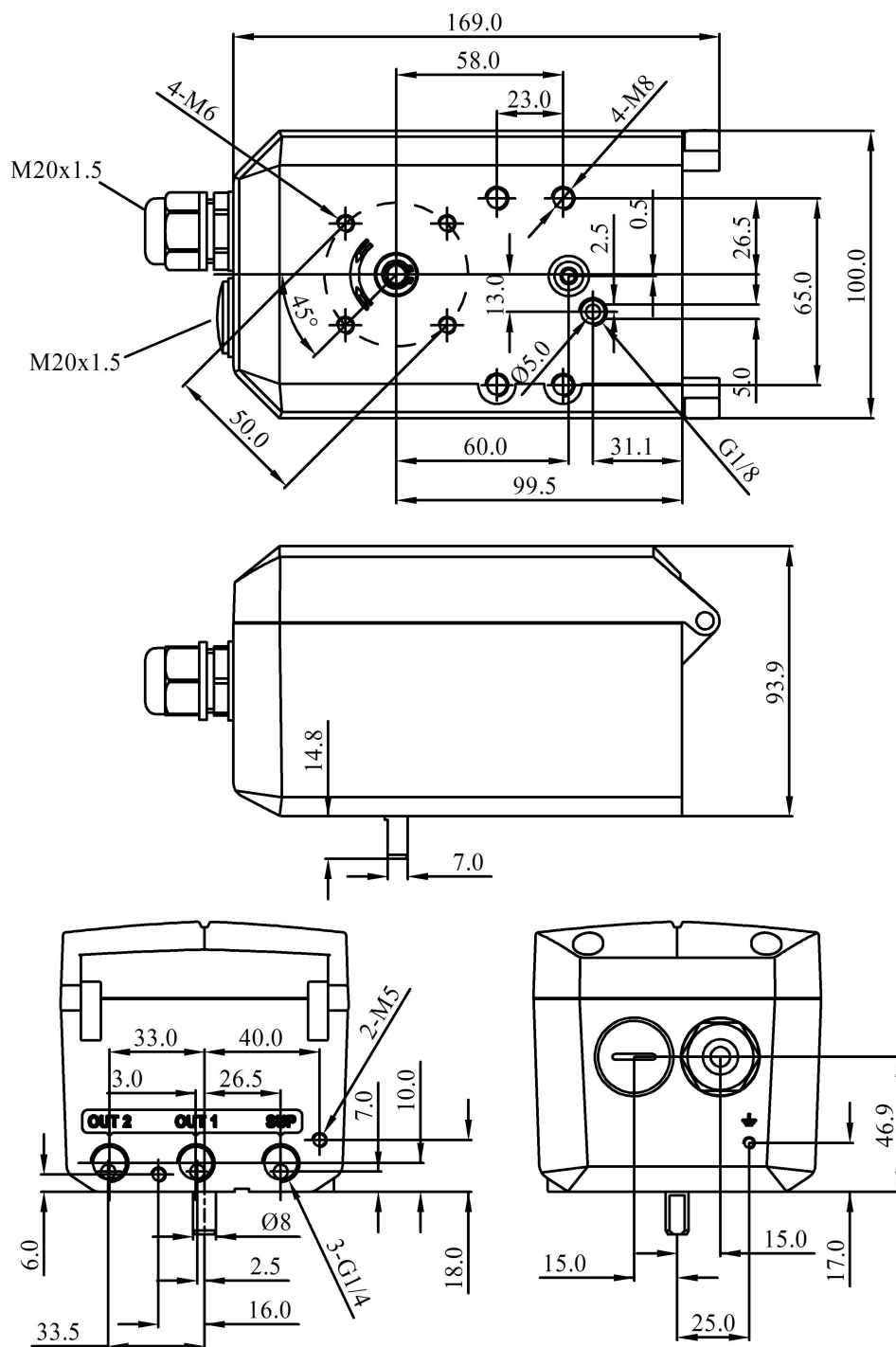


Normal linear version



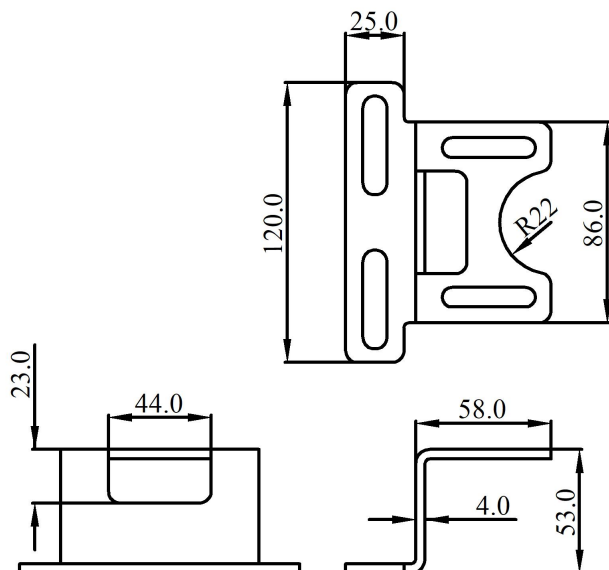
Remote linear version

Dimensions

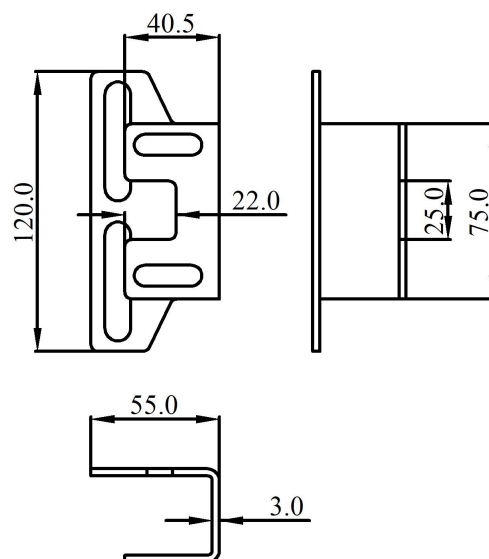


