

单轴， 倾角传感器

Uniaxial
Tilt sensor

SDA8100系列

应用于航空、高速列车、工程机械和船舶等领域

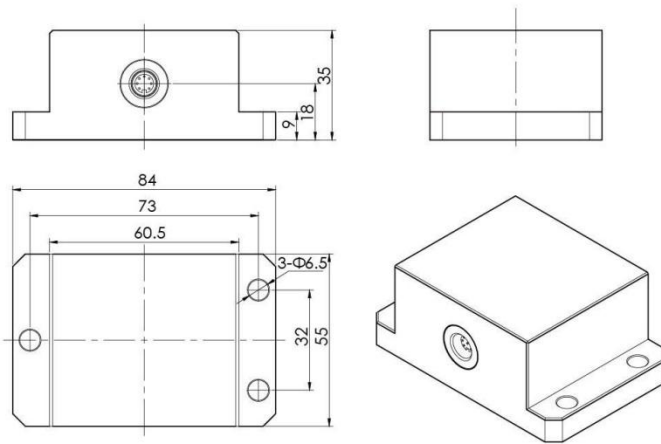
- 测量角度最大达 $\pm 120^\circ$ ，分辨率达到 0.001°
- 4~20mA, 0~5VDC, 0.5~4.5VDC, RS485等多种模拟及数字信号输出方式供选择
- 宽电压供电12-32VDC，50VDC过压保护
- 防护等级IP68
- 抗冲击力50g以上，耐振动，高稳定性
- 符合RoHS、CE认证
- 通过EMC、浪涌测试，电源反接保护



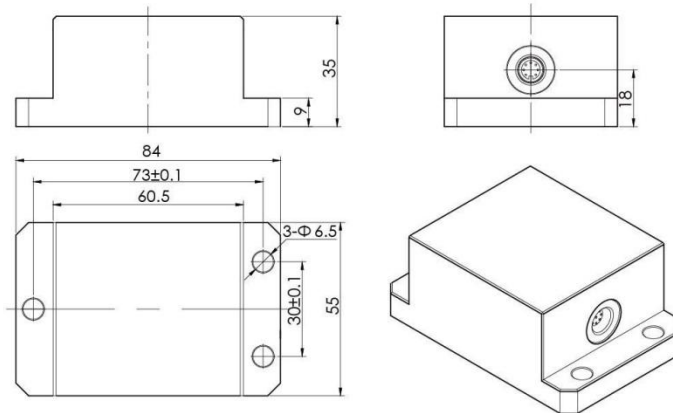
技术参数 Technical Parameter

参数	Specifications	技术指标 Technical Data
角度范围	Angular range	$0 \sim \pm 10^\circ, \pm 20^\circ, \pm 30^\circ, \pm 40^\circ, \pm 50^\circ, \pm 60^\circ, \dots, \pm 120^\circ$
工作电压	Operating voltage	24VDC (12~32VDC)
分辨率	Resolution	0.001°
输出信号	Output signal	4~20mA, 0~5VDC, 0.5~4.5VDC, RS485, CANOpen, Modbus, Profibus
综合精度	Comprehensive precision	0.1%F.S, 0.25%F.S, 0.5%F.S
工作温度范围	Operating temperature range	$-40 \sim 85^\circ\text{C}$
储存温度范围	Storage temperature range	$-40 \sim 120^\circ\text{C}$
温度漂移	Temperature drifting	$\pm 0.005^\circ/\text{C}$
长期稳定性	Long-Term Stability	$\leq 0.1\% \text{F.S/year}$
消耗电流	Current consumption	$\leq 80 \text{mA}$
绝缘阻抗	Insulation resistance	$\geq 100 \text{M}\Omega (100 \text{VDC})$
耐冲击	Strike proof	50g
耐振性	Shock proof	9.8g
材质	Material	铝合金 Aluminum alloy
防护等级	Protection class to DIN 40050	IP 67 (Binder712 7-pole male) IP 68 (flying lead connector is used)

外形尺寸图 Dimensions

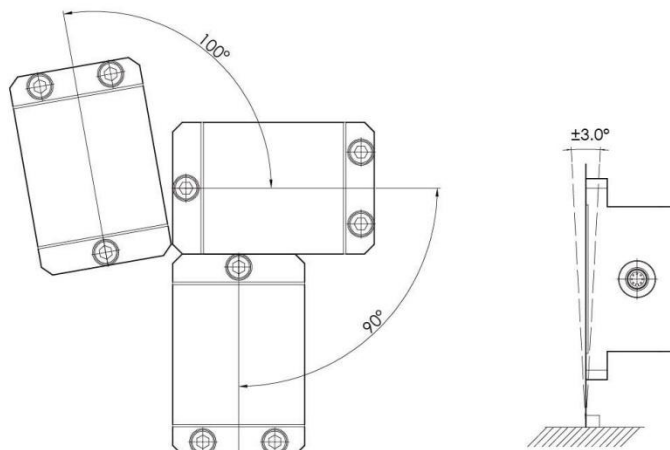


Side outlet



The front line

安装列举 Installation cited



81-系列 倾角传感器

选型表 Model code:

SDP 8 1 X X - X - XXX -XX (000)

出线方向 Outlet direction

- 0 = Side outlet
- 1 = The front line

电气连接 Electrical connection

- 0 = flying lead (Teflon cable, silicone-free)
- 9 = Binder712(7-pole male)
(connector not supplied)

输出信号 Signal

- C = 4~20 mA, 3 conductor
- D = 0.5~4.5V, 3conductor
- H = 0~5V, 3conductor
- K = CANOpen
- M = Modbus
- P = Profibus
- Q = RS485

测量范围 Range

- 005 = $\pm 5^\circ$
- 010 = $\pm 10^\circ$
- 025 = $\pm 25^\circ$
- 105 = $\pm 105^\circ$
- 120 = $\pm 120^\circ$

综合精度 Comprehensive precision

- 01 = 0.1%F.S
- 02 = 0.25%F.S
- 05 = 0.5%F.S

其他 Other options

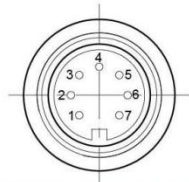
- 000 = 标准 (无电缆线)
- 020 = 2m 电缆线 (对应电器连接选项母端电缆线)
- 050 = 5m 电缆线 (对应电器连接选项母端电缆线)

接线定义 Pin connections:

Cable gland

Core	SDA8100-C	SDA8100-D/H	SDA8100-K/M/P/Q
red	+24VDC	+24VDC	+24VDC
yellow	Signal	Signal	Signal+
green	0V	0V	0V
white	n.c.	n.c.	Signal-

Binder712



Pin	SDA8106-C	SDA8106-D/H	SDA8106-K/M/P/Q
1	+24VDC	+24VDC	+24VDC
2	Signal	Signal	n.c.
3	0V	0V	0V
4	n.c.	n.c.	n.c.
5	n.c.	n.c.	n.c.
6	n.c.	n.c.	Signal-
7	n.c.	n.c.	Signal+

