SUNMOON
日月科技

SM-P23B Load Pin

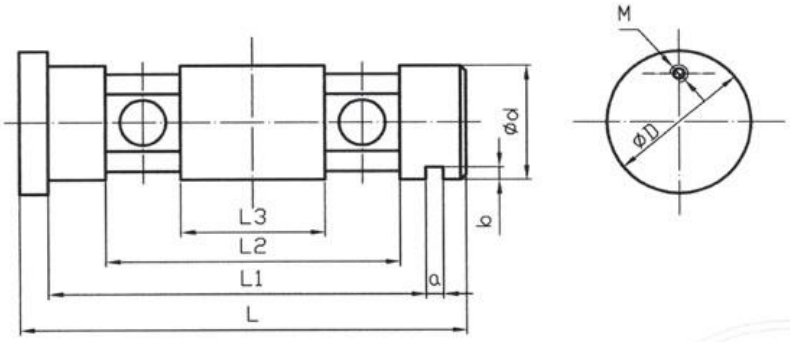
Description：

The SM-P23B load pin has a compact structure, a simple geometric shape, strong anti-torsion and anti-bending capabilities, stable performance, and easy to install. It is widely used in the measurement of goods at ports and docks, as well as in the safety inspection of hoists and lifting equipment. An optional built-in amplifier 4-20mA is available.

Characteristics：

- Simple structure
- strong anti-eccentric load capacity.
- High measurement accuracy and stable performance.

Dimensions（**In mm. 1mm=0.03937 inches**）



CAP./SIZE	øD	ød	L	L1	L2	L3	a	b	M
t/mm									
2	50	40	150	128	102	50	6	5	M8
5、10	70	60	210	176	130	74	8	9	M10×1
20、30	105	90	250	212	156	96	10	13	M10×1
Ib/inches (conversion of above dimensions)									
4409.25	19.69	15.75	59.06	50.39	40.16	19.69	2.36	1.97	M8
11023.11、22046.23	27.56	23.62	82.68	69.29	51.18	29.13	3.15	3.54	M10×1
44092.45、66138.68	41.34	35.43	98.43	83.46	61.42	37.80	3.94	5.12	M10×1

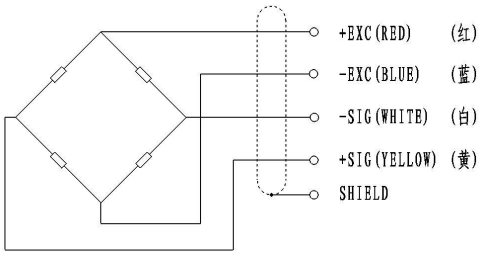
Circuit Diagram:

Red: ＋input

Blue: -input

White: +output

Yellow: -output



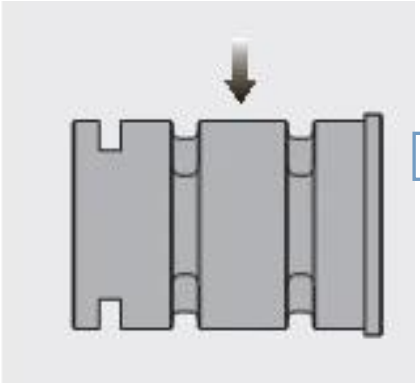
Specification:

Type	Technical parameters	
Nominal load range	2～30t	
Power supply	10~12 VDC	
Drawing current	<100 mA	
Double Independent redundant signal interface	Analog output	1.0±0.015mV/V
	Analog output	4～20mA/24VDC
	CAN Bus	CAN open, CAN open Safety
Class precision	0.5%F.S	
Effect of temperature	0.5%F.S/10℃	
Operating temperature	-40～+85℃	
S afe Load Limit	200% F.S	
Safety margin against yielding	300% F.S	
Safety margin against breakage	500% F.S	
Material material	High performance alloy steel or (chromium ratio>15% stainless steel)	
Protection type	IP67 (IEC60529)	
Climate test	EN60068-2-30,DB55℃/100%	
Vibration resistance	EN60068-2-6,5-500Hz,50g,10mm	
Shock resistance	EN60068-2-27(half sine) 50g,11ms,1000shocks; 1000g,1ms,50shocks	

测量原理

Measurement Principle

The pin sensor utilizes the elastic deformation of an elastic body under the action of an external force, causing the resistance value of the resistance strain gauge adhered to its surface to change (increase or decrease). Then, through the corresponding measurement circuit, this resistance change is converted into an electrical signal (voltage or current), thereby completing the force measurement process.



Detailed Description

▲ 用螺帽固定的接口内部连接不易脱落，也不用担心工业场合中电磁对传感的影响了

▲ 中间应变区域有盖板保护，工作环境在恶劣也不怕进灰尘了

The material is made of high-performance alloy steel or stainless steel.