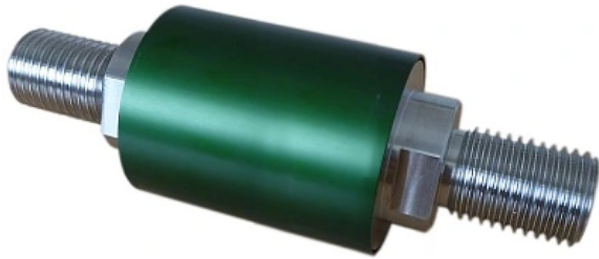


**FORCE TRANSDUCER**

**MEG150**



**Special features**

- Precision in-line sensor
- Stainless steel construction
- Strain gauge measuring system
- Tension / Compression measurement
- Connection via cable or connector
- Available with built-in signal conditioner (with signal conditioner see the model [MEG151](#))

**Specifications**

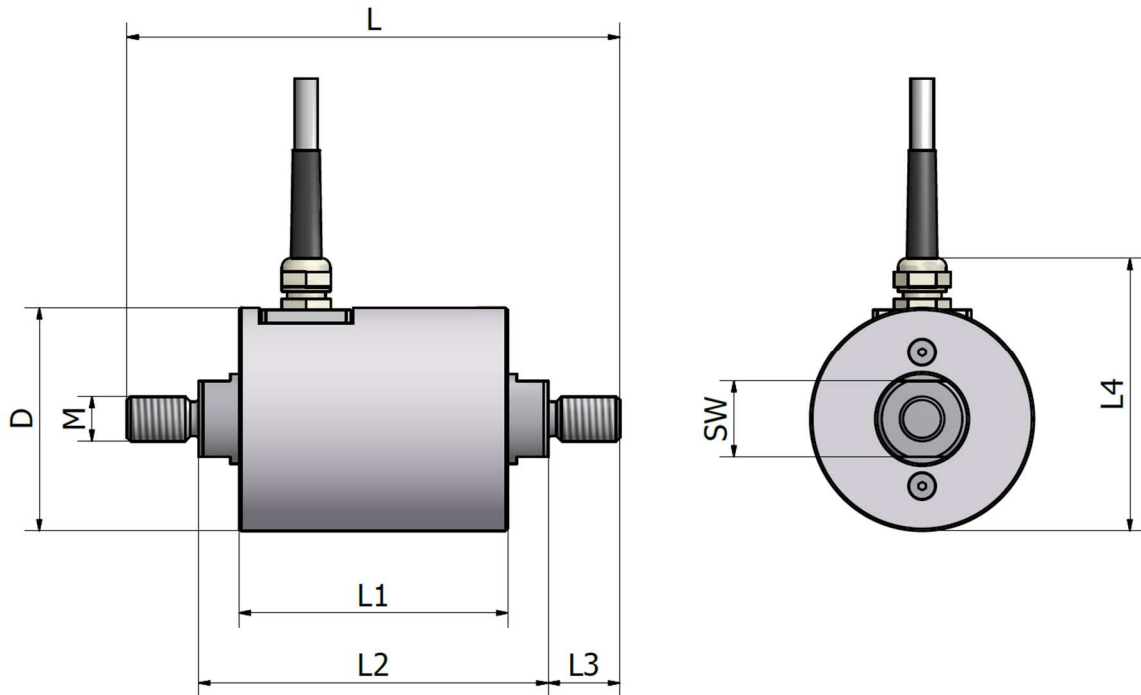
Parameter	Value	Unit
Rated capacity ( $F_n$ )	0.5, 1, 2, 5, 10, 20, 50, 100, 200	kN
Overload		
- Safe	130	% $F_n$
- Ultimate	150	% $F_n$
- Permanent static load <sup>1</sup>	75	% $F_n$
- Dynamic load <sup>1</sup>	50	% $F_n$
Nominal sensitivity ( $C_n \pm 2\%$ )	2.0	mV/V
Zero balance	$\pm 0.04$	mV/V
Max error		
- Non-linearity	0.15	% F.S.
- Hysteresis	0.15	% F.S.
Temperature effect		
- On zero	0.05	% F.S./10 °C
- On output	0.05	% F.S./10 °C
Bridge resistance		
- Input	$375 \pm 20$	$\Omega$
- Output	$350 \pm 10$	$\Omega$
Insulation Impedance	> 500	M $\Omega$
Excitation <sup>2</sup>		
- Recommended	7 ... 10	V
- Maximal	15	V
Temperature range		
- Compensated	0 ... + 50	°C
- Operating	- 10 ... + 70	°C
Protection	IP54	
Connection		
- Cable		
- Type	LiYCY 4 x 0.14	
- Length	2	m
- Connector, Type	M12, 4 pin	

