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SM18X Single Beam Load Cell

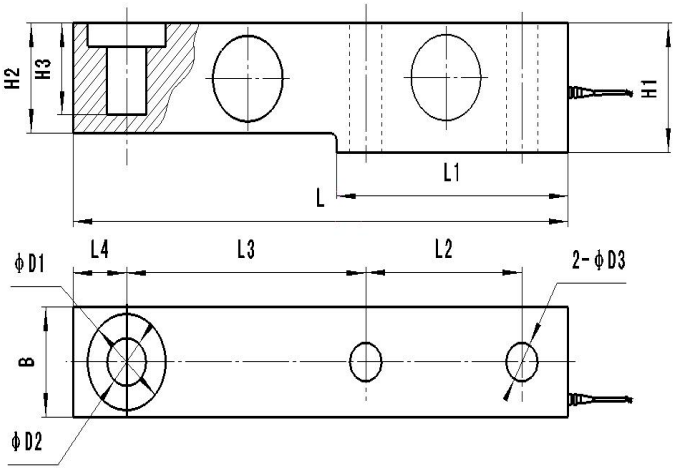
Description：

The SM18X single beam load cells adopt a pure shear structure. It adopts the proprietary technology and process introduced from the United States. It is made of high-quality materials and precisely processed to ensure the measurement accuracy and dynamic performance of each one. It has low profile, strong overload capacity, uniform stress distribution, and resistance to lateral forces and minimal influence from changes in loading position. It is an important component for manufacturing flatbed weighing instruments, such as floor scales, truck scales, and rail scales. It is currently widely used in various force measurement and weighing systems such as dynamic electronic rail scales, shallow pit or pitless electronic truck scales, hopper scales, overhead crane scales and electronic floor scales.

Characteristics

- High comprehensive accuracy and long-term stability.
- Resistance to eccentric loading, bending and impact.
- Small in size, simple in structure and convenient for installation and maintenance.
- Dust-proof and moisture-proof sealing measures and can operate under harsh environmental conditions.

Dimensions（In mm. 1mm=0.03937 inches）



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CAP./SIZE	L	L1	L2	L3	L4	H1	H2/B	H3	D1	D2	D3
t/mm											
2, 3	203	95	64	98	22	43	37	30	32	16	13
5	235	110	66	124	22	52	48	30	38	22	20
10	279	133	82	140	32	67	60	20	48	32	28
15, 20, 25	318	153	89	159	38	82.5	70	24	54	38	34
Ib/inches (conversion of above dimensions)											
1.10, 2.20, 4.41, 6.61	79.92	37.40	25.20	38.58	8.66	16.93	14.57	11.81	12.60	6.30	5.12
11.02	92.52	43.31	25.98	48.82	8.66	20.47	18.90	11.81	14.96	8.66	7.87
22.05	109.84	52.36	32.28	55.12	12.60	26.38	23.62	7.87	18.90	12.60	11.02
33.07, 44.09, 55.12	125.20	60.24	35.04	62.60	14.96	32.48	27.56	9.45	21.26	14.96	13.39

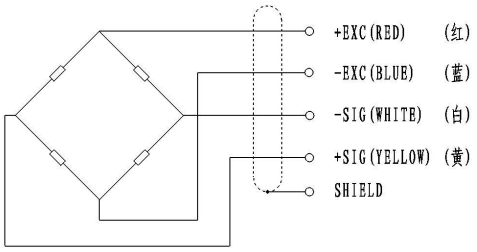
Circuit Diagram:

Red: ＋input

Blue: -input

White: +output

Yellow: -output



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Specification：

Type	Technical parameters
Nominal load range	0.5～25t
Power supply	10~12 VDC
Zero balance	1.0±% of rated output
Analog output	2.0±0.001mV/V
Input resistance（Rlc）	400±20Ω（ohms）
Output resistance（Ro）	350±5Ω（ohms）
Insulation resistance	≥5000 MΩ（Mege-Ohms）
Class precision	0.02%FS
Effect of temperature	0.02%FS/10℃
Operating temperature	-40～+85℃
Safe Load Limit	200% FS
Safety margin against yielding	300% FS
Safety margin against breakage	500% FS
Material material	High performance alloy steel or (chromium ratio>15% stainless steel)
Protection type	IP67/IP68