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Mounting and installation instructions
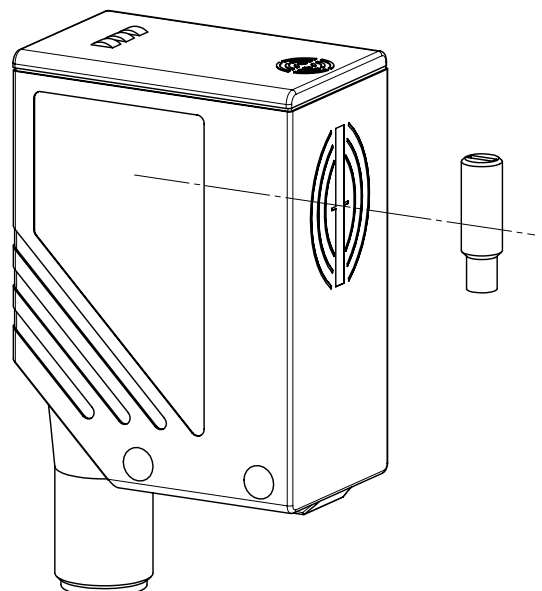
Positioning of the ID tags
to the read/write head

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Installation of the ID tags in/on metal

efector190

DTA10x and E803xx

Contents

1 Preliminary note

1.1 Scope

This document describes the ideal positioning of the ID tags (RFID transponders) E803xx to the read/write heads DTA10x as well as the read/write distances that can be obtained when the ID tags are installed in/on metal.

DTA100: DTSLF AARWASUS01   (= read/write head)
DTA101: DTSLF AAROASUS01   (= read head)

1.2 Symbols used

►   Instruction

→   Cross-reference

[!]   Important note
Non-compliance can result in malfunctions or interference.

[i]   Information
Supplementary note

1.3 Additional information

Technical data sheets:

www.ifm.com → Data sheet direct → e.g. E80312

Installation instructions DTS125:

www.ifm.com → Data sheet direct → e.g. DTA100 → Additional data

2 General installation instructions

! If the ID tags are mounted in/on metal, the read/write distance is reduced.

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► Install the ID tags centered to the antenna symbol on the front or upper side of the read/write head (attribution of the ID tags see below).

► Ensure in dynamic applications that the ID tags pass the middle of the antenna symbol.
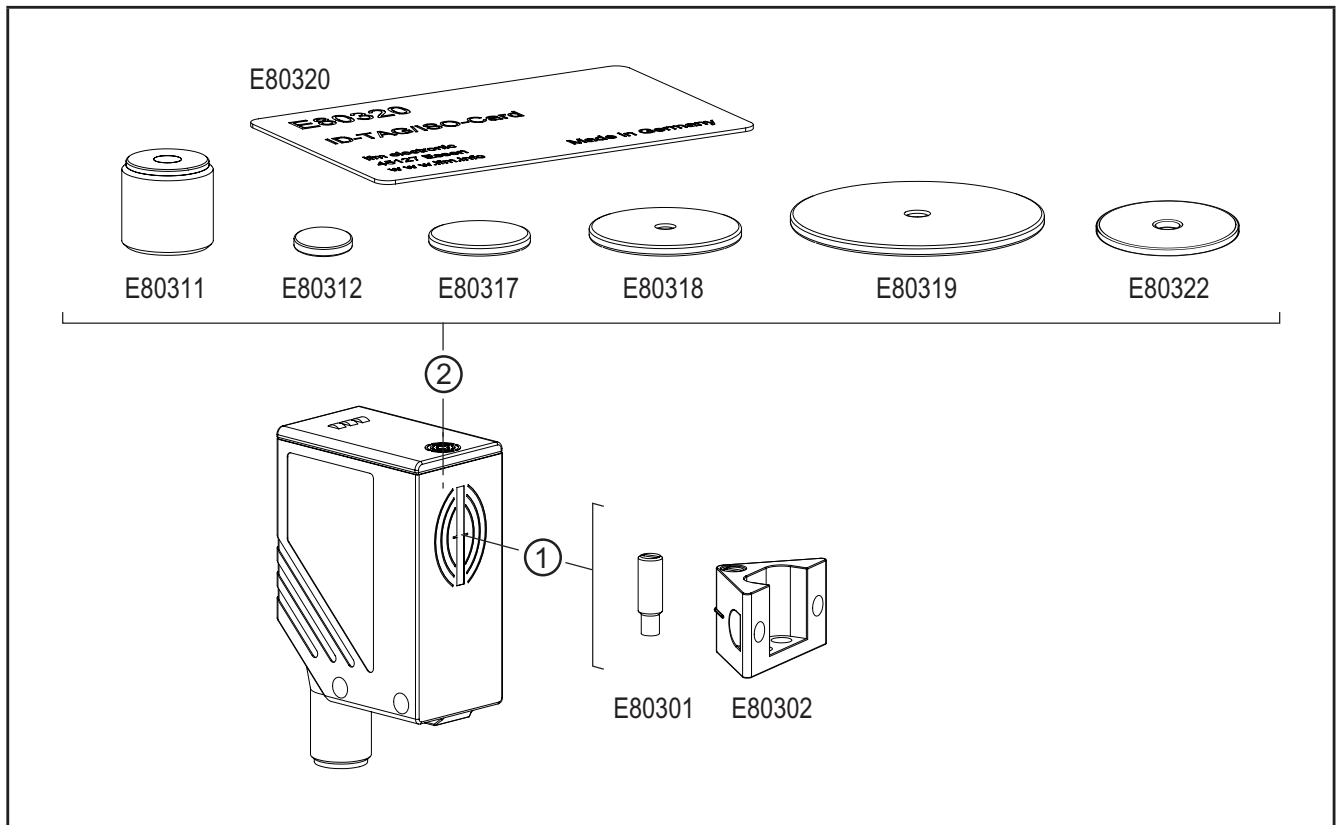

