

APS-365 系列角度传感器
APS-365 Series of Angle Sensor

➤ **产品介绍 Product Description**

APS-365 系列角度传感器采用分体式设计,涵盖了安装孔中心距 31,32,38mm,厚度从 5-14mm 的多种结构,满足广泛的应用要求。

The APS-365 series angle sensors are designed as a 'split' - two-parts structure, covering various structures with mounting center of 31,32 and 38mm and thickness ranging from 5 to 14mm, meeting a wide range of application requirements.

独立的裸磁铁或磁块连接到被测量的旋转轴上,做为位置标记。这个旋转的磁场被测量且以模拟电压输出。

APS-365 utilizes a separate magnet or magnetic position marker, attached to the rotating shaft to be measured. The orientation of the magnetic field is measured and an analog voltage representing the angle is the output signal.

分体式的结构设计让安装变得非常灵活。由于没有了轴承和轴,轴向和径向的安装偏差要求不是很高。不再需要联轴器。

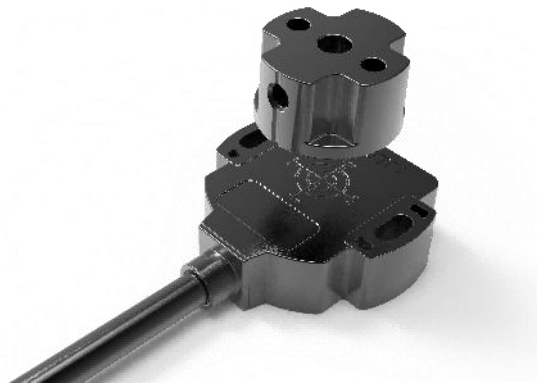
The split structure consisting of sensor and magnetic position marker offers great flexibility when mounting. The absence of shaft and bearing makes the assembly much less sensitive to axial and radial application tolerances - separate coupling are obsolete.

The very compact physical dimensions allows installation in small spaces.

非常紧凑的物理尺寸允许在小空间内安装。

The housing is made of high grade temperature-resistant plastic material.

外壳由高级耐温材料制成塑料材料。



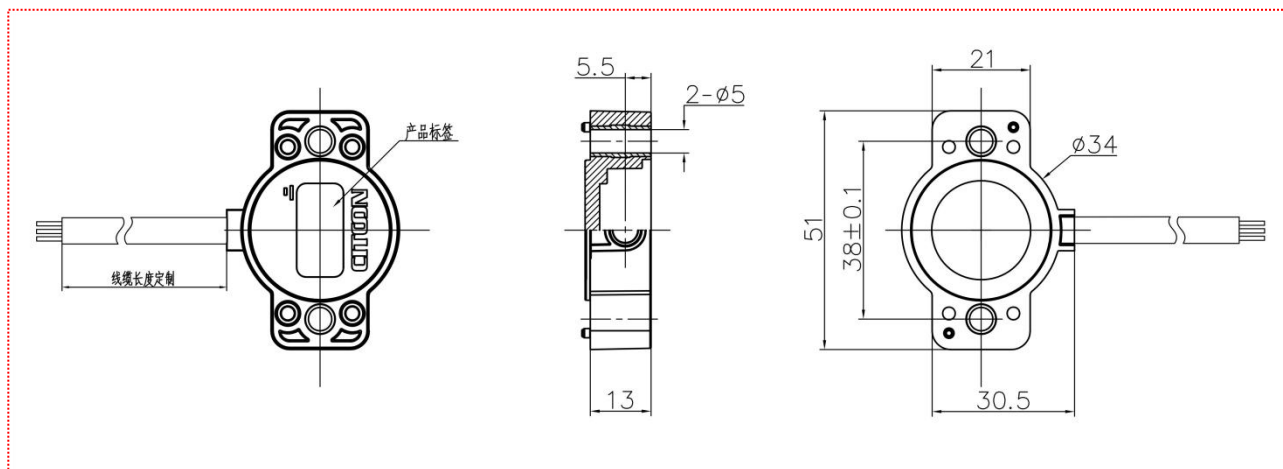
传感器是全密封的,所以非常适合恶劣环境条件下应用。

With its completely encapsulated electronics the sensor is perfectly suited for use in harsh environments.

