

5.5 SLG 75

Application area SLG 75

The SLG 75 ANT is a read/write device in the middle of the performance range. It can only be used with ANT 1, ANT 12, ANT 18 and ANT 30. The antennas can be very easily positioned for any application.

The cable between the antenna and evaluation unit is 3 m long. The length cannot be changed.

The antenna cable can be connected on the SLG side.

The SLG 75 can be used with the following interface modules:

ASM 400, ASM 410, ASM 424, ASM 450, ASM 452, ASM 454, ASM 470, ASM 473 und ASM 475.



Figure 5-16 Read/write device SLG 75

Areas of application of the antennas

ANT 1



Figure 5-17 ANT 1 for SLG 75

The ANT 1 is an antenna in the middle of the performance range which is very useful in production plants and assembly lines because of its easily handled housing.

The antenna's dimensions make it possible to read/write large volumes of data from/to the MDS during operation. The antenna cable can be connected on the SLG side.

ANT 12



Figure 5-18 ANT 12 for the SLG 75

The ANT12 is intended primarily for tool identification. The very small size of the antenna permits very accurate positioning using the plastic nuts included with it. The antenna cable can be connected on the SLG side. Data carrier communication is only possible with the MDS E623 (tool pill) in static mode.

ANT 18



Figure 5-19 ANT 18 for the SLG 75

The ANT 18 was designed primarily for use in small assembly lines. The small, compact dimensions of the antenna with its two plastic nuts (included with the product) make it easy to position for any application. The antenna cable can be connected on the SLG side. Data carrier communication is only possible with the MDS E624 in static mode.

ANT 30



Figure 5-20 ANT 30 for the SLG 75

The ANT 30 was designed primarily for use in small assembly lines. The maximum read/write range is approximately 60% greater than the ANT 18. The compact dimensions of antenna with its two plastic nuts (included with the product) make it very easy to position for any application. The antenna cable can be connected on the SLG side. Data carrier communication is only possible with the MDS E624 in static mode.

Ordering data

Table 5-11 Ordering data for the SLG 75 and ANT xx

SLG 75 write/read device with RS 422 serial interface The antenna is not included with the SLG 75 and must be ordered separately.	6GT2 398-1AF00
Antennas: ANT 1 75 x 75 x 20 (L x W x H) ANT 12 M12 x 1.0 x 40 (∅ x wght x L) ANT 18 M18 x 1.0 x 55 (∅ x wght x L) ANT 30 M30 x 1.5 x 58 (∅ x wght x L)	6GT2 398-1CB00 6GT2 398-1CC00 6GT2 398-1CA00 6GT2 398-1CD00
SLG connector and plug-in line	See Section 3.7

Technical data

Table 5-12 Technical data of the SLG 75

(read/write device)	SLG 75
Inductive interface to MDS	
ANT-MDS read/write distances	See field data
Transmission frequency	13.56 MHz
Serial interface to ASM	RS 422
Data transmission speed	19200 Baud
Line length (ASM - SLG), max. (for 24 VDC and a cross-section of 0.2 mm ²)	120 m
Max. data cable length. (See cable configuration in Table 3-13.)	1000 m
MDS addressing command	Direct access via addresses Initialize MDS, read data from MDS, write data to MDS
Supply voltage (via serial interface) Nominal value Permissible range Current consumption Switch-on current (brief) Operation (at 24 VDC)	24 VDC 20 to 30 VDC Max. of 700 mA 180 mA (typical)
MTBF (at +40° C)	2.5 x 10 ⁵ hours
Housing Dimensions (in mm) Electronics w/o connectors (L x W x H)	160 x 80 x 40
Color Material Connector Data	Anthracite Plastic (PA 12) 6-pin SLG connector in accordance with DIN 43 651 (pin, device side)

Table 5-12 Technical data of the SLG 75

(read/write device)	SLG 75
Protection rating in accordance with EN 60 529	IP 65
Shock in accordance with EN 60 721-3-7/class 7M2	30 g ¹
Vibration in accordance with EN 60 721-3-7/class 7M2	1 g (3 to 200 Hz) ¹ 1.5 g (200 to 500 Hz) ¹
Mounting of SLG	2 M5 screws
Tightening torque at room temperature	≤ 3 Nm
Ambient temperature	
During operation	–25 °C to + 70 °C
During transportation and storage	–40 °C to + 85 °C
Weight (approx.)	520 g
Certification	CE, UL/CSA, FCC

1 **Warning:** The values for shock and vibration are maximum values and must not occur continuously.

