



### Special features

- Non-rotating torque measurement
- Strain gauge measuring system
- Shaft mounting
- Small dimensions

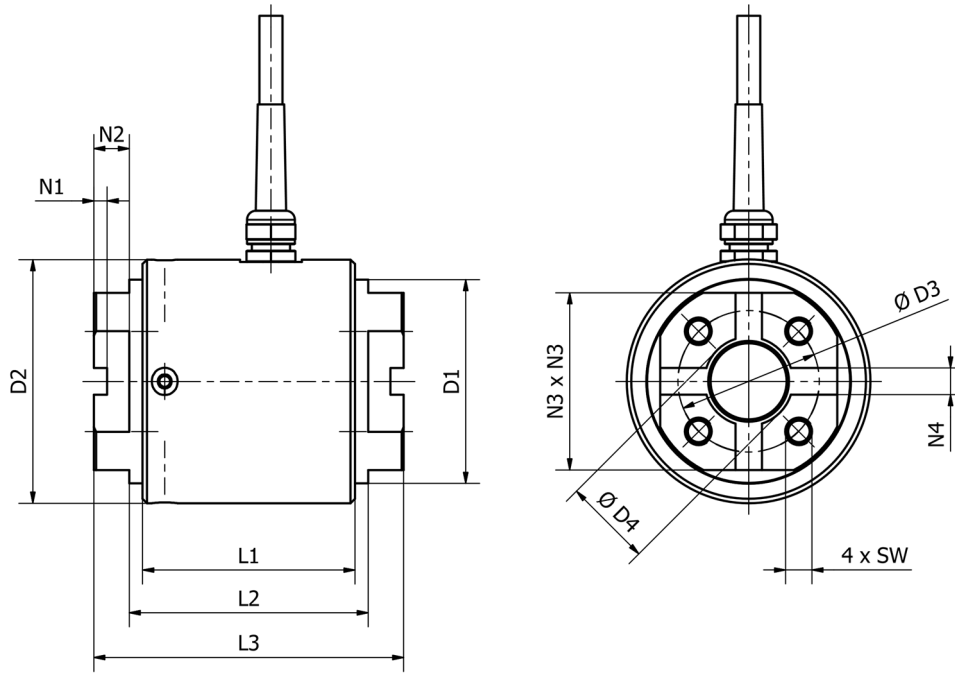
### Specifications

Rated torque $M_n$	10, 20, 50, 100, 200, 500	Nm
Overload		
- Safe	130	% $M_n$
- Ultimate	150	% $M_n$
- Permanent static load <sup>1</sup>	75	% $M_n$
- Dynamic load <sup>1</sup>	50	% $M_n$
Nominal sensitivity $C_n$ ( $\pm 2\%$ )	1,5	mV/V
Zero balance	$\pm 0,03$	mV/V
Max error		
- 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		
- Range 10, 20, 50 Nm		
- Input resistance	$390 \pm 20$	$\Omega$
- Output resistance	$350 \pm 10$	$\Omega$
- Range 100, 200, 500 Nm		
- Input resistance	$375 \pm 20$	$\Omega$
- Output resistance	$350 \pm 10$	$\Omega$
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	
Cable		
- Type	LifYDY 4 x 0,14	
- Length	2	m
Body construction		
- Range 10, 20, 50 Nm	Aluminium	
- Range 100, 200, 500 Nm	Stainless steel	
Cover material	Aluminium	

Notes:

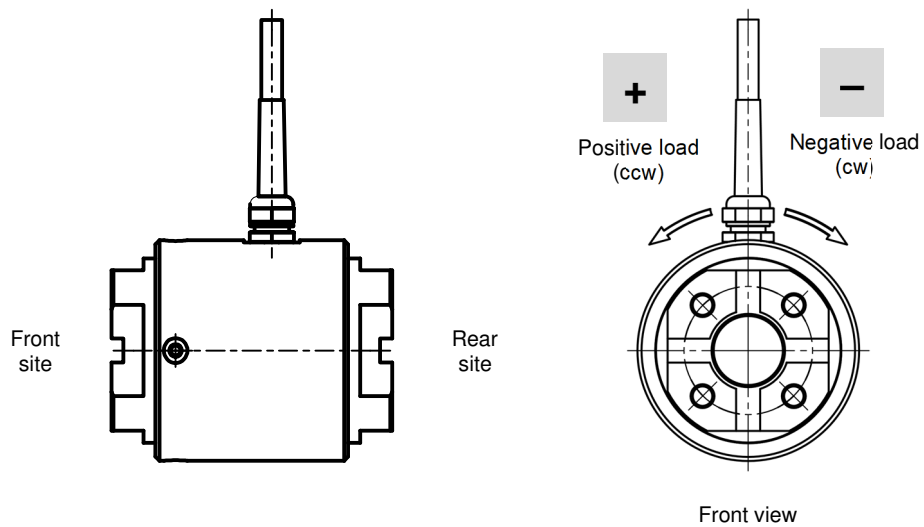
- 1 Recommended value
- 2 DC or AC Voltage