1: Positioning front side
2: Positioning overhead

Marking middle of the antenna = middle of the ID tag

3 ID tag flush mounted in metal

► Install the ID tag flush and centered in a circular recess. Take into account the diameter and the minimum depth of the recess.

► Fill the space between ID tag and metal carrier with a non-metallic filling compound (e.g. glue or cast resin).
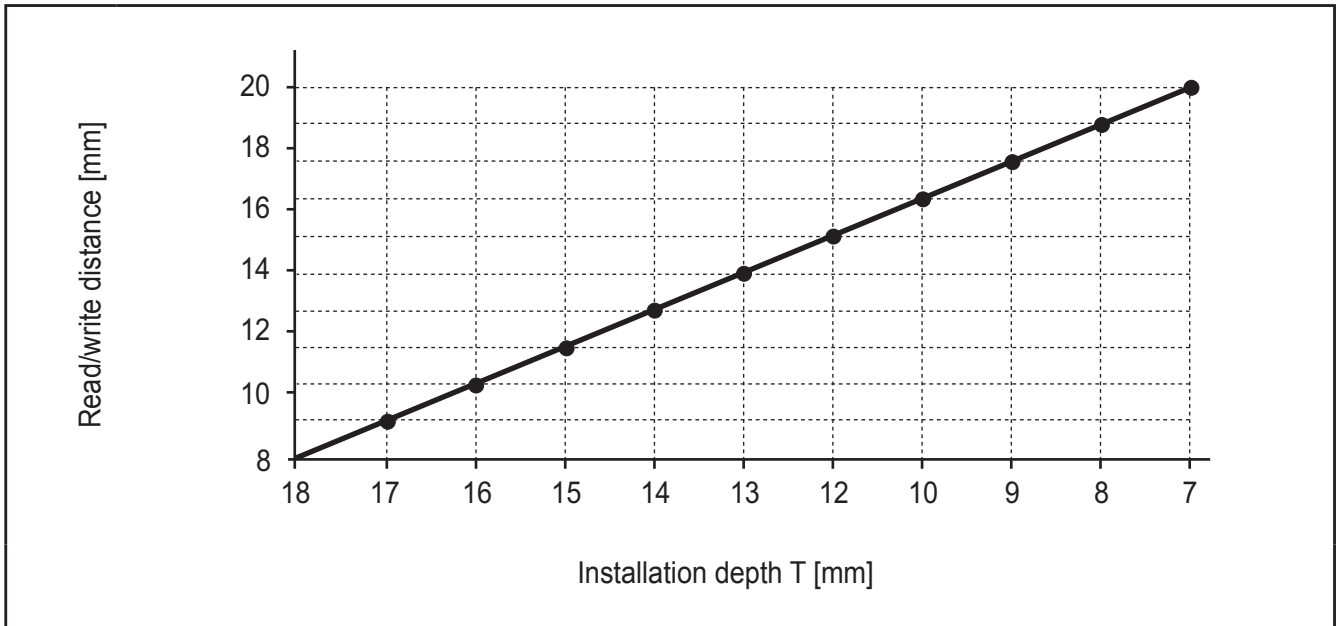
3.1 Dimensions of the recess
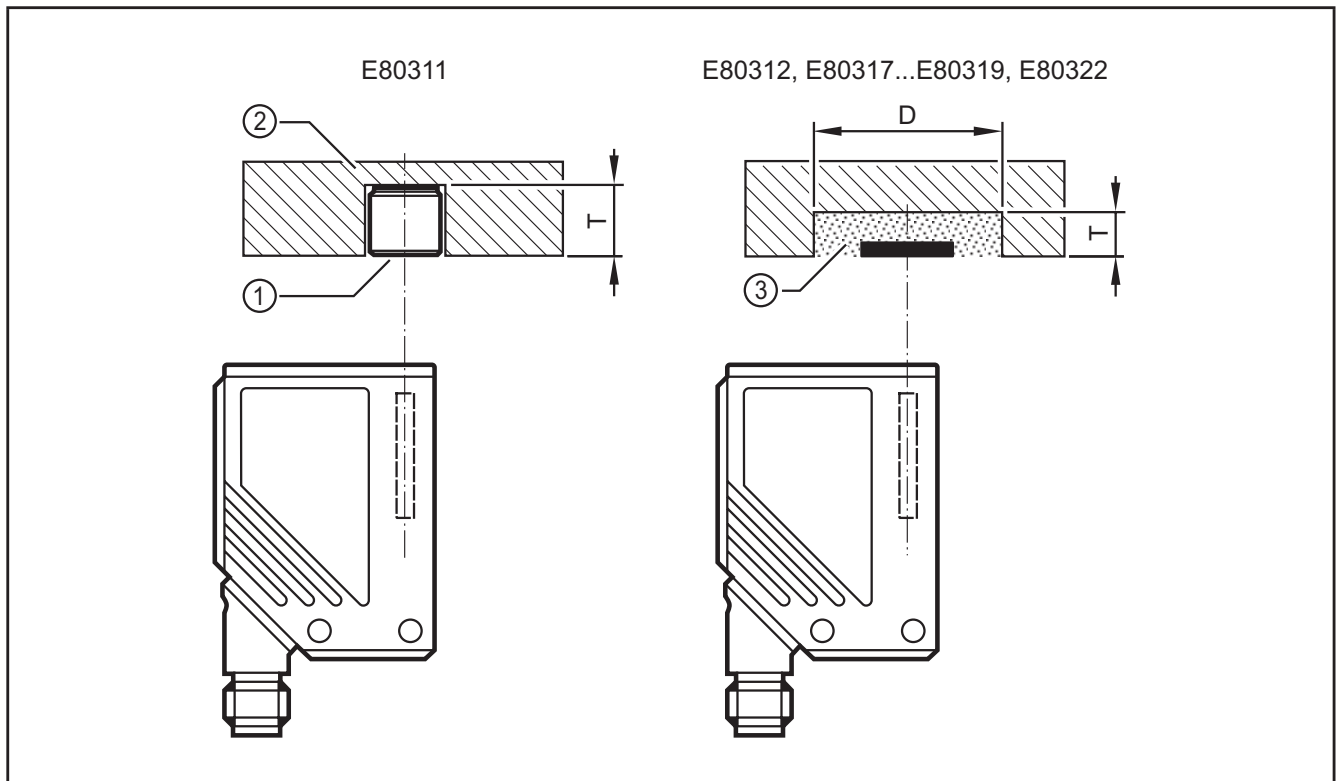
1: Type label of the ID points towards the read/write head
2: Metal
3: non-metallic filling compound

ID tag	Diameter of the recess D [mm]	Depth T [mm]
E80311*	M18	≤ 18 (18 = flush)
E80312	≥ 15	≥ 6
E80317	≥ 25	≥ 6
E80318	≥ 35	≥ 6
E80319	≥ 55	≥ 8
E80322	≥ 32	≥ 6

