# M1STAR MBG

## MECHANICAL BORE GAGE

The M1 Star™ MBG (Mechanical Bore Gauge) is the ideal manual instrument for precision measuring of inside diameter, ovality and cylindricity.
It can be totally retooled or repaired by simply replacing the nosepiece and contacts.
A mechanical positioning system automatically ensures alignment between the nosepiece and the contacts.
The Mechanical Bore Gauge is accurate, robust, reliable and easy to use.
Maintenance free construction requires only periodic cleaning of the precision mechanism.
A wide range of modular components makes it possible to configure the bore gauge to meet all your measuring needs.

## MAIN CHARACTERISTICS

- Measurable diameters: 3 to 300 mm (0.12”-11.81”). Special versions available for bigger diameters.
- With an extensive range of accessories, it is possible to measure at depths of more than 500 mm and measure bores that are perpendicular to the axis of insertion.
- The durable measuring transmission system is capable of more than 10.000.000 measuring cycles.
- Metrological performances guaranteed for all measurable diameters.
- The mechanical transmission measuring system can be interfaced with any pencil probe, dial or digital indicator.
- The linear designed mechanical transmission system has an extensive range of accuracy and only one master is needed for zero setting.
- Compatible with the bore gauge accessories of the main competitors.
- Competitive price.
- Fast delivery times.

## TECHNICAL SPECIFICATIONS

| DESCRIPTION | WORKING RANGE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STANDARD MEASURING RANGE FOR TYPE B AND T (mm) | Ø 3 - 4,5 | Ø 4,5 - 5,5 | Ø 5,5 - 26 | | | Ø 26 - 300 | | | |
| | 0,055 | 0,070 | 0,120 | | | 0,150 | | | |
| EXTENDED MEASURING RANGE FOR TYPE B AND T (mm) (*) | Ø 3 - 4,5 | Ø 4,5 - 5,5 | Ø 5,5 - 7,5 | Ø 7,5 - 15 | Ø 15 - 26 | Ø 26 - 38 | Ø 38 - 100 | Ø 100 - 150 | Ø 150 - 300 |
| | - | - | - | 0,120 - 0,170 | 0,120 - 0,200 | 0,150 - 0,200 | 0,150 - 0,400 | 0,150 - 0,350 | 0,150 - 0,300 |
| STANDARD MEASURING RANGE FOR TYPE SB AND BC (mm) | Ø 3 - 4,5 | Ø 4,5 - 5,5 | Ø 5,5 - 26 | | | Ø 26 - 60 | Ø 60 - 150 | | Ø 150 - 300 |
| | 0,055 | 0,070 | 0,120 | | | 0,150 | 0,120 | | 0,080 |
| REPEATABILITY (2,77 σ) (µm) | ≤ 1 | | | | | | | | |

(*) BY UNSCREWING THE CONTACTS FASTENED TO THE MEASURING ARMSET BY MEANS OF A SCREW WITH HELI-COIL, THE MEASURING RANGES CAN BE EXTENDED UP TO THE VALUES INDICATED IN THE TABLE.

# M1 STAR - MBG MECHANICAL BORE GAUGE

The advantage of the M1 Star™ MBG is the durable mechanical measurement-transmission principle which ensures excellent metrological performances. Retoolability and interchangeability with an extensive range of accessories, make the MBG universally applicable.

1 **PLUG HEAD**: formed by the nosepiece, the measuring armset and the contacts, it is the measuring element of the bore gauge. It can be interchanged by simply unscrewing it from the handle. The MBG plug head is available in four versions differing from each other in "C" distance between the contact axis and the top of the nosepiece.
See pages 4-7.

1a **CAP**: stainless steel disk protecting the internal mechanical elements from accidental damages.

1b **NOSEPIECE**: made of tempered stainless steel, it is the guiding element that ensures the measurement results are not affected by the operator's manual skill.

1c **MEASURING CONTACTS**: standard contacts are made of tungsten carbide and, in relation to the diameter range, come in two different radii that must be chosen on the basis of the bore surface roughness:
R1: standard radius for Ra ≤ 2 μm / Rz < 6,3.
R2: bigger radius for Ra ≥ 2 μm / Rz > 6,3.
Diamond or DLC-coated contacts are also available. Diamond contacts are suggested for soft aluminum or highly wearing applications; DLC-coated ones (3000 HV) for aluminum and relevant alloys.

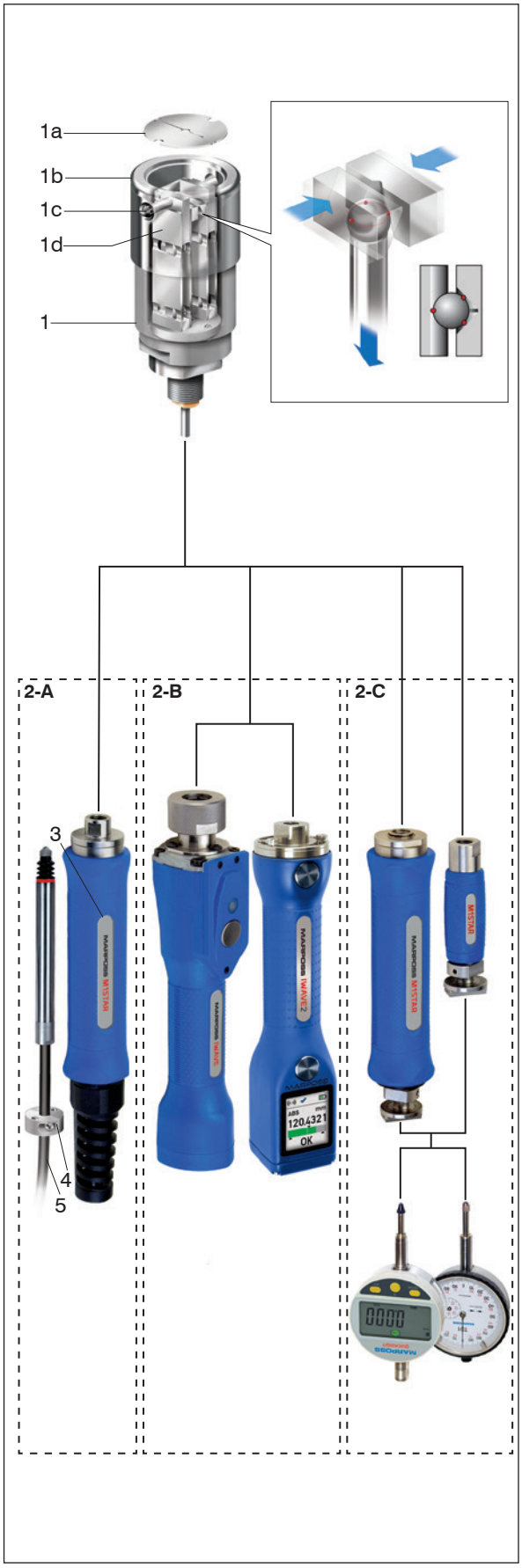
1d **MEASURING ARMSET**: it is made by either 2 or 4 fulcrum elements, depending on the diameter range. The measurement is transferred to the display device by a transfer rod with spherical head that slides on a cradle formed by a V-shaped guide and an inclinated plane.