Notes:

1 Recommended value

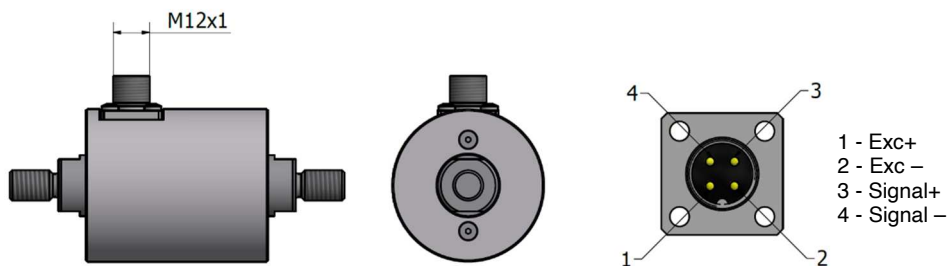
2 DC or AC Voltage

## Outline dimensions

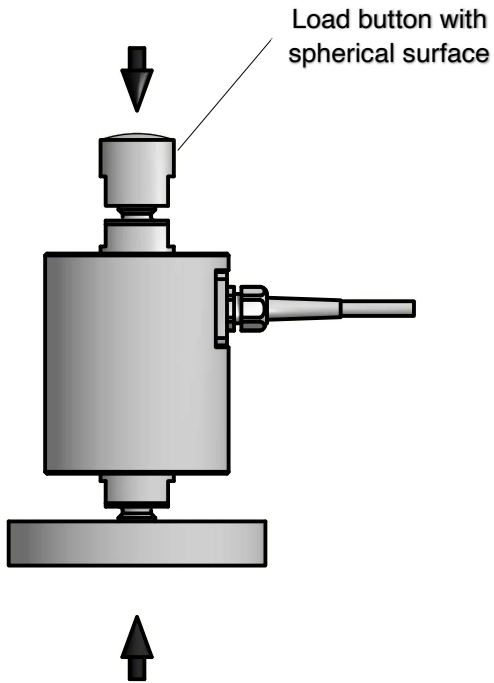


Rated capacity $F_n$ , kN	L mm	L1 mm	L2 mm	L3 mm	L4 mm	D mm	M mm	SW mm	Mass kg	Deflection @ $F_n$ , $\mu\text{m}$
0.5	95	55	71	12	55	45	M8	13	0.22	60
1	95	55	71	12	55	45	M8	13	0.23	60
2	110	60	78	16	60	50	M10	17	0.33	60
5	110	60	78	16	60	50	M10	17	0.37	60
10	140	80	100	20	70	60	M12	19	0.64	71
20	150	80	104	23	70	60	M16	24	0.86	84
50	170	80	108	31	70	60	M24	30	1.38	102
100	240	100	136	52	90	80	M36	46	3.63	123
200	300	120	166	67	110	100	M48	65	8.00	185

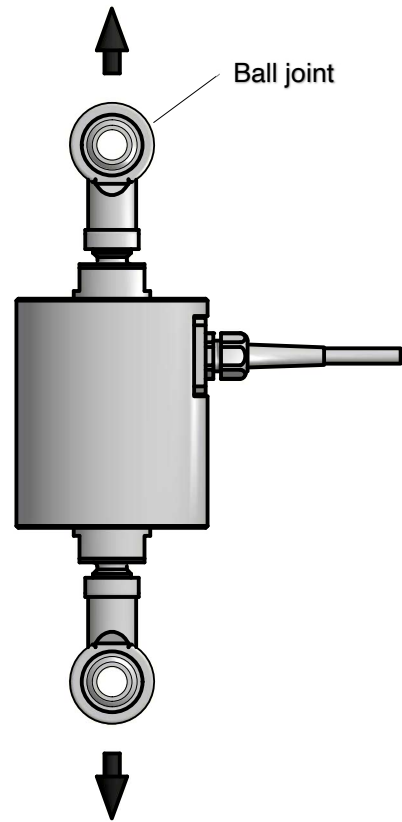
## Version with connector (optional)



