

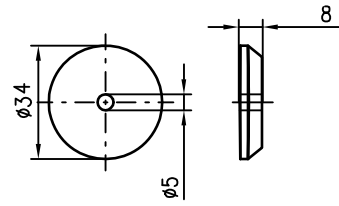
**Dimensioned drawing**

Part No. 501 08859

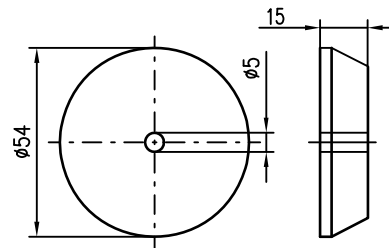


- Robust disc transponder with ATEX approval in accordance with zone 2
- Suitable for read-write device RFM32SL200 EX-n
- Can be mounted on metal (reduced operating range)

TFM 03 1110.EX Part No. 501 08071



TFM 05 1110.EX Part No. 501 08070  
TFM 05 1510.EX Part No. 501 10026



We reserve the right to make changes \*tfm\_02gb.fm

## Specifications

### General specifications

|                    |  |
|--------------------|--|
| Working frequency  | 13.56MHz   |
| Data protocol      | I-Code SLI   |
| Memory size        | 1024bits   |
| User data          | 896bits / 112 bytes  |
| Memory structure   | 32 blocks with 32bits (4 bytes) each                               |
| Memory access      | write/read   |
| Read distance      | see Diagrams   |
| Data carrier speed | max. 4.0m/s (see Diagrams)   |
| Data storage       | see table  |
| Memory access      | write/read - approx. 50ms/block                                    |
|                    | min. 100,000 write cycles typical, min. 10 years of data retention |

### Mechanical data

|            |                                   |
|------------|-----------------------------------|
| Material   | PA6 / PU                          |
| Colour     | black                             |
| Weight     | 0.045kg (TFM05) / 0.01 kg (TFM03) |
| Dimensions | see dimensioned drawing           |

### Environmental data

|   |   |
|---|---|
| Ambient temp. (operation/<br>storage) <sup>1)</sup> | TFM 03 1110.EX: -25°C ... +60°C / -25°C ... +85°C   |
|   | TFM 05 1110.EX: -25°C ... +60°C / -40°C ... +90°C   |
|   | TFM 05 1510.EX: -25°C ... +60°C / -40°C ... +120°C  |
| Protection class                                    | IP 67   |
| Standards applied                                   | EN 50014:1997-A1-A2 (general regulations)<br>EN 50020:2002 (intrinsic safety)<br>94/9/EC explosion protection directive |
| Certifications                                      | Ⓔ II 2G EEx ia 1IC T4<br>Ⓔ II 2D Ex iaD 2I T70 °C   |

1) Observe ATEX approval area

## Order guide

### Disc transponder

- Ø 34mm, 112 byte memory
- Ø 54mm, 112 byte memory
- Ø 54mm, 112 byte memory

### Designation

- TFM 03 1110.EX
- TFM 05 1110.EX
- TFM 05 1510.EX

### Part No.

- 501 08071
- 501 08070
- 501 10026

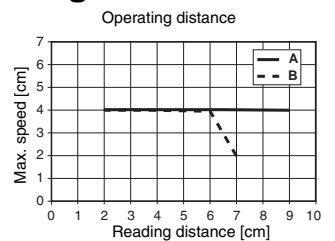
## Remarks

The read-write transponders of series TFM0x 1110.EX are robust data carriers with 112 bytes of memory for a broad range of applications in potentially explosive areas of zone 2.

Please observe the approval conditions.

The specified operating ranges refer to read-write device RFM32SL200 and may vary due to temperature influences, installation site, reading angle, etc.

## Diagrams



- A TFM05 EX
- B TFM03 EX

## Tables

| Data structure    | Access       | Bits  |
|-------------------|--------------|-------|
| Transponder ID    | Read only    | 64    |
| User data         | Read/Write   | 28x32 |
| Header-Paritybits | not possible | 64    |