LOAD CELLS FOR WIRE ROPE MEASURING

- LOAD LIMIT ACCURACY ≤ ±2%
- IP67 PROTECTION RATING
- RAPID MOUNTING (also for retro fit)
- SUITABLE FOR LOAD LIMIT MEASUREMENT

NICKEL PLATED STEEL
AISI 4140

NOMINAL LOAD (FS)

kg	kN	Net weight (kg)	DIAMETER ROPE (mm)	IECEx Ex	EAC Ex	EAC
2 000	20	2.4	Ø 6 ÷ Ø 14	•	•	•
4 000	40	2.4	Ø 10 ÷ Ø 18	•	•	•
10 000	100	2.4	Ø 16 ÷ Ø 26	•	•	•
20 000	200	7.5	Ø 24 ÷ Ø 36	•	•	•
40 000	400	7.5	Ø 24 ÷ Ø 36	•	•	•

ON REQUEST

TECHNICAL DATA

PRECISION

Rated Output (C_n)	3 mV/V ±0.1 % at FS
Zero Balance	< ±2 %
Combined error	-
Non-linearity	-
Hysteresis	-
Load Limit Accuracy	±2 %
Creep	≤ ±0.03 %FS (at 30 min FS)
Temperature coefficient of zero	0.005 %FS/°C
Temperature coefficient of sensitivity	0.005 %FS/°C
Compensated temperature range	-10...+50 °C
Operating temperature range	-30...+70 °C
Reference Temperature	23 °C

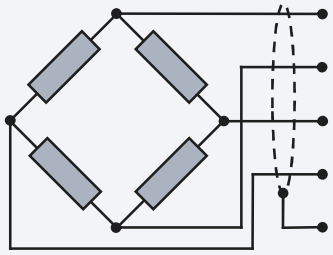
MECHANICAL PROPERTIES

Material	AISI 4140 nickel plated steel
Deflection at FN	0.5 - 1 mm

ELECTRICAL PROPERTIES

Bridge configuration	Full Wheatstone bridge, 6-wire
Input resistance	450/750/1050 Ω ±50
Output resistance	350/700/1000 Ω ±20
Insulation resistance	≥ 5,000 MΩ at 100 V
Recommended excitation voltage	≤ 15 V
Cable diameter	5 mm
Cable length	6 000 mm