Table 5-13 Technical data of the antennas

Antenna	ANT 1	ANT 12	ANT 18	ANT 30
Write/read distance, max. ANT-MDS (S_g)	100 mm	5 mm	15 mm	24 mm
Housing, dimensions in mm	75 x 75 x 20 (L x W x H)	M12 x 1.0 x 40 (\varnothing x wght x L)	M18 x 1.0 x 55 (\varnothing x wght x L)	M30 x 1.5 x 58 (\varnothing x wght x L)
Color	Anthracite	Pastel turquoise		
Material	Plastic (PA 12)	Plastic Crastin		
Connector	4-pin pin, antenna side			
Antenna line length	3 m			
Protection rating in accordance with EN 60 529	IP 67	IP 67 (front)		
Shock in accordance with EN 60 721-3-7/class 7M2 Vibration in accordance with EN 60 721-3-7/class 7M2	30 g ¹ 1 g (3 to 200Hz) ¹ 1.5 g (200 to 500 Hz) ¹			
Mounting of antenna	2 M5 screws	2 plastic nuts M12 x 1.0	2 plastic nuts M18 x 1.0	2 plastic nuts M30 x 1.5
Ambient temperature During operation During transportation and storage	-25 °C to +70 °C -40 °C to +85 °C			
MTBF (at +40 °C)	2.5 x 10 ⁵ hours			
Weight (approx.)	80 g	45 g	120 g	150 g

1 **Warning:** The values for shock and vibration are maximum values and must not occur continuously.

Field data

Table 5-14 Field data of the SLG 75 with antenna

SLG 75	ANT 1	ANT 12	ANT 18	ANT 30
Working distance (S_a)	0 to 70 mm	0 to 4 mm	0 to 8 mm	0 to 18 mm
Limit distance (S_g)	100 mm	5 mm	15 mm	24 mm
Diameter of the transmission window (L_d)	Depends on MDS	8 mm	Depends on MDS	14 mm
Minimum distance from SLG to SLG (D)	> 800 mm	> 80 mm	> 125 mm	> 200 mm

Transmission window

Transmission window:
The antenna of the MDS must be positioned inside this field to ensure reliable data communication.

