

SIEMENS

SIMATIC sensors


RFID systems MOBY D / RF200 / RF300

MDS D339

Compact Operating Instructions

MDS D339

Characteristics

MDS D339	Characteristics	
	Field of application	Applications in production automation with high temperature demands (up to +220 °C) Typical application areas: <ul style="list-style-type: none">• Paintshops and their preparatory treatments• Primer coat, electrolytic dip area, cataphoresis with the associated drying furnaces• Top coat area with drying furnaces• Washing areas at temperatures > 85 °C• Other applications with higher temperatures
	Memory	1024 bytes of EEPROM/gross 992 bytes of user memory
	Read/write range	See Chapter Field data (Page 4).
	Mounting on metal	With spacer; recommended distance from metal ≥ 30 mm
	ISO standard	ISO 15693
	High degree of protection	IP68, IPx9K
	Material	Plastic PPS; silicone-free

Ordering data

Table 1 Ordering data for MDS D339

	Order number
MDS D339	6GT2600-3AA10

Table 2 Ordering data for MDS D339 accessories

MDS D139 accessories	Order number
Spacers	6GT2690-0AA00
Quick change holder	6GT2690-0AH00

Safety instructions for the device/system

NOTICE
This device/system may only be used for the application instances that have been described in the catalog and the technical documentation "MOBY D System Manual (http://support.automation.siemens.com/WW/view/en/13628689/0/en)" and only in combination with third-party devices and components recommended and/or approved by Siemens.

Mounting on metal

Direct mounting of the MDS D339 on metal is not allowed. A distance of ≥ 30 mm is recommended. This can be achieved using spacers, see Mounting options (Page 3).

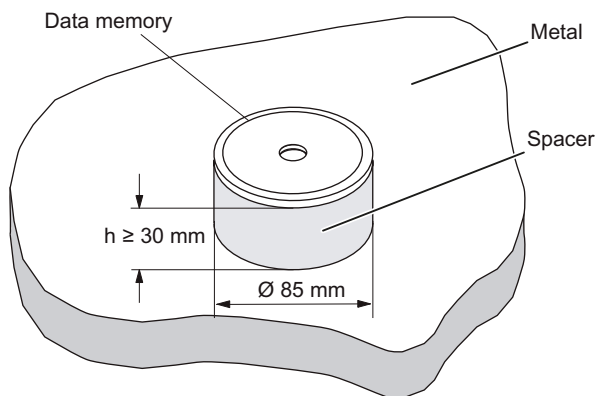


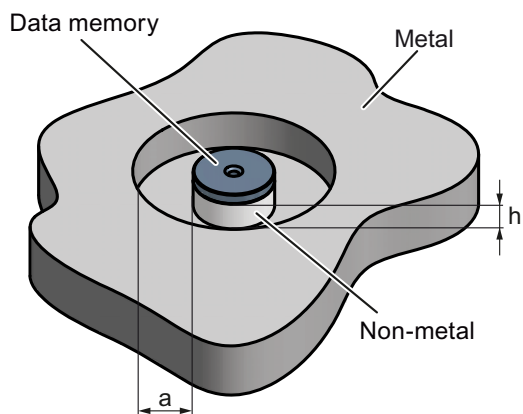
Figure 1 MDS D339: Mounting on metal

Note

If the minimum guide values (h) are not observed, a reduction of the field data results. It is possible to mount the MDS with metal screws (M5). This has no tangible impact on the range. It is recommended that a test is performed in critical applications.

Mounting in metal

It is possible to mount the MDS D339 in metal. With large antennas, for example ANT D5, this leads to a reduction of ranges.



$a = 100$ mm

$h = 30$ mm

Figure 2 MDS D339: Mounting in metal

Mounting options

Spacer with fixing screw

CAUTION
Damage to the MDS due to improper mounting
To secure the device when mounting with the spacer (6GT2690-0AA00), use a stainless steel M5 screw a nut, and a lock nut. When mounting, make sure that the has MDS 1 mm play. This avoids damage to the MDS at high temperatures (expansion coefficients) and ensures it is securely mounted long-term.
In higher temperatures (> +80 °C), observe the expansion coefficients of all materials in order to prevent damage to the MDS due to fastening.

The spacer is made of the thermoplastic PPS.

