

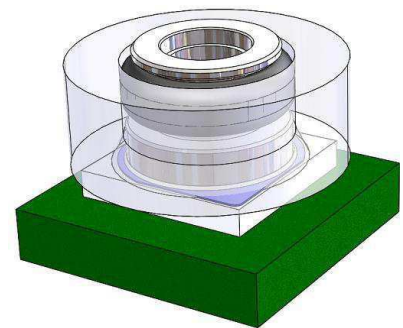
MS583x SERIES O-RING MOUNT

APPLICATION NOTE 2915

O-RING EVALUATION ASSEMBLY FOR MS583x SERIES:

This application note applies to following sensors:

- MS5837 Series (2, 7, 30bar)
- MS5839 Series (2 bar)



Features

- MS583x Series – Metal lid dimensions and tolerances.
- O-Ring hardness and material used in the evaluation assembly.
- O-Ring Sizes and tolerances used in the evaluation assembly.
- O-ring mount grease used in the evaluation assembly.
- O-ring receptacle cylinder used in the evaluation assembly.
- Evaluation assembly.

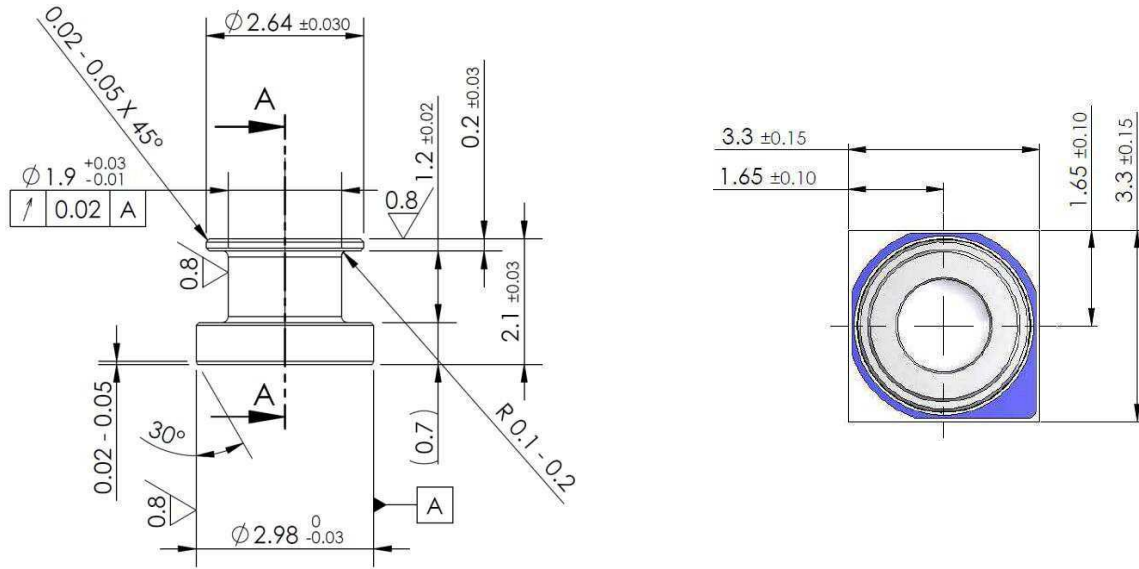
Disclaimer

The following O-Ring evaluation assembly is exclusively given as a general information, in no case it can be used as a qualified assembly for the final application.

MS583x SERIES O-RING MOUNT

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MS583x Series - Metal lid dimensions and tolerances

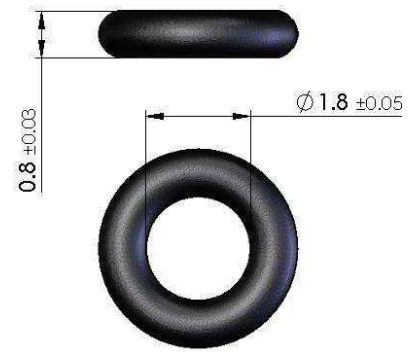


O-Ring hardness (Shore A) used in the evaluation assembly.

