



Special features

- For general purpose
- Strain gauge measuring system
- Tension / Compression
- Made of high-grade stainless steel or aluminium (0.1 – 0.5 kN)
- Small dimensions
- Application:
 - Industry
 - Testing machines
 - Laboratory

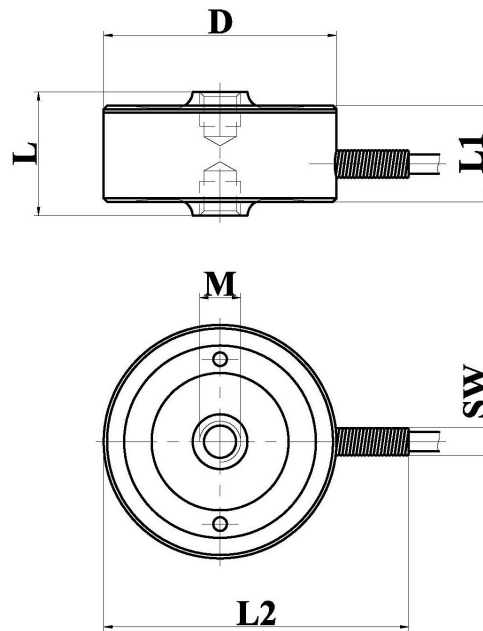
Specifications

Rated capacity (F _n)	0.1, 0.2, 0.5	1, 2, 5	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)	1.0 ± 2 %	1.5 ± 2 %	mV/V
Zero balance		2	% F.S.
Non-linearity		0.25	% F.S.
Hysteresis		0.25	% F.S.
Creep (30 min)		0.1	% F.S.
Temperature effect			
- On zero		0.1	% F.S./10 °C
- On output		0.1	% F.S./10 °C
Bridge resistance			
- Input	395 ± 10 %	380 ± 10 %	Ω
- Output	350 ± 5 %	350 ± 5 %	Ω
Insulation Impedance	> 5000		MΩ
Excitation ²			
- Recommended	5 ... 7	7 ... 10	V
- Maximal	10	15	V
Temperature range			
- Compensated	0 ... + 50		°C
- Operating	- 10 ... + 70		°C
Protection	IP54		
Construction	Aluminium	Steel	
Cable			
- Type	LifYDY 4 x 0.05		
- Length	2		m

Notes:

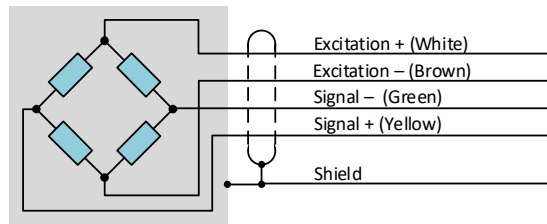
- 1 Recommended value
- 2 DC or AC Voltage

Outline dimensions

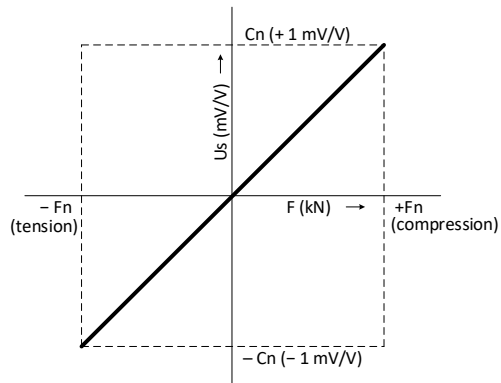


Rated capacity F_n (kN)	D mm	M mm	L mm	L1 mm	L2 mm	SW mm	Mass kg	Deflection, @ F_n (μm)
0.1	34	M6	18	14	44	Φ 4	0.05	40
0.2	34	M6	18	14	44	Φ 4	0.05	40
0.5	34	M6	18	14	44	Φ 4	0.05	40
1	38	M8	22	18	48	Φ 4	0.13	45
2	38	M8	22	18	48	Φ 4	0.13	45
5	38	M8	22	18	48	Φ 4	0.13	45

