

Single point load cell

Up to 250 kg

Model F4801

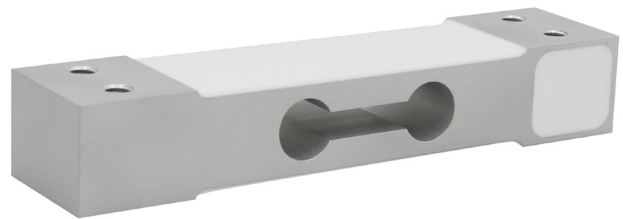
WIKA data sheet FO 53.10

Applications

- Precision scales
- Industrial scales
- Belt weighers
- Bench scales
- Dosing systems

Special features

- Measuring ranges 0 ... 3 kg to 0 ... 250 kg
[0 ... 7 lbs to 0 ... 551 lbs]
- Load cell made from aluminium
- High accuracy and quick response
- Insensitive to lateral and corner load
- Simple design, easy installation



Single point load cell, model F4801

Description

The model F4801 single point load cells are a series of aluminium single point load cells suitable for a wide range of applications. Thanks to their standardised geometry and simple design, they can be easily installed in all types of scales.

The model F4801 load cells are used in various areas such as industry, commerce, medicine and research.

The most common application area is in precision, industry and bench scales as well as belt weighers, to measure the weight of products (e.g., food, bulk material, feed). Load cells are also used in the packaging industry, manufacturing as well as material testing.

The single point load cells feature high accuracy and a quick response. Moreover, they are insensitive to lateral and corner loads.

The load cells are easy to handle due to their simple force introduction. This is made perpendicular to the geometry.

Specifications per VDI/VDE/DKD 2638

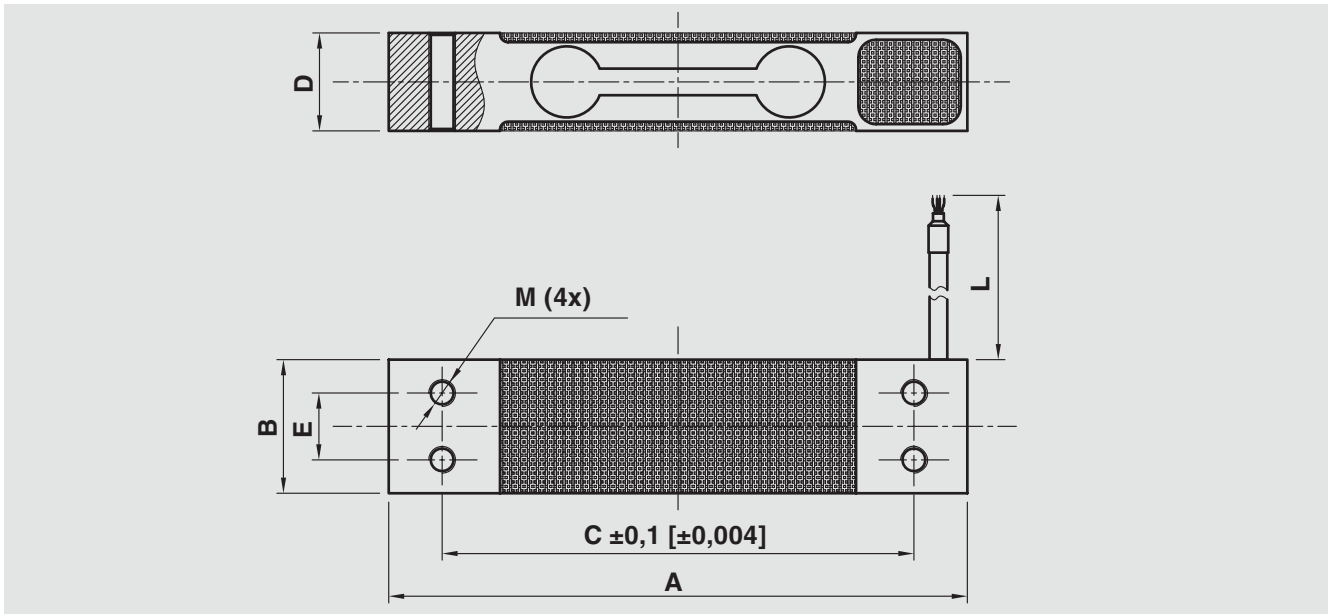
Model F4801																		
Rated load F_{nom} kg	3	4	5	6	8	10	15	20	25	30	40	45	50	60	100	150	200	250
Rated load F_{nom} lbs	7	9	11	13	18	22	33	44	55	66	88	99	110	132	221	331	441	551
Relative linearity error $d_{lin}^{1)}$	±0.02 % F_{nom}																	
Relative creep, 30 min.	±0.02 % F_{nom}																	
Relative reversibility error v	±0.02 % F_{nom}																	
Relative deviation of zero signal $d_{S,0}$	±2 % F_{nom}																	
Temperature effect on zero signal TK_0	≤ ±0.02 %/10 K																	
Temperature effect on characteristic value TK_C	≤ ±0.02 %/10 K																	
Force limit F_L	150 % F_{nom}																	
Breaking force F_B	200 % F_{nom}																	
Material of the measuring body	Aluminium																	
Rated temperature range $B_{T,nom}$	-10 ... +40 °C [+14 ... +104 °F]																	
Operating temperature range $B_{T,G}$	-20 ... +60 °C [-4 ... +140 °F]																	
Input resistance R_e	410 ±10 Ω																	
Output resistance R_a	350 ±5 Ω																	
Insulation resistance R_{is}	≥ 2,000 MΩ/DC 100 V																	
Output signal (rated characteristic value) C_{nom}	2.0 ±0.2 mV/V																	
Electrical connection	Measuring cable Ø 4 x 450 mm [Ø 0.16 x 17.72 in]																	
Supply voltage $U_{B,nom}$	DC 10 V (max. 15 V)																	
Ingress protection (per IEC/EN 60529)	IP65																	
Platform size	250 x 300 mm [9.84 x 11.81 in]																	
Weight																		
Rated load: 3 to 50 kg [7 to 110 lbs]	0.3 kg [0.7 lbs]																	
Rated load: 60 to 250 kg [132 to 551 lbs]	0.4 kg [0.9 lbs]																	