Positioner Dimensions

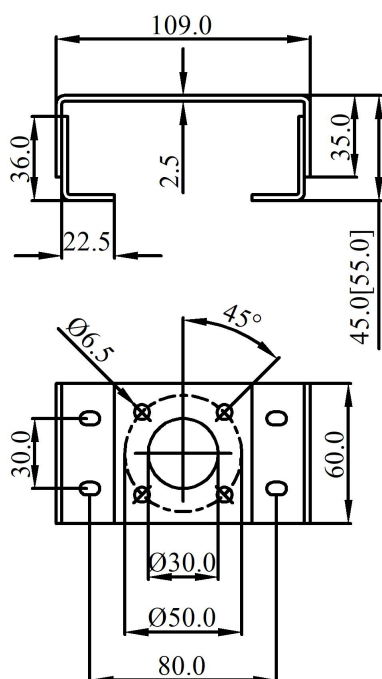
Dimensions



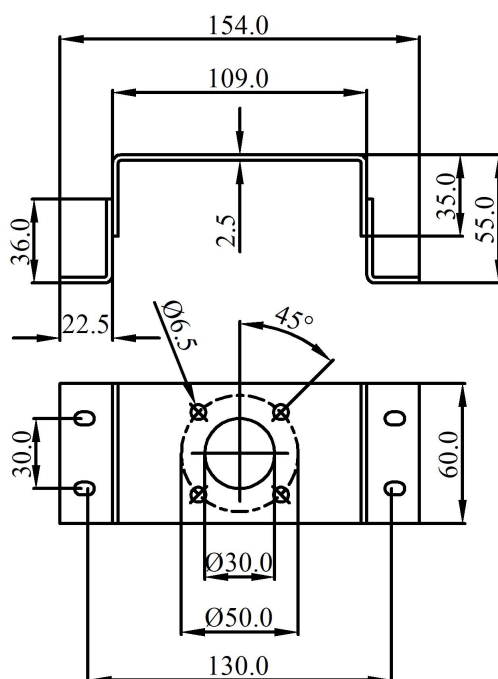
Normal linear mounting bracket