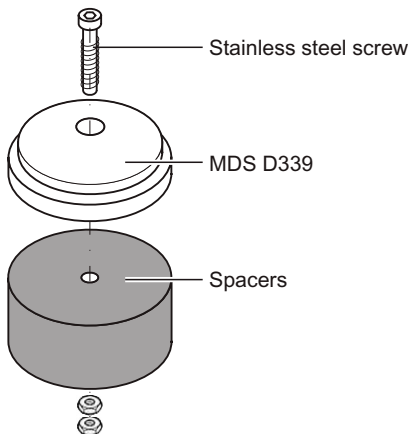
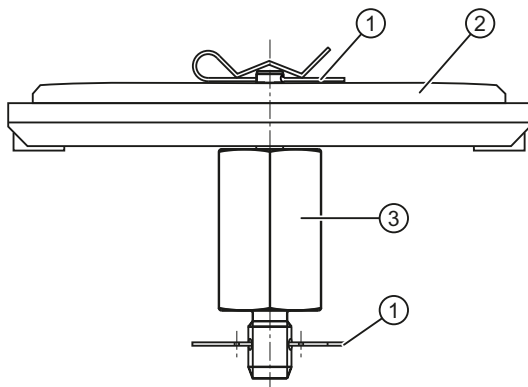


Figure 3 MDS D339: Mounting with a spacer

Quick change holder with spring cotter pins

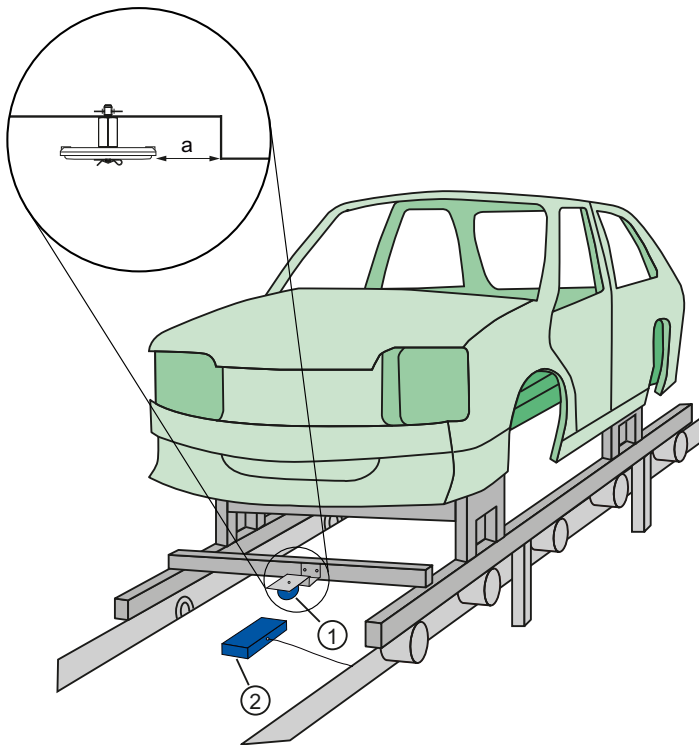
The transponder is fixed in the quick change holder (6GT2690-0AH00) with two spring cotter pins. The quick change holder is made of stainless steel (V2A).



- ① Spring cotter pin
- ② Transponder
- ③ Quick change holder

Figure 4 MDS D339: Quick change holder

Example of an application with an MDS D339



- ① MDS D139 / D339
Mount the MDS flush with the lower edge of the support, minimum clearance $a = 50$ mm
- ② Reader (for example RF380R / SLG D12S)

Figure 5 MDS D339: Application example

Field data

Table 3 Field data for MDS D339

	Operating distance (S_a)	Limit distance (S_g)	Transmission window (L_x/L_y)	Minimum distance from MDS to MDS
SLG D10/D10S ANT D5	0 ... 300 mm	380 mm	Ø 320 mm	≥ 1 m
SLG D10/D10S ANT D6	0 ... 400 mm	480 mm	520 × 420 mm	≥ 1.5 m
SLG D10/D10S ANT D10	0 ... 300 mm	380 mm	1050 × 350 mm	≥ 2 m
SLG D11/D11S ANT D5	0 ... 180 mm	220 mm	Ø 300 mm	≥ 1 m
SLG D12/D12S	0 ... 90 mm	110 mm	120 × 60 mm	≥ 0.5 m
RF260R	10 ... 70 mm	80 mm	Ø 110 mm	≥ 0.3 m
RF340R	10 ... 75 mm	85 mm	Ø 115 mm	≥ 0.3 m
RF350R ANT 1	5 ... 90 mm	105 mm	Ø 130 mm	≥ 0.3 m
RF 380R	25 ... 160 mm	190 mm	220 × 210 mm	≥ 0.5 m

