SIEMENS

SIMATIC Ident
RFID systems
MDS D423
Compact Operating Instructions

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

⚠ DANGER

indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠ WARNING

indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠ CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

⚠ WARNING

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

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1 Characteristics

MDS D423	Characteristics	
	Field of application	Identification of metallic workpiece holders, workpieces or containers, production automation
	Memory	FRAM 2048 bytes gross 2000 bytes net
	Installation	Can be mounted in and on metal

2 Ordering data

Table 2-1 Ordering data of MDS D423

	Order number
MDS D423	6GT2600-4AA00

3 Mounting on metal

Mounting on metal

Direct mounting of the MDS D423 on metal is possible.

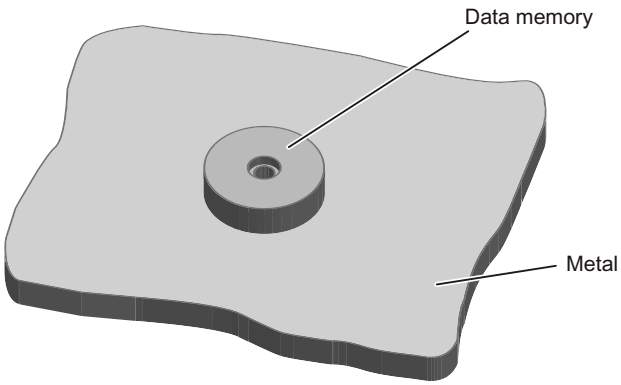
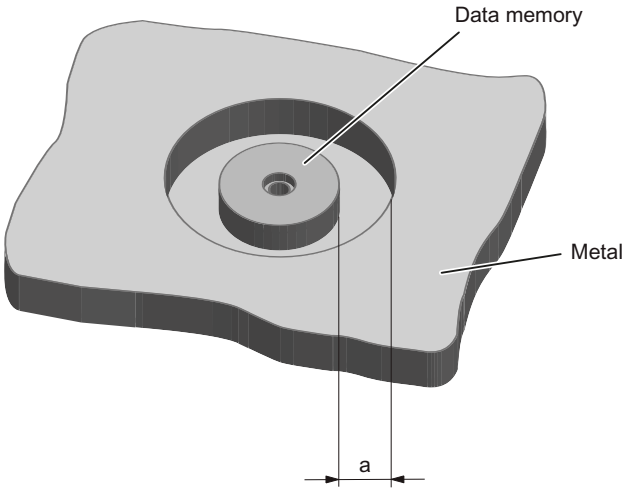


Figure 3-1 Mounting the MDS D423 on metal

Flush-mounted in metal

It is possible to mount the MDS D423 in metal.



a ≥ 10 mm

Figure 3-2 Flush-mounting of MDS D423 in metal

4 Field data

Table 4-1 Field data of the MDS D423, mounting on metal

	Operating distance (S_a)	Limit distance (S_g)	Transmission window (L_x/L_y)	Minimum distance from MDS to MDS
RF210R	2 ... 10 mm	12 mm	20 mm	≥ 40 mm
RF220R	2 ... 24 mm	28 mm	30 mm	≥ 60 mm
RF240R	2 ... 35 mm	40 mm	40 mm	≥ 100 mm
RF260R	2 ... 40 mm	45 mm	45 mm	≥ 200 mm
RF310R (as of AS: "D")	2 ... 35 mm	46 mm	30 mm	≥ 100 mm
RF340R	2 ... 40 mm	55 mm	60 mm	≥ 200 mm
RF380R	5 ... 75 mm	90 mm	80 mm	≥ 500 mm

Table 4-2 Field data of the MDS D423, flush mounting in metal [1)]

	Operating distance (S_a)	Limit distance (S_g)	Transmission window (L_x/L_y)	Minimum distance from MDS to MDS
RF210R	2 ... 8 mm	11 mm	20 mm	≥ 40 mm
RF220R	2 ... 20 mm	23 mm	30 mm	≥ 60 mm
RF240R	2 ... 30 mm	35 mm	35 mm	≥ 100 mm
RF260R	2 ... 30 mm	35 mm	35 mm	≥ 200 mm
RF310R (as of AS: "D")	2 ... 32 mm	42 mm	30 mm	≥ 100 mm
RF340R	2 ... 35 mm	46 mm	60 mm	≥ 200 mm
RF380R	5 ... 60 mm	75 mm	80 mm	≥ 500 mm

[1)] 10 mm metal-free all round

Note

Range in a non-metallic environment

The MDS D423 is optimized for use in a metallic environment. If the MDS D423 is used in a non-metallic environment, this results in a reduced range.

5 Technical specifications

Table 5-1 Technical specifications of MDS D423

Memory size	2048 bytes
Memory configuration	
• Serial number	• 8 bytes (fixed code)
• Configuration memory	• 40 bytes
• Application memory	• 2000 bytes
Storage technology	FRAM
Memory organization	FRAM, 2048 bytes gross 2000 bytes net (when using the OPT area, 16 bytes of it must be subtracted in 8 byte blocks)
Report	ISO 15693
Data retention (at +40 °C)	10 years
MTBF (at +40 °C)	2 x 10^6 hours
Read cycles	Unlimited
Write cycles (at +40 °C)	> 10^{10}
Read/write distance (S_g)	See section "Field data (Page 3)."
Mounting on metal	Yes
Mounting in metal	yes, with 10 mm clearance all round
Power supply	inductive power transmission (without battery)
Degree of protection to EN 60529	IP68 [1] IPx9K [2]
Pressure resistance	• low pressure resistant [3] • high pressure resistant (see degree of protection IPx9K)
Shock according to EN 60721-3-7, Class 7M3 Total shock response spectrum, Type II	50 g [4]
Vibration-resistant to EN 60721-3-7, Class 7M3	20 g [4]
Torsion and bending load	Not permissible
Enclosure	
• Dimensions (D x H)	• 30 mm (+0.2/-0.5) x 8 mm (-0.5)
• Color	• Black
• Material	• Plastic PPS, silicone-free
Fixing	Countersunk screw, thread M4 [5]
Tightening torque	≤ 1 Nm

Ambient temperature	
• During operation	-25 °C to +85 °C
• Transport and storage	-40 °C to +100 °C
Weight	Approx. 10 g

1) 2 hours, 2 m, +20 °C

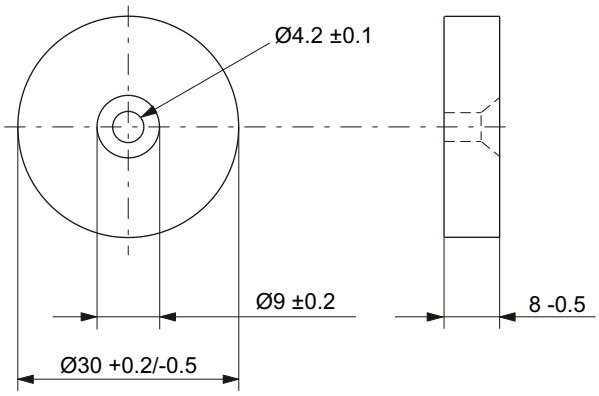
2) steam jet: 150 mm; 10 to 15 l/min; 100 bar; 75 °C

3) vacuum dryer: up to 20 mbar

4) The values for shock and vibration are maximum values and must not be applied continuously.

5) To prevent it loosening, secure the screw with screw locking varnish.

6 Dimensional drawing



Dimensions in mm

Figure 6-1 Dimension drawing for MDS D423

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