



## CALIBRATION CERTIFICATE

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**Customer** : Johs. Boss GmbH & Co. KG  
**Identification number** : 123456789  
**Gauge application** : Incoming inspection  
**Standard of thread** : Metric ISO threads acc. to ISO 965:2013/ISO 1502:1996  
**Type of gauge** : GO/NOT GO thread plug gauge  
**Thread designation** : M 6x1-6H  
**Pitch** : 1,0000 mm  
**Measuring method** : Measure with IAC Master Scanner  
**Measurement traceability** : IAC XP 60x25 Nr.606  
**Measurement traceability** : Set of setting rings ID 01-04150

Gauge nominal values	Go side	Not Go side
Major diameter max.	: 6,0230 mm	5,7165 mm
Major diameter min.	: 6,0010 mm	5,6945 mm
Pitch diameter max.	: 5,3675 mm	5,5110 mm
Pitch diameter min.	: 5,3565 mm	5,5000 mm
Minor diameter max.	: 4,7730 mm	4,7730 mm

### Measuring values Pitch - Go side

Parameter	Nominal value [mm]	Actual value [mm]	Valuation
Pitch	1,0000 ± 5,0 µm	1,0001	ok

### Measuring values Thread angle and flank angle - Go side

Parameter	Nominal value	Actual value	Valuation
Thread angle	60 ° 00 ' 00 "	59 ° 58 ' 21 "	ok
left flank angle	30 ° 00 ' 00 " ± 14 '	29 ° 58 ' 40 "	ok
right flank angle	30 ° 00 ' 00 " ± 14 '	29 ° 59 ' 41 "	ok

### Measuring values Pitch diameter - Go side

Plane	Axial section	PitchØ [mm]	Out of tolerance [µm]
1	0 Degree	5,3632	-
3	0 Degree	5,3628	-
1	90 Degree	5,3631	-
3	90 Degree	5,3629	-

### Measuring values Major diameter - Go side

Plane	Axial section	MajorØ [mm]	Out of tolerance [µm]
2	0 Degree	6,0178	-
2	90 Degree	6,0176	-

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**Measuring values Pitch - Not go side**

Parameter	Nominal value [mm]	Actual value [mm]	Valuation
Pitch	1,0000 ± 5,0 µm	1,0001	ok

**Measuring values Thread angle and flank angle - Not go side**

Parameter	Nominal value	Actual value	Valuation
Thread angle	60 ° 00 ' 00 "	59 ° 58 ' 16 "	ok
left flank angle	30 ° 00 ' 00 " ± 16 '	29 ° 58 ' 35 "	ok
right flank angle	30 ° 00 ' 00 " ± 16 '	29 ° 59 ' 41 "	ok

**Measuring values Pitch diameter - Not go side**

Plane	Axial section	PitchØ [mm]	Out of tolerance [µm]
1	0 Degree	5,5051	-
3	0 Degree	5,5049	-
1	90 Degree	5,5051	-
3	90 Degree	5,5052	-

**Measuring values Major diameter - Not go side**

Plane	Axial section	MajorØ [mm]	Out of tolerance [µm]
2	0 Degree	5,7015	-
2	90 Degree	5,7013	-

**Valuation: usable**

Operator:



(JBO)

Date: 03.01.2023

**Uncertainty of measurement:**  $U = 3.2 \mu\text{m} + 10 \cdot 10^{-6} \cdot d$ . The uncertainty stated is the expanded uncertainty of measurement obtained by multiplying the standard uncertainty by the coverage factor  $k = 2$ . They were established according to DAkkS-DKD-3. The value of the measured variable is within the assigned value range with 95 % probability.

**Ref.temp:** (20 ± 1) °C. **Inspection requirement:** The inspections procedure was based on recognised German inspection specifications (VDI/VDE/DGQ/2618). The measuring equipment and standards used are compared regularly with reference standards calibrated by a calibration service accredited by the European Cooperation for Accreditation (EA) and therefore traceable to the national standards of the PTB. Hence the inspection certificate complies with the traceability requirements of DIN EN ISO 9001.