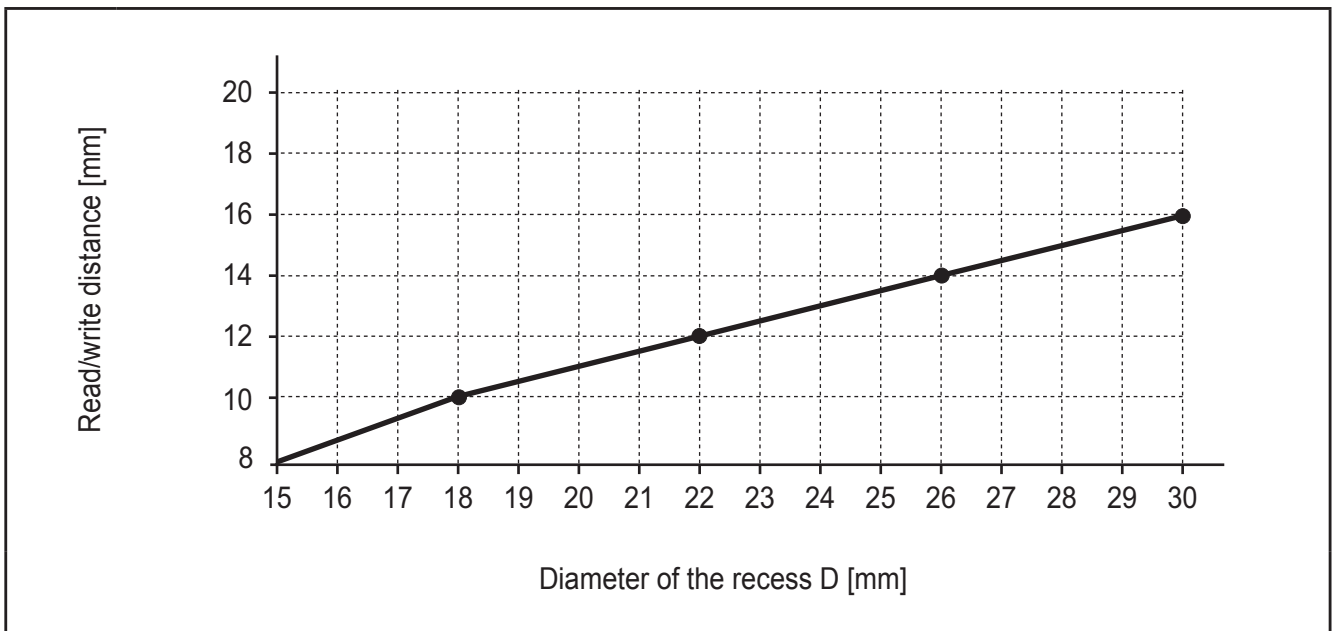*) ID tag in threaded housing for screw mounting