2 **HANDLE**: used to hold the plug gauge it has been specifically designed for best handling. It can be a pencil probe holder (in electro-mechanical applications - 2-A) or a wireless transmission handle as I-Wave2, with color display and automatic orientation, or I-Wave (2B), or an indicator holder (for digital or dial indicators - 2-C). The latter can be selected in a suitable size: standard or mini.

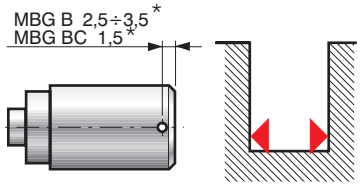
3 **NUMBER PLATE**: it can be marked with the bore gauge size or any other information required by the customer.

4 **CABLE GUIDE and CLAMP**: they are present in the pencil probe holder and prevent damages of the cable due to tearing, pulling or bending at cable exit.

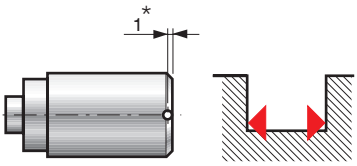
5 **CABLE**: it is a special reinforced cable (ø 4,7 mm) specifically developed for use in manual gauges, which considerably reduces the risk of damage and unintended torsion.



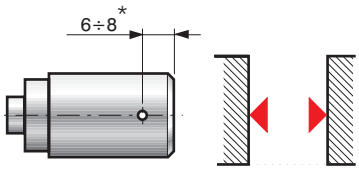
# M1 STAR - Standard Versions




MBG-B/BC Plug Heads
For blind bores.



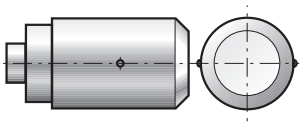

MBG-SB Plug Heads
For superblind bores.



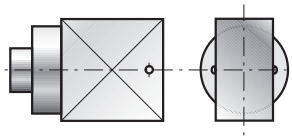

MBG-T Plug Heads
For through bores.

# M1 STAR - Dedicated Solutions (Examples)

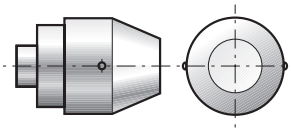
Dedicated Solutions complete the standard product line, and provide solutions for measuring conditions outside the capabilities of Standard Bore Gauges. A wide range of special measuring solutions are available, for your applications, with our series of dedicated plug-heads (on request). Please enclose a workpiece drawing with your enquiry.



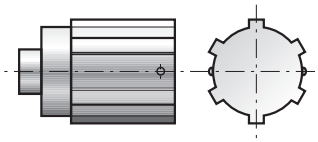
WITH LONG NOSEPIECE
Guides the plug head when measuring discontinuous/interrupted deep bores.
Example: cylinder block.



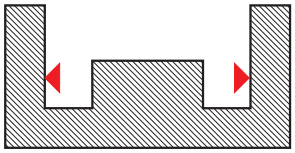
FOR PARALLEL WALLED BORES
To be used for gap measurements.
Example: keyways or splines



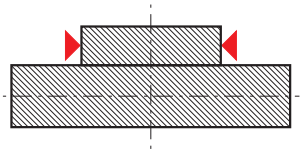
WITH PILOT CONE
For CNC automatic applications the cone helps the entry of the nosepiece into the workpiece, reducing the possibility of accidental damages.



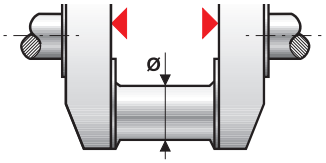
WITH CARBIDE BAR INSERTS
The carbide bars will increase the life of the gauge, reducing the wear on the nosepiece and preventing jamming caused by the presence of metal cinders swarf or debris.



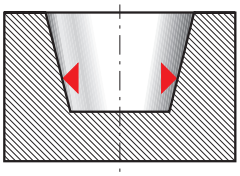
BORES WITH CENTRAL HUB
For the measuring of internal diameters where there is a central hub projection.
Example: automatic transmission components.



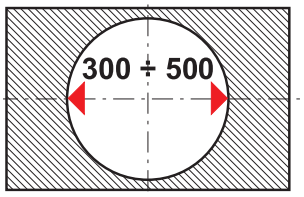
OUTSIDE DIAMETER
For the measuring of the ending section of flywheel shafts, or the short outside diameters often found on transmission & pump components and end caps on electric motors etc.



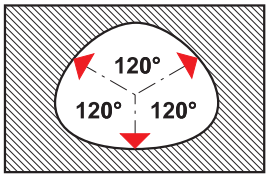

"V"-SHAPED PLUG HEAD
Designed for the measurement of straight sided gaps in crankshafts or similar components.



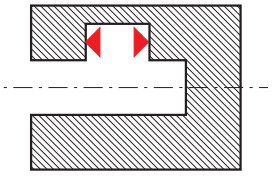
CONE SHAPED PLUG HEAD
For tapered bores.
Example: front or rear knuckles.



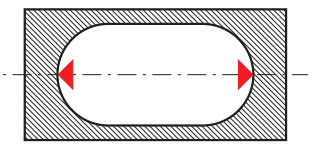

MACRO-LITE
Particularly light and easy to be used for diameters up to 500 mm.
Example: large pipes, oil & gas industries.