## Recommended installation

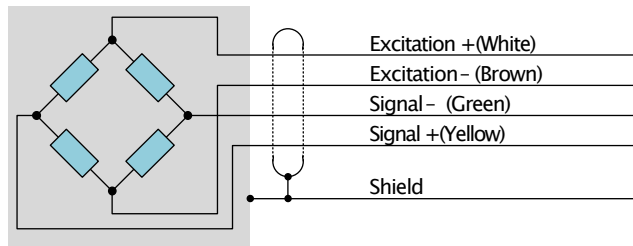


Direction of load COMPRESSION

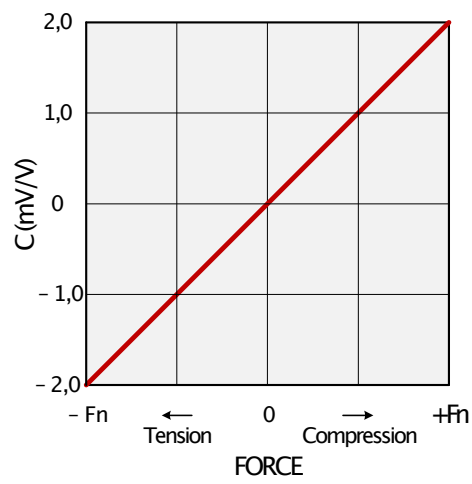


Direction of load TENSION

## Sensor wiring colour code



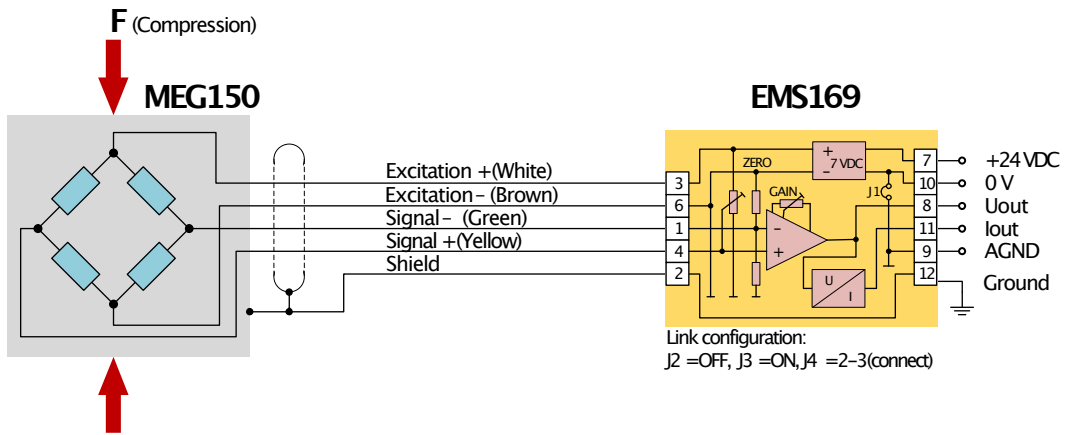
## Sensor output characteristic



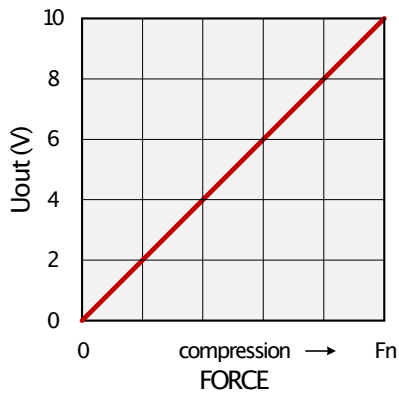
# Wiring diagram, connection example to EMS169 signal conditioner