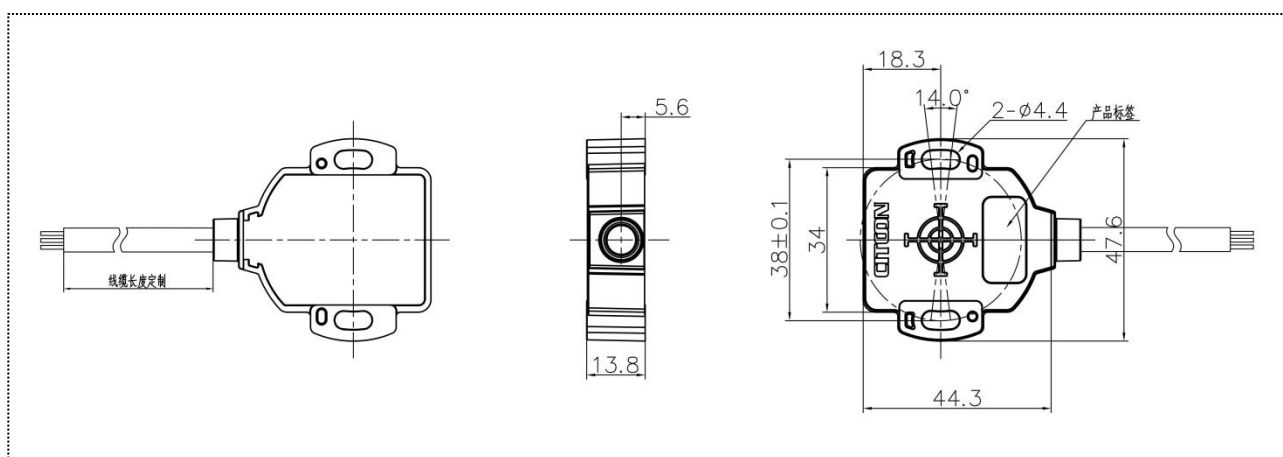
➤ **产品特点 Product Features**

- 分体式, (传感器与磁铁) 没有机械联接
2 part design, sensor and magnets are mechanically decoupled
- 非接触霍尔原理技术
Touchless hall technology
- 无机械磨损, 无限的机械寿命
Wear-free, unlimited mechanical life
- 工作量程 360°
Electrical range up to 360 °
- 供电电压 4.5-5.5VDC, 10-30 VDC 可选
Supply voltage 4.5-5.5 VDC or 10-30 VDC
- 工作温度 -40 ... +125°
Temperature range -40 ... +125°C
- 防护等级 IP68
High protection class IP68
- 单和双通道规格
One and two-channel versions
- 多种磁块选择, 满足不同应用安装需要
Separate position markers with different mounting options