3 POINTS MEASURING
For shape and roundness checking.
Example: tri-lobed or irregular shaped bores.

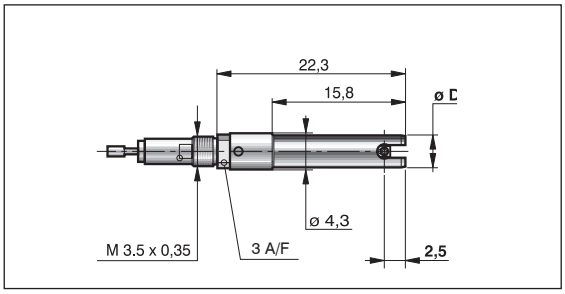
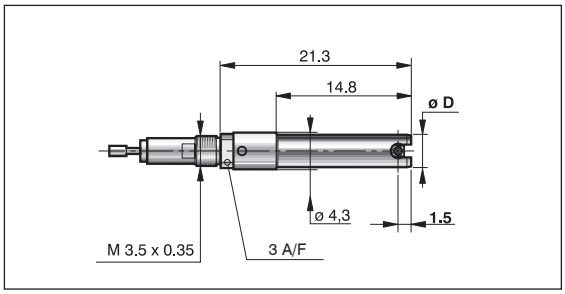
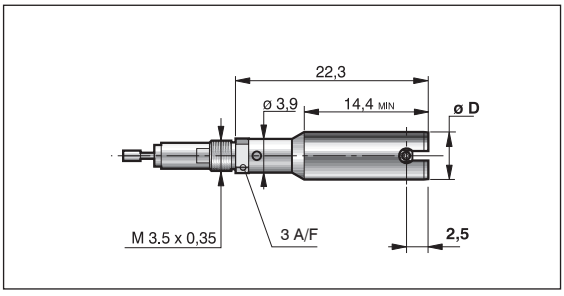
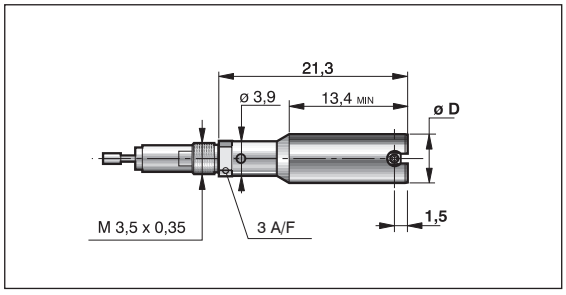
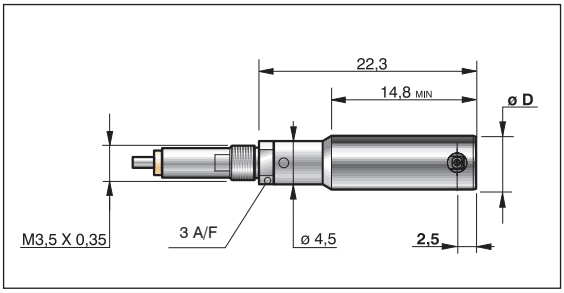
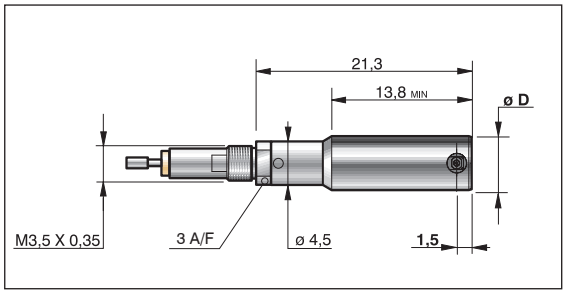
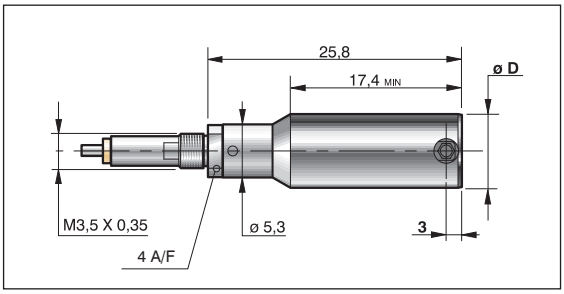
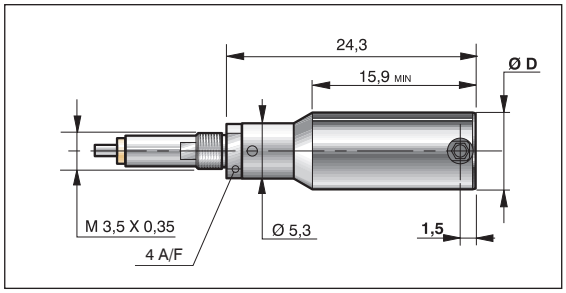
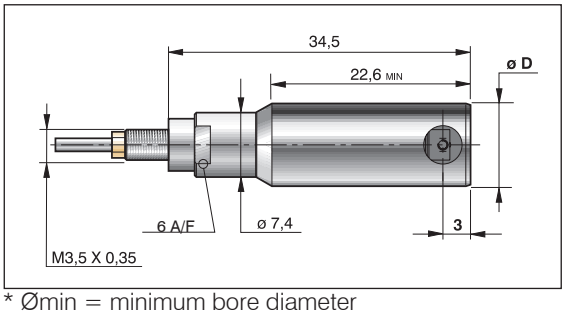
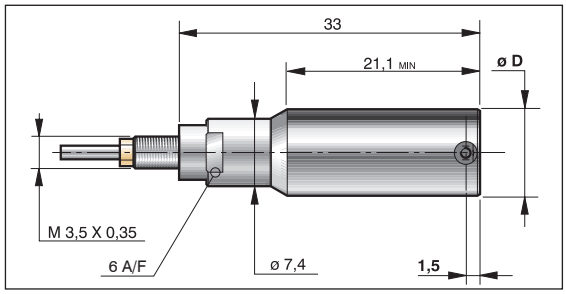


RIGHT ANGLE PLUG HEAD
For measuring bores with perpendicular axis to the direction of gage insertion, or for limited space applications.
Example: differential carrier.



OVAL-SHAPED PLUG HEAD
Designed for measuring oval bores or inter-connecting bores.
Example: lobe pump designs in fuel and oil pumps.