Technical specifications

Table 4 Technical specifications of MDS D339

Memory size	1024 bytes		
Memory configuration	<ul style="list-style-type: none"> • Serial number • Configuration memory • Application memory 		
	<ul style="list-style-type: none"> • 8 bytes (fixed code) • 24 bytes • 992 bytes 		
Storage technology	EEPROM		
Memory organization	Refer to the MOBY D system manual or RF300 section "Memory configuration of the ISO tags"		
Data retention at +40 °C	10 years		
MTBF	2 x 10 ⁶ hours		
Read cycles	Unlimited		
Write cycles at +40 °C	<ul style="list-style-type: none"> • minimum • typical 		
	<ul style="list-style-type: none"> • 100.000 • 1.000.000 		
Read/write distance (S _g)	See table Field data (Page 4).		
Distance from metal	min. 30 mm (approx. 30% reduction of the field data)		
Multitag capability	Yes		
Power supply	Inductive power transmission (without battery)		
Degree of protection to EN 60529	IP68 ¹⁾ IPx9K ²⁾		
Shock according to EN 60721-3-7, Class 7M3 Total shock response spectrum, Type II	50 g		
Vibration-resistant to EN 60721-3-7, Class 7M3	20 g		
Torsion and bending load	Not permissible		
Enclosure dimensions	<ul style="list-style-type: none"> • Dimensions (D x H) • Color • Material 		
	<ul style="list-style-type: none"> • 85 mm (±0.5) x 15 mm (-1.0) • Black • PPS plastic, silicone-free 		
Fixing	1 x stainless steel screw, thread M5 ³⁾		
Tightening torque	1.5 Nm ⁴⁾		
Ambient temperature	• During operation	-25 °C to +100 °C	Permanent
		+120 °C to +140 °C	20% reduction in the limit distance
		+200 °C ⁵⁾	Tested up to 5000 hours or 3000 cycles
		+220 °C	Tested up to 2000 hours or 1500 cycles
	• Transport and storage	-40 °C to +100 °C	
Weight	Approx. 50 g		

1) 2 hours, 2 m, +20 °C

2) steam jet: 150 mm; 10 to 15 l/min; 100 bar; 75 °C

3) See section Mounting options

4) max. torque when securing the MDS. When used in higher temperatures (> +80 °C), remember the expansion coefficients of all materials (see section Mounting options).

5) Note that no processing is possible at temperatures of +140 °C or higher.

Use of the MDS D339 in hazardous areas

The MDS D339 mobile data memory is classed as a piece of simple, electrical equipment and can be operated in Protection Zone 2, Device Group II, Category 3G.

The following requirements of the Directive 94/9/EC are fulfilled:

EN 60079-0:2006, EN 60079-15:2005, EN 61241-0:2006, EN 61241-1:2004

Identification



II 3 G Ex nA II T2

II 3 D Ex tD A22 IP68 T 210°C

KEMA 09 ATEX 0133 X

Ta: -25 ... +220°C

WARNING

Gefahr durch elektrostatische Entladungen
Potential electrostatic charging hazard
Danger potentiel de charges électrostatiques

NOTICE

Installations- und Betriebsbedingungen für den Ex-Schutzbereich:

- Der Einsatz des Gerätes in der Nähe von stark ladungserzeugenden Prozessen ist untersagt.
- Das Gerät ist mechanisch geschützt zu montieren.
- Die Montage muss auf einem geerdeten, leitenden Untergrund erfolgen.
- Die Reinigung darf nur mit feuchtem Tuch erfolgen.

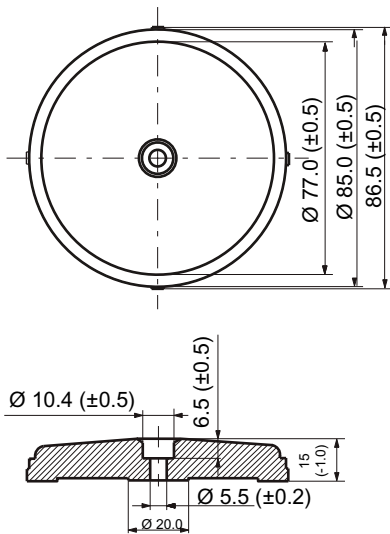
Installation and operating conditions for hazardous areas:

- Use of the equipment in the vicinity of processes generating high charges is not allowed.
- The equipment must be mechanically protected when installed.
- Installation must be performed on a grounded and conductive mounting surface.
- Cleaning only with a wet cloth

Conditions d'installation et de mise en oeuvre pour la zone de protection Ex :

- L'utilisation de l'appareil près de processus générant de fortes charges est interdite.
- L'appareil doit être monté de manière à être protégé mécaniquement.
- Le montage doit être effectué sur un socle conducteur mis à la terre.
- Nettoyage uniquement avec un chiffon humide

Dimensional drawing



Dimensions in mm

Figure 6 Dimension drawing of the MDS D339

Cleaning the mobile data memory

NOTICE

Do not clean the transponder with mechanical tools, sand-blasting or pressure hose. These cleaning methods result in damage to the transponder.

Clean the transponder only with the cleaning agents listed in the section "Chemical resistance of the MDS".

Service & support

Technical support

- Phone: + 49 (0) 911 895 7222
- Fax: + 49 (0) 911 895 7223
- E-mail (<mailto:support.automation@siemens.com>)
- Internet: Online support request form: (www.siemens.com/automation/support-request)

Service & support at IA/DT

Support homepage (www.siemens.com/automation/service&support)

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MDS D339
J31069-D0228-U001-A2-7618, 07/2011