

Single point load cell

Up to 500 kg

Model F4818

WIKA data sheet FO 53.14

Applications

- Precision scales
- Industrial scales, test devices
- Belt weighers
- Bench scales
- Dosing systems

Special features

- Measuring ranges 0 ... 20 kg to 0 ... 500 kg
[0 ... 44 lbs to 0 ... 1,102 lbs]
- Load cell made from aluminium
- High accuracy and quick reponse
- Insensitive to lateral and corner load
- Simple design, easy installation



Single point load cell, model F4818

Description

The model F4818 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 F4818 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 reponse. 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

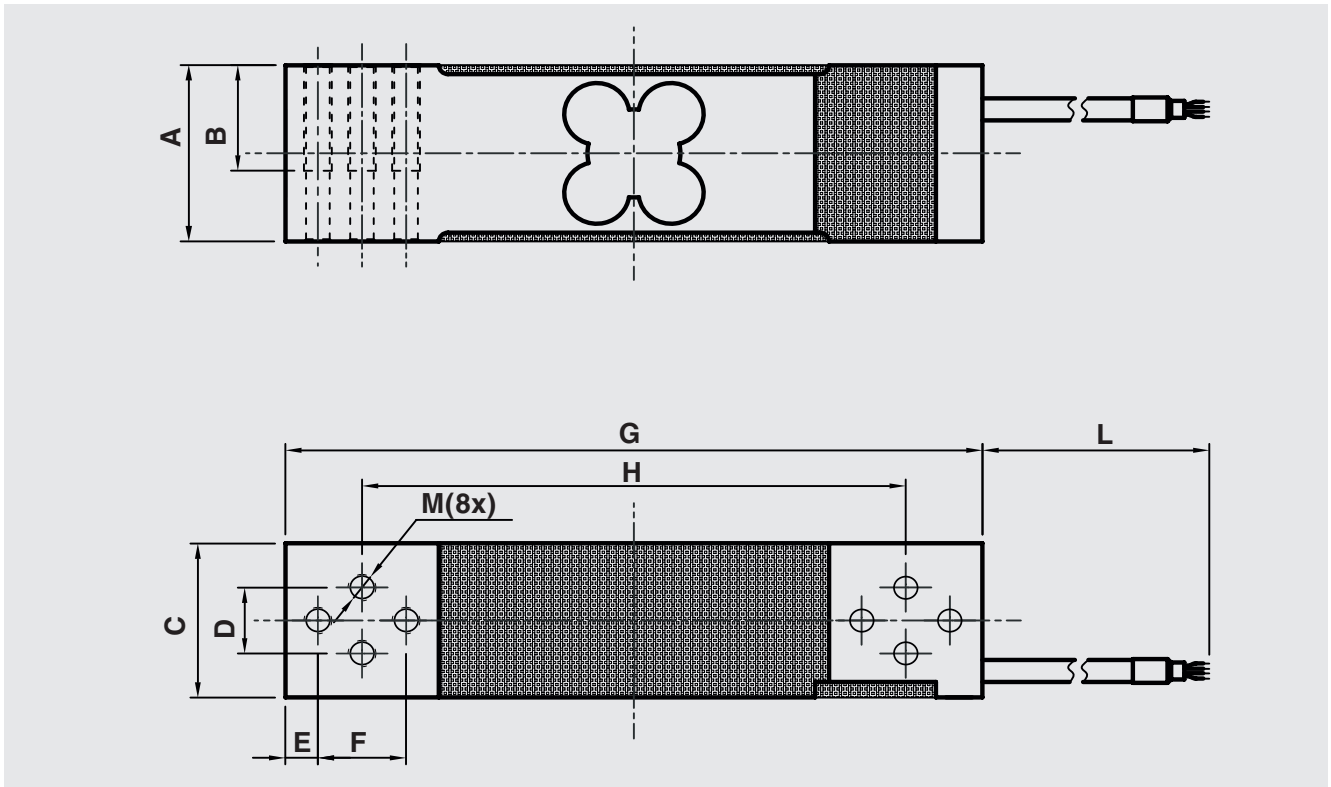
Model F4818											
Rated load F_{nom} kg	20	30	50	60	100	150	200	250	300	350	500
Rated load F_{nom} lbs	44	66	110	132	221	331	441	551	661	772	1,102
Relative linearity error d_{lin} ¹⁾	$\pm 0.02\% F_{nom}$										
Relative creep, 30 min.	$\pm 0.02\% F_{nom}$										
Relative reversibility error v	$\pm 0.02\% F_{nom}$										
Relative deviation of zero signal $d_{s,0}$	$\pm 2\% F_{nom}$										
Temperature effect on zero signal TK_0	$\leq \pm 0.025\%/10\text{ K}$										
Temperature effect on characteristic value TK_C	$\leq \pm 0.025\%/10\text{ K}$										
Force limit F_L	$120\% F_{nom}$										
Breaking force F_B	$200\% F_{nom}$										
Material of the measuring body	Aluminium										
Rated temperature range $B_{T,nom}$	$-10 \dots +40\text{ °C}$ [$+14 \dots +104\text{ °F}$]										
Operating temperature range $B_{T,G}$	$-20 \dots +60\text{ °C}$ [$-4 \dots +140\text{ °F}$]										
Input resistance R_e	$410 \pm 10\ \Omega$										
Output resistance R_a	$350 \pm 5\ \Omega$										
Insulation resistance R_{is}	$\geq 2,000\text{ M}\Omega/\text{DC } 100\text{ V}$										
Output signal (rated characteristic value) C_{nom}	$2.0 \pm 0.2\text{ mV/V}$										
Electrical connection	Measuring cable $\varnothing 5 \times 1,500\text{ mm}$ [$\varnothing 0.19 \times 59.06\text{ in}$]										
Supply voltage $U_{B,nom}$	DC 10 V (max. 15 V)										
Ingress protection (per IEC/EN 60529)	IP65										
Platform size	$450 \times 450\text{ mm}$ [$17.72 \times 17.72\text{ in}$]										
Weight	0.6 kg [1.3 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]

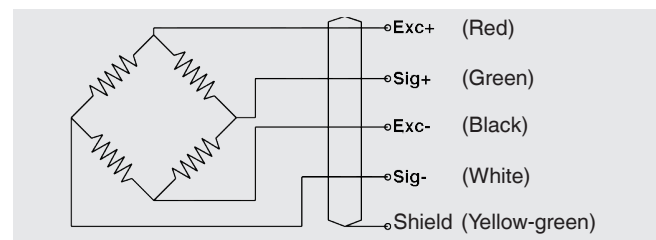


Dimensions in mm									
A	B	C	D	E	F	G	H	L	M
40	24	35	15	7	19	150	117	1,500	M6

Dimensions in inch									
A	B	C	D	E	F	G	H	L	M
1.57	0.94	1.38	0.6	0.27	0.75	5.9	4.61	59	M6

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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