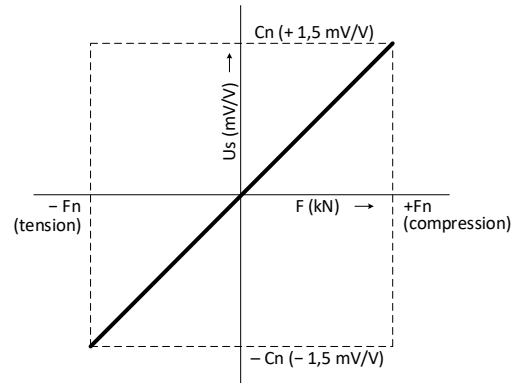
Sensor wiring color code



Sensor output characteristic



F_n (kN): 0.1, 0.2, 0.5



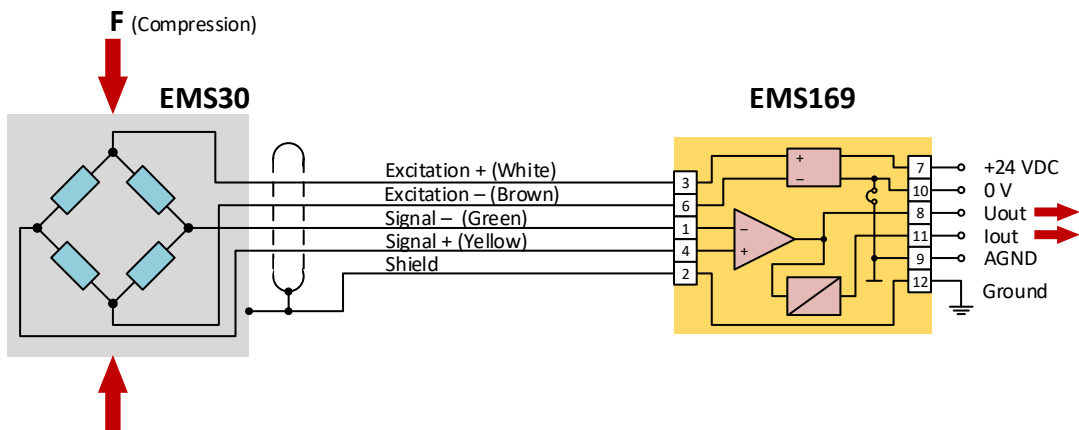
F_n (kN): 1, 2, 5

Wiring diagram, connection example to EMS169 signal conditioner

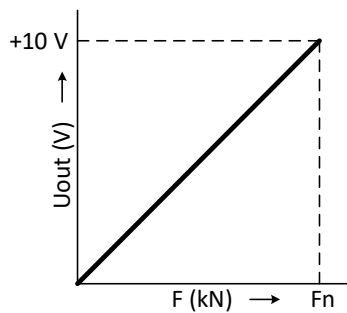
Note: The signal conditioner setting is described in the signal conditioner documentation

