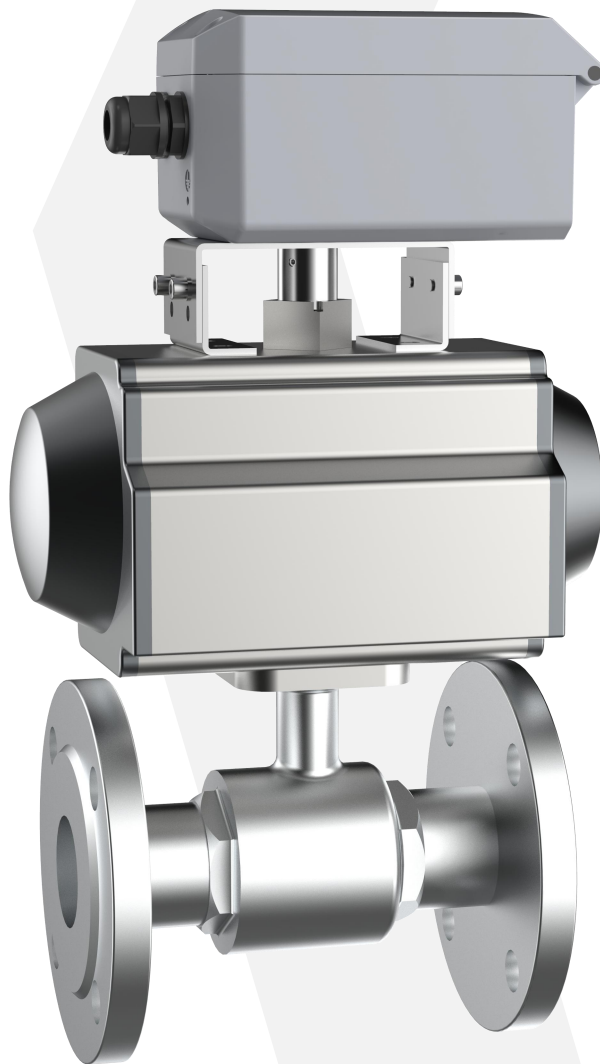




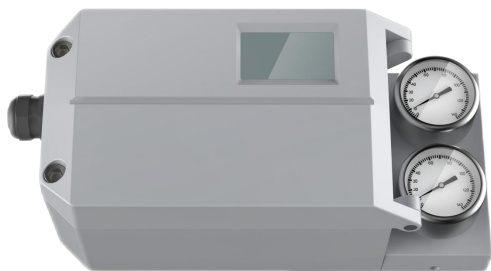
IP5500系列 智能阀门定位器

简要介绍

01

技术描述

Technical Description



IP5500系列智能阀门定位器

IP5500系列智能阀门定位器和气动调节阀配套使用。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。

＞ 外壳材质

- 铝合金

＞ 电源

- 24V DC $\pm 10\%$

＞ 信号输入

- 电流：4-20mA DC

＞ 行程范围

- 常规型直行程：10-100mm
- 常规型角行程：30-100°

＞ 环境温度

- 0°C ~ + 50°C

＞ 气动数据

- 空气质量：符合 ISO 8573-1 标准
- 压力：0.14-0.7MPa
- 固体颗粒大小和密度：等级3
- 压力露点：等级3（最低比环境温度低 20K (36° F)）
- 含油量：等级3

＞ 抗震动性

- 0.15 mm, 10Hz-60Hz, 20次循环/轴
- 20 m/s², 60Hz-500Hz, 20次循环/轴
- 整个控制阀连续运行时的推荐范围 $\leq 20 \text{ m/s}^2$, 无谐振峰值

> 流量

- 75L/min (Sup=0.14MPa)