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

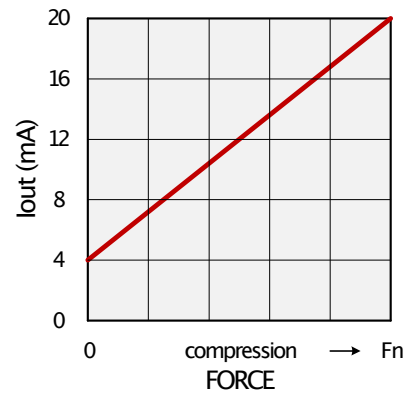
Wiring diagram



Output characteristic



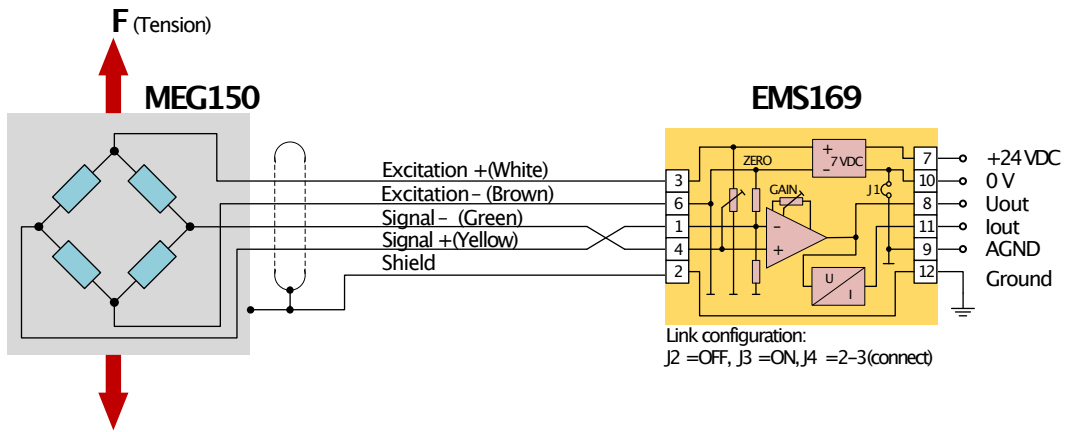
Uout vs. F



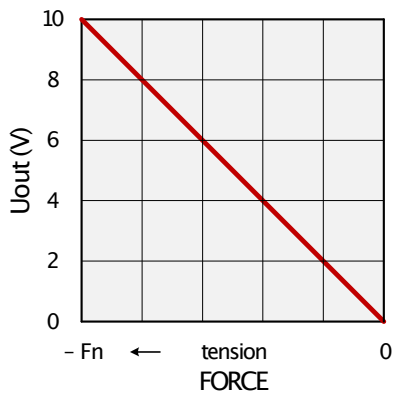
Iout vs. F

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

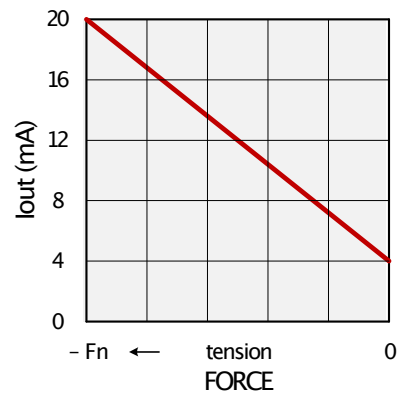
Wiring diagram



Output characteristic



Uout vs. F

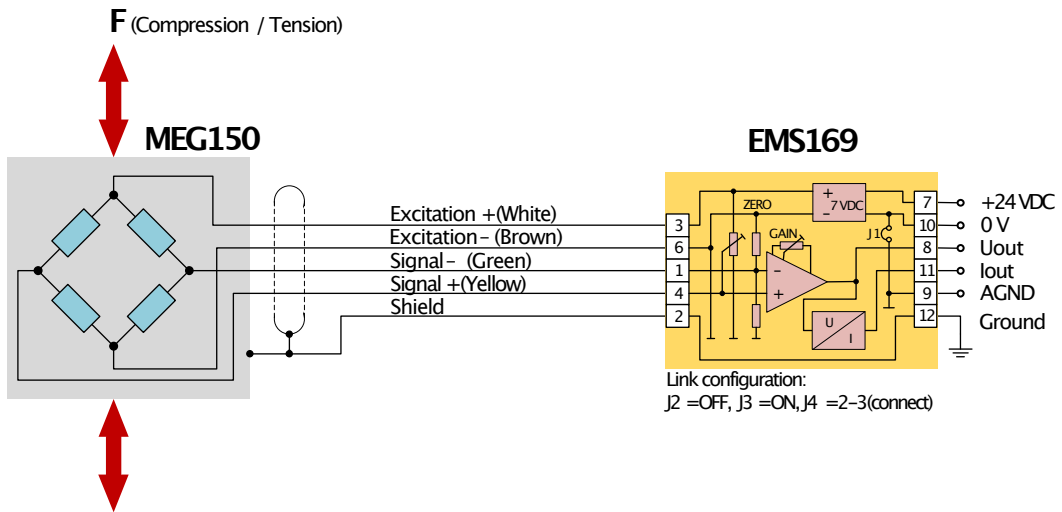


Iout vs. F

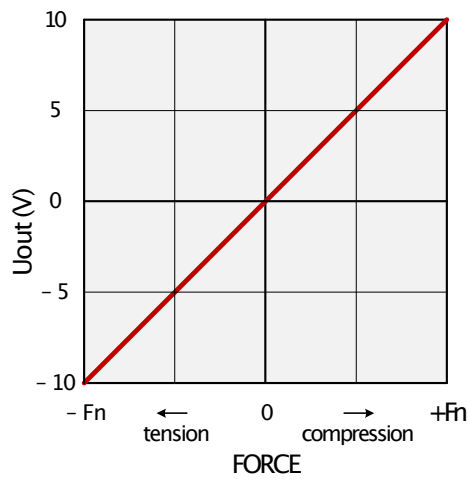