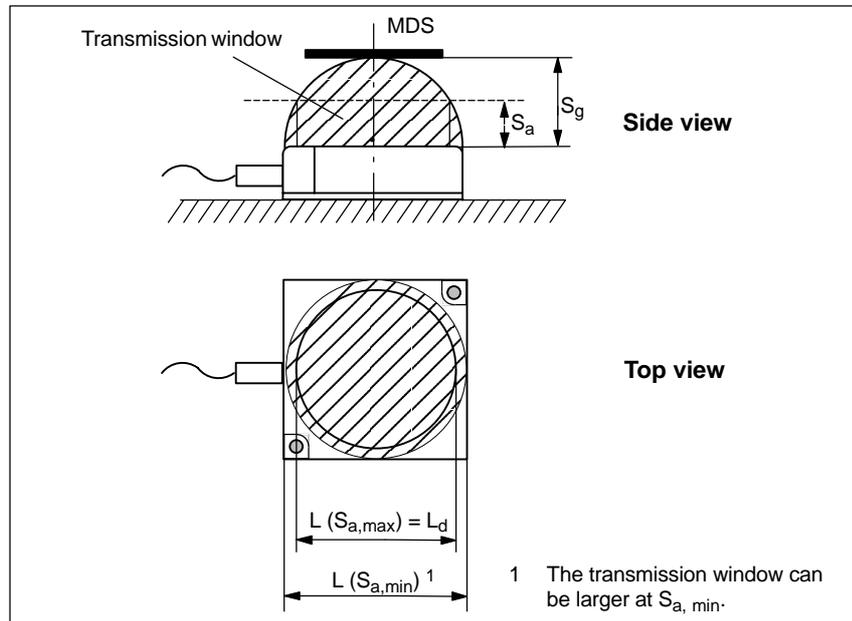


Figure 5-21 Transmission window of the ANT 1

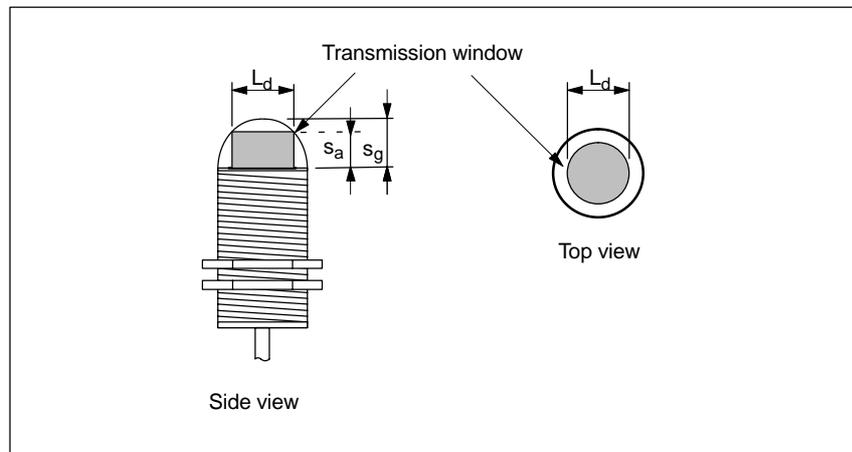


Figure 5-22 Transmission window of the ANT12

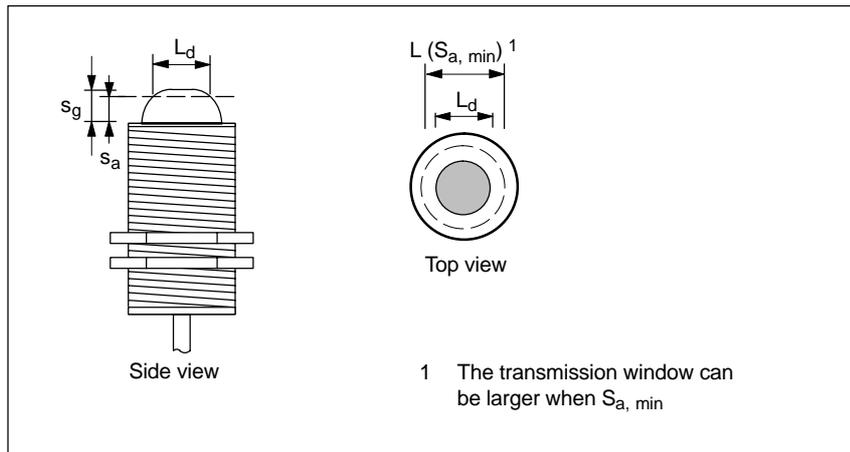


Figure 5-23 Transmission window of the ANT18

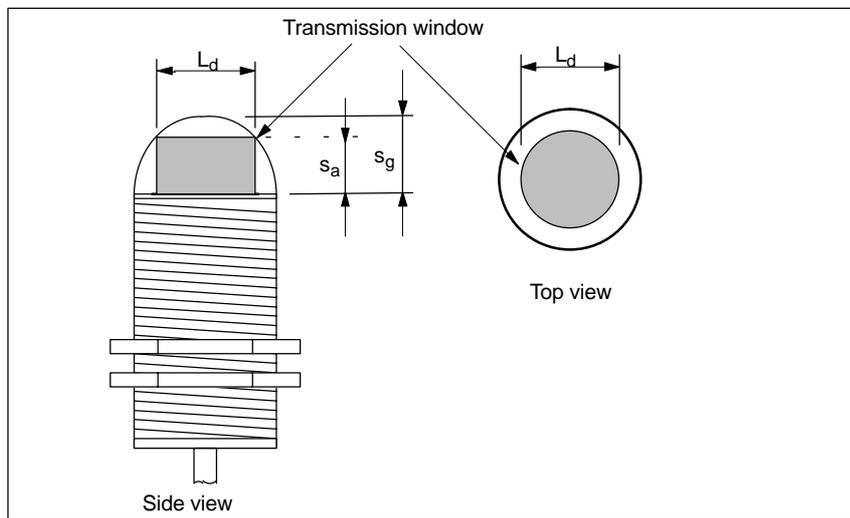


Figure 5-24 Transmission window of the ANT 30

Metal-free space