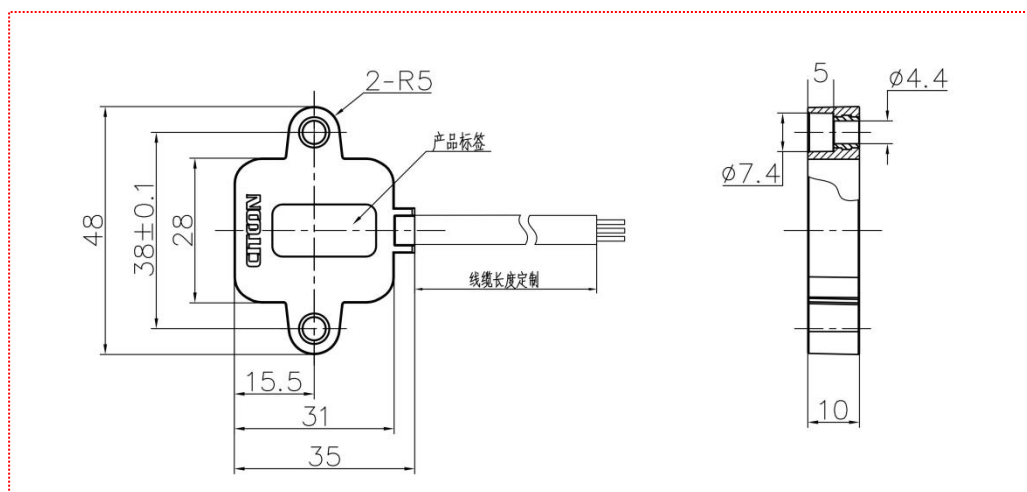
➤ 外形&安装尺寸 Mechanical Dimensions(mm)