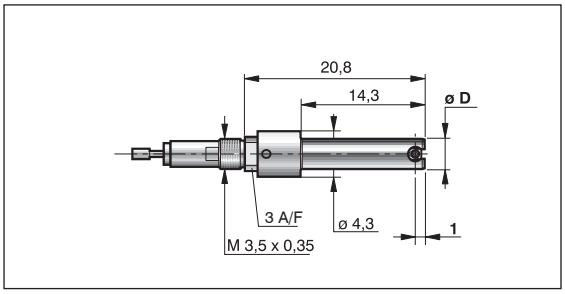
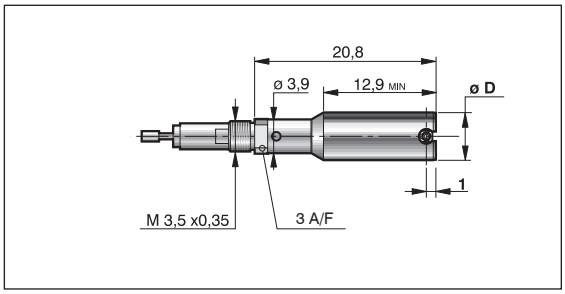
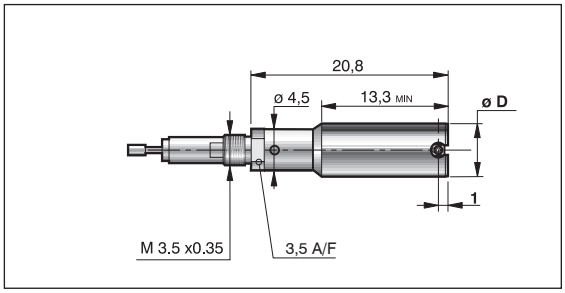
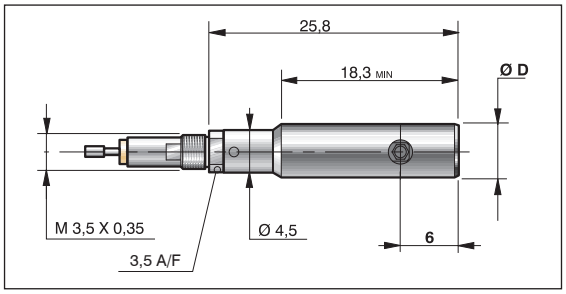
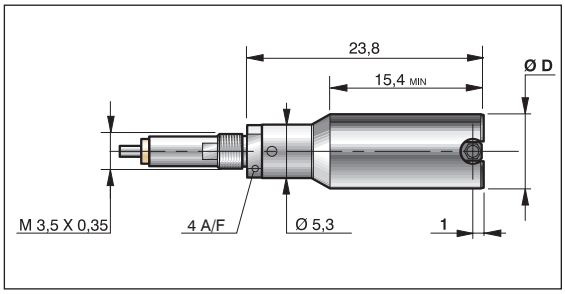
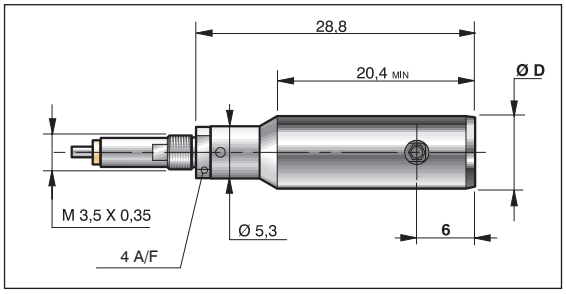
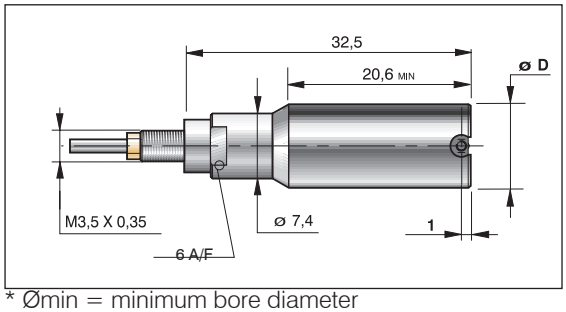
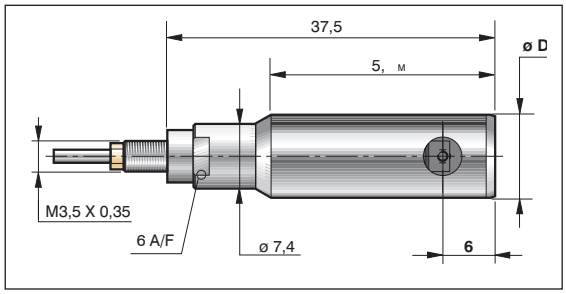
# DIMENSIONAL SPECIFICATIONS OF STANDARD VERSIONS

| | PLUG HEAD MBG-B | PLUG HEAD MBG-BC |
|---|---|---|
| Ømin* 3 to <4 |  |  |
| Ømin* 4 to < 4,5 |  |  |
| Ømin* 4,5 to < 5,5 |  |  |
| Ømin* 5,5 to < 7,5 |  |  |
| Ømin* 7,5 to < 9,5 |  |  |

* Ømin = minimum bore diameter

| MEASURING CONTACTS FOR PLUG HEADS TYPE B | | | | |
|---|---|---|---|---|
| | CARBIDE OR DLC - COATED | | DIAMOND | |
| ø D | R1 | R2 | R1 | R2 |
| 3 ÷ <5,5 | 0,25 | 0,75 | - | - |
| 5,5 ÷ <7,5 | 0,5 | 1 | - | - |
| 7,5 ÷ <9,5 | 1,5 | 2,5 | 0,75 | - |

| MEASURING CONTACTS FOR PLUG HEADS TYPE BC | | | | |
|---|---|---|---|---|
| | CARBIDE OR DLC - COATED | | DIAMOND | |
| ø D | R1 | R2 | R1 | R2 |
| 3 ÷ <5,5 | 0,25 | 0,75 | - | - |
| 5,5 ÷ <7,5 | 0,5 | 1 | - | - |
| 7,5 ÷ <9,5 | 1,5 | 2,5 | - | - |

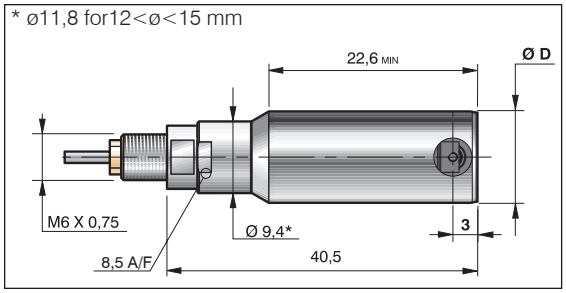
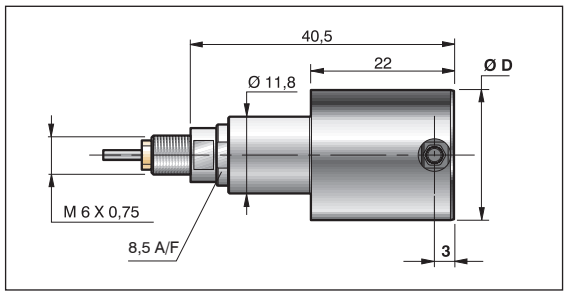
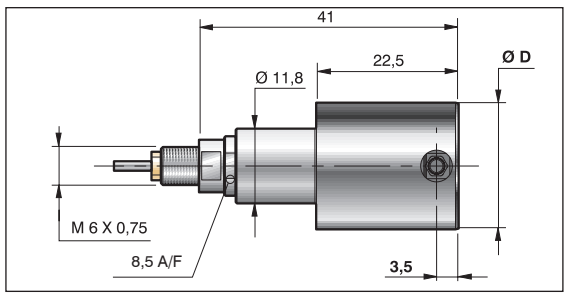
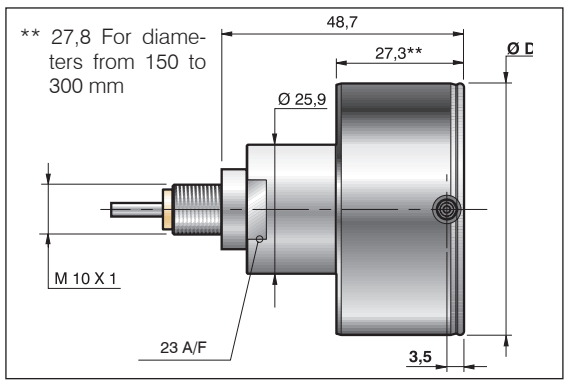
| | PLUG HEAD MBG-SB | PLUG HEAD MBG-T | |
|---|---|---|---|
| |  | N.A. | Ømin* 3 to<4 |
| |  | N.A. | Ømin* 4 to < 4,5 |
| |  |  | Ømin* 4,5 to < 5,5 |
| |  |  | Ømin* 5,5 to < 7,5 |
| |  |  | Ømin* 7,5 to < 9,5 |

