

CALIBRATION CERTIFICATE

Customer : 0155600
Identification number : 124696002
Gauge application : Incoming inspection
Standard of thread : Metric ISO threads acc. to ISO 965:1998/ISO 1502:1996
Type of gauge : GO/NOT GO thread plug gauge
Thread designation : M 20x1-6G
Pitch : 1,0000 mm
Measuring method : Three wires method
Wire diameter : 0,5767 mm
second wire diameter : 0,5767 mm
Measuring force : 4,10 N
Measurement traceability : Mahr 828 Nr.31
Measurement traceability : Gauge block set ID 3997 57308 D-K-15190-01-00 2015-06

| Gauge nominal values | Go side | Not Go side |
|----------------------|--------------|-------------|
| Major diameter max. | : 20,0490 mm | 19,7525 mm |
| Major diameter min. | : 20,0270 mm | 19,7305 mm |
| Pitch diameter max. | : 19,3935 mm | 19,5470 mm |
| Pitch diameter min. | : 19,3825 mm | 19,5360 mm |
| Minor diameter max. | : 18,7990 mm | 18,7990 mm |

Measuring values Pitch diameter - Go side

| Plane | Axial section | PitchØ [mm] | Out of tolerance [µm] |
|-------|---------------|-------------|-----------------------|
| 2 | 0 Degree | 19,3879 | - |

Measuring values Pitch diameter - Not go side

| Plane | Axial section | PitchØ [mm] | Out of tolerance [µm] |
|-------|---------------|-------------|-----------------------|
| 2 | 0 Degree | 19,5425 | - |

Valuation: usable

Operator:  (Stark) Date: 10.04.2019

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 ± 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.