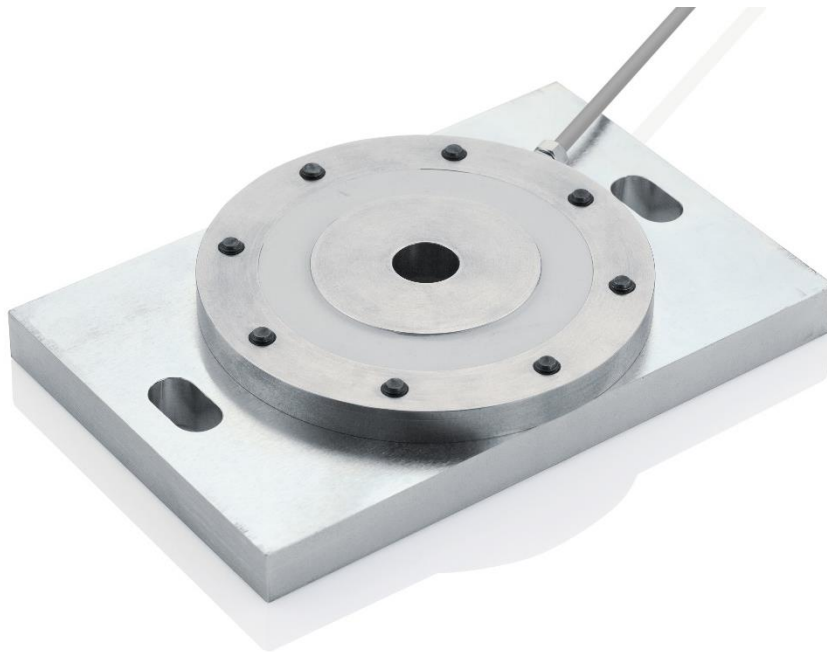


Load-cell for load measurement at elevator cabins



X-133

Flat shape

Ø 151 x 14.5 mm,
0...10 kN
0...16 kN
0...25 kN

Features

- Solid steel housing
- Tight execution IP67
- Flat shape
- Incl. connector M16
- Available with mounting plate

Application

The load-cell X-133 is designed to meet the requirements of the lift industry. Due to the flat shape it can be easily placed under the cabin-floor, the cabin-frame or under the bedframe of the drive.

The large measuring range and the standardized style makes it possible to cover a large range of car-weights and capacities with only a few different types. With correctly placed sensor, it provides an output signal which is proportional to the car-load.

An extremely solid steel housing, combined with class IP67 protection guarantees trouble-free operation, even under harsh and rugged environment conditions.

Order code	Measuring range	Output signal	Dimensions	Mounting	Specifications
X-133-S10 without mounting plate	0 ... 10 kN	1 mV/V	Ø152.2 x 14.5 mm	without mounting plate	page 3
X-133-S16 without mounting plate	0 ... 16 kN	1.04 mV/V	Ø152.2 x 14.5 mm	without mounting plate	page 3
X-133-S25 without mounting plate	0 ... 25 kN	0.75 mV/V	Ø152.2 x 14.5 mm	without mounting plate	page 3
					page 3
X-133-S10 with mounting plate	0 ... 10 kN	1 mV/V	Ø152.2 x 14.5 mm	with mounting plate	page 3
X-133-S16 with mounting plate	0 ... 16 kN	1.04 mV/V	Ø152.2 x 14.5 mm	with mounting plate	page 3
X-133-S25 with mounting plate	0 ... 25 kN	0.75 mV/V	Ø152.2 x 14.5 mm	with mounting plate	page 3

Load cell X-133

Ø 151 x 14.5 mm
10 kN / 16 kN / 50 kN



Specifications

Performance

Measuring range / Nominal force	0 ... 10 kN 0 ... 16 kN 0 ... 25 kN
Output signal referred to final value	1.0 mV/V (10 kN) 1.04 mV/V (16 kN) 0.75 mV/V (25 kN)
Zero signal unmounted	-0.4 ... -0.2 mV/V
Deviation sensitivity	±20 %
Accuracy	< 1 % (F.S.)
Hysteresis	< ±0.05 % (F.S.)
Repeatability	< ±0.05 % (F.S.)