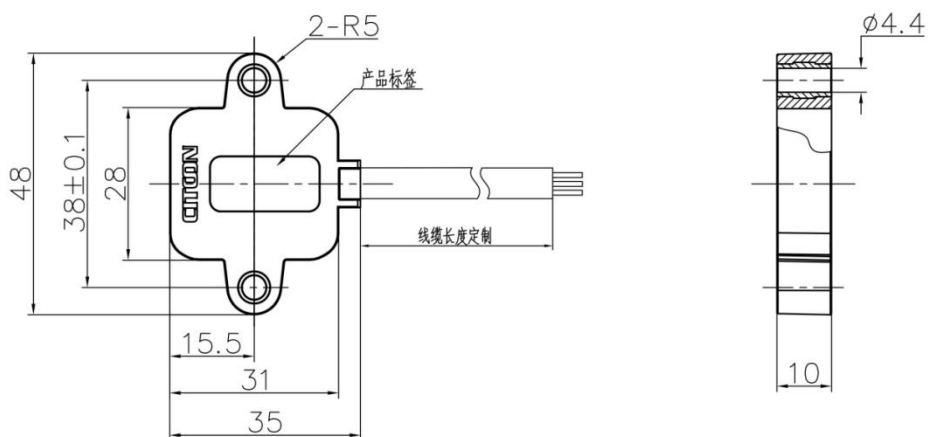
365A



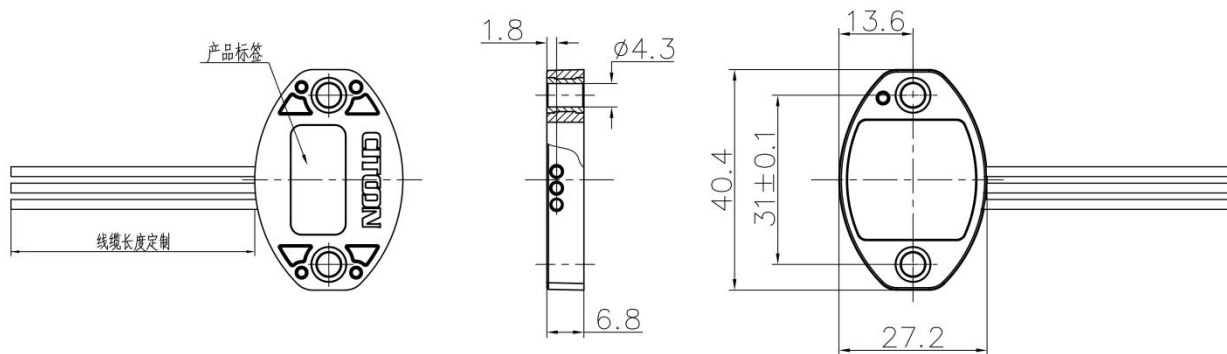
365B



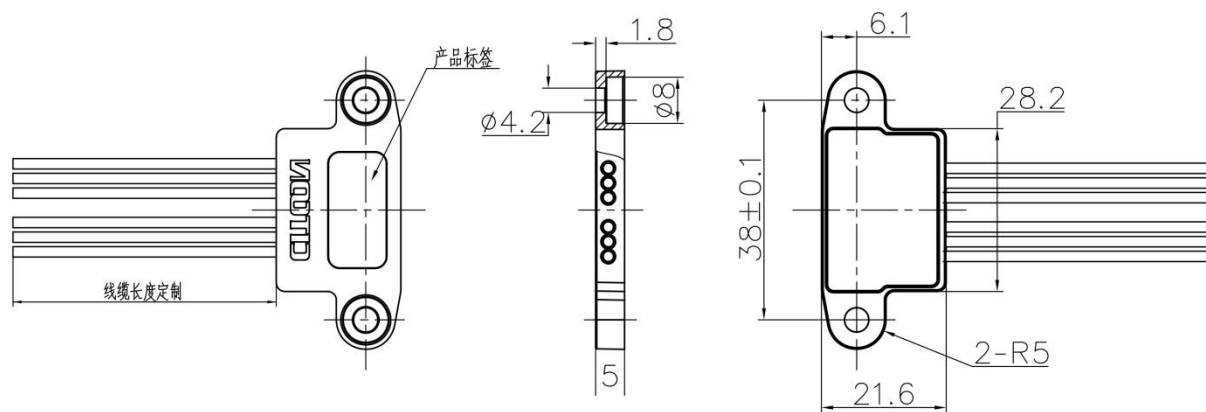
365D1



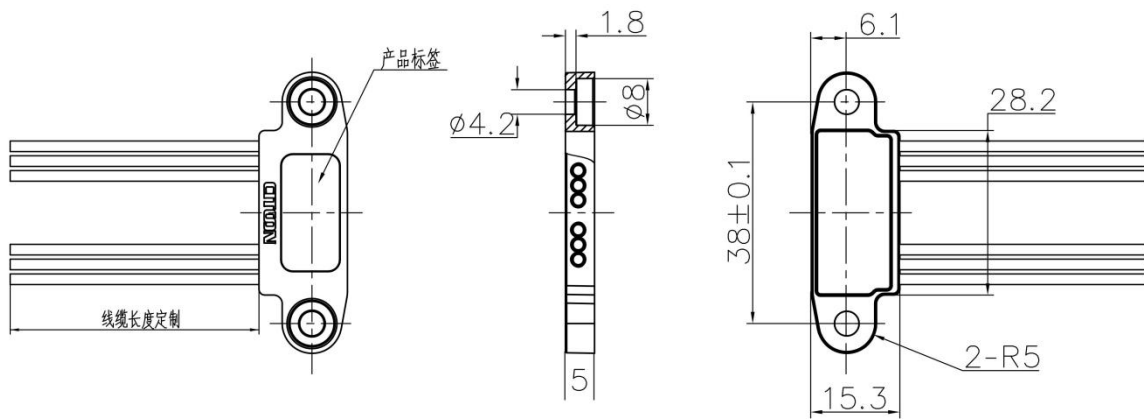
365D2



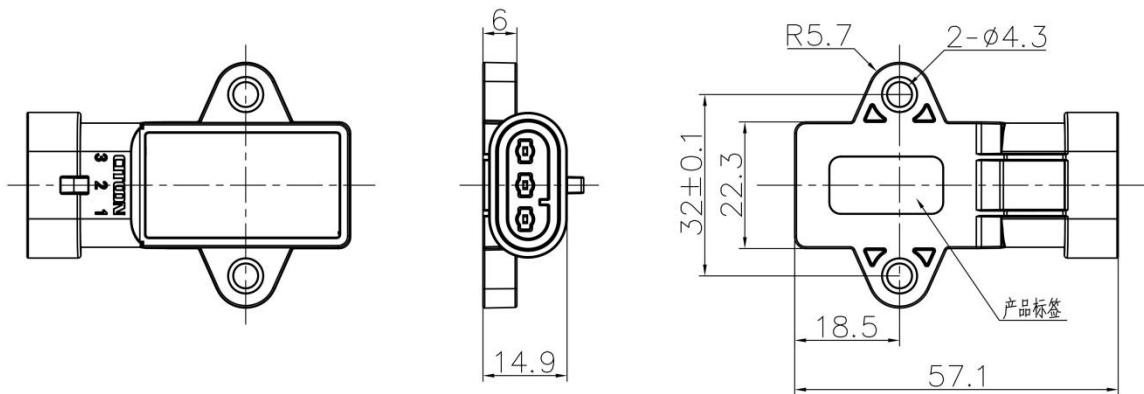
365E



365F1

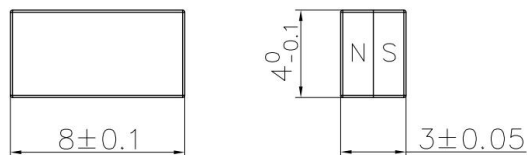


365F2



365P


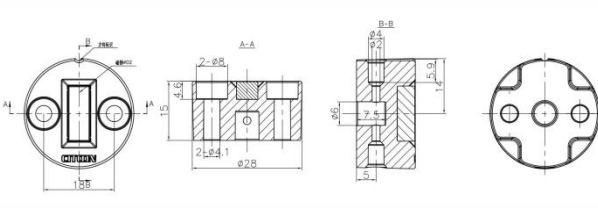

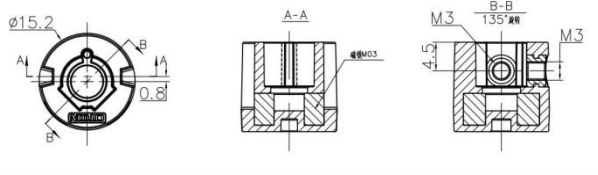
➤ **磁铁及磁块 Magnets and Magnetic Position Makers**



M01

裸磁铁, 与客户的轴直接联接;
最大允许径向偏移±1.5mm。
Bare Magnet for direct
application onto customer's shaft
max. permitted radial offset
±1.5mm

		<p>M02</p> <p>裸磁铁, 与客户的轴直接联接; 最大允许径向偏移±1.5mm。</p> <p>Bare Magnet for direct application onto customer's shaft.</p> <p>max. permitted radial offset ±1.5mm.</p>
		<p>M03</p> <p>裸磁铁, 与客户的轴直接联接; 最大允许径向偏移±1.5mm。</p> <p>Bare Magnet for direct application onto customer's shaft.</p> <p>max. permitted radial offset ±1.5mm.</p>