> 线性度及回差

- 线性度: $\leq 0.5\%$
- 回差: $\leq 0.5\%$

> 电气接口

- NPT 1/2 (默认)
- M20 $\times$ 1.5

> 气动接口

- NPT 1/4 (默认)
- G 1/4

> 防护等级

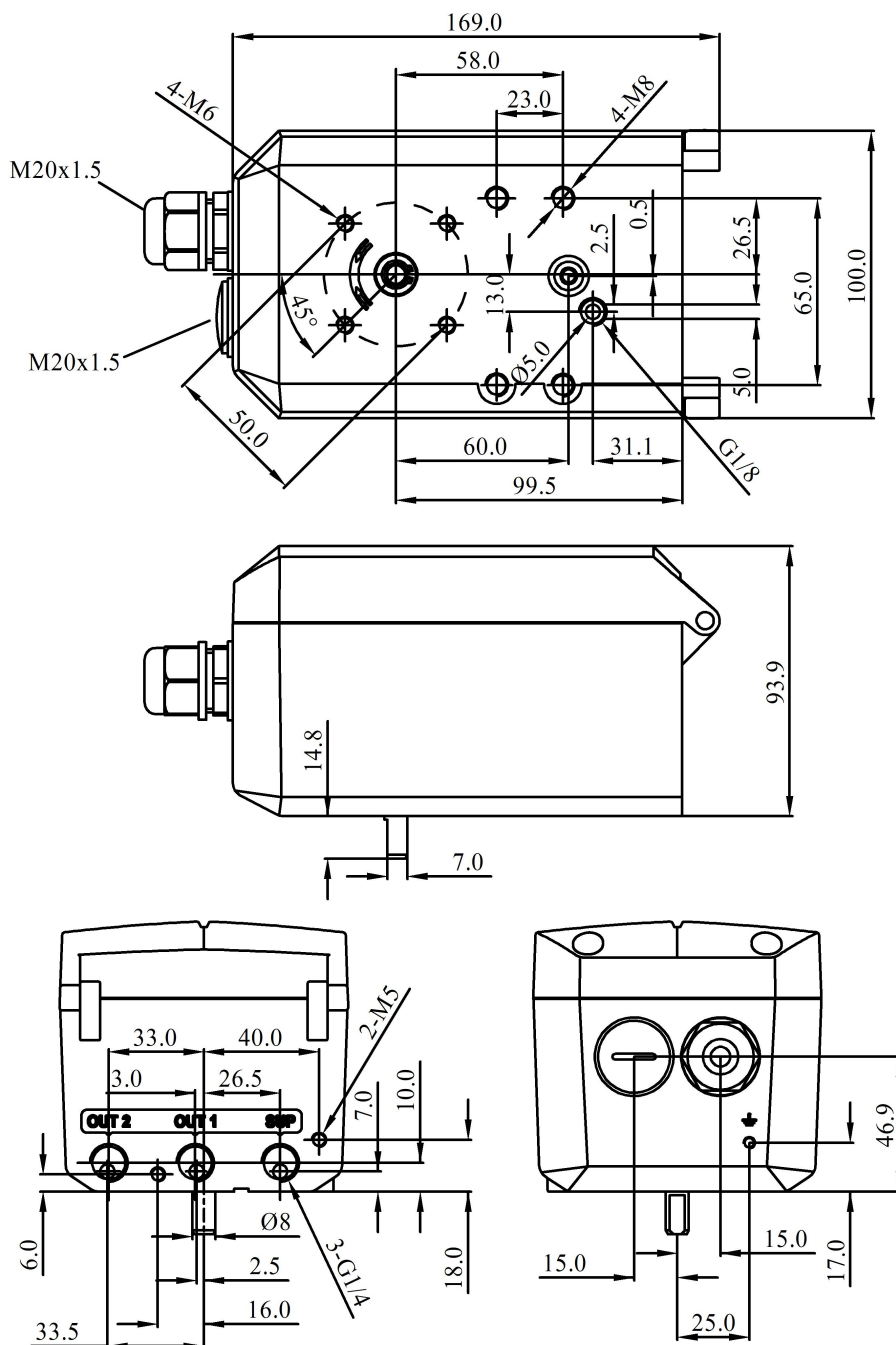
- IP67/IP69

02

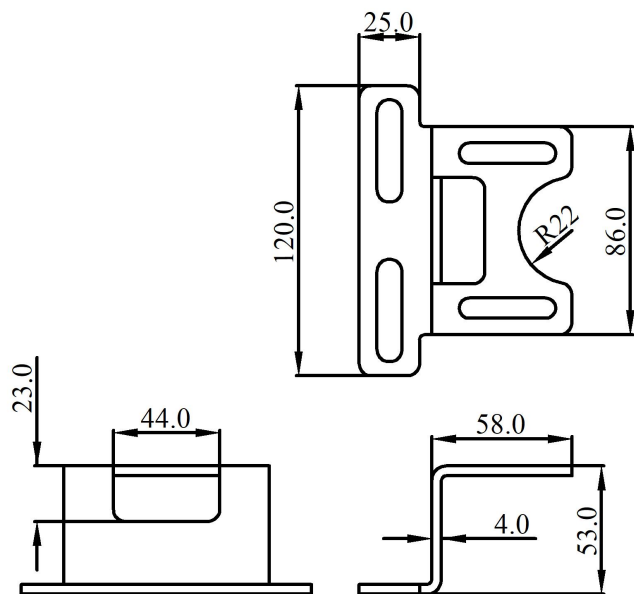
机械尺寸

Mechanical Dimensions

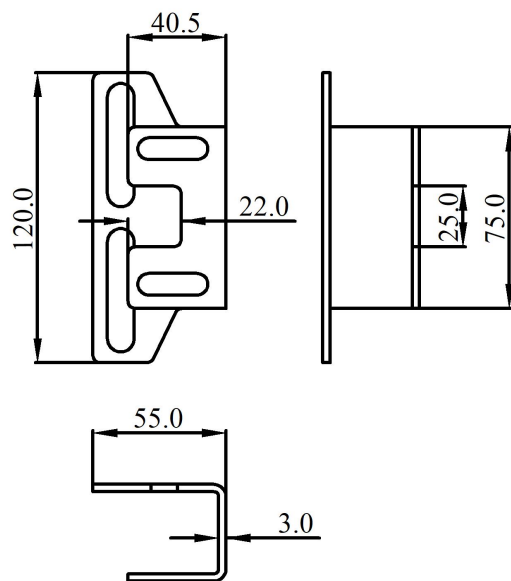
> IP5500定位器机械尺寸



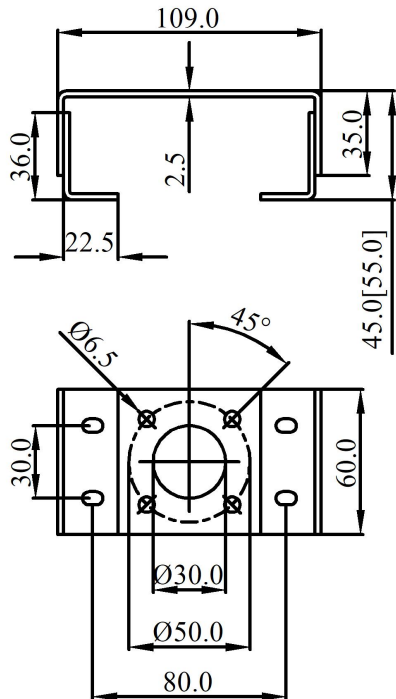
常规型直行程安装支架组装形式



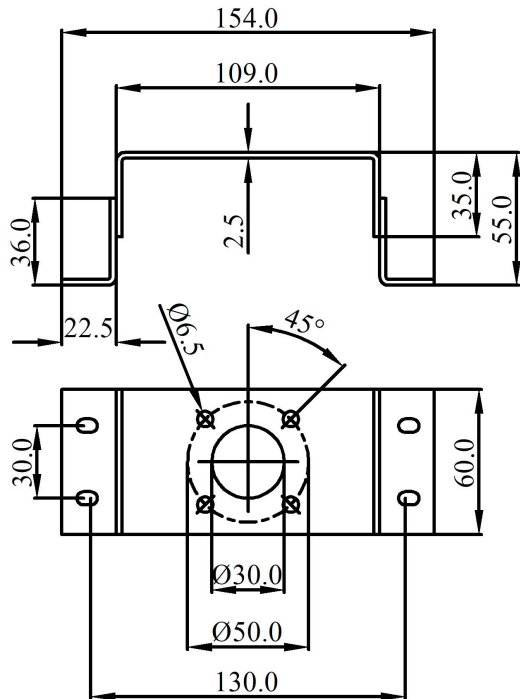
远传型直行程安装支架组装形式



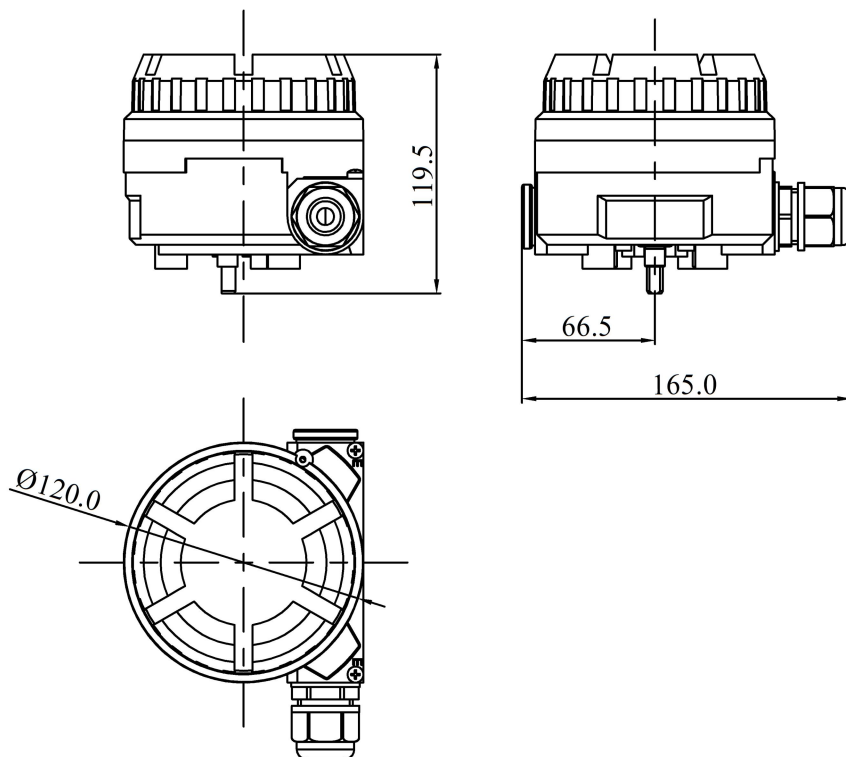
角行程安装支架组装形式-1



角行程安装支架组装形式-2



远传型传感器尺寸

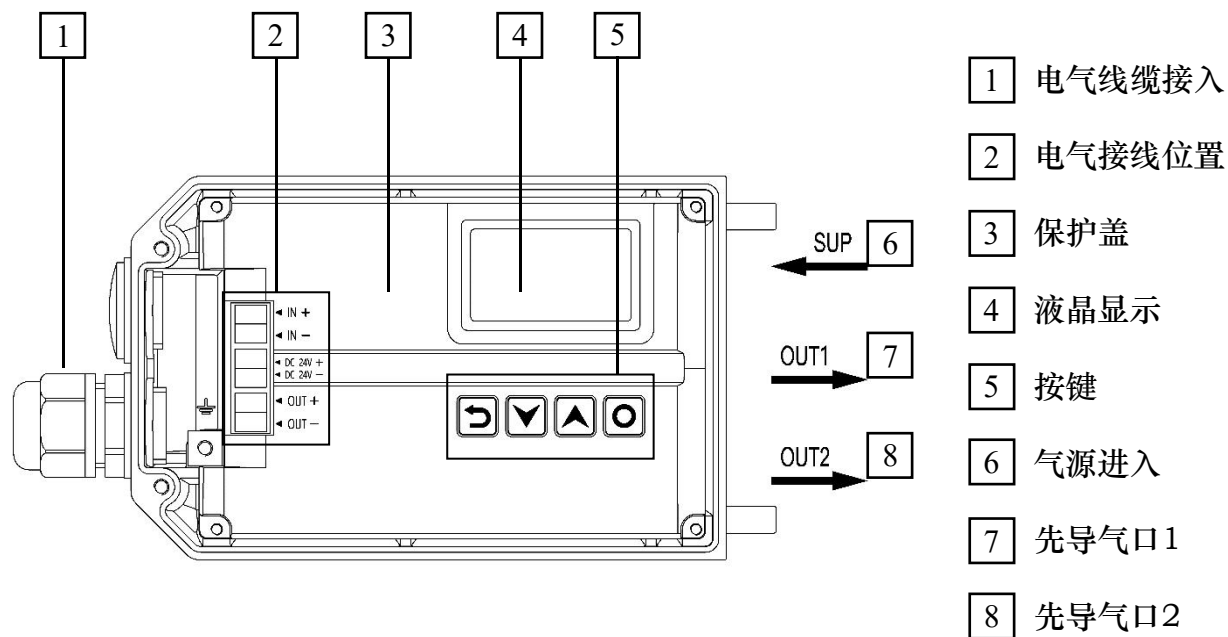