ELECTRICAL CONNECTION

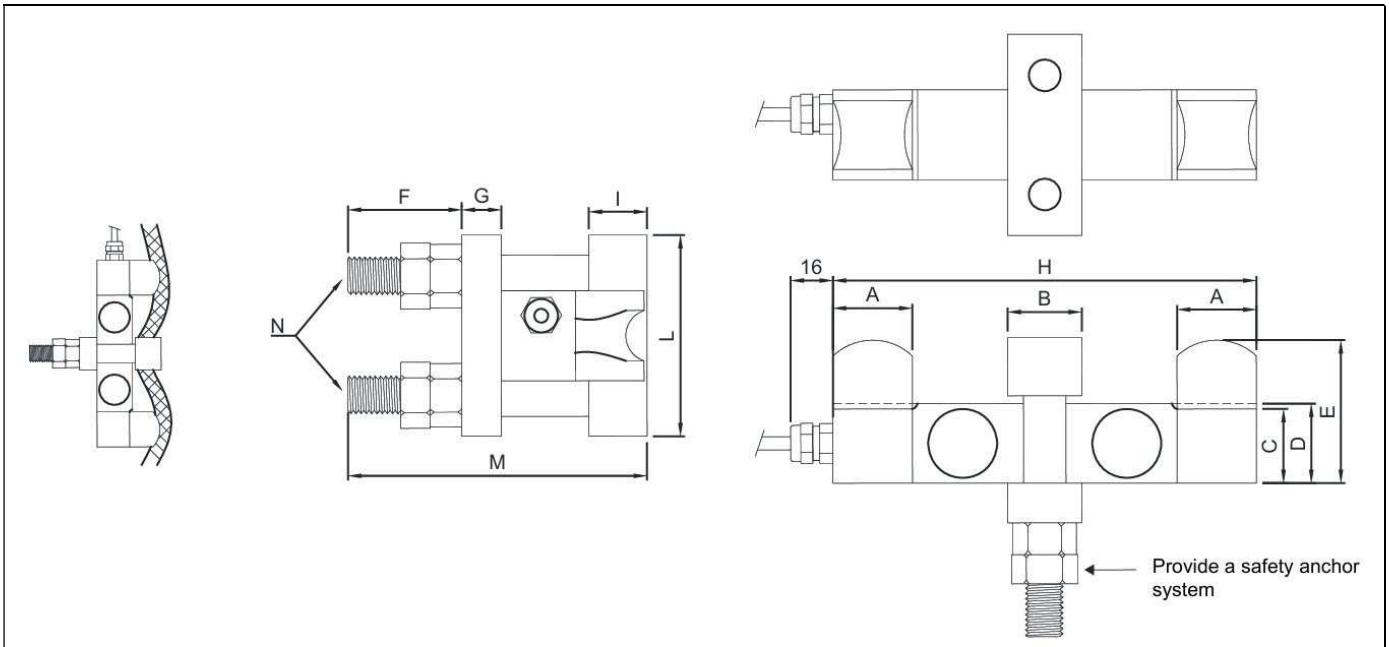


+ EXCITATION	RED
+ REF./SENSE	BLUE
– EXCITATION	BLACK
– REF./SENSE	YELLOW
+ SIGNAL	GREEN
– SIGNAL	WHITE
SHIELD	

MECHANICAL LIMITS

Service load	120 %FS	Load without any permanent deformation or change in calibration.
Safe overload	150 %FS	The highest static load that may be applied once or briefly without mechanical damage.
Breaking load	> 200 %FS	Load at which permanent deformation or mechanical failure (fracture) occurs.
Max. transverse load (side)	50 %FS	Maximum lateral or shear load that can be applied (e.g. due to misalignment or friction).
Max. permissible dynamic load	70 %FS	For cyclic or oscillating loads, the amplitude should not exceed this load to prevent fatigue failure. The dynamic load must be applied to the transducer central thread.

DIMENSIONS (mm)



	Rope Tension (max)	Rope diameter	A	B	C	D	E	F	G	H	I	L	M	N
FUN6141T1T	2 000 kg	Ø 6 - 14	30	28	28	30	51	41	15	160	22	76	108	M14x2
FUN10182T1T	4 000 kg	Ø 10 - 18	30	28	28	30	54	43	15	160	22	76	113	M14x2
FUN16265T2T	10 000 kg	Ø 16 - 36	30	28	28	30	56	43	15	160	22	76	119	M14x2
FUN243610T3T	20 000 kg	Ø 24 - 36	45	39	39	45	82	67	24	260	34	108	173	M18x2,5
FUN243620T5T	40 000 kg	Ø 24 - 36	45	39	39	45	82	67	24	260	34	108	173	M18x2,5

SCREW TIGHTENING TORQUES													
Diameter of the steel cable (mm)	5	6 – 6.5	7 – 8	9 – 10	11 – 13	14	15 – 16	17 – 19	20 – 22	23 – 26	28 – 30	32 – 34	36 – 40
Tightening torque (Nm)	2.0	5.2	6.0	9.0	20	25	30	42	51	67	75	88	106

COMPLIANCE AND CERTIFICATION

Protection Rating	IP67 according to IEC 60529	
Compliance	CE, RoHS, REACH	
Calibration	Factory calibrated, ISO 17025 calibration available on request	
HS-CODE	9031.80.80	
Certifications	OIML	OIML R60 C3
	EAC	Complies with the Eurasian Customs Union regulations
	UKCA	Equivalent of the CE marking for the United Kingdom
Certifications (on request)	ISO 376	LAT Accredia calibration certificate ISO 376 or ASTM E74 for capacities from 1 000 kg to 10 000 kg
	Ex	ATEX II 1G 2D (zone 0-1-2-21-22)
	IECEx	IECEx (zone 0-1-2-20-21-22)
	EAC Ex	Complies with the Eurasian Customs Union regulations for use in potentially explosive atmospheres