



Special features

- For general purpose
- Strain gauge measuring system
- Tension / Compression
- Made of high-grade stainless steel
- Small dimensions

Specifications

| Rated capacity (F _n) | 0.5, 1, 2, 5, 10 | kN |
|---|------------------|------------------|
| Overload | | |
| - Safe | 130 | % F _n |
| - Ultimate | 150 | % F _n |
| - Permanent static load ¹ | 75 | % F _n |
| - Dynamic load ¹ | 50 | % F _n |
| Nominal sensitivity (C _n = F.S.) | 2 ± 1 % | mV/V |
| Zero balance | 2 | % F.S. |
| Max error | | |
| - Non-linearity | 0.1 | % F.S. |
| - Hysteresis | 0.1 | % F.S. |
| - Creep (30 min) | 0.05 | % F.S. |
| Temperature effect | | |
| - On zero | 0.05 | % F.S./10 °C |
| - On output | 0.05 | % F.S./10 °C |
| Bridge resistance | | |
| - Input | 380 ± 10 | Ω |
| - Output | 350 ± 5 | Ω |
| Insulation Impedance | > 500 | MΩ |
| Excitation ² | | |
| - Recommended | 7 ... 10 | V |
| - Maximal | 15 | V |
| Temperature range | | |
| - Compensated | 0 ... + 50 | °C |
| - Operating | - 10 ... + 70 | °C |
| Protection | IP65 | |
| Cable | | |
| - Type | LiYCY 4 x 0.14 | |
| - Length | 2 | m |

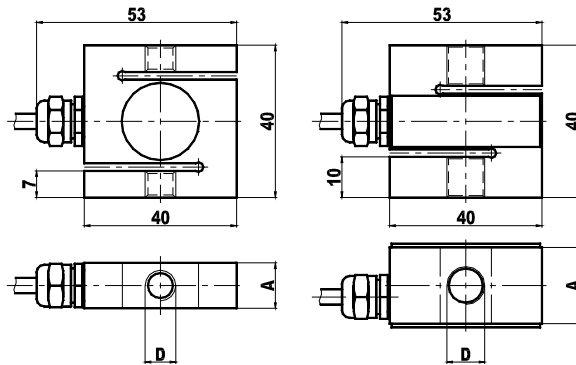
Notes:

- 1 Recommended value
2 DC or AC Voltage

Outline dimensions

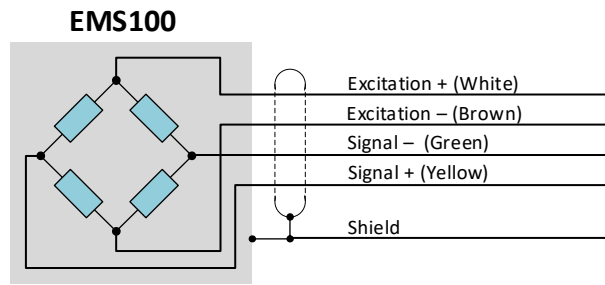
0.5, 1 kN

2, 5, 10 kN

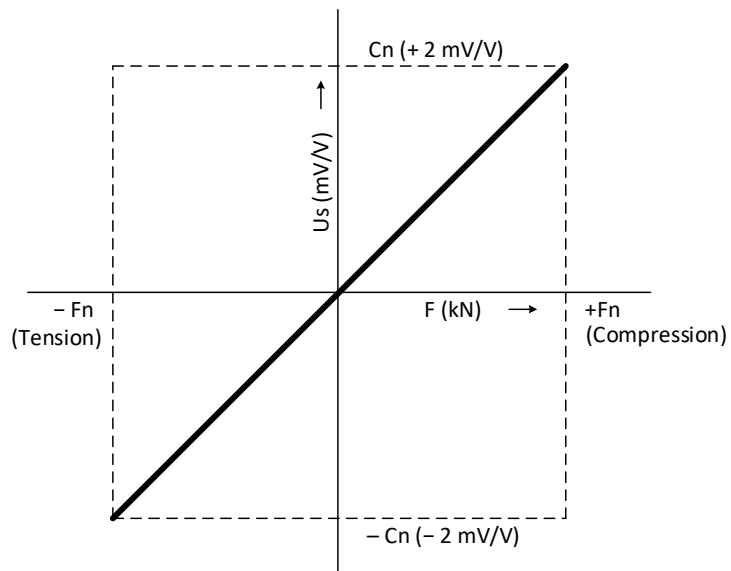


| Rated capacity F_n (kN) | A mm | D mm | Mass kg | Deflection, @ F_n (μm) |
|------------------------------|---------|---------|------------|--|
| 0.5 | 12 | M8 | 0.17 | 110 |
| 1 | 18 | M10 | 0.20 | 130 |
| 2 | 18 | M10 | 0.25 | 70 |
| 5 | 20 | M10 | 0.27 | 130 |
| 10 | 20 | M10 | 0.30 | 240 |

Sensor wiring colour code



Sensor output characteristic



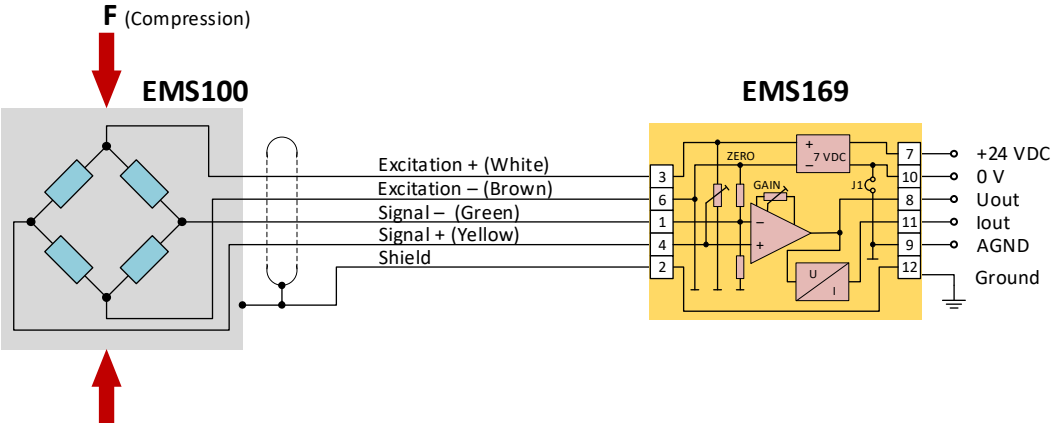
Wiring diagrams, connection examples to EMS169 signal conditioner

1. Load COMPRESSION, signal conditioner output positive (0...+10 V, 4...20 mA)

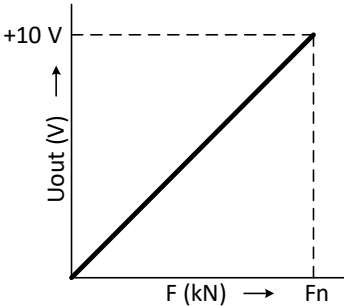
Links setting

J2 = ON, J3 = ON, J4 = 2 – 3 (connected)