Electrical data

Bridge resistance / sensor element strain gauge half bridge	700 Ohm
Supply voltage	3-10 VDC

Materials

Housing	Steel
Cable	4 x 0.14 UL approved

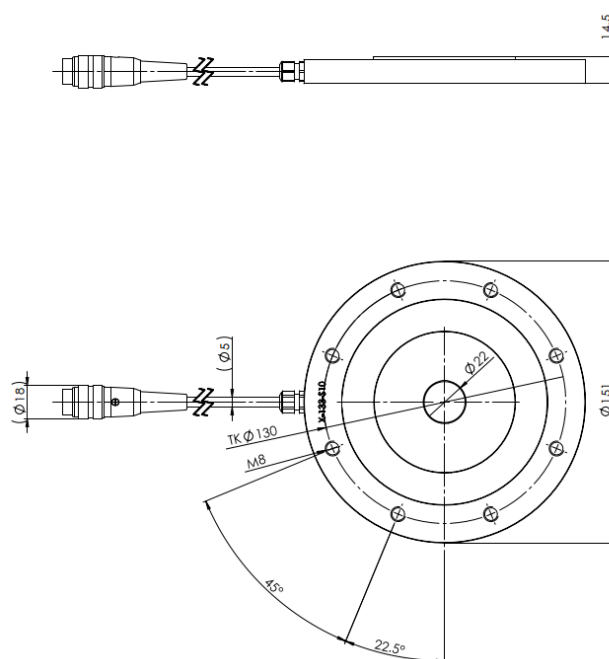
Mechanical data

Overload	120 % (F.S.)
Electrical connection	Connector M16 Amphenol C091A T3300
Cable length	10 m

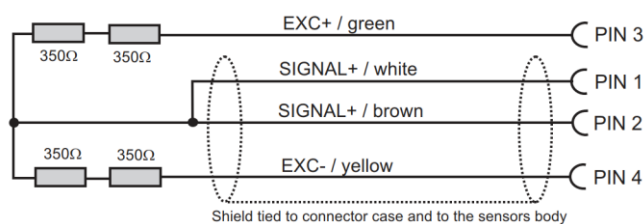
Environmental data

Ambient temperature	-10°C ... +65°C
Protection class	IP 67

Mechanical dimensions



Wiring



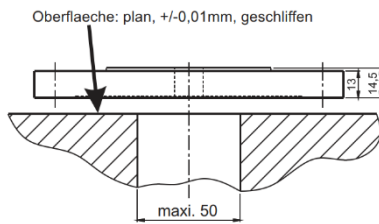
Order infomations

The load cell is supplied without mounting screws and calibration certificate.

For detailed ordering information, see page 2.

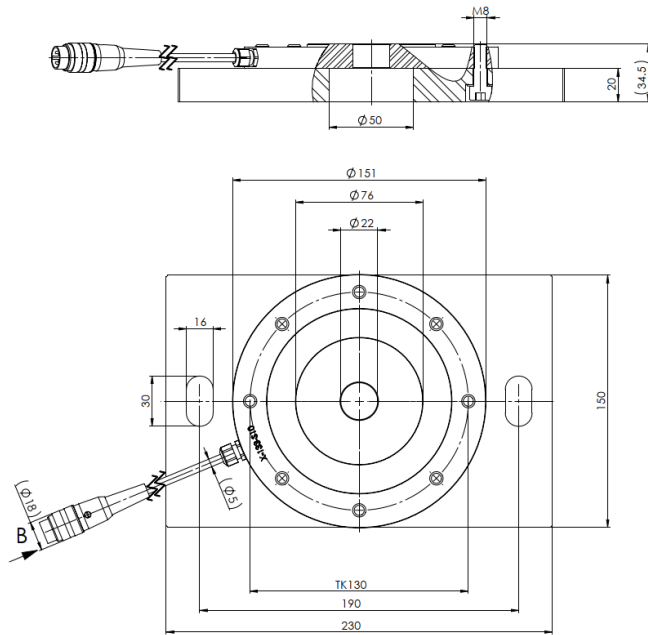
Mounting

To achieve the best possible accuracy it is recommended to use four sensors to form a weighing platform. In order to achieve a regular load distribution the supporting structure and also the structure to be measured should be even and parallel. If it is foreseen in the construction you can also achieve good results with only two or one sensor.



The series X-133 has a mechanical limit, due to a stop-ping-face which protects the sensor from overloading. Therefore the supporting surface should be made as Fig.2 shows or use the available mounting plate.

Fig. 2



Definition of accuracy

For force sensors, there are the following points to consider regarding accuracy:

1. linearity, repeatability and hysteresis (combined error)

The linearity, repeatability and hysteresis specify the measurement deviation compared to the ideal characteristic curve. This maximum measurement deviation is specified in relation to the final value. I.e. for example an inaccuracy of 0.3 % FS corresponds to a maximum measurement deviation of 0.15 kN over the entire measurement range for a force sensor with a measurement range of 0...50 kN.

2. Sensitivity

The sensitivity of the sensors is specified in the data sheet. However, the sensitivity is not always exactly identical. For this reason, the deviation of the sensitivity is specified.