Remote linear mounting bracket

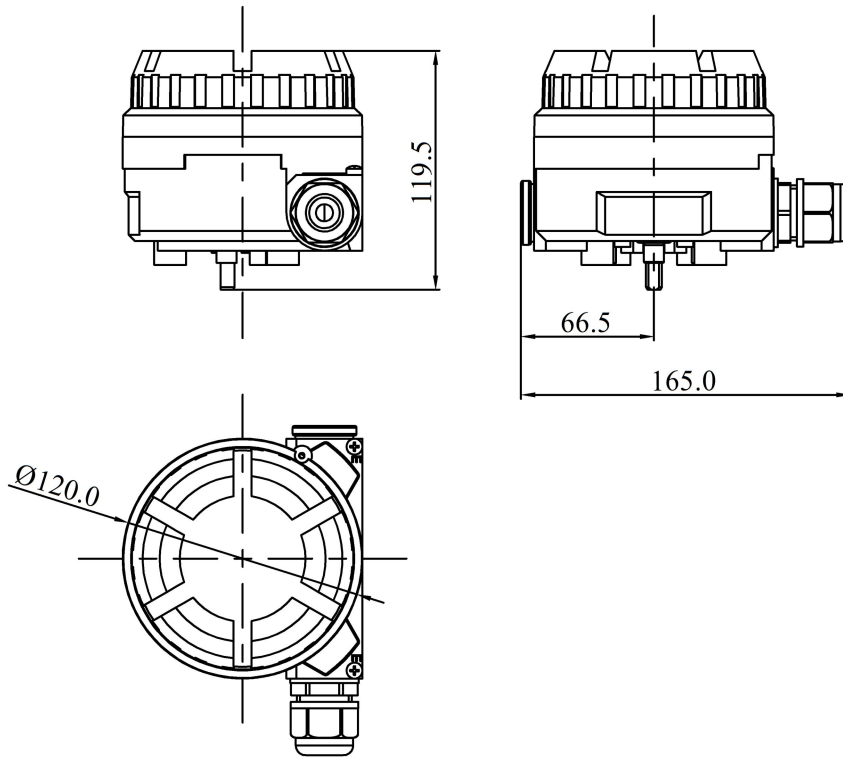


Bracket for rotary actuators(Form 1)



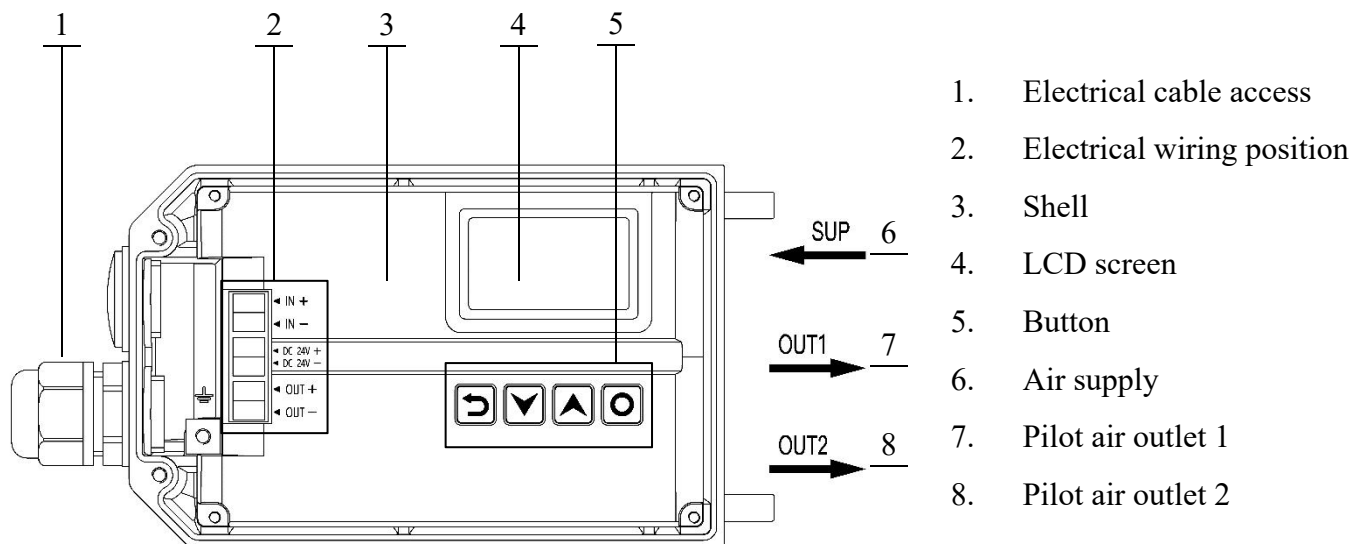
Bracket for rotary actuators(Form 2)