3.2 Read/write distances for flush installation in metal
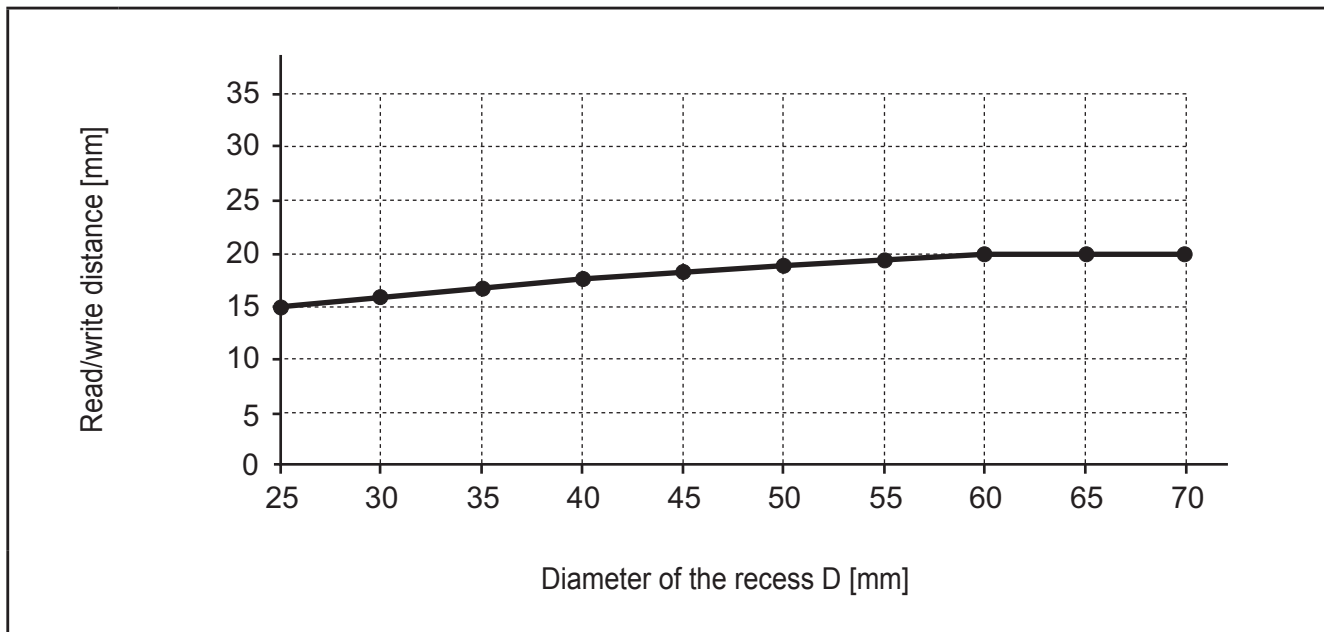
3.2.1 E80311

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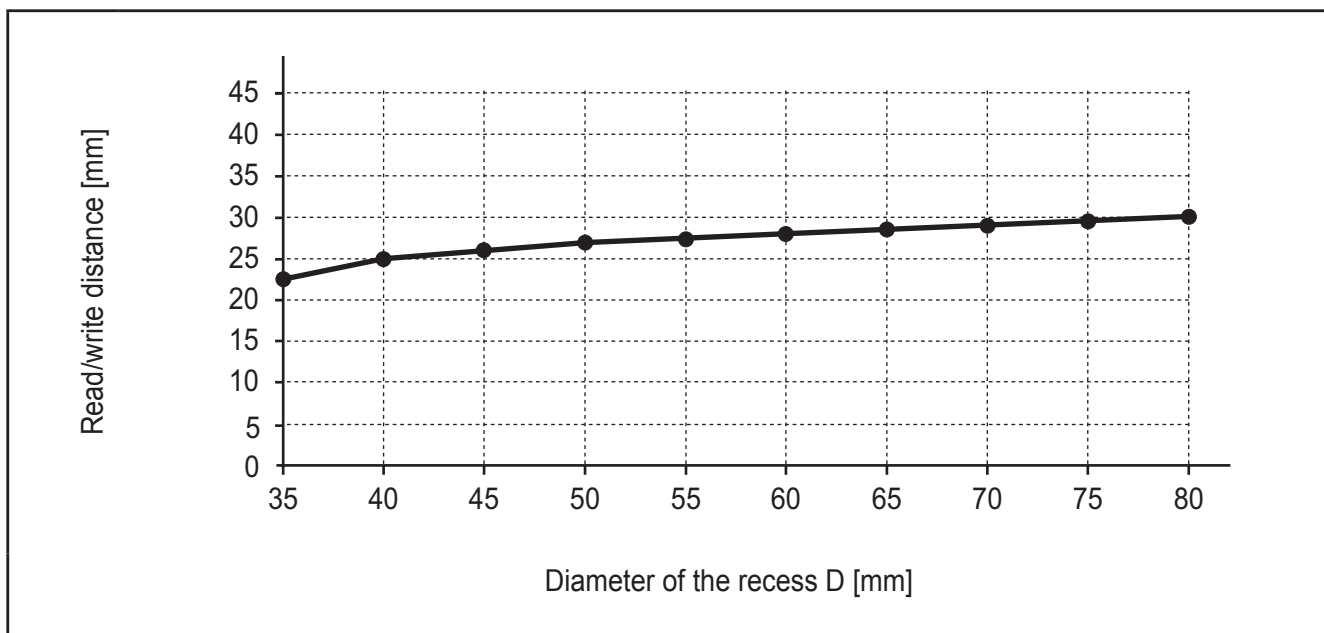Installation depth T = 18 mm = flush installation