		<p>MA1-01</p> <p>注塑一体磁块, 使用两个 M3x8 内六角圆柱头螺栓 (国标 GB70.1) 正面固定;</p> <p>最大允许径向偏移±1.5 mm。</p> <p>Housed magnet for frontal fixation with 2 fillister screws M3x8.</p> <p>max. permitted radial offset ±1.5 mm.</p>
		<p>MA2-02</p> <p>注塑一体磁块, 使用两个 M3x8 内六角圆柱头螺栓 (国标 GB70.1) 背面固定;</p> <p>最大允许径向偏移±1.5 mm。</p> <p>Housed magnet for dorsal side fixation with 2 fillister screws M3x8.</p> <p>max. permitted radial offset ±1.5 mm.</p>

		<p>MA3-02</p> <p>注塑一体磁块, 使用两个 M4x20 内六角圆柱头螺栓(国标 GB70.1) 正面固定或弹性开口销侧面固定; 最大允许径向偏移± 3mm。</p> <p>Housed magnet for frontal fixation with 2 cylinder head screws M4x20 or with locking pin.</p> <p>max. permitted radial offset ± 3 mm.</p>
		<p>MA5-03</p> <p>注塑一体磁块, 使用两个 M4x20 内六角圆柱头螺栓(国标 GB70.1) 正面固定或弹性开口销侧面固定; 最大允许径向偏移± 2mm。</p> <p>Housed magnet for fixation with 2 threaded pin M3.</p> <p>max. permitted radial offset ± 2mm.</p>