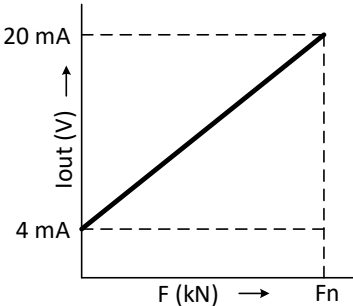
Wiring diagram



System output characteristic



Uout vs. F



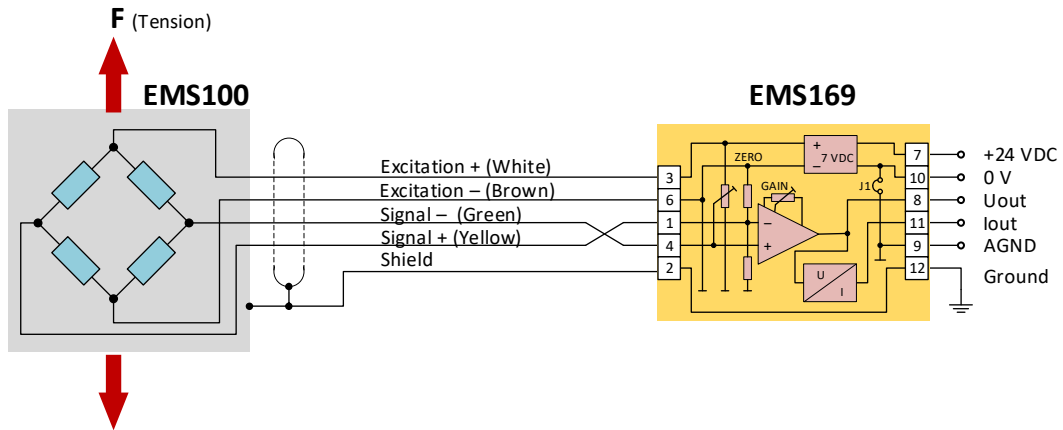
Iout vs. F

2. Load TENSION, signal conditioner output positive (0...+10 V, 4...20 mA)

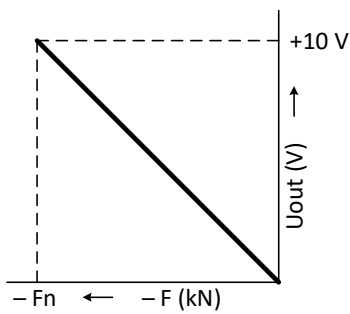
Links setting

J2 = ON, J3 = ON, J4 = 2 – 3 (connected)

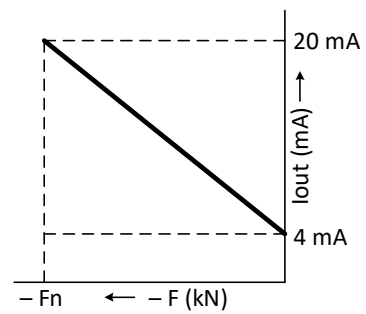
Wiring diagram



System output characteristic



U_{out} vs. F



I_{out} vs. F

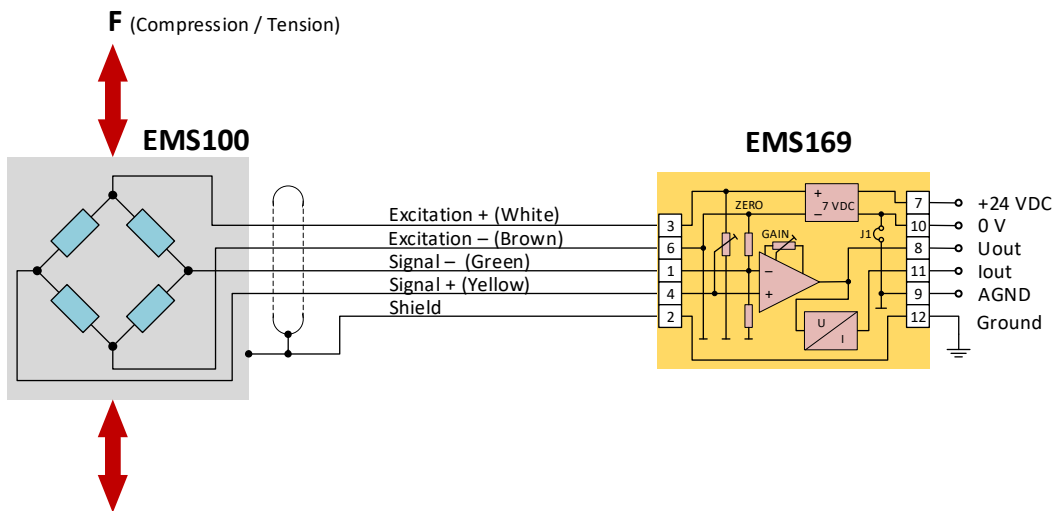
3. Load COMPRESSION and TENSION, signal conditioner output bipolar (- 10 V ... 0...+ 10 V)

Note: The current output does not work in the negative range.