3.2.2 E80312
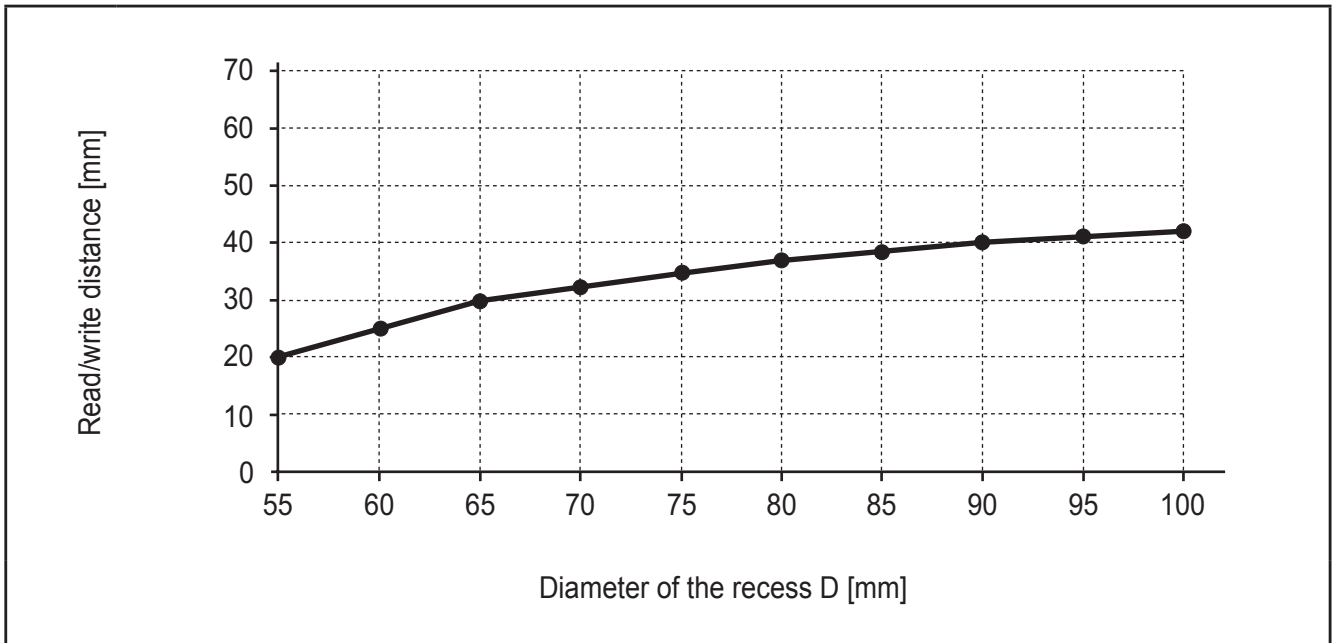
3.2.3 E80317

3.2.4 E80318
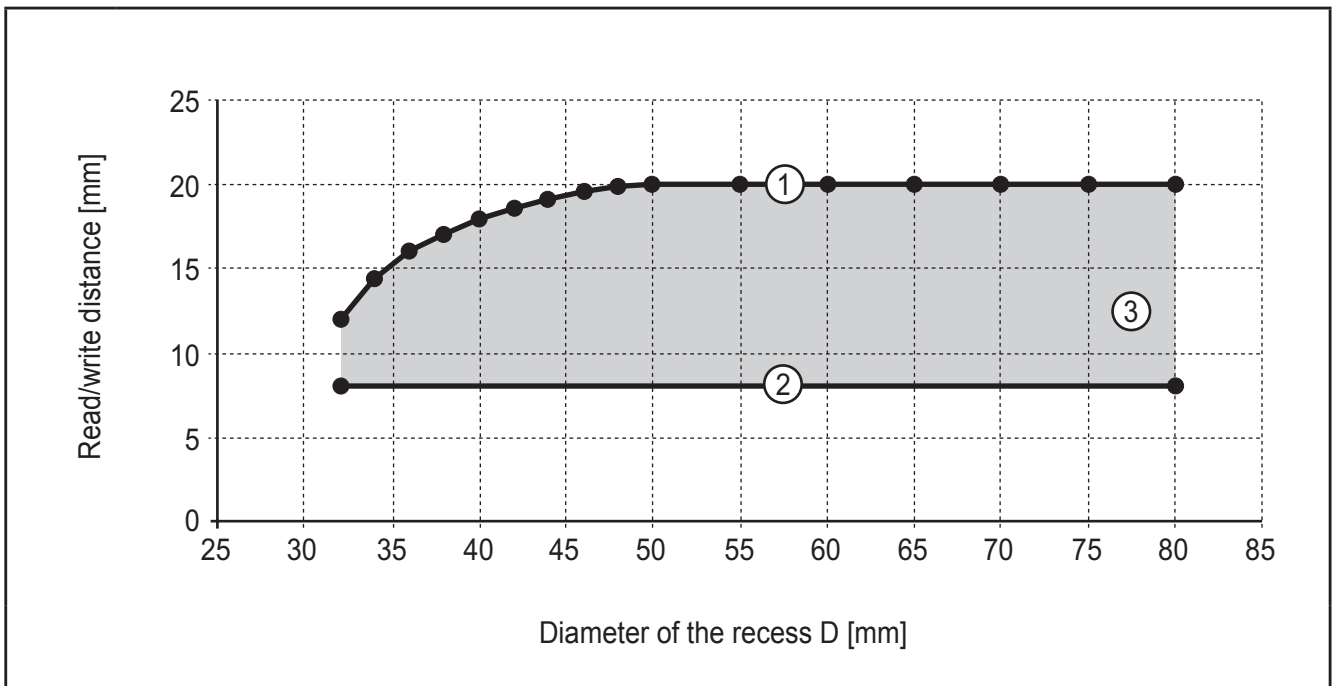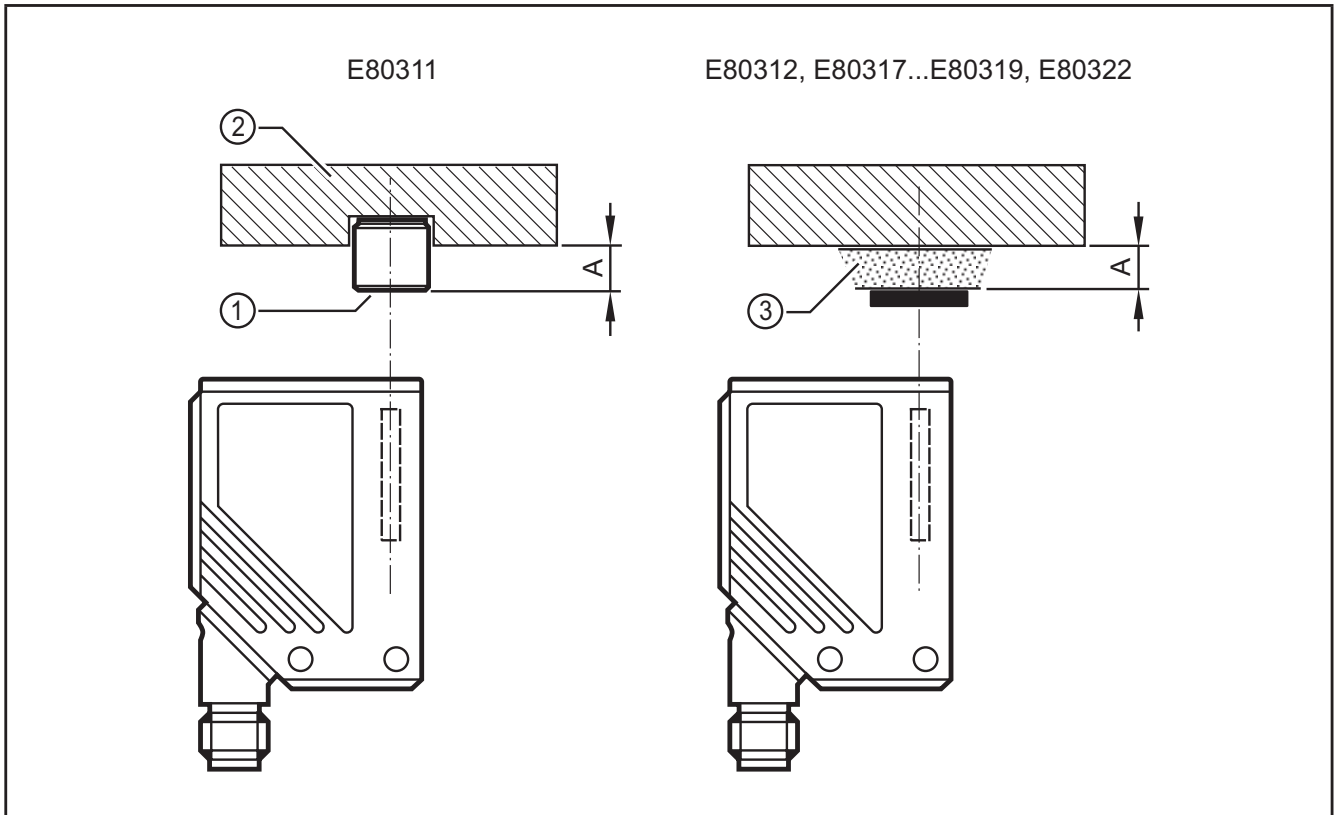
3.2.5 E80319

3.2.6 E80322

1: Upper limit
2: Lower limit
3: Read/write area

4 ID tag at a distance from the metal

