

# Shear beam up to 10 t

## Model F3831



WIKA Data sheet FO 51.21

### Applications

- Floor-, bagging-, batching scales and industrial weighing systems



### Special features

- Shear beam made of alloy steel/stainless steel
- High long-term stability
- High side load tolerance
- Measuring range: 500 ... 10,000 kg

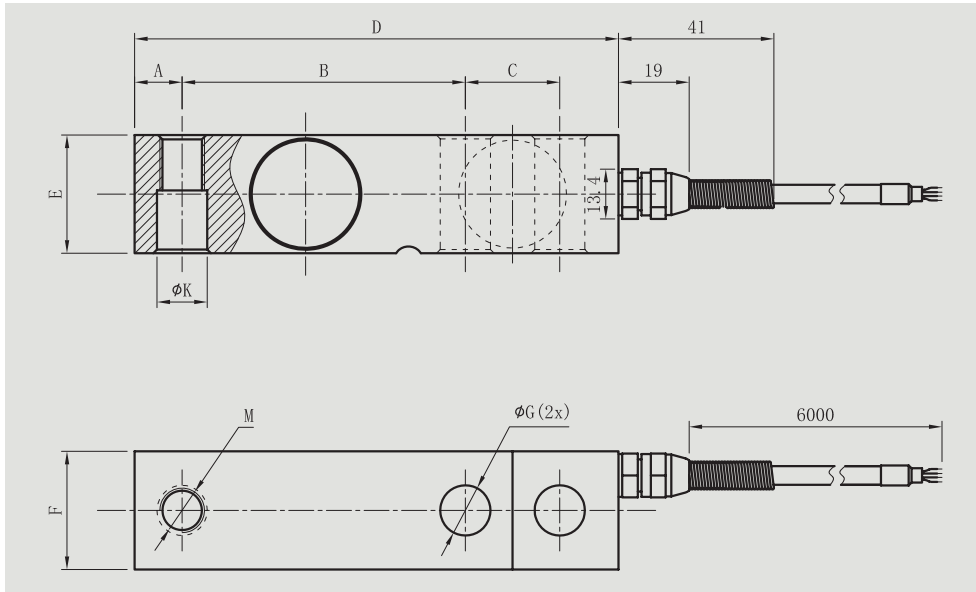
Shear beam, model F3831

### Technical data in accordance with VDI/VDE/DKD 2638

| Model F3831  |   |
|--|---|
| Rated force $F_{nom}$ in kg  | 500, 750, 1,000, 1,500, 2,000, 2,500, 3,000, 5,000, 7,500, 10,000   |
| Force limit $F_L$  | 150 % $F_{nom}$   |
| Breaking force $F_B$   | 200 % $F_{nom}$   |
| Relative reversibility $v$   | 0.03 % of F.S.  |
| Relative linearity error $d_{lin}$                                   | 0.03 % of F.S.  |
| Relative deviation of zero signal $d_{s,0}$                          | ±2 % of F.S.  |
| Relative repeatability error in unchanged mounting position $b_{rg}$ | 0.03 % of F.S.  |
| Relative creep, 30 at min. $F_{nom}$                                 |   |
| Insulation resistance $R_{is}$                                       | ≥ 5,000 MΩ/DC 100 V   |
| Input resistance $R_e$   | 385 ± 10 Ω  |
| Output resistance $R_a$  | 350 ± 5 Ω   |
| Output signal (characteristic value) C                               | 2.0 ± 1 % mV/V<br>(optional 3.0 ± 1 % mV/V)                         |
| Temperature effect on  |   |
| ■ characteristic value $TK_c$  | 0.025 % of F.S./10 °C   |
| ■ zero signal $TK_0$   |   |
| Recommended excitation voltage                                       | 10 V  |
| Maximum excitation voltage   | 15 V  |
| Rated temperature $B_{T, nom}$                                       | -10 ... +60 °C  |
| Operating temperature $B_{T, G}$                                     | -20 ... +80 °C  |
| Protection type  | IP65 (< 500 kg), IP67 (≥ 500 kg) in accordance with EN/IEC 60529    |
| Material   | Alloy steel, stainless steel  |
| Cable size   | Ø 5 x 6,000 mm  |
| Cable color code   | <b>Input:</b> red (+) black (-), <b>Output:</b> green (+) white (-) |

of F.S. = full scale value

## Dimensions in mm



| Nominal load in kg                      | Dimensions in mm |      |      |       |      |      |    |      |      |            | Weight in kg |
|---|------------------|------|------|-------|------|------|----|------|------|------------|--------------|
|   | A                | B    | C    | D     | E    | F    | G  | H    | K    | M          |              |
| 500, 750, 1,000, 1,500,<br>2,000, 2,500 | 12.7             | 76.2 | 25.4 | 130   | E    | 31.8 | 13 | 15.7 | 13.5 | M12 x 1.75 | 1.0          |
| 3,000, 5,000                            | 19               | 95.3 | 38.1 | 171.5 | 31.8 | 31.8 | 20 | 26   | 20   | M18 x 1.5  | 1.9          |
| 7,500, 10,000                           | 25.3             | 124  | 50.8 | 225.5 | 50.8 | 50.8 | 27 | 25.4 | 26.2 | M24 x 2    | 4.5          |

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