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

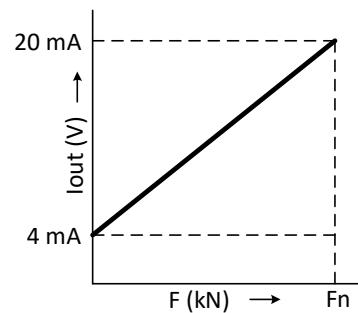
Wiring diagram



System output characteristic



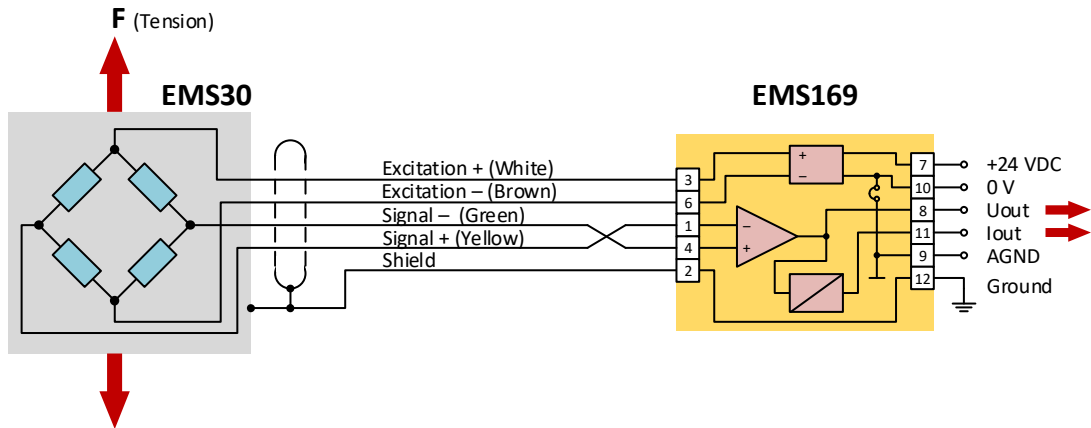
U_{out} vs. F



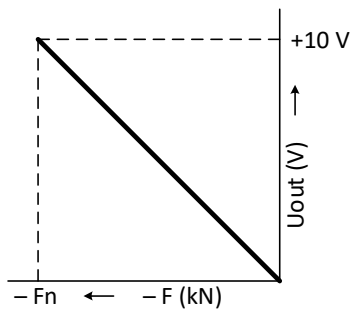
I_{out} vs. F

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

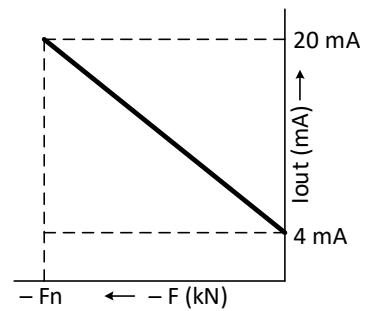
Wiring diagram



System output characteristic



U_{out} vs. F

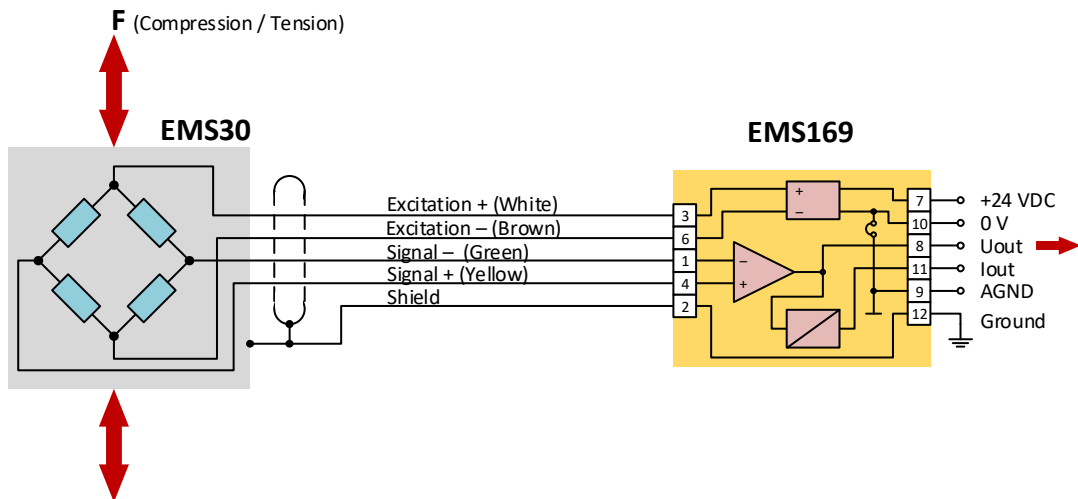


I_{out} vs. F

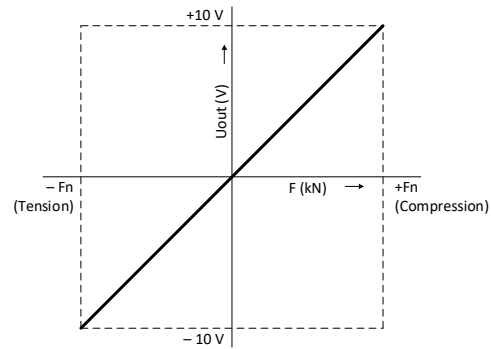