* Ømin = minimum bore diameter

| MEASURING CONTACTS FOR PLUG HEADS TYPE SB | | | | |
|---|---|---|---|---|
| | CARBIDE OR DLC - COATED | | DIAMOND | |
| ø D | R1 | R2 | R1 | R2 |
| 3 ÷ <5,5 | 0,25 | 0,75 | - | - |
| 5,5 ÷ <7,5 | 0,5 | 1 | - | - |
| 7,5 ÷ <9,5 | 1,5 | 2,5 | - | - |

| MEASURING CONTACTS FOR PLUG HEADS TYPE T | | | | |
|---|---|---|---|---|
| | CARBIDE OR DLC - COATED | | DIAMOND | |
| ø D | R1 | R2 | R1 | R2 |
| 4,5 ÷ <5,5 | 0,25 | 0,75 | - | - |
| 5,5 ÷ <7,5 | 0,5 | 1 | - | - |
| 7,5 ÷ <9,5 | 1,5 | 2,5 | 0,75 | - |

# DIMENSIONAL SPECIFICATIONS OF STANDARD VERSIONS

| | PLUG HEAD MBG-B | PLUG HEAD MBG-BC |
|---|---|---|
| Ømin* 9,5 to < 15 |  | N.A. |
| Ømin* 15 to < 20 |  | N.A. |
| Ømin* 20 to < 26 |  | |
| Ømin* 26 to < 300 |  | N.A. |

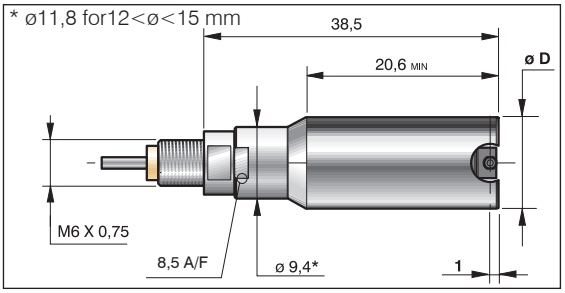
* Ømin = minimum bore diameter

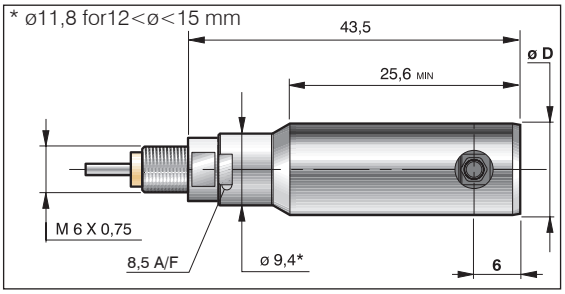
| MEASURING CONTACTS FOR PLUG HEADS TYPE B | | | | |
|---|---|---|---|---|
| | CARBIDE OR DLC - COATED | | DIAMOND | |
| ø D | R1 | R2 | R1 | R2 |
| 9,5 ÷ <15 | 2 | 3,5 | 0,75 | - |
| 15 ÷ <16 | 2 | 5 | 0,75 | - |
| 16 ÷ <20 | 2 | 5 | 2 | - |
| 20 ÷ <26 | 2 | 5 | 2 | 5 |
| 26 ÷ <32 | 4 | 10 | 2 | - |
| 32 ÷ <300 | 4 | 10 | 4 | 10 |

