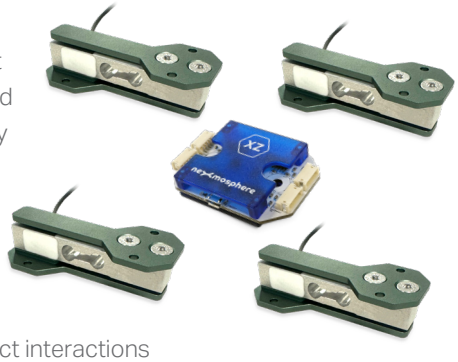


XZ QUAD WEIGHT SENSOR - ENGINEERING SAMPLES

XZ range

The Nexmosphere XZ range offers a versatile set of sensors designed to detect measurable characteristics of objects. These sensors capture real-time data and send it directly to the system, making it possible to monitor objects continuously and trigger actions when preset values are reached or exceeded. This enables the XZ range to support practical applications such as object recognition, condition monitoring, and interactive responses in smart retail displays.



Quad weight sensor

The Quad weight sensor precisely monitors shelf load to detect real-time product interactions in retail displays. With high measurement accuracy, it instantly identifies when a product is lifted or returned, triggering immediate API messages to enable responsive content, analytics, or system actions. In displays featuring multiple product types, the sensor intelligently distinguishes which item has been picked up by analyzing weight variations, even when differences between products are minimal. The Quad type supports large shelves with mounting points at all four corners.

Features

- Pick-up detection through weight difference
- Weight measurement
- Anomaly detection

X-talk

The XZ Quad weight sensor can easily be connected to any of the Nexmosphere controllers using the X-talk interface. All settings of the XZ sensor are programmable on the controller, enabling seamless integration in your application.

- Compatible with any Nexmosphere Xperience controller
- Powered by and configurable with Nexmosphere Xperience controller

Pick-up detection through weight difference

The sensor is designed to support a shelf mounted on top of four weight-bearing elements, allowing items to be placed directly on the sensing surface. When an item is lifted, the sensor will recognize which item was picked up based on the detected weight difference. The sensor can distinguish up to 16 individual items, even when weight differences are minimal. This makes it well suited for Lift & Learn applications across a wide range of objects, provided each item has a slight but measurable weight difference.

- Store up to 16 unique items in the memory of the sensor
- Adjustable weight measurement settings
- Responsive triggers upon pick-up and placement

Weight measurement

The sensor can output weight changes with a resolution of 0.1 g when a load delta is detected, for example, during item pick-up or placement.

It can also function as a conventional weighing scale, reporting the absolute weight at 0.1 g resolution for objects placed on or removed from the shelf.

- Accurate weight measurement
- Configurable weight measurement settings

Anomaly detection

In pick-up detection mode, the sensor can detect when an object is placed on the shelf that is not recognized as part of the configured application.

- API anomaly message upon detection
- No interference with normal sensor operation

Benefits

- Easy installation using M4 bolts
- Four weight-bearing elements to support large shelves
- Calibration features help ensure ccurate weight measurements

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XZ QUAD WEIGHT SENSOR - ENGINEERING SAMPLES

Mounting specifications

The Quad weight sensor consists of four weight-bearing elements. Each element must be mounted to a rigid structural part of the fixture using the M4 mounting holes on the underside. The top shelf must then be placed on top of the elements and optionally secured using the M4 mounting holes. See page 3 for an installation diagram.

For correct operation, no additional components, such as cables, should be attached to the top shelf. Each element includes a 60 cm cable for connection to the sensor's central unit. Firm and correct installation is essential for stable and accurate performance. See the product manual for detailed mounting instructions and available installation options.

Thermal specifications

Operating temperature: +10'C...+40'C/ +50'F ... +104'F
Storage temperature: -20'C...+50'C/ -4'F ... +122'F

Electrical specifications

- Operating voltage: 5V DC (via X-talk interface)
- Power consumption: 100mA

Weight measurement specifications

	XZ-Q46	XZ-Q66	XZ-Q86
Maximum weight	40KG	80KG	200KG
Minimum weight	5g	10g	25g
Repeatability	±2g to ±10 g	±4g to ±20g	±20g to ±50g
Recommended weight difference between items	>10 g	>20 g	>50 g

Miscellaneous

- Custom cable lengths available on request
- 2-year warranty (optional 3-year extended warranty available)

Packaging

Items per carton 1, 10 or 50 pcs

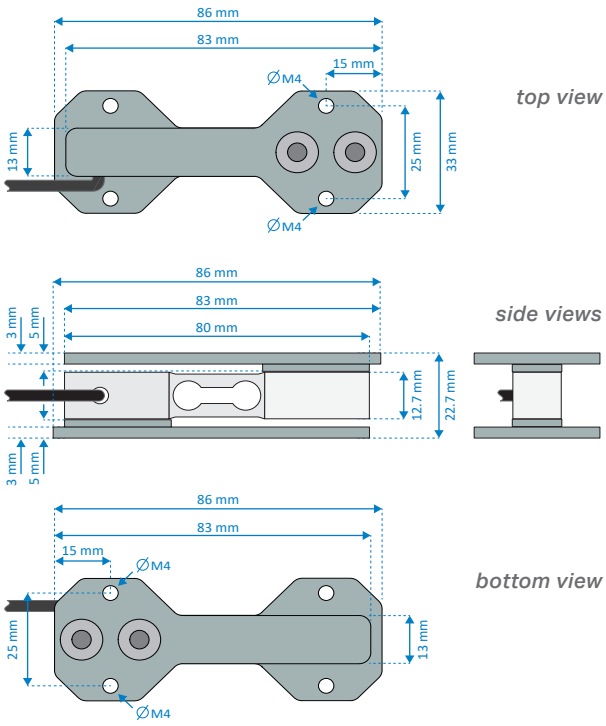
Standards and Certifications

CE RoHS compliant

UL certification pending

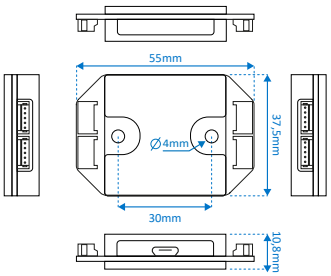
Mechanical dimensions (weight-bearing elements)

