Installation condition

The given values are minimum values. They cause changes of the sensing range less than 10%.

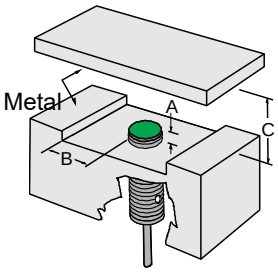
Cylindrical proximity switches

Devices with the same diameter may have different switching distances.

Proximity switches that are installed non-flush

The largest possible switching distance (relative to the diameter) is achieved by proximity switches that are installed non-flush. An inductive proximity switch utilizes coils for generating the electromagnetic field. To achieve a particular direction of the field these coils are wound in an encapsulated core. Nonetheless, some of this field will radiate sideways.

To avoid these products with a large range to be already attenuated by the environment, a clear space must be created around the sensor element complying with the minimum values in the following table.

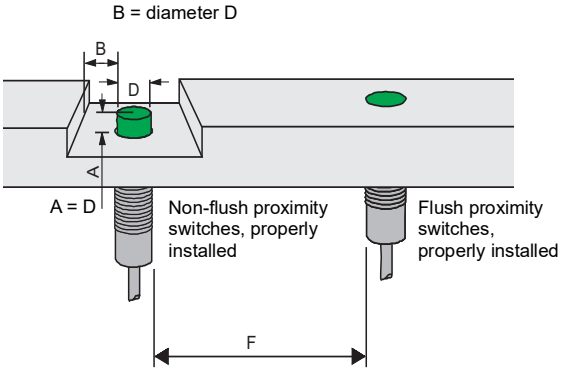


Dimensions [mm]		
A	**B**	**C**
2 x S_n	B = D	min. 3 xS_n

Proximity switches that are installed flush

Flush installed inductive proximity switches can be used without clearance (A = 0). An advantage is that they are thus mechanically better protected and less sensitive to erroneous effects than non-flush installed types. The required reduction of the lateral field is achieved by a special internal shielding. This is at the expense of the range; these proximity switches only achieve approx. 60 % of the switching distance of designs for non-flush installation.

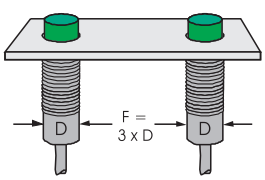
The safe assured release distance is guaranteed at a minimum distance to a measurement plate (target)/metal environment of at least 3 x S_n.



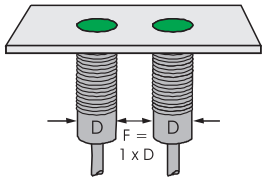
Mutual interference

To prevent the mutual interference between two similar sensors the minimum distances specified in these tables must be kept.
For applications where these distances cannot be maintained proximity switches with offset frequencies are available upon request. These can then be installed directly adjacent.

If in doubt please enquire.



Non-flush installed proximity sensors, F must be 3 times the housing diameter



Flush installed proximity sensors, F must be equivalent to the housing diameter

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