➤ 应用Applications

APS-365 系列角度传感器广泛应用于移动设备、纺织机械、阀门执行器、医疗设备、新能源等角度检测和控制的行业及场景。

The APS-365 series of Angle Sensor is widely applied to angle sensing and control of various industries and conditions such as mobile working machines, textile machinery, valve actuator, medical engineering, clean energy etc.



附页 1- 主要技术参数 Technical Specifications

		365A	365B	365D	365E	365F	365P
							
机械性能 Mechanical characteristics							
旋转角度	Mechanical operating angle	0- 360°					
厚度	Height	14.1mm	13.8mm	10mm	7mm	5mm	10.8mm
安装孔间距	Mounting center	38mm	38mm	38mm	31mm	38mm	32mm
电气接口	Termination	Flying leads, 拖链 6*0.2mm	Flying leads, PUR-TRVV4*0.5mm	Flying leads, 拖链 6*0.2mm	Flying leads,0.5mm	Flying leads,0.5mm	AMP 282105-1
重量	Weight						
电气参数 Electrical specifications							
工作电压	Operating Voltage	5VDC±10% or 10-30V					
输出信号	Effective output	APS, PWM,Dual APS, Dual PWM, APS/IVS,CAN(SAE J1939),CAN open					
解析率	Resolution	12 bit					
精度	Accuracy	Max 1.0% FS					
输出迟滞	delay time of output signal	approx. 3ms					

过压保护	Over-voltage proof	yes
电源反接保护	Reverse polarity protection	yes
环境特性 Environmental specifications		
工作温度	Operating temp. range	-40°C~125°C
储存温度	Storage temp. range	-40°C~125°C
防护等级	IP Class	IP67
振动测试	Vibration	20g
机械冲击	Mechanical Shock	50g
电磁兼容性	EMI	100V/m
静电	ESD	±8kV (contact discharge)±15kV (air discharge)



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附页 2- 编号规则 **Product Code Reference**

365	B	HV	180	A	05	-	00
产品类别	结构形式	供电电压	测量角度	输出信号形式	输出信号		其它订制信息
Product Type	Structure type	Supply Voltage	Rotary Angle	Output Characteristics	Output		Other Customized Details
	A- model A	LV- 5±10% Vdc	3 digits, eg.: 090-90°	A- Rising characteristic cw 磁铁顺时针旋转,单路,上升曲线	00- 1-5V,Single(HV)		Cable length,connectors etc 线缆长度、连接器等
	B- model B	HV- 10-30 Vdc		B- Declining characteristic cw 磁铁顺时针旋转,单路,下降曲线	01- 4-20 mA, Single (HV)		
	C- model C			C- Crossed output channel 1 rising cw (redundant) 磁铁顺时针旋转,交叉双路,信号 1 上升曲线	02- 1-5V,Dual(HV)		
	D1- model D1			D- Crossed output channel 1 declining cw (redundant) 磁铁顺时针旋转,交叉双路,信号 1 下降曲线	03- 4-20mA, Dual (HV)		
	D2- model D2				04- 0.5-4.5V ratiometric,Dual(LV)		
	E- model E				05- 0-10V,Single(HV)		
	F1- model F1				06- 0.5-4.5V ratiometric,Single(LV)		
	F2- model F2				07- 0.5-4.5V,Single(HV)		
	P- model P				08- 0.5-4.5V,Dual(HV)		
					09- 0-5V,Single(HV)		
					10- 0.25-4.75V ratiometric,Single(LV)		
					O- CAN open		
					J- CAN J1939		