Nitrile rubber (NBR) 70 Shore A.

O-Ring sizes and tolerances used in the evaluation assembly.

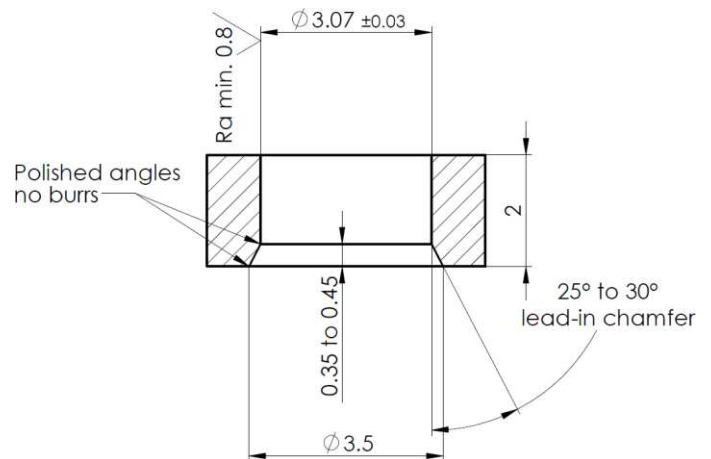
ID: $1.8\text{mm} \pm 0.05$; Cord: $0.8\text{mm} \pm 0.03$.
Watch industry O-Ring standard: NIHS62-02.



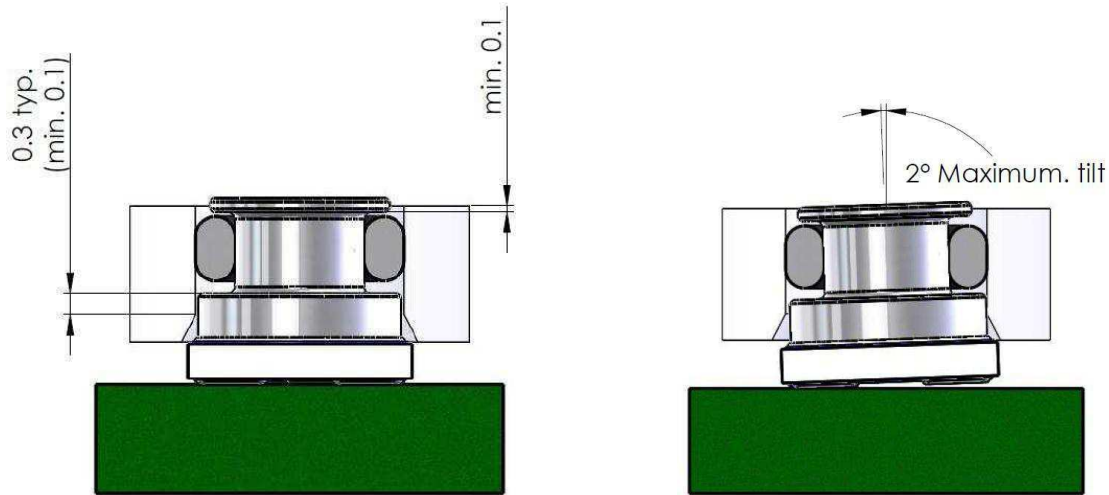
O-Ring mount grease used in the evaluation assembly.

NLGI Grade 2, PFPE grease.

O-Ring receptacle cylinder sizes and tolerances used in the evaluation assembly.



Evaluation assembly.



Assembly steps.

Step 1: Press the O-ring into the MS583x lid groove. It must be coated with an application suitable grease before this step.

Step 2: Mount the sensor into the housing cylinder by pressing the O-ring against the lead-in chamfer.

It is recommended to design the assembly stiffness such a way that the minimum overlap of 0.1 mm (0.3 typ.) is achieved. This overlap must be guaranteed in the final assembly under all external conditions. (Pressure; Temperature; Shock)

The final assembly must be free of shearing hard contact between the sensor lid (piston) and the cylinder of the housing.

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