### Outline dimensions

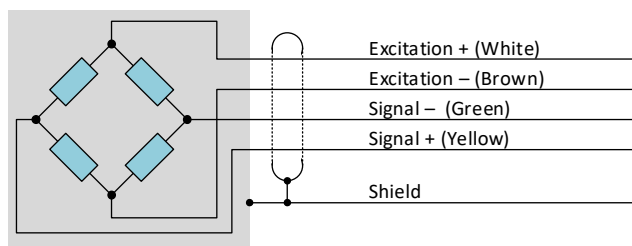


M <sub>n</sub> (Nm)	Dimensions in mm												Mass (kg)
	φ D1	φ D2	φ D3	φ D4	L1	L2	L3	N1	N2	N3 x N3	N4	4 x SW	
10, 20, 50	46	55	32	20	48	54	70	3	8	40 x 40	6	4 x M6	0,3
100, 200, 500	66	76	48	30	58	70	90	4	10	60 x 60	8	4 x M10	1,5

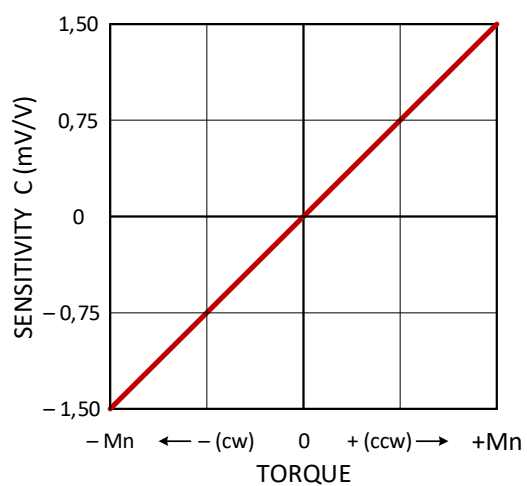
### Output signal vs. load direction



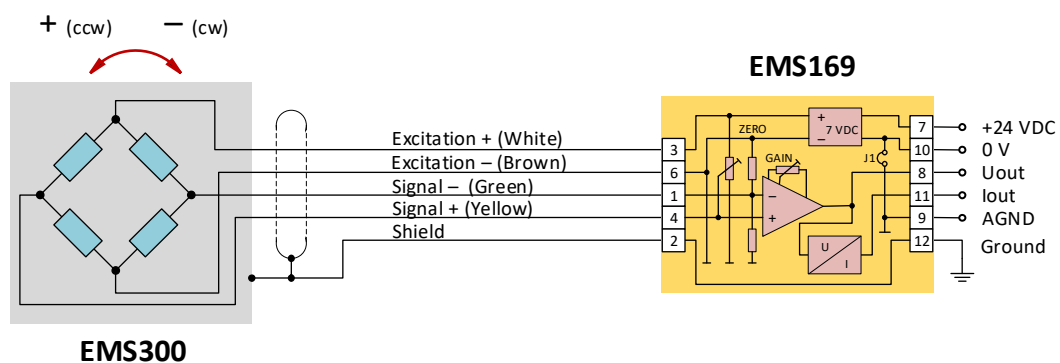
## Sensor wiring colour code



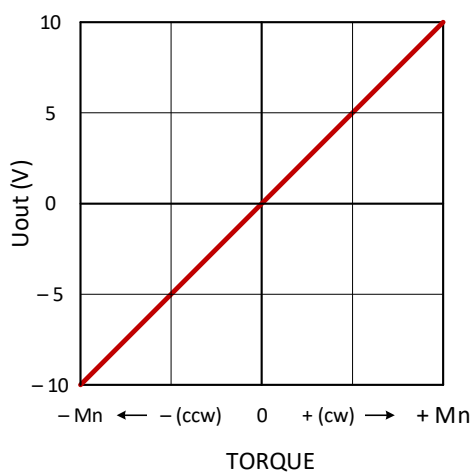
## Sensor output characteristic



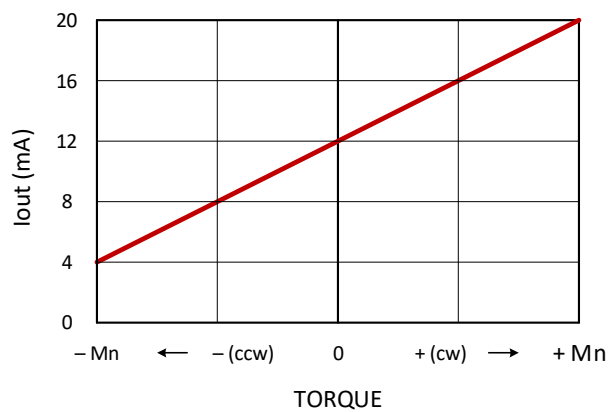
## Connection example to EMS169 signal conditioner



## Output characteristics (examples)



$U_{out}$  vs. M



$I_{out}$  vs. M