## PLUG HEAD MBG-SB

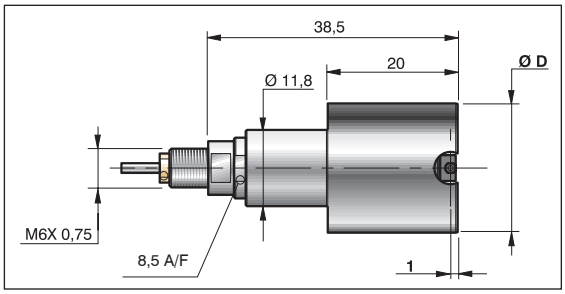
## PLUG HEAD MBG-T

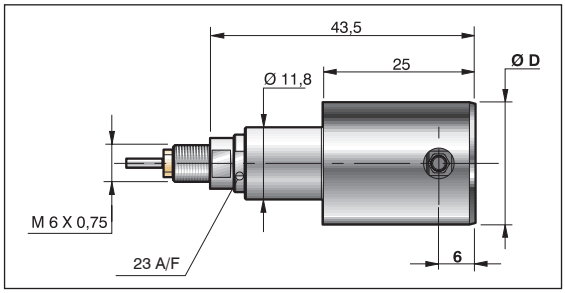
**Ømin* 9,5 to < 15**



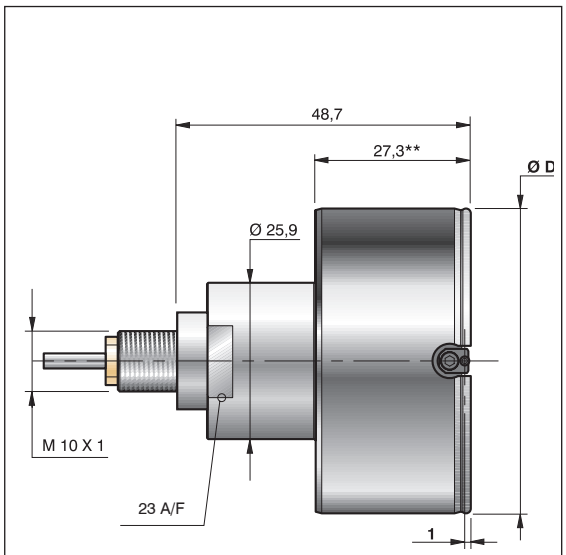



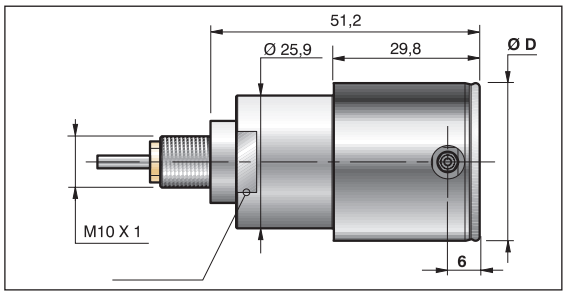

**Ømin* 15 to < 26**



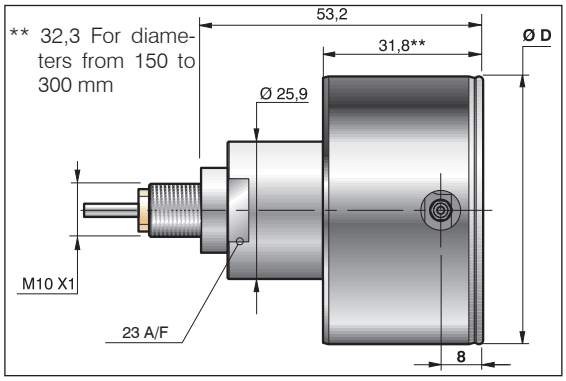




**Ømin* 26 to < 40**




**Ømin* 40 to < 300**




* Ømin = minimum bore diameter

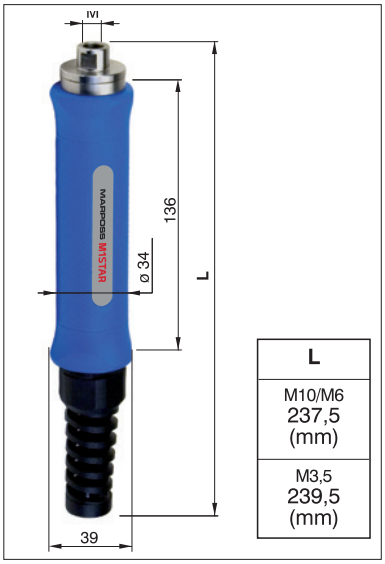
| MEASURING CONTACTS FOR PLUG HEADS TYPE **SB** | | | | |
|---|---|---|---|---|
| | CARBIDE OR DLC - COATED | | DIAMOND | |
| **ø D** | **R1** | **R2** | **R1** | **R2** |
| 9,5 ÷ <15 | 2 | 3,5 | - | - |
| 15 ÷ <26 | 2 | 5 | - | - |
| - | - | - | - | - |
| 26 ÷ <300 | 4 | 10 | - | - |

| MEASURING CONTACTS FOR PLUG HEADS TYPE **T** | | | | |
|---|---|---|---|---|
| | CARBIDE OR DLC - COATED | | DIAMANT | |
| **ø D** | **R1** | **R2** | **R1** | **R2** |
| 9,5 ÷ <15 | 2 | 3,5 | 0,75 | - |
| 15 ÷ <16 | 2 | 5 | 0,75 | - |
| 16 ÷ <26 | 2 | 5 | 2 | 5 |
| 26 ÷ <32 | 4 | 10 | 2 | - |
| 32 ÷ <300 | 4 | 10 | 4 | 10 |

# STANDARD HANDLES

## PENCIL PROBE HANDLES

| Thread M | Type | ORDER CODE |
|---|---|---|
| M3,5 | Without Pencil Probe - 8 mm h6 Clamping Diameter | 2TPL300000 |
| | With RedCrown LVDT ±1 mm, cable length L=2 m, Lumberg SV50/6 connector | 2TPL3F2000 |
| | With RedCrown HBT ±1mm, cable length L=2 m, Lumberg SV50/6 connector | 2TPL3H2000 |
| M6 | Without Pencil Probe - 8 mm h6 Clamping Diameter | 2TPL600000 |
| | With RedCrown LVDT ±1 mm, cable length L=2 m, Lumberg SV50/6 connector | 2TPL6F2000 |
| | With RedCrown HBT ±1 mm, cable length L=2 m, Lumberg SV50/6 connector | 2TPL6H2000 |
| M10 | Without Pencil Probe - 8 mm h6 Clamping Diameter | 2TPLA00000 |
| | With RedCrown LVDT ±1 mm, cable length L=2 m, Lumberg SV50/6 connector | 2TPLAF2000 |
| | With RedCrown HBT ±1 mm, cable length L=2 m, Lumberg SV50/6 connector | 2TPLAH2000 |

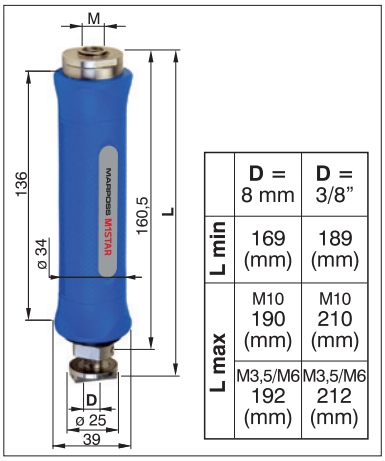



| L |
|---|
| M10/M6 237,5 (mm) |
| M3,5 239,5 (mm) |

A full range of pencil probe handles is available on request, such as for example:
- handle with 3/8"clamping diameter
- RedCrown probe with cable length L=4 m or 5 m
- RedCrown probe with Lumberg S3
- RedCrown unplugged probe compatible to amplifiers of other manufacturers (Air-Gage, Hommel/Etamic, Mahr Federal, Metrel, Metem, Mercer, Mitutoyo, Tesa, etc

## INDICATOR HANDLE

| Thread M | CLAMPING DIAMETER | ORDER CODE |
|---|---|---|
| M3,5 | 8 mm h6 | 2TCL3S0000 |
| | 3/8" | 2TCL4S0000 |
| M6 | 8 mm h6 | 2TCL6S0000 |
| | 3/8" | 2TCL7S0000 |
| M10 | 8 mm h6 | 2TCLAS0000 |
| | 3/8" | 2TCLBS0000 |




| | D = 8 mm | D = 3/8" |
|---|---|---|
| L min | 169 (mm) | 189 (mm) |
| L max | M10 190 (mm) | M10 210 (mm) |
| | M3,5/M6 192 (mm) | M3,5/M6 212 (mm) |

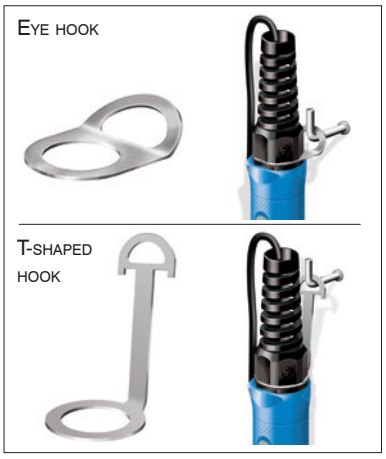
## MINI INDICATOR HANDLE

| Thread M | CLAMPING DIAMETER | ORDER CODE |
|---|---|---|
| M3,5 | 8 mm h6 | 2TCS3S0000 |
| | 3/8" | 2TCS4S0000 |
| M6 | 8 mm h6 | 2TCS6S0000 |
| | 3/8" | 2TCS7S0000 |
| M10 | 8 mm h6 | 2TCSAS0000 |
| | 3/8" | 2TCSBS0000 |


| | D = 8 mm | D = 3/8" |
|---|---|---|
| L min | 88 (mm) | 108 (mm) |
| L max | M10 108 (mm) | M10 128 (mm) |
| | M3,5/M6 110 (mm) | M3,5/M6 130 (mm) |

## HOOKS

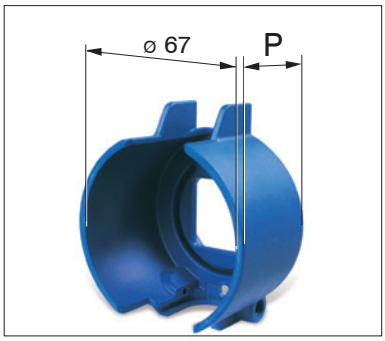
Hooks to hang up the M1 Star MBG bore gauges are available in two styles, for all handle types as shown (see the figures).