1) Relative linearity error is specified in accordance with guideline VDI/VDE/DKD 2638 chapter 3.2.6.

Approvals

Logo	Description	Region
	EU declaration of conformity RoHS directive	European Union

Dimensions in mm [in]

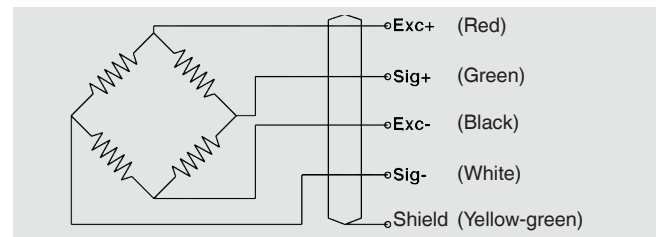


Rated load in kg	Dimensions in mm						
	A	B	C	D	E	L	M
3 / 4 / 5 / 6 / 8 / 10 / 15 / 20 / 25 / 30 / 40 / 45 / 50	130	30	106	22	15	450	M6
60 / 100 / 150 / 200 / 250	130	50	106	22	25	450	M8

Rated load in lbs	Dimensions in inch						
	A	B	C	D	E	L	M
7 / 9 / 11 / 13 / 18 / 22 / 33 / 44 / 55 / 66 / 88 / 99 / 110	5.12	1.18	4.17	0.87	0.59	17.72	M6
132 / 221 / 331 / 441 / 551	5.12	1.97	4.17	0.87	0.98	17.72	M8

Pin assignment

Electrical connection		
Supply voltage+	Exc+	Red
Supply voltage-	Exc-	Black
Signal+	Sig+	Green
Signal-	Sig-	White
Shield ⊕	Shield	Yellow-green



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