Dimensions

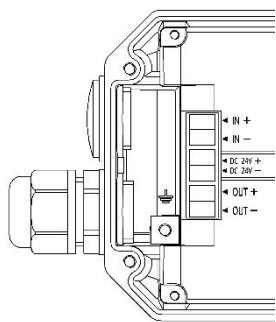


Dimensions of remote type sensor

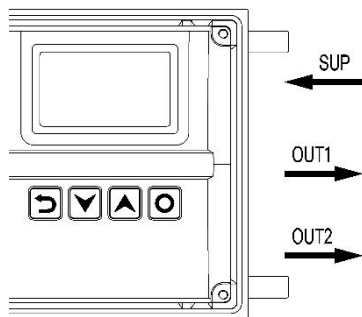
Structure



Electrical connections and pneumatic connections

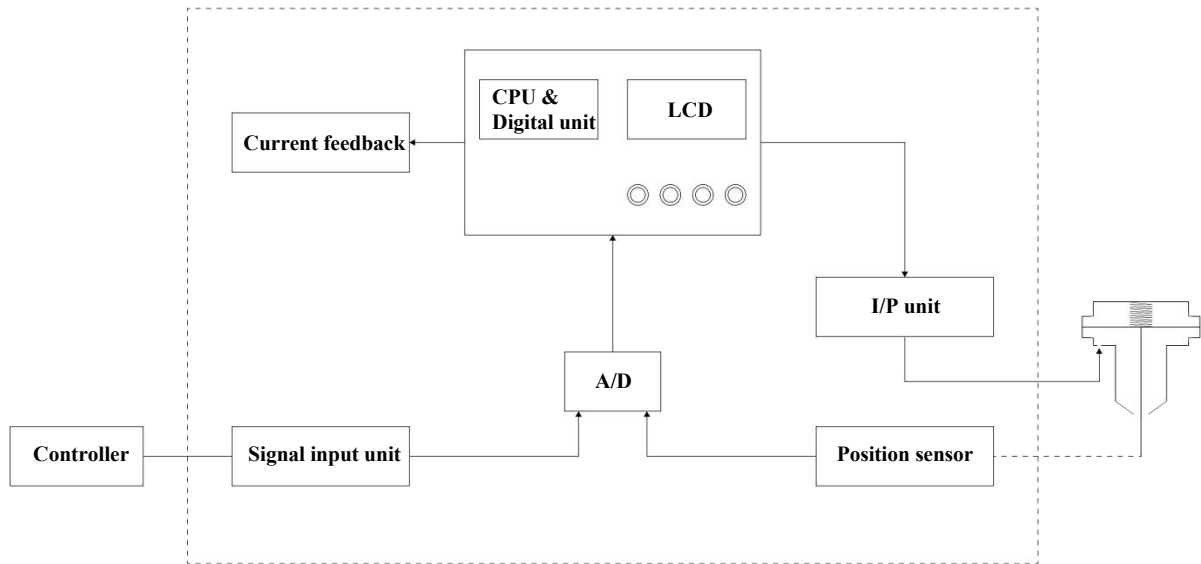


Electrical	Description
IN+	4-20 mA set-point signal +
IN-	4-20 mA set-point signal -
DC 24V +	Power supply DC 24V +
DC 24V -	Power supply DC 24V -
OUT+	4-20 mA feedback signal +
OUT-	4-20 mA feedback signal -



Pneumatical	Description
SUP	Air supply enter
OUT1	Pilot air outlet 1
OUT2	Pilot air outlet 2

Principle Block Diagram



Additional Software Functions

- Calibrating the set-point signal.
- Setting for dead band zone
- Sealing function for position controller.
- Limit of the mechanical stroke range.
- Selection of the transfer characteristic between set-point value and stroke.
- Selection of signal direction.
- Selection of stroke direction.
- Factory settings.

Selection and ordering data

L Normal linear FL Remote linear R Normal rotary FR Remote rotary	Install type
S Single acting D Double acting	Acting mode
0 No 1 Yes	Feedback signal
0 No 1 Linear Bracket 2 Rotary Bracket	Mounting Bracket
0 No 1 Yes	Pressure gauge
S Safe F Freeze	Power off state

IP5500 - L - S - 0 - 0 - 0 - S

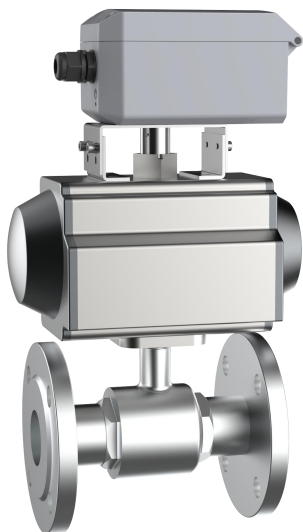
IP5500系列智能阀门定位器



IP5500系列智能阀门定位器和气动执行器配套使用。通过接收来自控制系统的4-20mA DC电流信号得到阀位控制设定值，同时采集位置传感器信号得到实际的阀位值，两者通过控制软件的计算处理，从而控制气动执行机构的进气和排气，驱动阀位到达设定点。

技术参数	
外壳材质	铝合金
电源	24V DC $\pm$ 10%
信号输入	4-20mA DC
阀门行程范围	直行程:10-100mm 角行程:30-100°
环境温度	0° C $\sim$ +50° C
气源要求	符合ISO 8573-1 3级 固体颗粒大小和密度 3级 露点 3级 含油量 3级
抗振动性	0.15mm, 10Hz-60Hz, 20次循环/轴 20m/s ² , 60Hz-500Hz, 20次循环/轴 整个控制阀连续运行时的推荐范围 $\leq$ 20 m/s ² , 无谐振峰值
气源压力	0.14-0.7MPa
流量	75L/min (Sup=0.14MPa)
基本误差	$\leq$ 1.0%
回差	$\leq$ 1.0%
电气接口	M20 $\times$ 1.5
气动接口	G1/4
防护等级	IP67

