

RFID systems for production

MOBY U mobile data storage unit

MDS U315/MDS U524/MDS U525

Overview



MDS U315

Mobile data storage unit (2 KB RAM) for universal applications, preferably in transport and logistics applications, enclosure dimensions 111 mm x 67 mm x 23.5 mm, degree of protection IP65, operating temperature -25 °C to +70 °C, with replaceable battery

MDS U524

Rugged and mobile data storage unit (32 KB RAM) for universal use, enclosure dimensions 111 mm x 67 mm x 23.5 mm, degree of protection IP68, operating temperature -25 °C to +85 °C

MDS U525

Same as MDS U524, but with degree of protection IP65 and replaceable battery

Technical specifications

Mobile data storage unit	MDS U315	MDS U524	MDS U525
Memory size			
• Fixed code memory	32-bit serial number		
• Read-only memory	128 bit, to be written once by user		
• Application memory	2 KB RAM	32 KB RAM	
MTBF (at +40 °C)	2 400 000 h (without taking battery into account)		
Write/read cycles	unlimited / 10 ⁹ at +25 °C		
Write/read distance	150 mm to 3,000 mm		
Bulk and multitag capability	yes		
Power supply	Replaceable battery	Battery	Replaceable battery
Battery lifetime	≥5 years ¹⁾	≥ 8 years ¹⁾	
Shock/vibration-resistant to DIN EN 60721-3-7, Class 7M3	50 g/10 g		
Free fall height to DIN EN 60068-2-32	1 m		
Torsion and bending load	Not permissible		
Suggested attachment	4 x M4 screws		
Recommended distance to metal	Can be directly mounted on metal		
Degree of protection to EN 60529	IP65	IP68	IP65
Resistance to chemicals	See configuration manual		
Enclosure			
• Dimensions (L x W x H)	111 mm x 67 mm x 23.5 mm		
• Color/material	Anthracite / plastic PA 12 GF 25		
Ambient temperature			
• During operation	-25 °C to +70 °C	-25 °C ... +85 °C	
• During transportation and storage	-40 °C to +85 °C		
Weight, approx.	100 g		
Special features	Universal mobile data memory for the preferred deployment in transport and logistics	Rugged and mobile data memory for universal use	

¹⁾ The service life depends on the temperature, the time in which the MDS is located within the antenna field of the SLG (Zone 1 and 2) and the volume of data that is read/written.

Field data (all dimensions in mm)

MDS U315/MDS U524/MDS U525 to SLG U92

Ranges (S_g) of the SLG can be limited in 500 mm steps up to 3500 mm

	Minimum	Standard	Maximum
Limit distance (S_g), approx.:	500	2000	3000
Operating distance (S_a)	350	1400	2100
Transmission window at S_a length / width	700	2400	3000
	700 (with FCC approval)	2000 (with FCC approval)	2100 (with FCC approval)

The field data apply to write and read operations of the MDS.

Selection and Ordering data

		Order No.
Mobile data memory MDS U315	A	6GT2 500-3BF10
2 KB RAM		
Mobile data memory MDS U524	A	6GT2 500-5CE10
32 KB RAM		
Mobile data memory MDS U525	A	6GT2 500-5CF10
32 KB RAM		

A: Subject to export regulations AL = N and ECCN = EAR99H

Dimensions