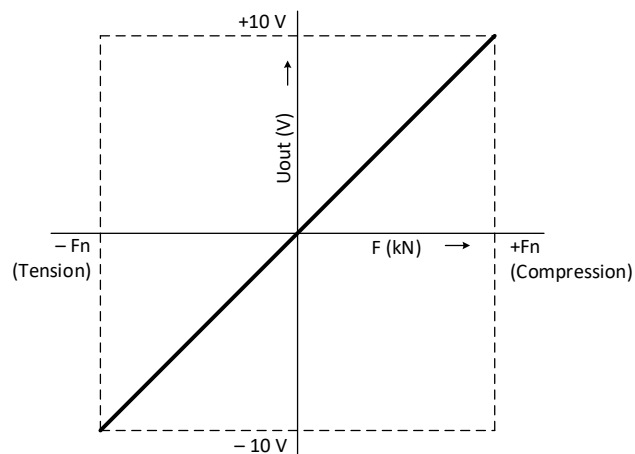
Links setting

J2 = ON, J3 = ON, J4 = 2 - 3 (connected)

Wiring diagram



System output characteristic



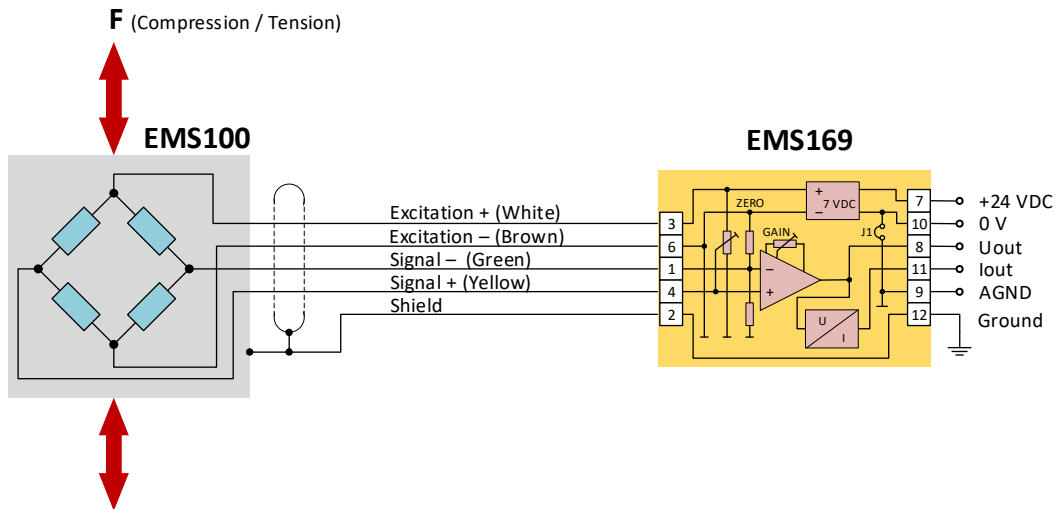
Uout vs. F

4. Load COMPRESSION and TENSION, signal conditioner output positive (0...+10 V, 4...20 mA)

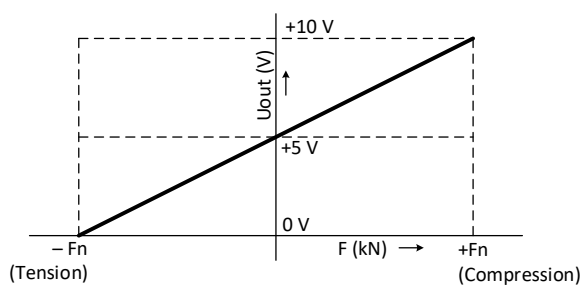
Links setting

J2 = ON, J3 = OFF, J4 = 1 – 2 (connected)

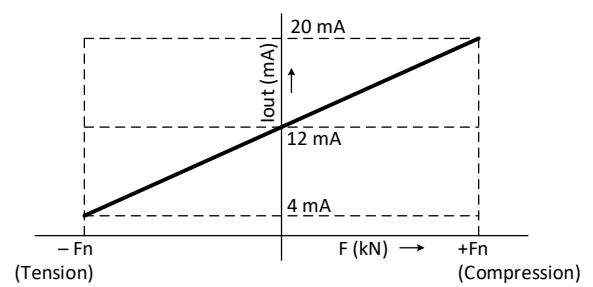
Wiring diagram



System output characteristic



Uout vs. F



Iout vs. F

Parallel wiring diagram