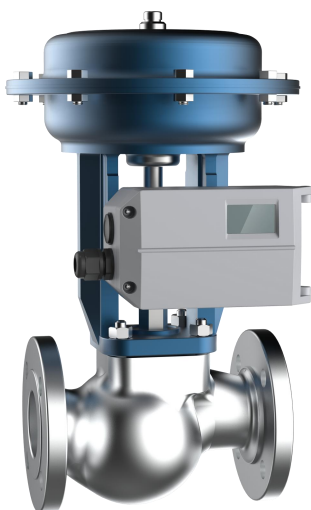
组合方式



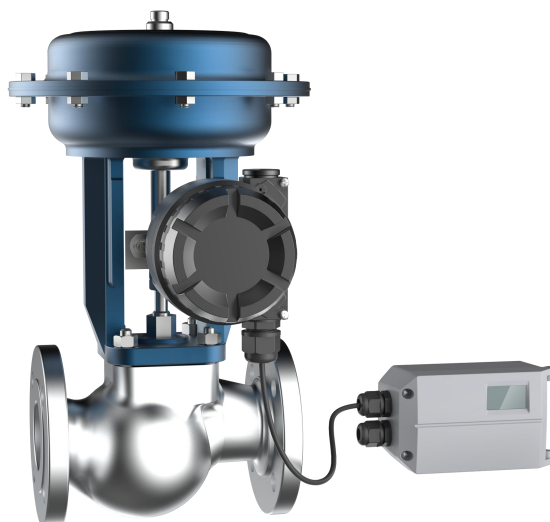
常规型角行程



远传型角行程

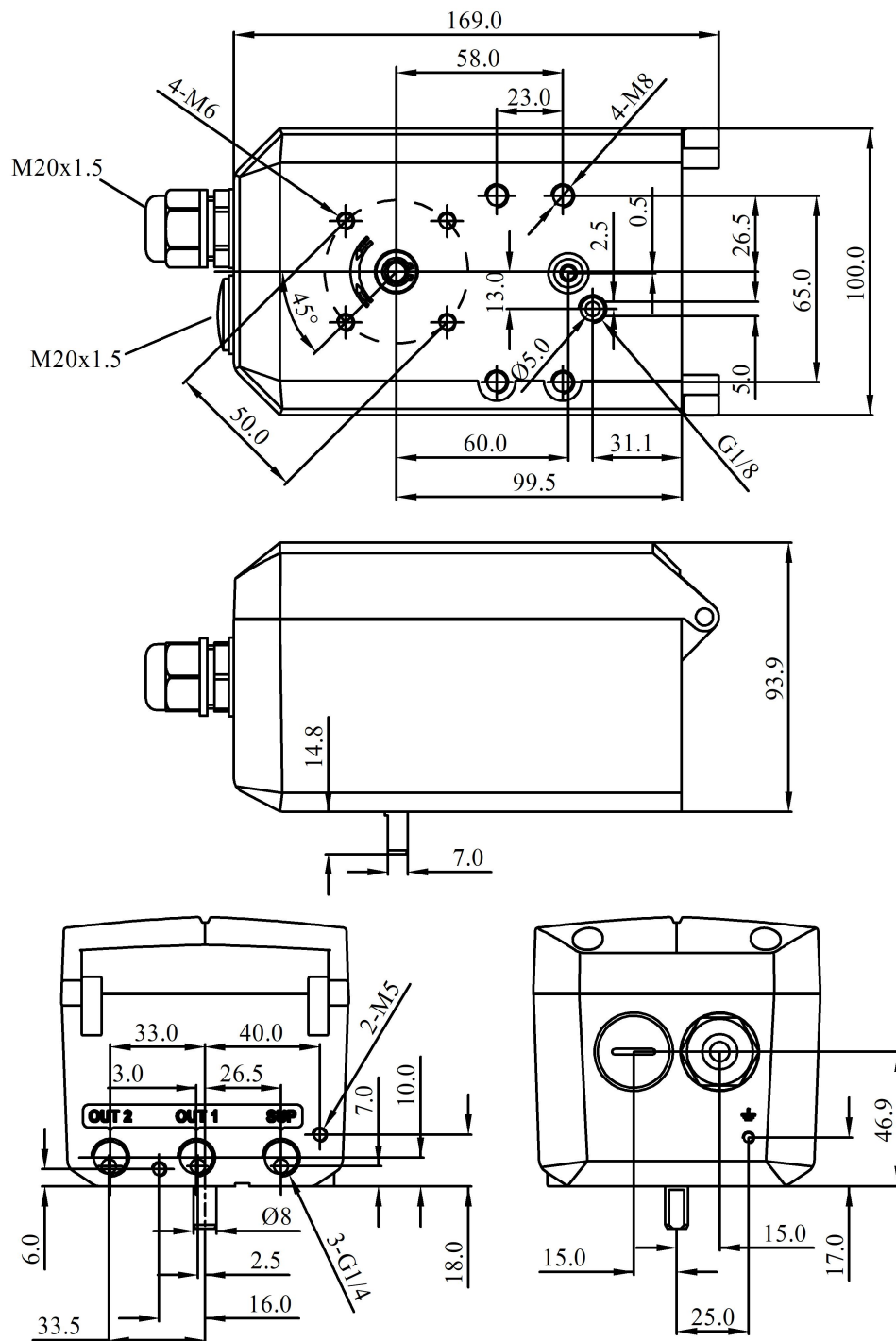


常规型直行程

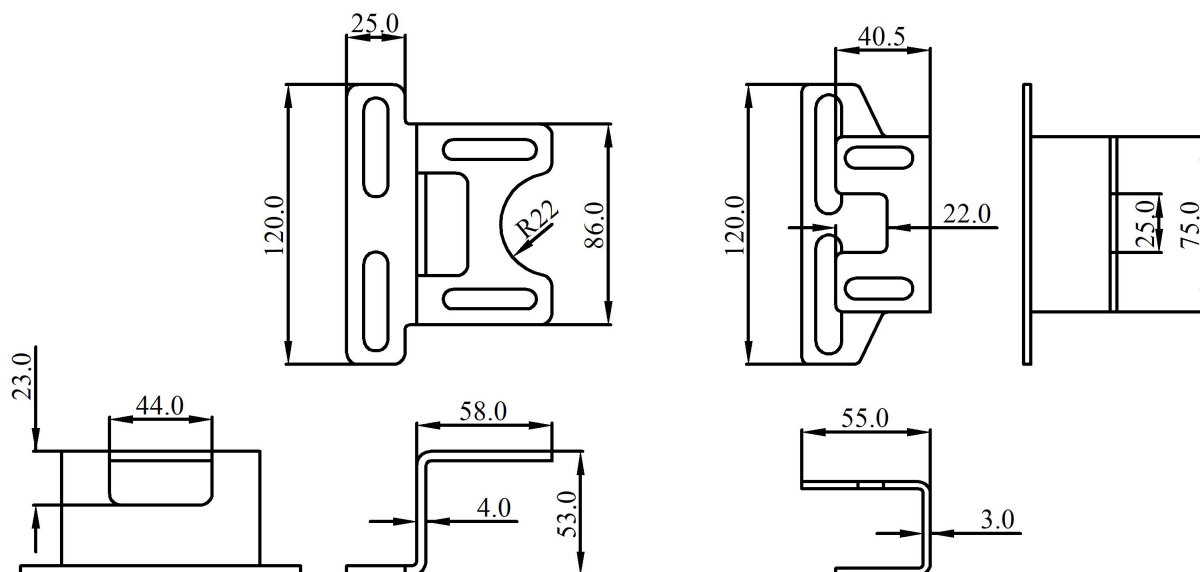


远传型直行程

机械尺寸