03

产品结构

Product Structure

> IP5500定位器产品结构

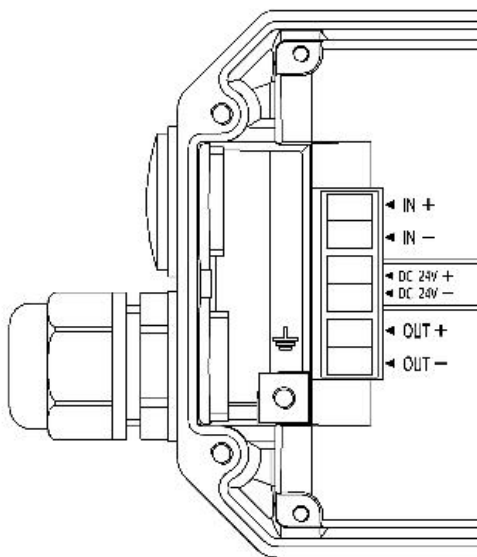


04

电气接口及气动接口

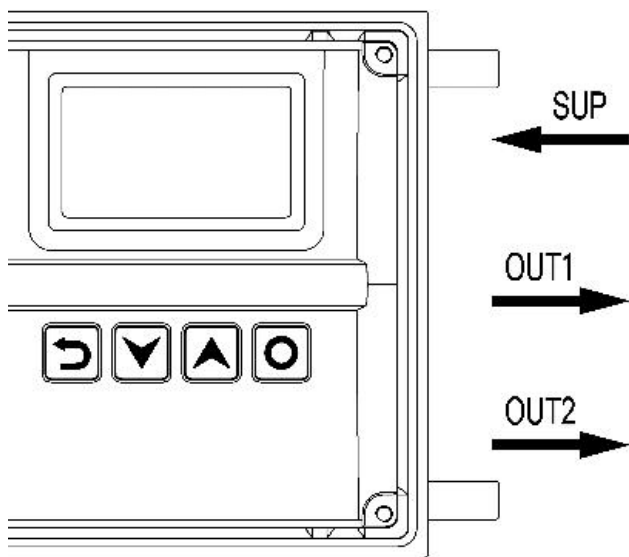
Electrical & Pneumatic Connections

> 电气接口



- 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

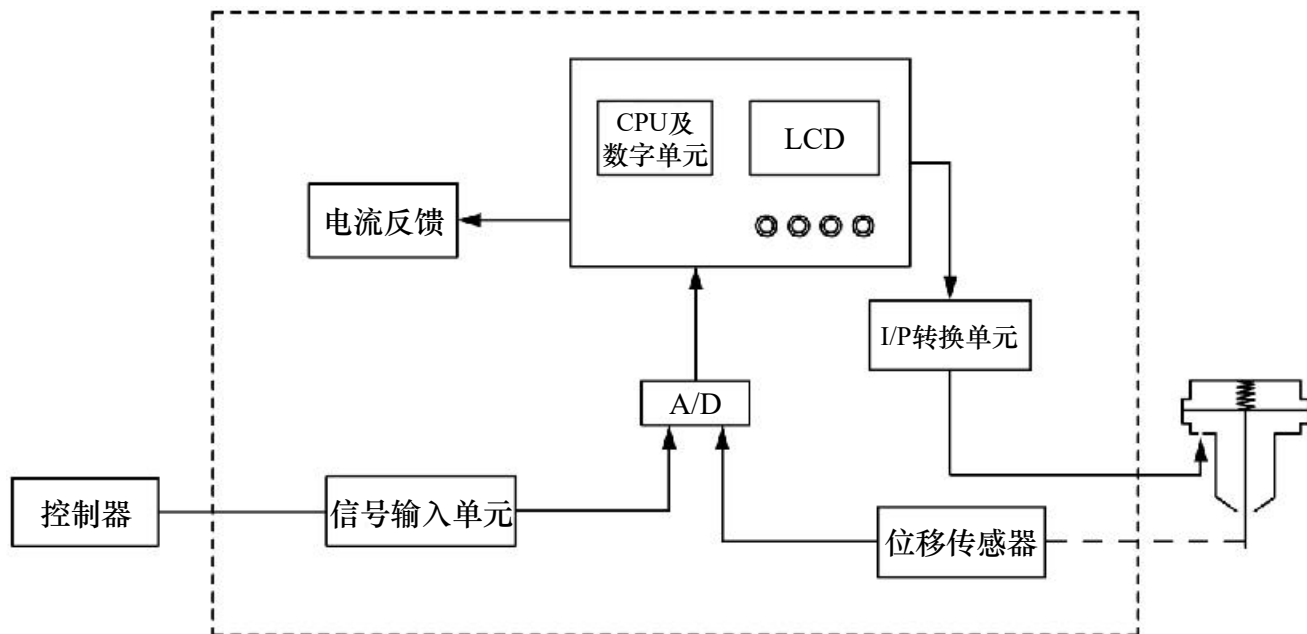


- SUP: 气源进入
- OUT1: 先导气口1
- OUT2: 先导气口2

05

原理框图

Principle Block Diagram



软件附加功能

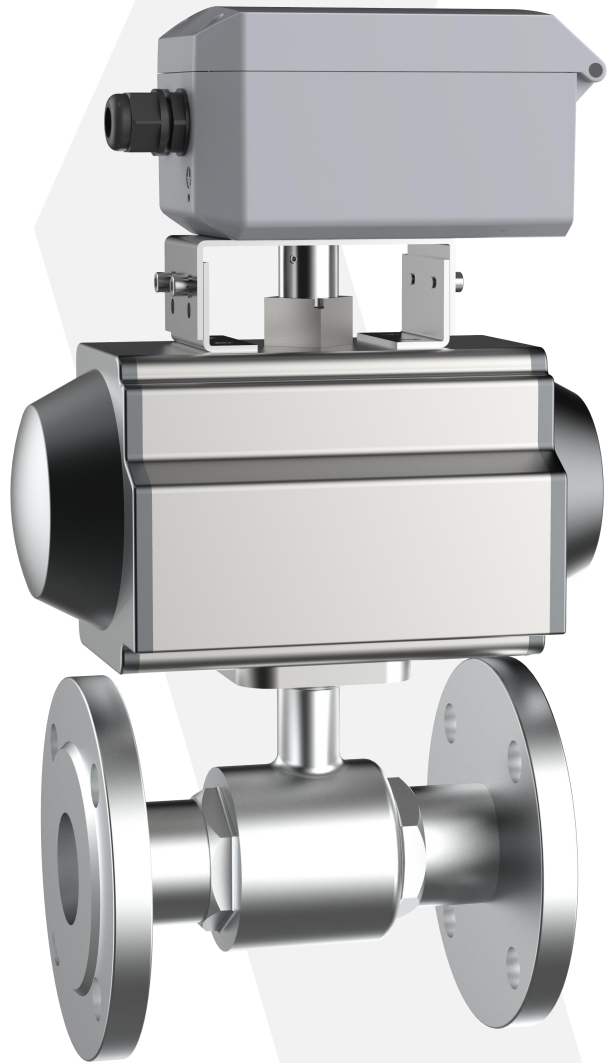
- 设定信号校正
- 死区设置
- 紧闭功能
- 行程限制
- 特性曲线选择和设置
- 信号方向设置
- 行程方向设置
- 恢复出厂设置

06

选型及订货数据

Selection and Ordering Data

							L	常规型直行程	行程类型
							FL	远传型直行程	
