

MOBY® U

Mobile Data Memory - MDS U589

Product Sheet

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Description

The MDS U589 is a mobile data memory of the MOBY U long range identification system. It offers a large, 32-Kbyte memory and can be used at high temperatures (up to +220°C cyclically). It is designed for paint shop applications in the automotive industry. Very low power consumption ensures a long life of approx. 5 years. The extremely sturdy, interference-resistant MDS can be read and write-accessed at a distance of up to 3 m. Addressing of the MDS U589 is easy with the filehandler familiar from MOBY I (logical file addressing). In addition, the MDS can also be used with only direct memory access. With its transmission frequency in the ISM frequency band at 2.4 GHz, the MDS offers a very high net data transmission speed of approx. 8 Kbytes per second without multitagging and approx. 4 Kbytes per second even with multitagging and two MDSs.

Ordering Data

Product Description	Order No.	L-Price	AL	ECCN
		EURO/Unit		
Mobile data memory MDS U589 with 32-Kbyte memory for high temperatures	6GT2500-5JK10	See FDB.		

Technical Data

MDS type	MDS U589
Identification system	MOBY U
Fixed code memory	MDS identification number (32 bits)
Read only memory	128 bits, can be written once by user
Application memory	
Memory technology	RAM
Memory size	32 Kbytes
Memory organization	Byte access, filehandler mode
Data retention	10 years
MTBF (at +40°C)	2.5 x 10 ⁶ hours (regardless of battery)
Read/write cycles	10 ⁷ at +25°C
Read/write distance	0.15 m to 3 m
Multitag capability	Yes
Power supply	Battery
Battery lifespan	≥ 5 years ¹⁾ ; no changing
Shock/oscillation in acc. w. DIN EN 60721-3-7, class 7 M3	50 g/5 g

Free fall in acc. w. DIN EN 60068-2-32	1 m
Torsion and bending stress	Not permitted
Mounting	
Recommended distance to metal	Can be mounted directly on metal
Protection rating in acc. w. DIN EN 60529	IP 68
Chemical resistance	See configuration manual
Housing	
Dimensions [ø x H] in mm	114 x 83
Color/material	Brown/PPS
Ambient temperature	
During operation	-25°C +220°C (cyclic)
During transportation and storage	-40°C to +85°C
Weight, approx.	600 g
Certifications	RF: I-ETS 330440+C1:1997 SAR: 99/519/EG Safety: EN 60950:2000 EMC: EN 301489-01:2000 EN 301489-03:2000 ENV 50204:1995 FCC Part 15C cUL _{US} Safe for pacemakers

1) The lifespan depends on several factors - the temperature, the time the MDS remains in the antenna field of the SLG (zones 1 and 2) and the amount of data read/written.

Field Data

	Standard	Minimum	Maximum	
Limit distance (S _g), approx.	2.0 m	0.50 m	3.0 m	Over-the-horizon transmissions can be actively limited (in 0.5 m steps from 0.5 m to 3.5 m) by SLG.
Working distance (S _a)	1.4 m	0.35 m	2.1 m	
Transmission window at S _a				
Length/width	2.8 m	0.70 m	3.6 m	

The field data apply to reading and writing the MDS together with SLG U92 without FCC certification. Applications with SLG U92 with FCC certification have reduced declarations for the transmission field (see product sheet Read/Write Device – SLG U92 wit FCC).

Cyclic Use of the MDS at Temperatures > 85°C

At temperatures up to +85°C, cyclic operation is not necessary (i.e., the MDS can be used continuously up to this temperature).

Heating up		Cooling down	
Temperature	Time	Temperature	Time
220°C	Briefly	25°C	> 30 min
200°C	0.5 hr	25°C	> 1 hr
200°C	1 hr	25°C	> 4 hr

Dimensional Drawing - MDS U589