3. Load compression and tension, signal conditioner output bipolar (-10 V ... 0...+10 V)

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

Wiring diagram



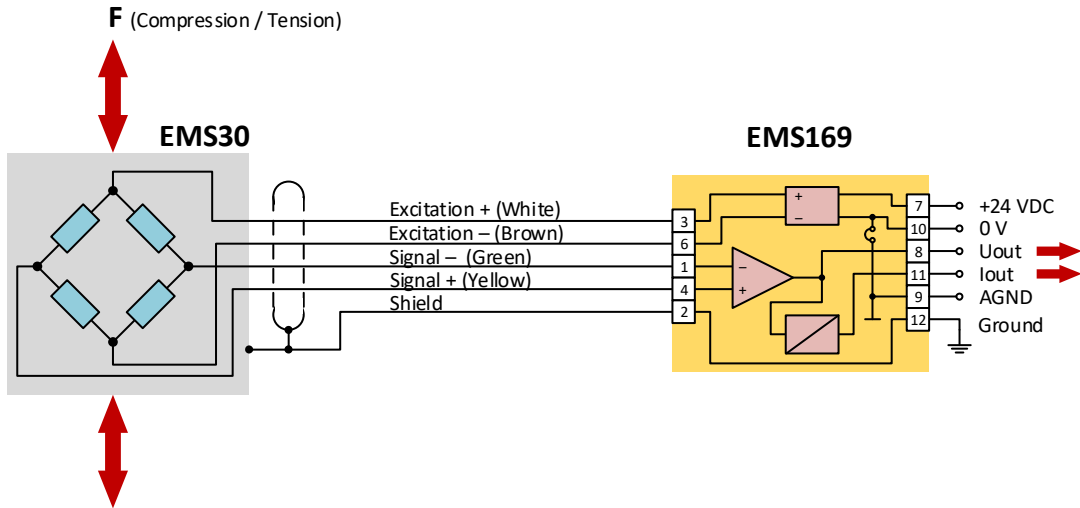
System output characteristic



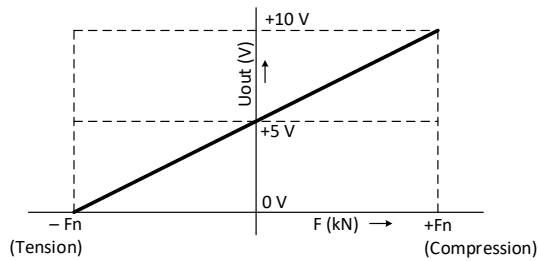
U_{out} vs. F

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

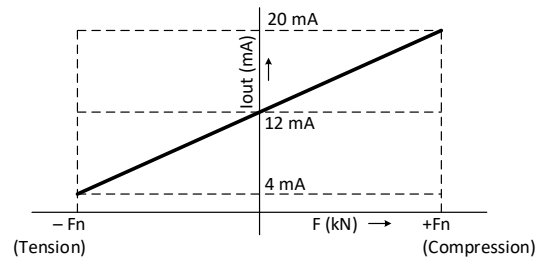
Wiring diagram



System output characteristic



U_{out} vs. F



I_{out} vs. F

Parallel wiring diagram