							R	常规型角行程	
							FR	远传型角行程	
							S	单作用	作用形式
							D	双作用	
							0	无	反馈信号
							1	有	
							0	无	安装支架
							1	直行程支架	
							2	角行程支架	
							0	无	压力表组件
							1	有	
							S	复位	断电状态
							F	保位	
IP5500	L	S	0	0	0	S			



IP5500 Series Intelligent Valve Positioner

Brief Introduction

Brief introduction

01

Technical Description



IP5500 Series Intelligent Valve Positioner

IP5500 intelligent valve positioner is mounted on pneumatic control valves. 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.

> Enclosure Material

- Aluminum

> Power Supply

- 24V DC $\pm 10\%$

> Set-point Signal

- Current: 4-20mA DC

> Stroke Range

- Linear Type: 10-100mm
- Rotary Type: 30-100°

> Ambient Temperature

- 0°C ~ + 50°C

> Pneumatic Data

- Air quality meets ISO 8573-1 standard
- Pressure range: 0.14-0.7MPa
- Solid Particle Size and Density: Class 3
- Pressure Dew Point: Class 3
- Oil Content: Class 3

> Vibration Resistance

- 0.15 mm, 10 Hz-60 Hz, 20 cycle/axis
- 20 m/s², 60 Hz-500 Hz, 20 cycle/axis
- Recommended range for control valve ≤ 20 m/s², no resonance peak

> Flow Rate

75L/min (Sup=0.14MPa)

