nexmosphere
elements for experience

WEIGHT SENSOR - SHELF TYPE

XZ range

The Nexmosphere XZ range presents a diverse selection of sensors that detect the status and characteristics of the objects to which they are applied. This allows for the logging and seamless communication of these acquired values and for the system to actively respond to predefined critical threshold values. With this, the XZ range provides a robust solution for object analysis and programming responsive actions, enhancing its utility across a spectrum of applications.

Weight sensor - shelf type

The shelf-type weight sensor is designed for installation in shelves commonly found in FMCG retail environments. With precision, it detects shelf weight, triggering API messages upon lifting or placing a product, thereby facilitating the seamless implementation of Lift & Learn applications. Additionally, the sensor features built-in smart control and analytics, enabling real-time tracking of shelf stock. This functionality empowers the implementation of automated stock alerts and facilitates the monitoring of product sell-through rates.

Features
• Pick-up detection
• Real-time stock count
• Weight measurement
• Anomaly detection

X-talk
The XZ Weight sensor can easily be connected to any of the Nexmosphere Xperience controllers using the X-talk inter-face. All settings of the XZ sensor are programmable on the controller, enabling seamless integration in your application.
• Plug and smile interface
• Compatible with any Nexmosphere Xperience controller
• Powered by and configurable with Nexmosphere Xperience controller

Pick-up detection
When an item is lifted, the sensor will detect this based on the negative weight delta, and immediately trigger an API message. The sensor can therefore be applied to create highly responsive Lift & Learn applications for stocked shelves.

Real-time stock count
Through built-in tracking algorithms, the sensor can accurately measure the stock level of the shelf in which it is installed. When stock items are lifted or placed on the shelf, it can output both the stock change, as well as the absolute stock level.

Weight measurement
The sensor can also be applied as a regular weighing scale, providing the absolute weight in grams when an object is placed or lifted from the shelf mounted on the sensor.

• Accurate weight measurement
• Adjustable weight measurement settings

Anomaly detection
The sensor will detect when an object is placed on the sensor that is not part of your application.

• Anomaly API message upon detection and clearance
• Anomaly does not interfere with normal sensor operation

Benefits
• Easy installation between a bottom shelf (frame structure) and a top panel.
• Multiple weight ranges and cable lengths available
• Calibration features guarantee accurate weight measurements

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Mounting specifications

The XZ weight sensor has 4 metal elements which are connected to a central board via sensor wires. The metal elements are to be installed beneath the to-be-weighed shelving, typically towards the 4 corners. The full weight of the top shelf should be resting on the 4 elements. A minimum spacing of 2mm between the metal element and the bottom panel is required. Please see the product manual for elaborate mounting specifications.

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: 35mA

Weight measurement specifications

	XZ-S4x	XZ-S8x
Maximum weight	40KG	200KG
Minimum weight	10g	20g
Accuracy	5g	10g

Miscellaneous

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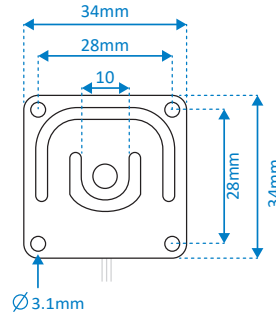
Packaging

Items per carton   1, 10 or 50 pcs

Standards and Certifications

CE RoHS compliant

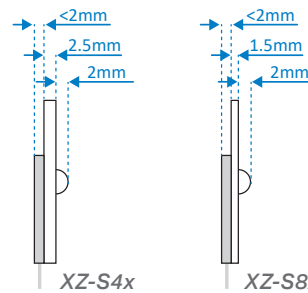*UL certification pending*

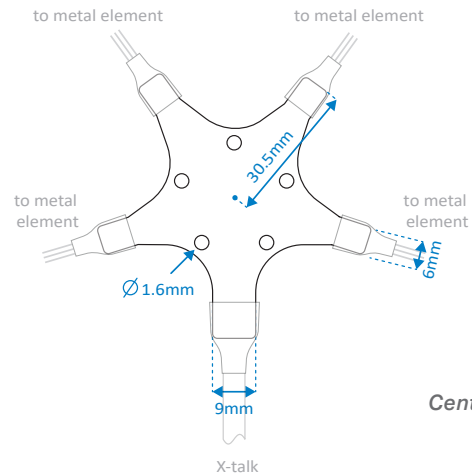## Mechanical dimensions

LxWxH: XZ-S4x: 34 x 34 x ~5.0 mm
                XZ-S8x: 34 x 34 x ~6.0 mm

*Top view
Metal element*

*Side view
Metal element*

*Top view
Central board*

Ordering information

Product ID	Description	Netto weight	Quantity
XZ-S41	Weight sensor shelf type 40KG, 10cm sensor cables, 180cm X-talk cable	67g	1 pc
XZ-S46	Weight sensor shelf type 40KG, 60cm sensor cables, 180cm X-talk cable	72g	1 pc
XZ-S82	Weight sensor shelf type 200KG, 20cm sensor cables, 180cm X-talk cable	95g	1 pc
XZ-S86	Weight sensor shelf type 200KG, 60cm sensor cables, 180cm X-talk cable	99g	1 pc