| DESCRIPTION | ORDER CODE |
|---|---|
| Eye hook for pencil probe handle | 1T0JHS0810 |
| T-shaped hook for pencil probe handle | 1T0JHS0811 |
| Eye hook for indicator handle | 1T0JHS0812 |

## INDICATOR PROTECTIVE SHELLS

Protective shells guarantee the indicator from accidental damages caused by dropping or side impact, etc.




| DESCRIPTION | Depth (P) | ORDER CODE |
|---|---|---|
| Protective shell for mechanical Indicator | 39 mm | 2T0DIPS001 |
| Protective shell for digital Indicator | 52 mm | 2T0DIPS000 |

## PROTECTIVE DOME FOR QUICK-DIGIT


| DESCRIPTION | ORDER CODE |
|---|---|
| Protective dome for the upper lifting rod of Quick Digit indicator | 2T0DICS000 |

## STAND

Used on the bench, this stand positions the gauge in vertical or horizontal position, or at any angle between –45° and +45° from vertical, allowing the workpiece to be referenced or located on the plug. With 1 or 2 extra plug support kit, it is possible to install up to 2 or 3 gauges on the same stand.


| DESCRIPTION | ORDER CODE |
|---|---|
| Multiposition Stand for EBG and MBG | 2TS0001111 |
| Extra plug support kit for stand 2TS0001111 | 2TS0002222 |

## HANDLES WITH WIRELESS TRANSMISSION

| | Description | ORDER CODE |
|---|---|---|
|  | i-Wave2 Handle with Direct-Lock for plug heads with M10 thread | 3TJ5SDI100 |
| | i-Wave2 Handle with Direct-Lock for plug heads with M6 thread | 3TJ5SDI060 |
| | i-Wave2 Handle with Direct-Lock for plug heads with M3,5 thread | 3TJ5SDI035 |
|  | i-Wave2 Handle with Starlock system for plug heads (one adapter for plug heads with M6 and M10 thread is included in the supply) (*) | 3TJ6SDI000 |
|  | Stand with battery charger | 2T0IRBS030 |
| | Nose-Down stand with battery charger | 2T0IRBS031 |
| | Power supply unit for one stand with battery charger | 2T0IRCS010 |
| | Power supply unit and junction box for up to four stands with charger | 2T0IRSS010 |

| | Description | ORDER CODE |
|---|---|---|
|  | i-Wave Handle with alkaline batteries (one adapter for plug heads with M6 and M10 thread is included in the supply) (*) | 3TJ0SFB000 |
|  | i-Wave Handle with Li-Ion inductive batteries (one adapter for plug heads with M6 and M10 thread is included in the supply) (*) | 3TJ0SFI000 |
|  | “Clip On” manual charger for i-Wave handle with Li-Ion batteries | 2T0IRMS001 |
|  | Stand with battery charger for i-Wave handle with Li-Ion batteries | 2T0IRBS001 |
| | Power supply unit for one stand with battery charger | 2T0IRCS010 |
| | Power supply unit and junction box for up to four stands with charger | 2T0IRSS010 |

(*) M3,5 and third party gauge heads adapters are available on request.

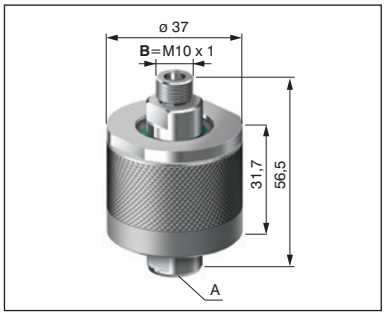
## OTHER ACCESSORIES

### ROTARY SPACERS

The rotary spacers make it possible to have the indicator dial always facing the operator, even during dynamic measurements.

| PLUG GAUGE THREAD A (*) | ORDER CODE |
|---|---|
| M6X0,75 | 2TR060S000 |
| M10X1 | 2TR100S000 |

(*)NOTE: Thread **A**: plug gauge-side thread - Thread **B**: handle-side thread

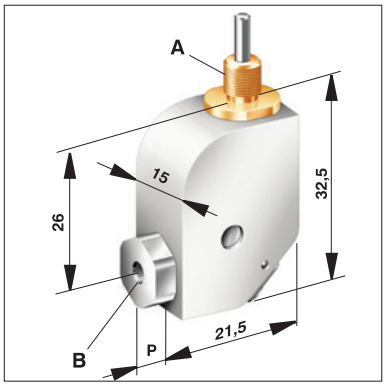


## ANGLE ADAPTORS

The angle adaptors are needed when space is limited and the position of the bore is a 90° to the direction of insertion.

| THREAD B (*) | THREAD A (*) | P (mm) | ORDER CODE |
|---|---|---|---|
| M3,5 X 0,35 | M6 X 0,75 | 3,7 | 2TAS630000 |
| M6 X 0,75 | | 4,2 | 2TAS660000 |
| M10 X 1 | | 13,1 | 2TAS6A0000 |
| M3,5 X 0,35 | M10 X 1 | 3,7 | 2TASA30000 |
| M6 X 0,75 | | 4,2 | 2TASA60000 |
| M10 X 1 | | 13,1 | 2TASAA0000 |

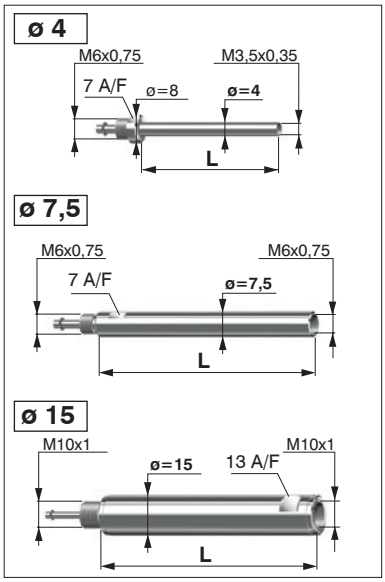
(*)NOTE: Thread **A**: handle-side thread - Thread **B**: plug gauge-side thread




## DEPTH EXTENSIONS

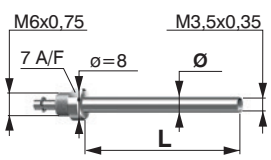
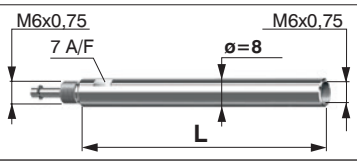
The extensions make it possible to reach the deeper measuring positions, when inserted between the plug head and the handle:

| LENGTH | ORDER CODE | | |
|---|---|---|---|
| L (mm) | ø 4 (mm) | ø 7,5 (mm) | ø 15 (mm) |
| 20 | 2TXMS40020 | 2TXMS70020 | - |
| 30 | 2TXMS40030 | 2TXMS70030 | - |
| 40 | 2TXMS40040 | 2TXMS70040 | - |
| 50 | 2TXMS40050 | 2TXMS70050 | 2TXMSF0050 |
| 65 | 2TXMS40065 | 2TXMS70065 | 2TXMSF0065 |
| 80 | 2TXMS40080 | 2TXMS70080 | 2TXMSF0080 |
| 100 | 2TXMS40100 | 2TXMS70100 | 2TXMSF0100 |
| 125 | 2TXMS40125 | 2TXMS70125 | 2TXMSF0125 |
| 250 | - | 2TXMS70250 | 2TXMSF0250 |
| 500 | - | - | 2TXMSF0500 |