> Linearity & Hysteresis

- Linearity: $\leq 0.5\%$
- Hysteresis: $\leq 0.5\%$

> Electrical Connection

- NPT 1/2 (default)
- M20 $\times$ 1.5

> Pneumatical Connection

- NPT 1/4 (default)
- G 1/4

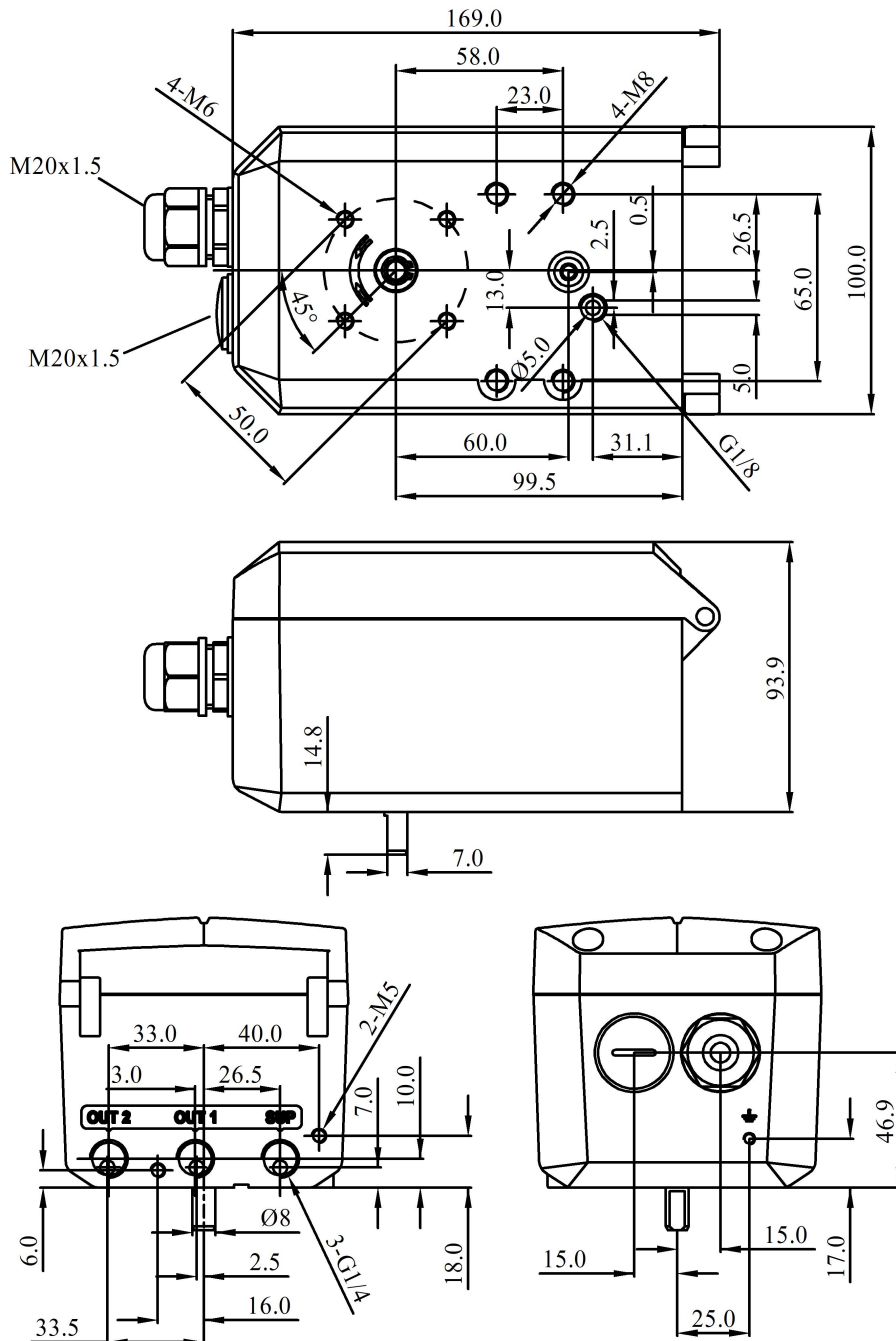
> Protection Class

- IP67/IP69

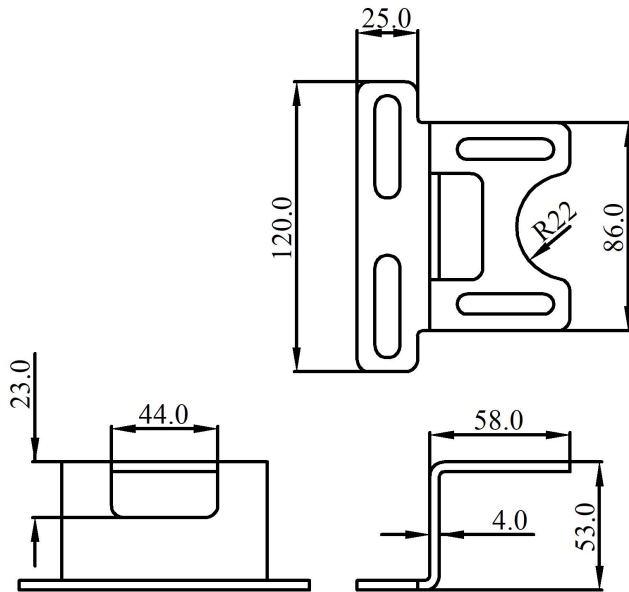
02

Mechanical Dimensions

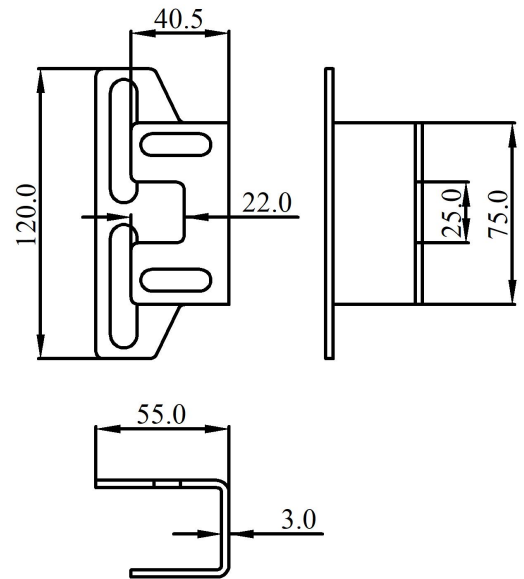
> IP5500 Series Intelligent Valve Positioner Mechanical Dimensions



