



CALIBRATION CERTIFICATE

Customer : 0155600
Identification number : 130809027
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 20x1-6H
Pitch : 1,0000 mm
Measuring method : Three wires method
Wire diameter : 0,5768 mm
second wire diameter : 0,5768 mm
Measuring force : 4,10 N
Measurement traceability : Mahr 828 Nr.31
Measurement traceability : single gauge ID 316275 014252 D-K-15048-01-00 2019-03

Gauge nominal values	Go side	Not Go side
Major diameter max.	: 20,0230 mm	19,7265 mm
Major diameter min.	: 20,0010 mm	19,7045 mm
Pitch diameter max.	: 19,3675 mm	19,5210 mm
Pitch diameter min.	: 19,3565 mm	19,5100 mm
Minor diameter max.	: 18,7730 mm	18,7730 mm

Measuring values Pitch diameter - Go side

Plane	Axial section	PitchØ [mm]	Out of tolerance [µm]
2	0 Degree	19,3666	-

Measuring values Pitch diameter - Not go side

Plane	Axial section	PitchØ [mm]	Out of tolerance [µm]
2	0 Degree	19,5193	-

Valuation: usable

Operator: Bantle
(Bantle)

Date: 09.03.2020

Uncertainty of measurement: $U = 2.5 \mu\text{m} + 10 \cdot 10^{-6} \cdot d$. 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: $(20 \pm 1) ^\circ\text{C}$. **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.