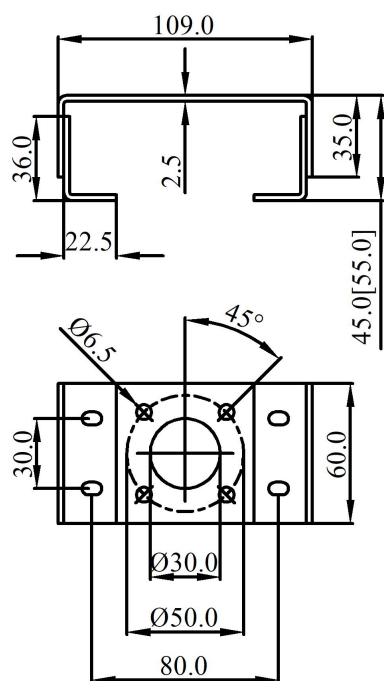


IP5500定位器机械尺寸

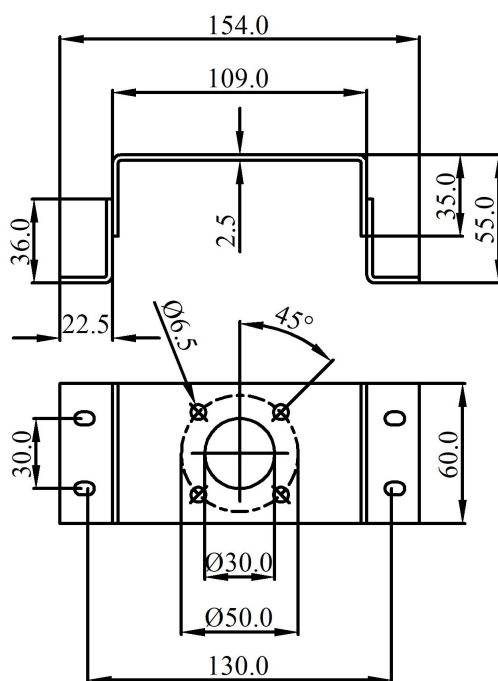


常规型直行程安装支架

远传型直行程安装支架

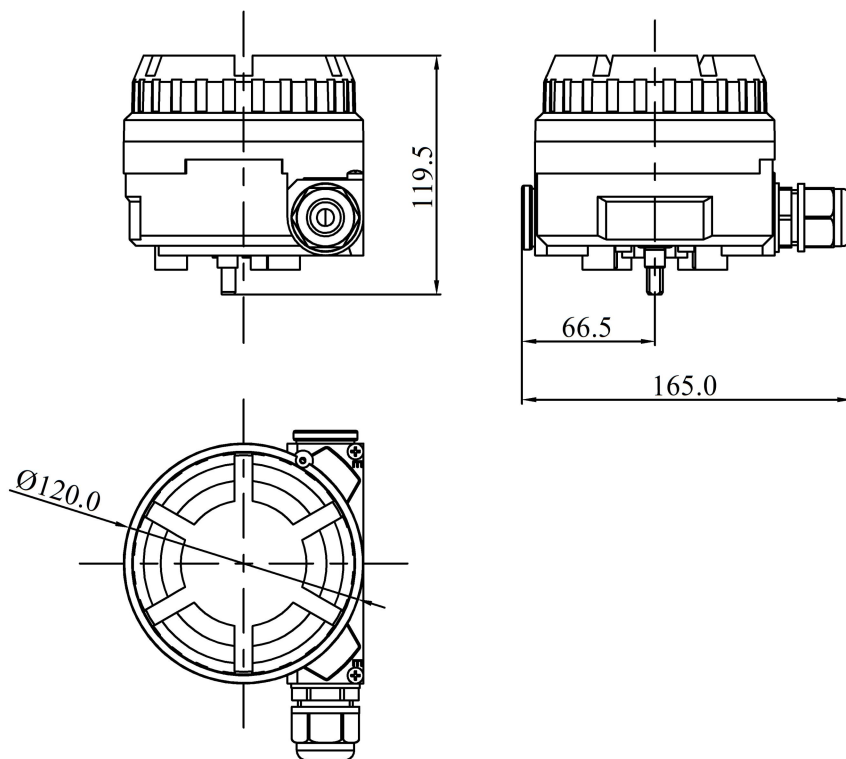


角行程安装支架组装形式1



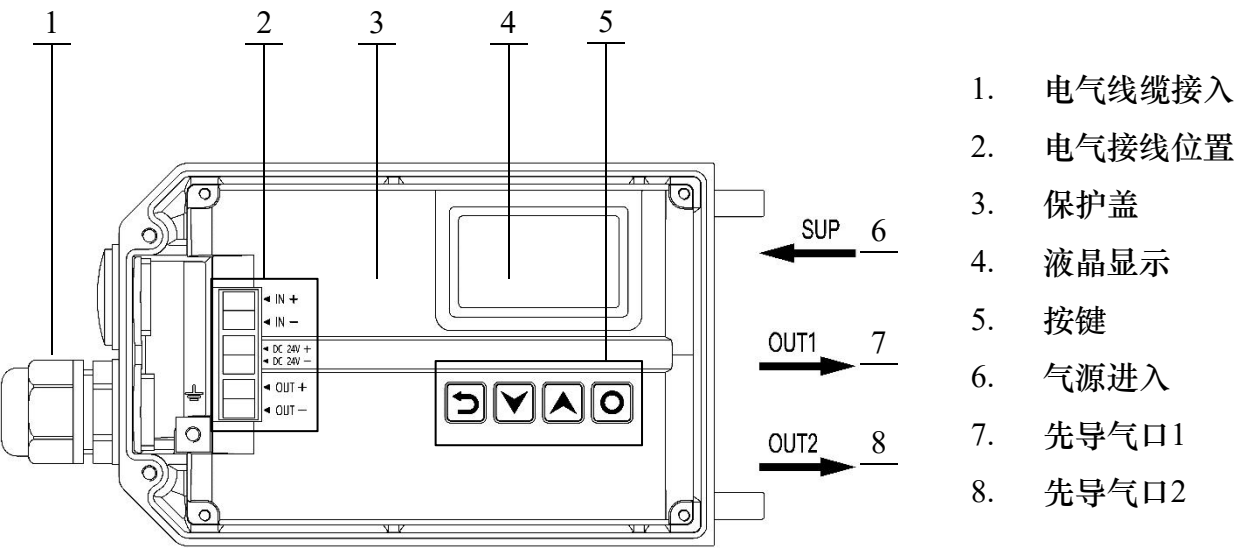