### 3. Load compression and tension, signal conditioner output bipolar ( $\pm 10$ V)

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

Wiring diagram



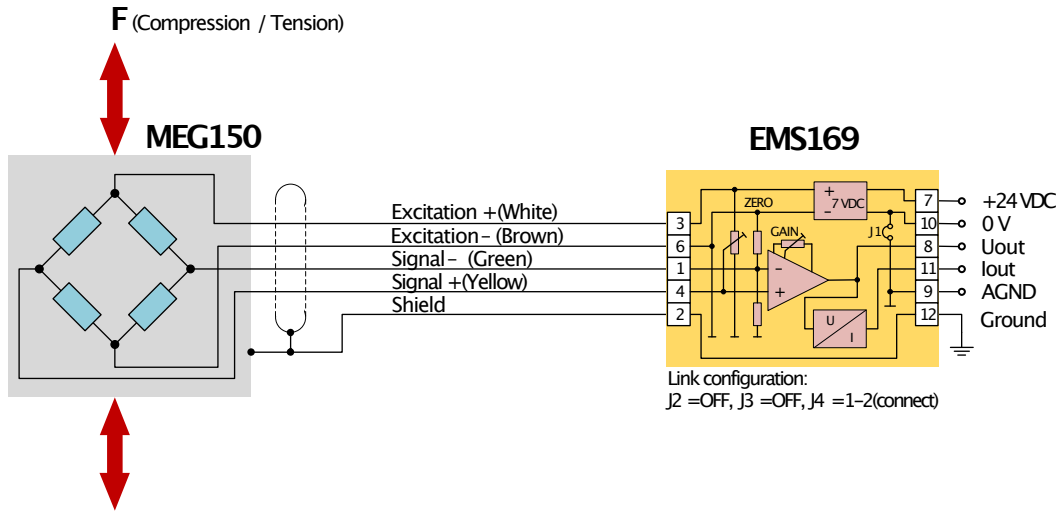
Output characteristic



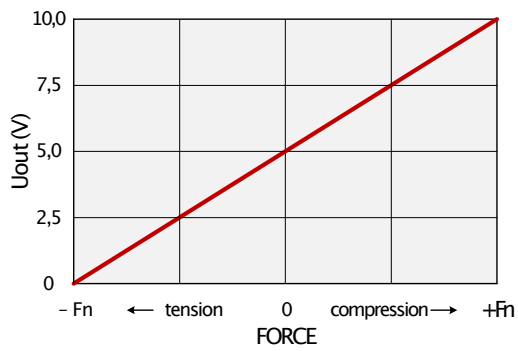
Uout vs. F

4. Load compression and tension, signal conditioner output positive  
 $(5 \pm 5 \text{ V}, 12 \pm 8 \text{ mA})$

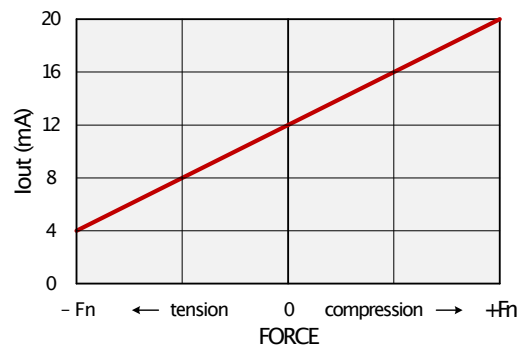
Wiring diagram



Output characteristic



Uout vs. F



Iout vs. F



## Parallel wiring diagram