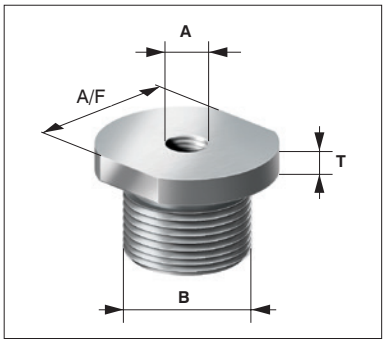

## SPECIAL DEPTH EXTENSIONS

For special applications and used where the extension diameter must not exceed the plug head size:

| Ø (mm) | L (mm) | ORDER CODE | |
|---|---|---|---|
| 3,8 | 20 | 2TXMS30020 |  |
| | 65 | 2TXMS30065 | |
| 4,8 | 65 | 2TXMS50065 | |
| | 80 | 2TXMS50080 | |
| 5,3 | 65 | 2TXMS60065 | |
| | 80 | 2TXMS60080 | |
| 8 | 65 | 2TXMS80065 |  |
| | 80 | 2TXMS80080 | |
| | 100 | 2TXMS80100 | |
| | 125 | 2TXMS80125 | |

## THREAD ADAPTORS

Thread adaptors improve applications capability and interchangeability of the accessories.

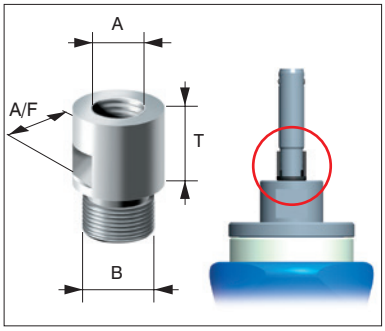



### Standard thread adaptors:

| RANGE | THREAD A (*) | THREAD B (*) | A/F | T (mm) | ORDER CODE |
|---|---|---|---|---|---|
| 3 - 9,5 | M3,5X0,35 | M6X0,75 | 7 | 1 | 1TA0350600 |
| 3 - 9,5 | M3,5X0,35 | M10X1 | 13 | 2 | 1TA0351000 |
| 9,5 - 26 | M6X0,75 | M10X1 | 13 | 2 | 1TA0601000 |

### Protective thread adaptors (for plug heads with M3,5x0,35 thread)

| RANGE | THREAD A (*) | THREAD B (*) | A/F | T (mm) | ORDER CODE |
|---|---|---|---|---|---|
| 3 - 4 | M3,5X0,35 | M6X0,75 | 6 | 6 | 1TAP350600 |
| 4 - 4,5 | | | 6 | 6 | 1TAP350601 |
| 4,5 - 5,5 | | | 6 | 6 | 1TAP350602 |
| 5,5 - 7,5 | | | 6 | 6 | 1TAP350603 |
| 7,5 - 9,5 | | | 9 | 9 | 1TAP350604 |



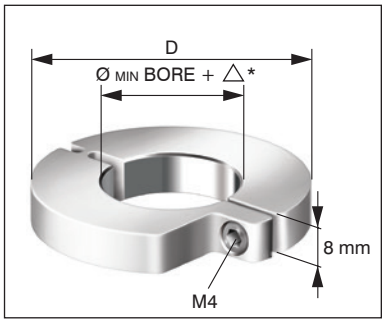

(*)NOTE: Thread **A**: plug head-side thread - Thread **B**: handle-side thread - The dimension **T** is designed according to the required measuring depth.

## DEPTH STOPS

The depth stops are used to accurately define the position of the measuring section and can be placed at a specific position on either the nosepiece or depth extension.

## DEPTH STOPS FOR NOSEPIECE

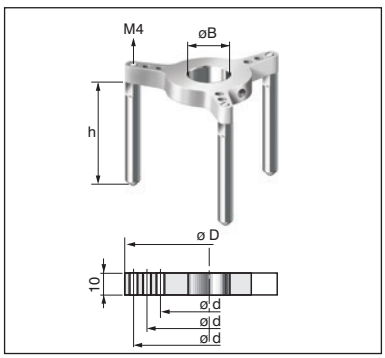
| ø min Bore (mm) | ø min Bore (*inch*) | ø D (mm) | ø D (*inch*) |
|---|---|---|---|
| 8 < 11 | *(0.3150" < 0.4331")* | 33 | *(1.29")* |
| 11 < 15 | *(0.4331" < 0.5905")* | 37 | *(1.45")* |
| 15 < 20 | *(0.5905" < 0.7874")* | 42 | *(1.77")* |
| 20 < 25 | *(0.7874" < 0.9842")* | 51 | *(2.00")* |
| 25 < 30 | *(0.9842" < 1.1811")* | 56 | *(2.20")* |
| 30 < 35 | *(1.1811" < 1.378")* | 61 | *(2.40")* |
| 35 <40 | *(1.378" <1.5748")* | 66 | *(2.59")* |
| 40 < 45 | *(1.5748" < 1.7716")* | 71 | *(2.79")* |
| 45 < 50 | *(1.7716" < 1.9685")* | 76 | *(2.99")* |
| 50 < 60 | *(1.9685" < 2.3622")* | 86 | *(3.38")* |
| 60 < 70 | *(2.3622" < 2.7559")* | 96 | *(3.77")* |
| 70 < 80 | *(2.7559" < 3.1496")* | 106 | *(4.17")* |
| 80 < 90 | *(3,1496" < 3.5433")* | 116 | *(4.56")* |
| 90 ≤100 | *(3.5433" ≤ 3.937")* | 126 | *(4.96")* |




△ < 0,2 mm

## DEPTH STOPS FOR EXTENSION

| Ø B (mm) | Ø D (mm) | h (mm) | ø d (mm) | | | | ORDER CODE |
|---|---|---|---|---|---|---|---|
| 4 | 32 | 32,8 | 26 | | | | 2TDEM040A0 |
| 7,5 | 42 | 34,8 | 36 | | | | 2TDEM075A0 |
| 15 | 45 | 45 | 38 | | | | 2TDEM150A0 |
| | 75 | | 44 | 56 | 68 | | 2TDEM150B0 |
| | 110 | | 79 | 91 | 103 | | 2TDEM150C0 |
| | 160 | | 117 | 129 | 141 | 153 | 2TDEM150D0 |
| | 220 | | 177 | 189 | 201 | 213 | 2TDEM150E0 |




***For a full list of address locations, please consult the Marposs official website***