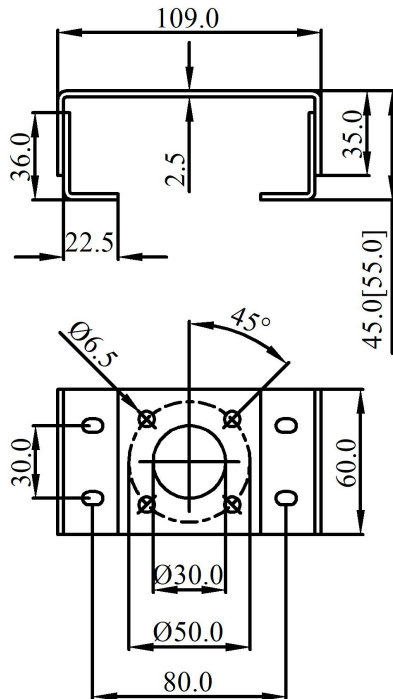
› Linear Mounting Bracket



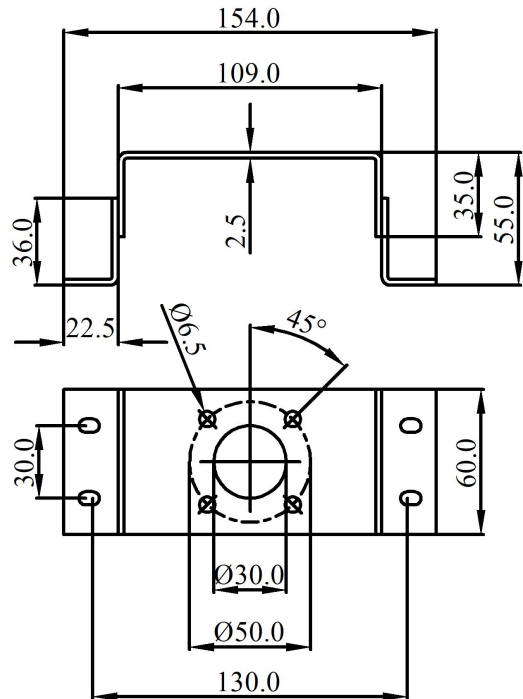
› Remote Linear Mounting Bracket



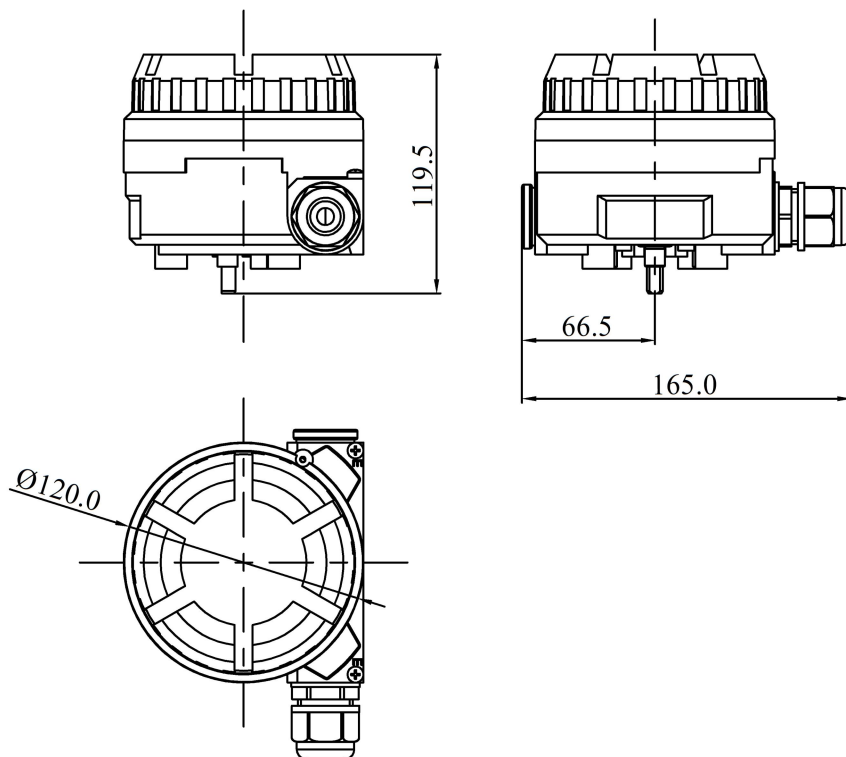
› Rotary Mounting Bracket - Form 1



› Rotary Mounting Bracket - Form 2



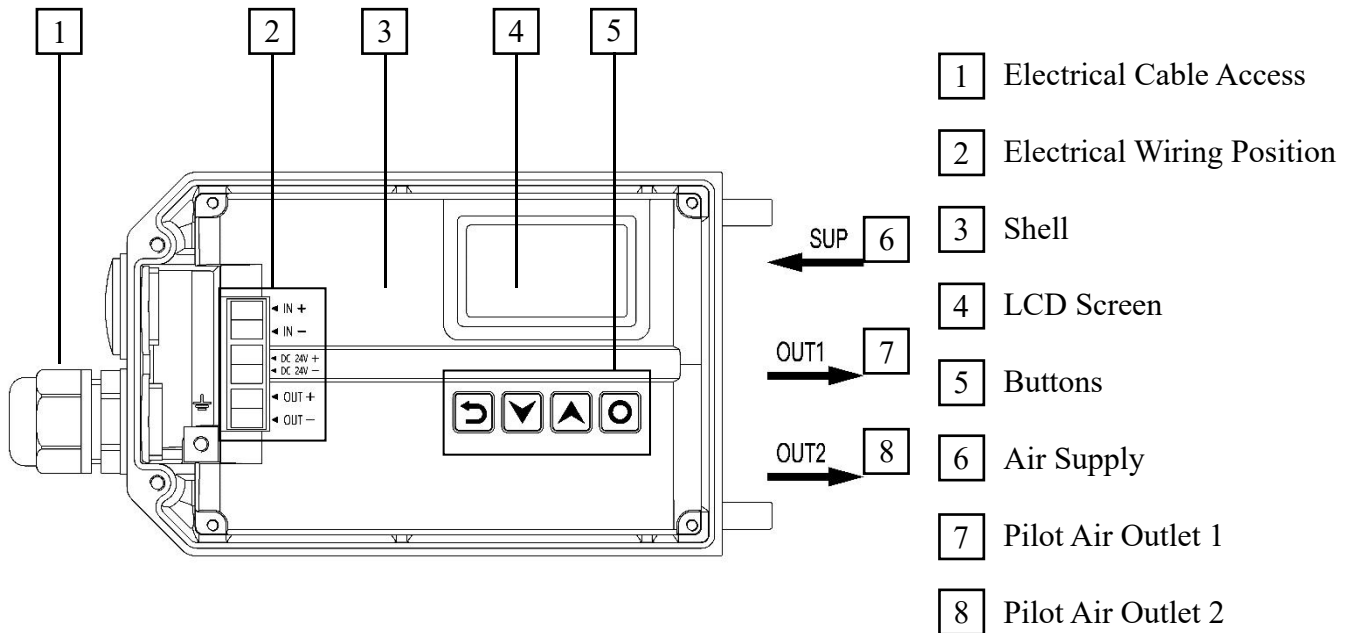
> Dimensions of Remote Type Sensor



03

Product Structure

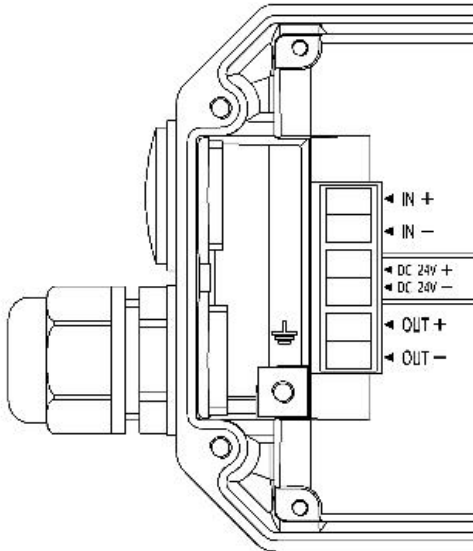
> IP5500 Series Intelligent Valve Positioner Product Structure



04

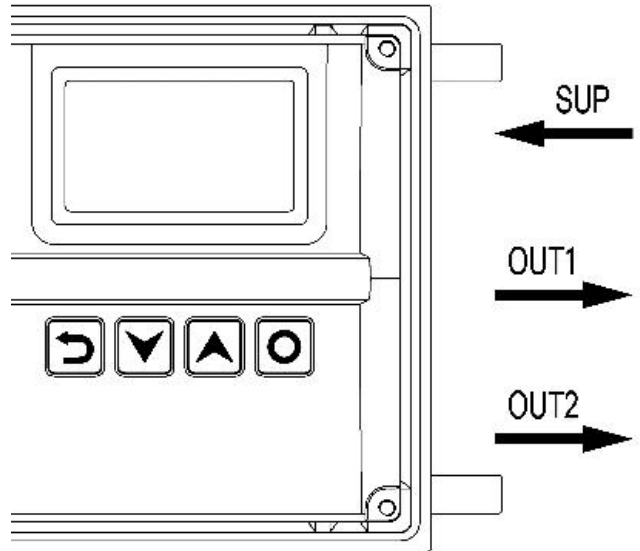
Electrical & Pneumatic Connections

> Electrical Connections



- IN+: 4-20 mA input signal +
