

G2 Fill Level Sensor for Smart Waste and Recycling Management

The **Superfy G2 Fill Level Sensor** is a smart waste management sensor for monitoring the fill level status of all waste and recycling materials across a wide range of containers and bins.

The dual optical sensor implementation provides accurate distance and fill level sensing capability, up to 5 m. A robust enclosure includes a long lasting battery and cellular connectivity options for LTE CAT-NB1 and CAT-M1.

Used in conjunction with the **Superfy Platform** and **Superfy App**, the sensor can enhance the operational and sustainability performance around the monitoring, collection and transport of waste and recycling material.

Ideal for smart cities, commercial waste and recycling collectors, construction sites, estates and parks, campuses and shopping malls.

Key Features

- Multi-technology distance sensing up to 5 m
- Accurate, real-time fill level and temperature sensing
- Sensing suitable for containers and bins of various sizes, shapes and materials
- Multiple connectivity options - LTE CAT-NB1 or CAT-M1
- Long lasting, replaceable dual lithium-thionyl chloride (Li-SOCL₂) batteries
- Emergency alerting system for high temperatures, tip and relocation
- IP67 rated for harsh waste environments

Superfy Software Platform

Ingest and manage all your asset data through the Superfy Software Platform.

Ultrasonic Sensor*

Capture the topology of the contents in the container.

Long battery lifetime

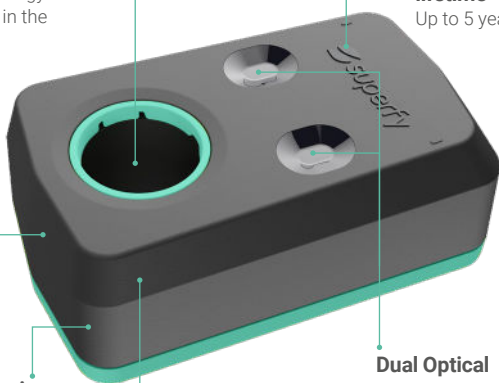
Up to 5 years.

IP67 Rated

Enables high pressure washer cleaning.

Hardened Plastic Enclosure

Hardened plastic enclosure allows for robust installation in harsh environments.



Multiple Connectivity

LTE CAT-NB1 or CAT-M1

Dual Optical Sensors

For accurate distance and fill level measurements.

*Ultrasonic sensor is available as an optional extra.

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for Smart Waste and Recycling Management

SPECIFICATIONS

Sensors

Capability	Distance, Temperature
Distance measurement	Optical / Ultrasonic*
Minimum / Maximum distance	Optical - 1 cm / 500 cm Ultrasonic* - 1 cm / 240 cm
Measurement calculation	Multi measurement with weight approximation
Temperature measurement	Yes

Connectivity

Connectivity	LTE CAT-NB1, CAT-M1
Device class	Class A
Adaptive Data Rate	Yes
Downlink configuration	Yes
Measurement times	Up to 48 readings per day

Physical

Weight (batteries included /excluded)	358 g /165 g
Dimensions	129 x 74 x 50 mm (L x W x H)
Turn on mechanism	Magnetic
Cover	Recyclable, polyamide with optical fibers

Power

Power supply	Up to 5 years (battery duration depends on local temperature, type and position of the bin, and frequency of measurement)
Batteries voltage and capacity	3.6V, 2600 mAh
Batteries type	Lithium-thionyl chloride (Li-SOCL2)
Battery replaceable	Yes, 2 batteries type LS14500 (2 x 54 grams)

Environmental

Temperature	- 30°C ~ 70°C (Test Standard: IEC60068-2-1 & 2)
Relative Humidity	25 ~ 55°C / 55 ~ 95% RH (Test Standard IEC60068-2-30)
Storage Temperature	-30°C ~ 60°C
Storage Relative Humidity	10 ~ 90% RH
Shock	15G, half sine, 15 ms (Test Standard: IEC60068-2-27)
Vibration	5 ~ 150Hz 1G acceleration operating (Test Standard: IEC60068-2-6)
IP Rating	IP67

Certifications

Certifications	CE, FCC, RCM, PTCRB, UKCA
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Typical Applications



*Ultrasonic sensor is available as an optional extra.

For further details contact: sales@superfy.com

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