LxWxH: 86 x 33 x 22.7 mm
Fixation: M4 bolts (not included)



Mechanical dimensions (central unit)

LxWxH: 55 x 37.5 x 10.8 mm
Fixation: M4 bolts (not included)



Ordering information

Product ID	*Description*	*Net weight*	*Quantity*
XZ-Q46	Quad weight sensor 40KG	312g	1 pc
XZ-Q66	Quad weight sensor 80KG	312g	1 pc
XZ-Q86	Quad weight sensor 200KG	312g	1 pc

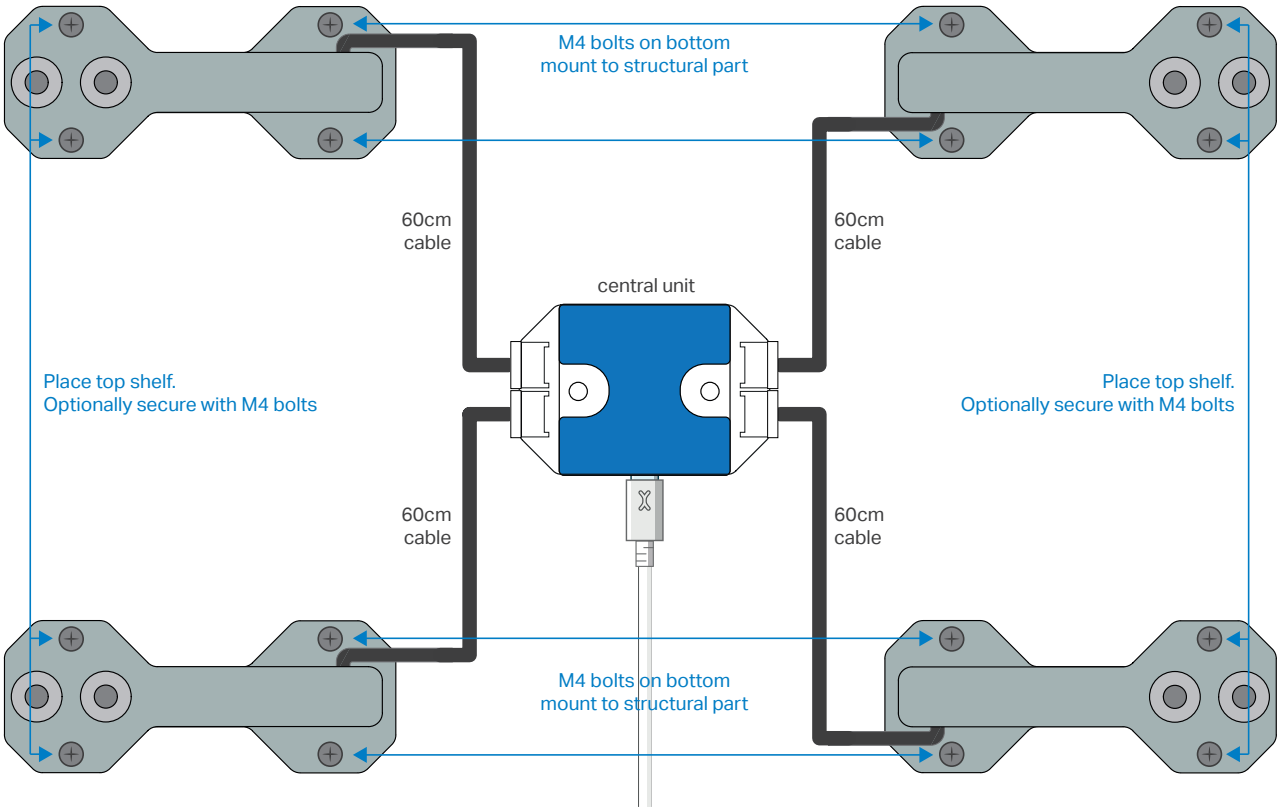
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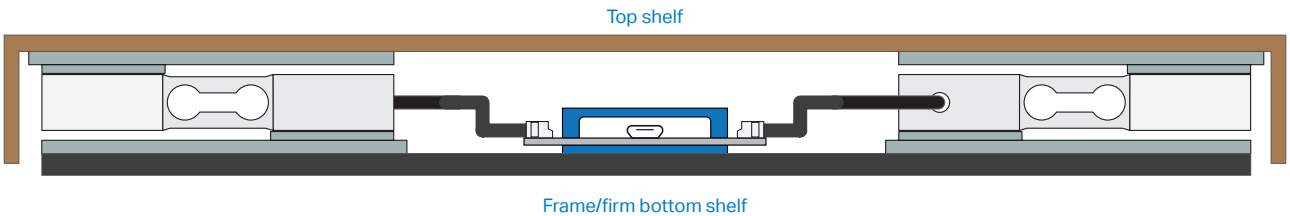
XZ QUAD WEIGHT SENSOR - ENGINEERING SAMPLES

Installation diagram

Top view



Side view



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