- IN-: 4-20 mA input 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 -

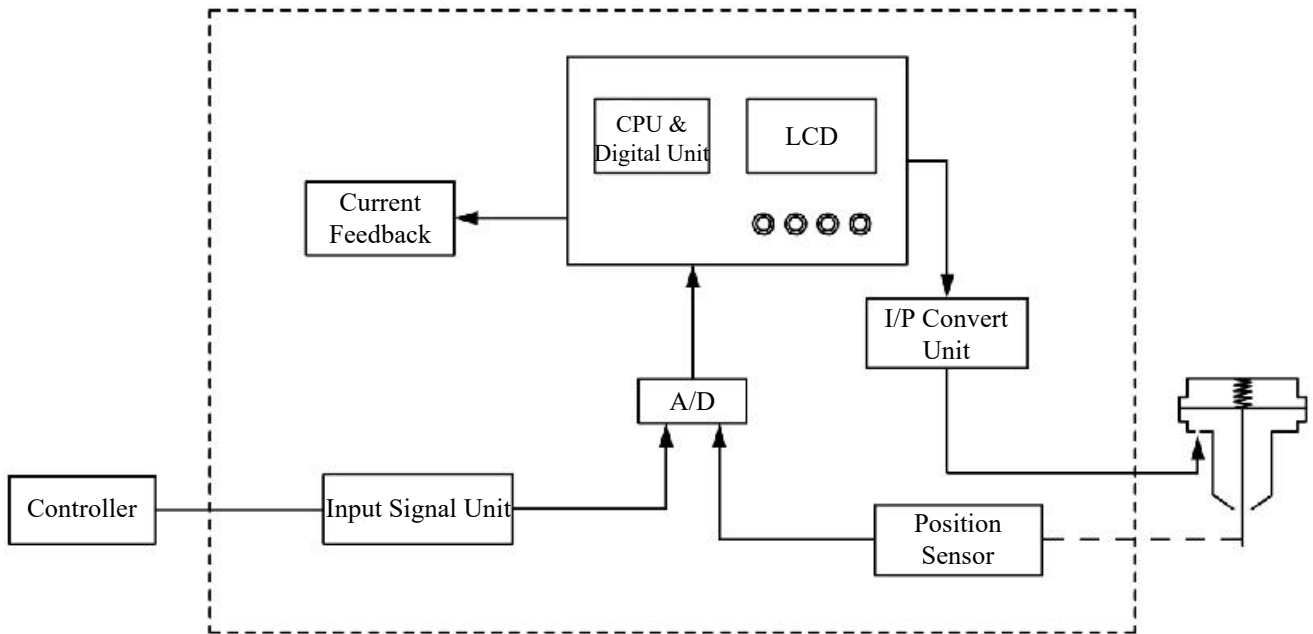
> Pneumatic Connections



- SUP: Air supply enter
- OUT1: Pilot air outlet 1
- OUT2: Pilot air outlet 2

05

Principle Block Diagram



> Additional Software Functions

- Calibrating the input signal
- Calibrating the set-point signal
- Tight closing function
- Stroke limit function
- Characteristic curve selection and settings
- Selection of signal direction.
- Selection of stroke direction.
- Reset function

06

Selection and Ordering Data

L	Normal Linear	Stroke Type
FL	Remote Linear	
R	Normal Rotary	
FR	Remote Rotary	

