

# Lufft WS100-UMB – Radar Precipitation Sensor

The drop speed is captured with a 24-GHz-Doppler radar.

The precipitation quantity and intensity is calculated from the correlation between drop size and speed.

The type of precipitation (rain, snow, sleet, freezing rain, hail) is detected from the difference in drop speed.

The measurement data is provided in form of the Lufft UMB standard protocol.

Lufft WS100-UMB Precipitation sensor		Bestell-Nr.
<b>Product variants</b>	<b>WS100-UMB EU</b>	<b>8367.U03</b>
	<b>WS100-UMB USA, Canada</b>	<b>8367.U04</b>
<b>Technical data</b>	Dimensions	Ø150 mm (5.9 in), height: 190 mm (7.48 in)
	Weight	~0.6 kg
	Power supply	10...28 VDC
	Power consumption without heating	1 VA / 0,4 VA
	Heating power	9 VA
	Operat. temp. range	-40...60 °C
	Operat. humidity range	0...100 %
	Protection class	IP66
	Interfaces/ protocols	RS-485 semi-duplex two-wire, SDI-12, pulse interface / UMB protocol, Modbus
	Connector/ cable length	10 m
<b>Precipitation</b>	Transmission frequency	24 GHz
	Measurement surface	9 cm²
	Precipitation types	Rain, snow, sleet, freezing rain, hail
	Principle	Doppler radar
	Accuracy	± 10 %*
<b>Measurement ranges</b>	Resolution liquid precipitation	0.01...0.1...1.0 mm² (pulse interface)
	Droplet diameter	0.3...5 mm
	Precipitation intensity	0.01...200 mm/h
	Particle velocity	0.9...15.5 m/s
	Hail	5.1...~30 mm
<b>Accessories</b>	UMB interface converter ISOCON-UMB	<b>8160.UISO</b>
	Power supply 24V/4A	<b>8366.USV1</b>
	Surge protection	<b>8379.USP</b>
	Connection cable, 20m	<b>8370.UKAB20</b>

\* Under laboratory conditions by means of Lufft test system: Reference drop simulator with 2.8 mm drop diameter and adjustable intensity between 10 and 200 mm/h.

- Maintenance-free
- Fast response time
- Resolution of 0.01 mm
- Heated



Subject to technical modifications