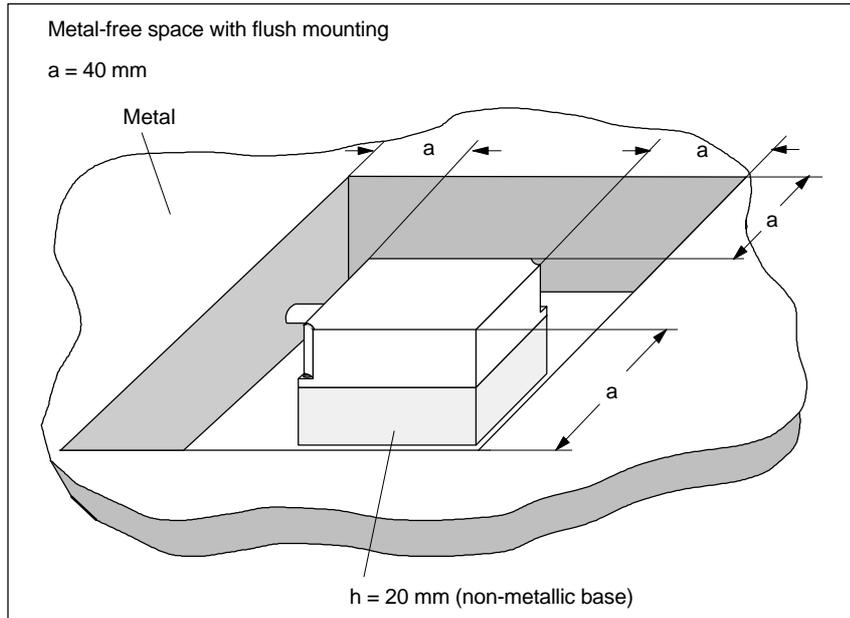


Figure 5-25 Metal-free space for the ANT 1

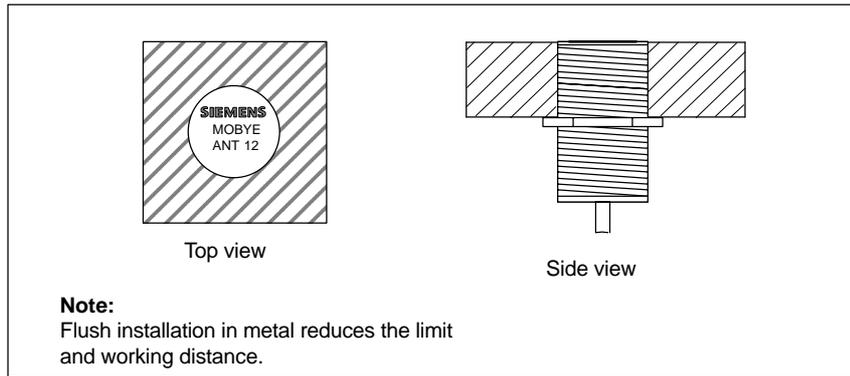


Figure 5-26 Metal-free space for the ANT12

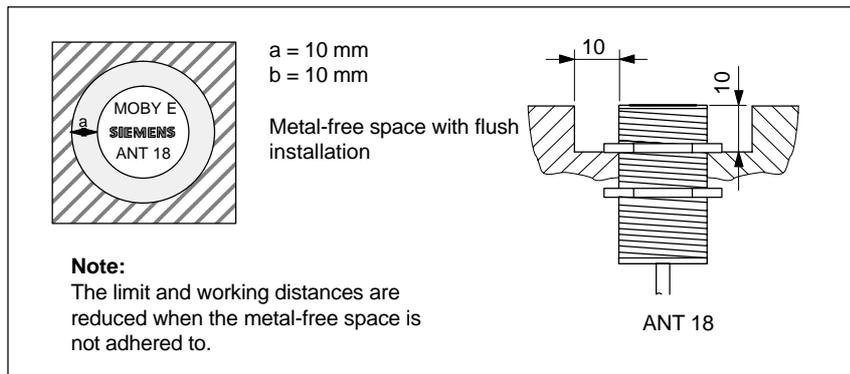


Figure 5-27 Metal-free space for the ANT 18

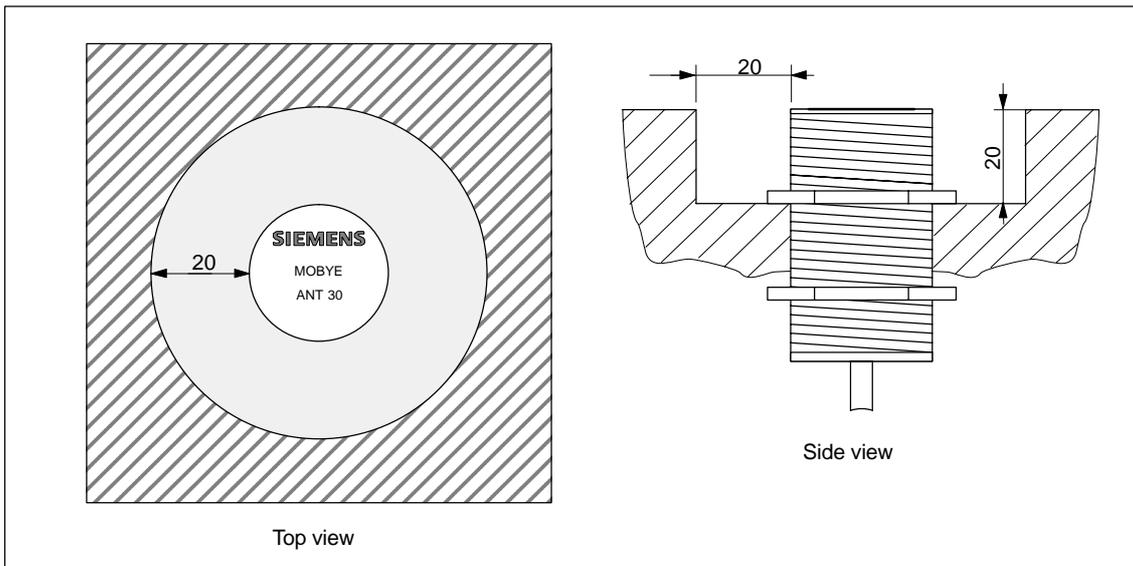


Figure 5-28 Metal-free space for the ANT 30

FCC information

Made in Germany
 SIEMENS MOBYE SLG 75
 FCC ID: NXWMOBYE-SLG75
 THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES: OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
 (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED; INCLUDING INTERFERENCE THAT MAY CAUSE

Note

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment:
 Such modifications could void the user’s authority to operate the equipment.

