# Shear beam for compression forces up to 10.197 kg

## Description

tecsis load cells are designed to meet the most stringent accuracy requirements.

F3271 load cell are available in the capacities 5 kN to 100 kN (510 kg to 10197 kg)

They offer total stainless steel construction and complete hermetic sealing, making them suitable for use in the toughest industrial environments.

The unique “blind” loading hole combined with the available tecsis loading hardware provides an excellent price performance ratio.
It allows very low profile platform design and offers advantages in all kinds of weighing applications.

The tecsis calibration technique (in mV/V/Ω) eliminates time consuming corner calibration in multiple load cell systems.

## Features

- Rosbust design,
  High long term stability
- Ease of assembly
- Low-profile design
- High input resistance: 1100Ω

## Measuring ranges

- 510 kg … 10197 kg

## Applications

- Weighing & dosing applications, force measurement
- Plattform scales
- Production lines
- Testing and manufacturing plants

## Specific information

- Load input elements available (option)

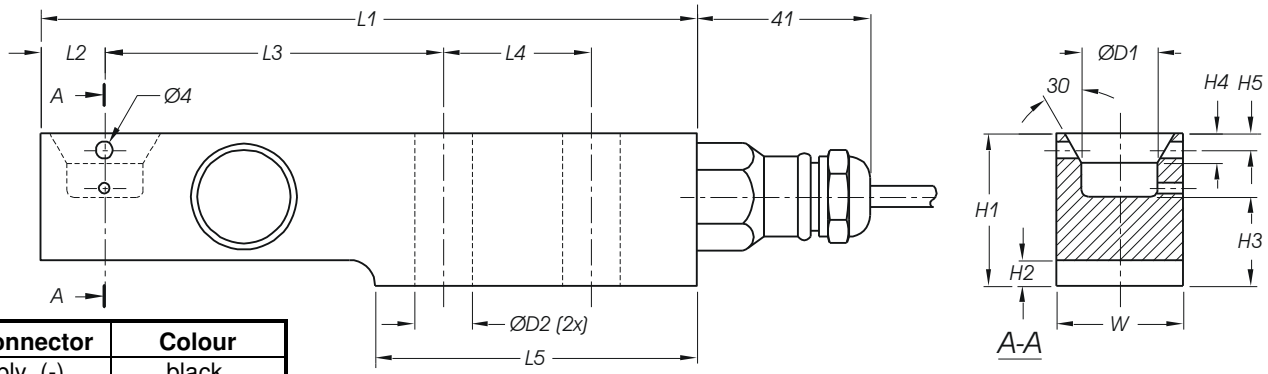
**Model: F3271**

tecsis GmbH
Carl-Legien Str. 40
D-63073 Offenbach / Main
Tel.: +49 69 5806-0
Sales national
Fax: +49 69 5806-170
Sales international
Fax: +49 69 5806-177
e-Mail: info@tecsis.de
Internet: www.tecsis.de

## Technical data

| Model | F3271 | Option |
|---|---|---|
| Maximum capacity **kN**<br>kg | **5, 10, 20, 50, 100**<br>510, 1020, 2039, 5099, 10197 | |
| Limit load | 200% $F_{nom}$ | |
| Breaking load | > 300% $F_{nom}$ | |
| Combined error | ≤± 0,04% of F.S. | ≤± 0.02% of F.S. |
| Creep (30 min. at $F_{nom}$) | ≤± 0.06% of F.S. | ≤± 0.016% of F.S. |
| Nominal deflection | < 0,8 mm | |
| Nominal temperature range | -10 … +40°C | |
| Service temperature range | -40 … +80°C | |
| Storage temperature range | -40 … +80°C | |
| Reference temperature | 23°C | |
| Temperature effect-span<br>-zero | <± 0.02% of F.S. /10 K<br><± 0.04% of F.S. /10 K | <± 0.011 % of F.S. /10 K<br><± 0.011 % of F.S. /10 K |
| Protection type<br>(acc. to EN 60 529 / IEC 529) | IP 68 | |
| Insulation resistance | > 5 GΩ / 50 V | |
| Analogue output<br>- Output signal<br>- Bridge resistance<br><br>- Tolerance of span<br>- Zero<br>- Excitation voltage<br>- Electrical connection | <br>2 mV/V<br>Input: 1100 ± 50 Ω;<br>Output: 1000 ± 2 Ω<br>≤± 0.1% of F.S.<br>≤± 1 % of F.S.<br>10 V (max. 15 V)<br>Cable, 4-wire, shielded<br>cable length 3 m (50kN+100kN = 4,5m) | |
| Sealing | complete hermetic sealing; cable entry sealed by glass to metal header | |
| Mounting momentum | see chart below | |
| Material of measuring device | Stainless steel | |

of F.S. = full scale value




| E-connector | Colour |
|---|---|
| Supply. (-) | black |
| Supply. (+) | green |
| Sign. (+) | white |
| Sign.(-) | red |
| Shield | yellow |

| Nominal load [ kN ] | L1 | L2 | L3 | L4 | L5 | H1 | H2 | H3 | H4 | H5 | W | D1 | D2 | Mounting bolts | Screw Torgue* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5kN/10kN/20kN | 155 | 15 | 80 | 35 | 76 | 36 | 6 | 21 | 7 | 4 | 30 | 18 | 13 | M12 8.8 | 90 Nm |
| 50kN | 190 | 21 | 105 | 40 | 93 | 49 | 8 | 28.5 | 6 | 8 | 43 | 25 | 21 | M20 8.8 | 400 Nm |
| 100kN | 245 | 30 | 135 | 50 | 120 | 73 | 12.5 | 42 | 10 | n.a. | 60 | 30 | 27 | M24 8.8 | 700 Nm |

All dimensions in mm. Dimensions and specifications are subject to change without notice.
* Torque values assume oiled threads.

Subject to technical changes