► Mount a non-metallic spacer between ID tag and metal carrier.

4.1 Installation dimensions
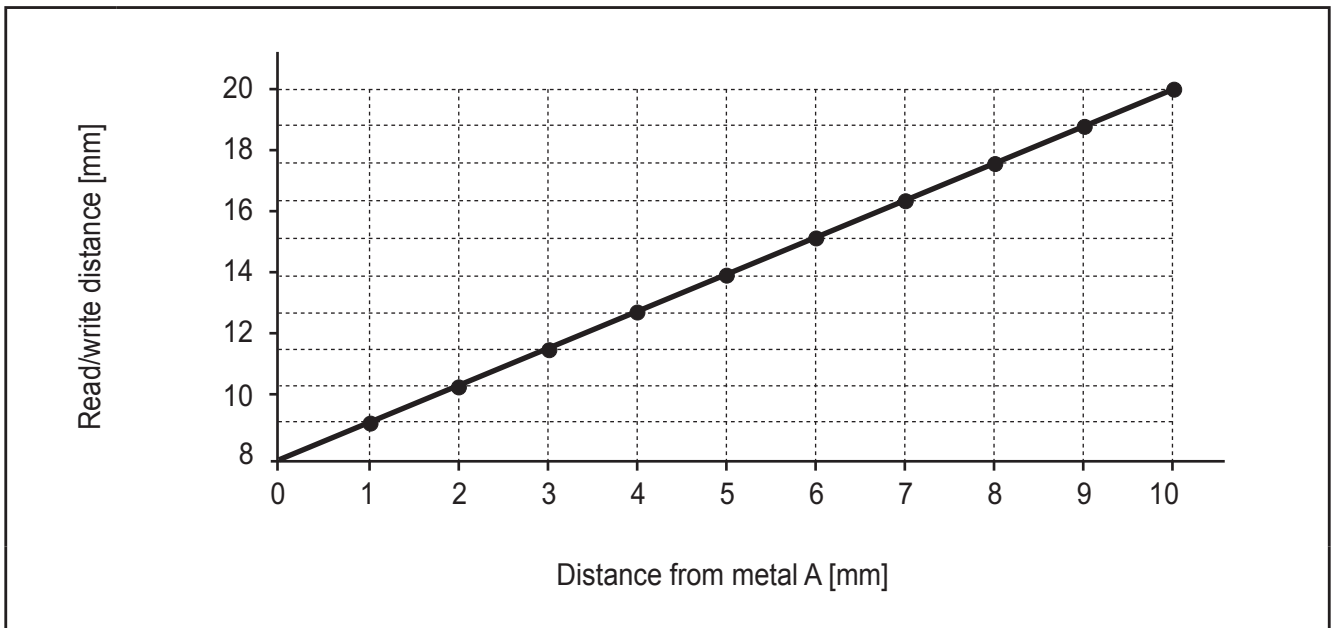

1: Type label of the ID points towards the read/write head
2: Metal
3: non-metallic spacer

4.2 Read/write distances at a distance from the metal

4.2.1 E80311

Distance A = 0 mm = flush installation

4.2.2 E80301, E80312...E80322

ID tag	Distance from metal A [mm]		
	5	10	15
E80301	20	20	20
E80312	17	20	20
E80317	20	23	26
E80318	30	33	36
E80319	35	45	50
E80322	32	35	38

Read/write distances in mm

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