Definition of the distance D

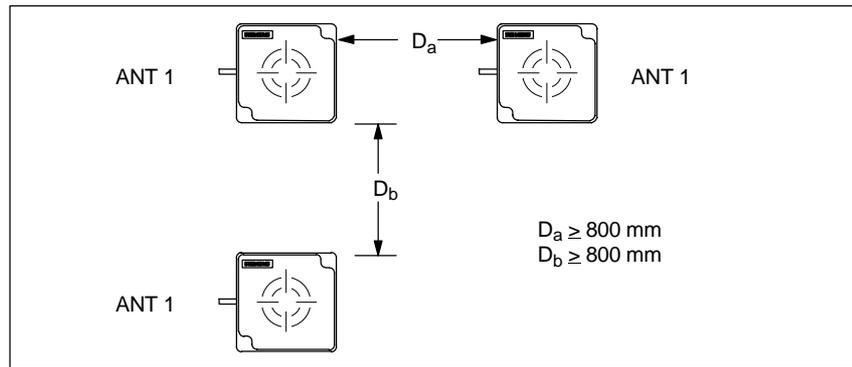


Figure 5-29 Distance D: ANT 1

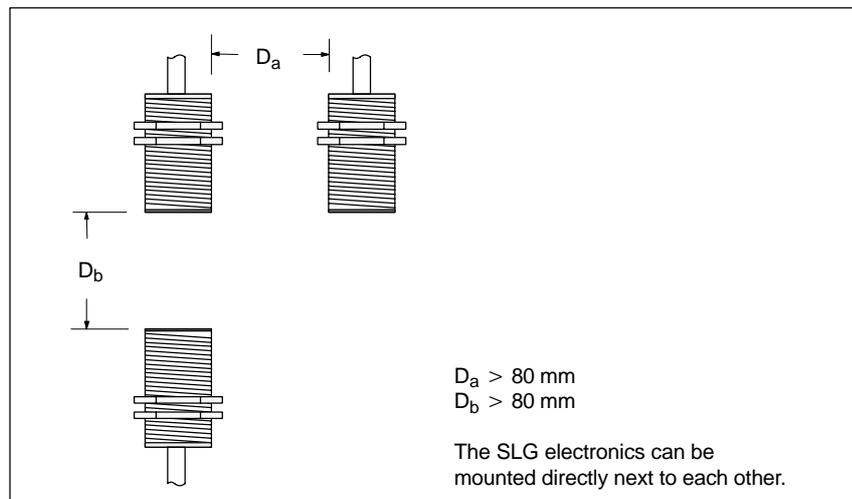


Figure 5-30 Distance D: ANT 12

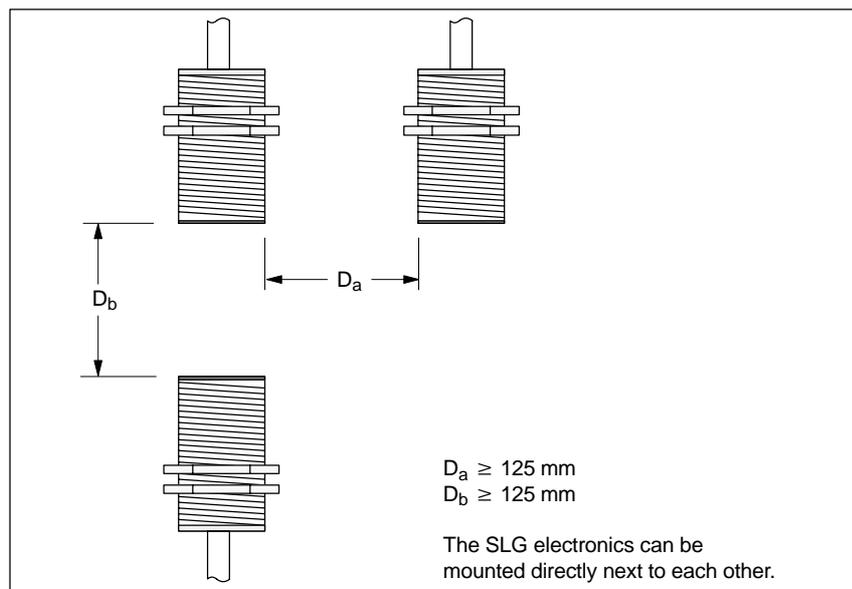


Figure 5-31 Distance D: ANT 18

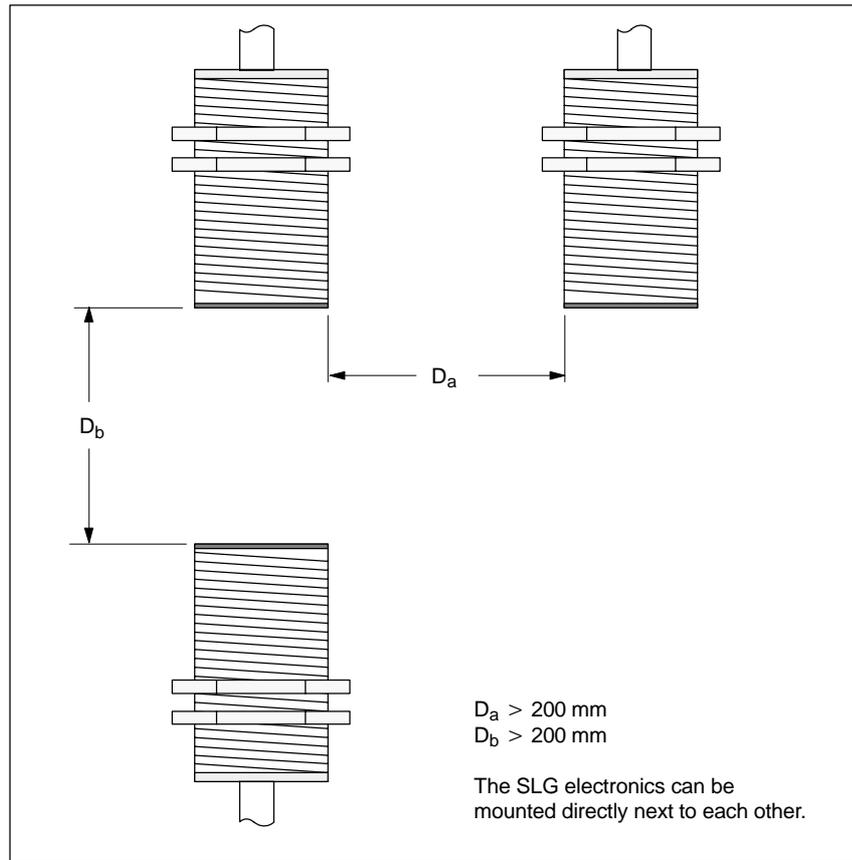


Figure 5-32 Distance D: ANT 30