角行程安装支架组装形式2

机械尺寸

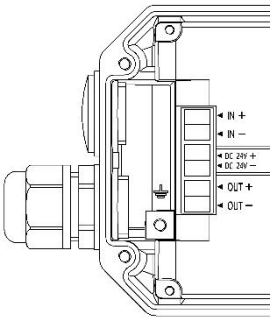


远传型传感器尺寸

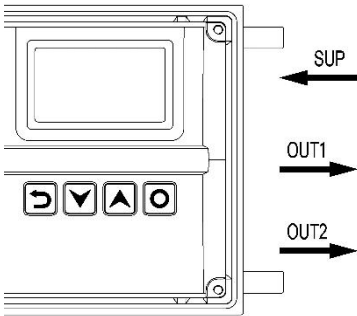
产品结构



电气接口和气动接口

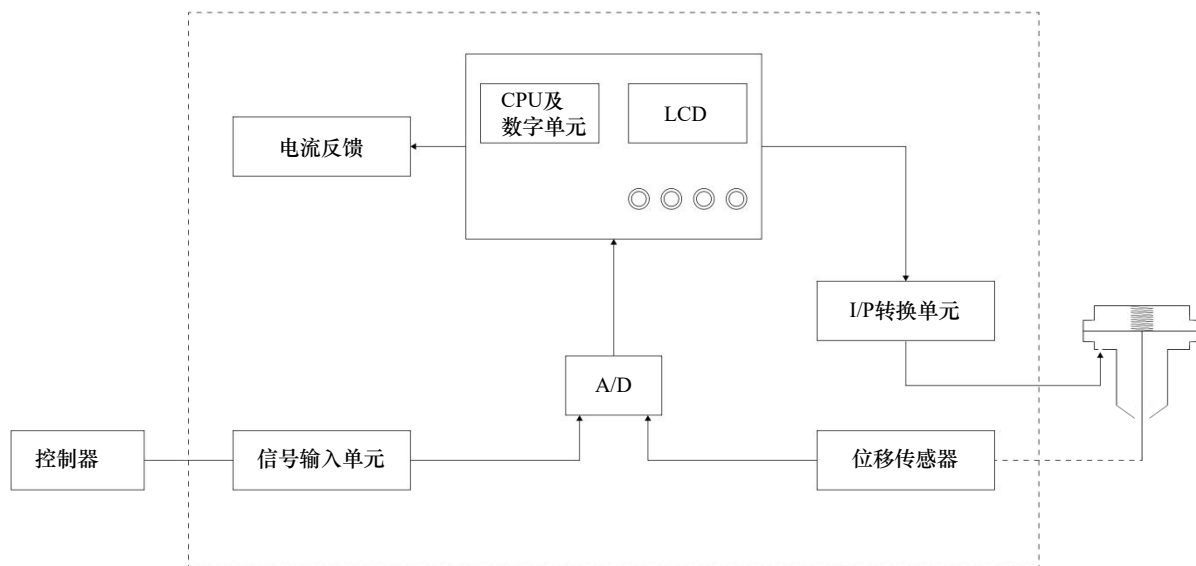


电气接口	描述
IN+	4-20 mA 设定信号 +
IN-	4-20 mA 设定信号 -
DC 24V +	电源DC 24V +
DC 24V -	电源DC 24V -
OUT+	4-20 mA反馈信号 +
OUT-	4-20 mA反馈信号 -



气动接口	描述
SUP	气源进入
OUT1	先导气口1
OUT2	先导气口2

原理框图



软件附加功能

- 设定信号校正
- 死区设置
- 紧闭功能
- 行程限制
- 特性曲线选择和设置
- 信号方向设置
- 行程方向设置
- 恢复出厂设置

选型及订货数据