**Dimensions
(in mm)**

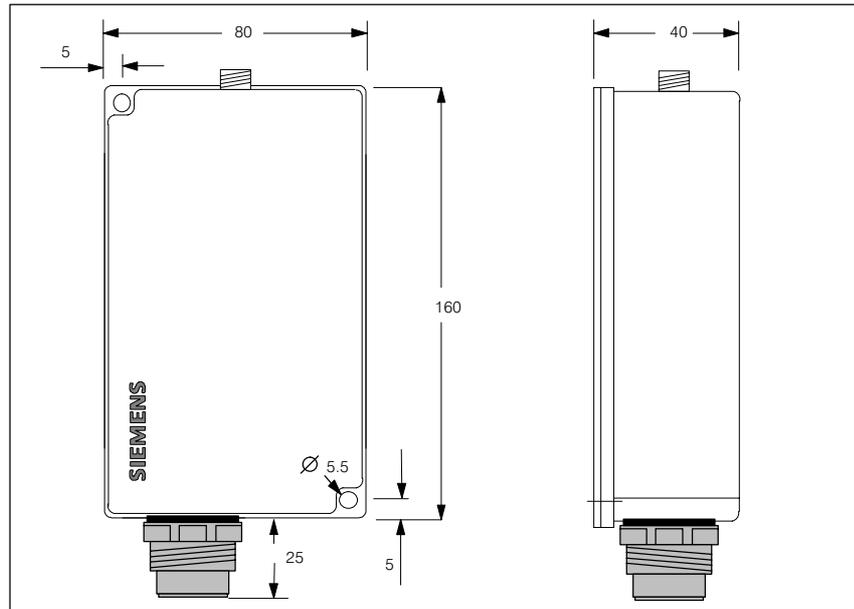


Figure 5-33 Dimensioned drawing of SLG 75

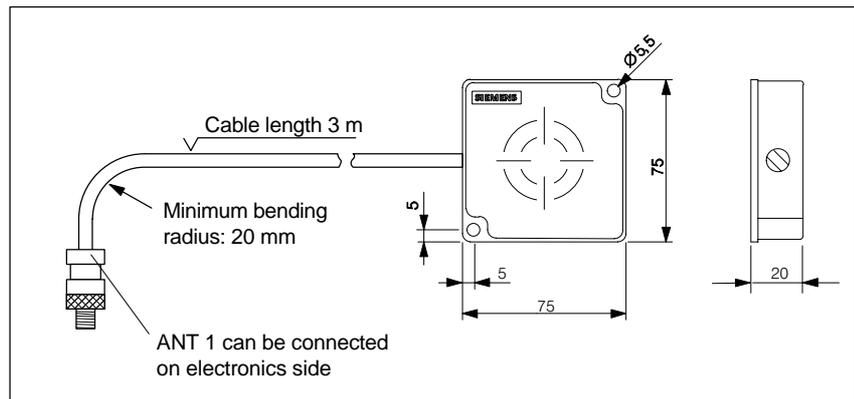


Figure 5-34 Dimensioned drawing of the ANT 1

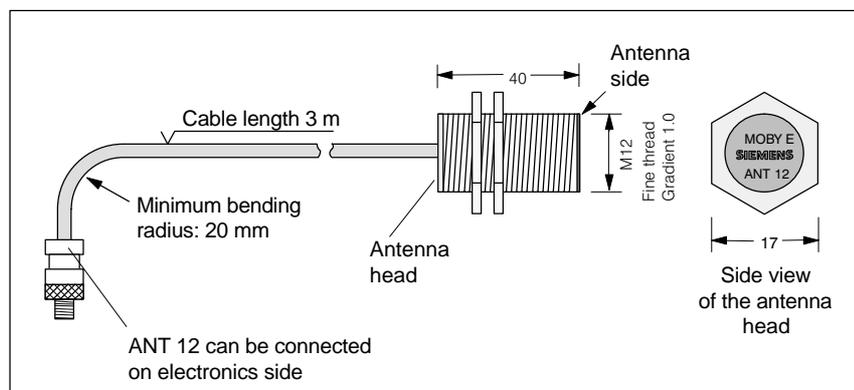


Figure 5-35 Dimensioned drawing of the ANT 12

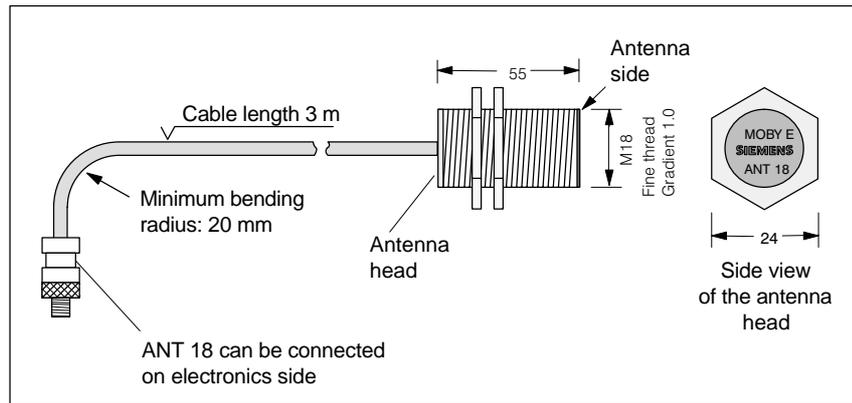


Figure 5-36 Dimensioned drawing of the ANT 18

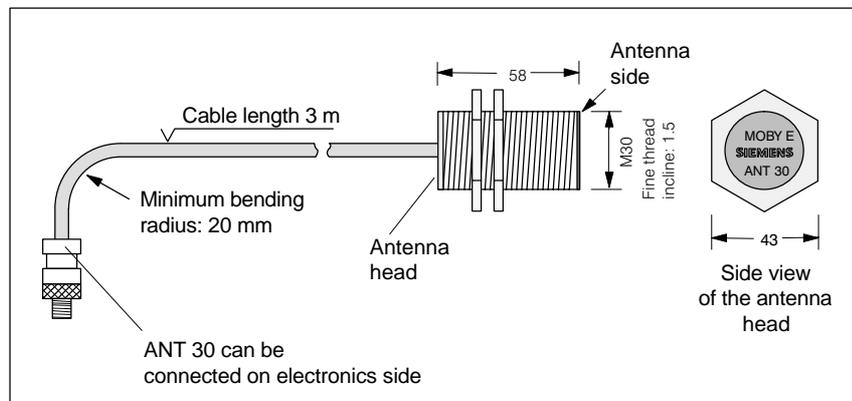


Figure 5-37 Dimensioned drawing of the ANT 30

Note

The length of the line between antenna and evaluation unit is 3 m. The length cannot be changed.

Caution

The antenna must not be removed in an energized state.