

**Garant**
**HiPer-Drill base body, 1.5×D, Ø DC: 13 mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 231600 13     |
| GTIN         | 4045197602503 |
| Item class   | 21S           |

**Description**
**Version:**

- **Very high feed rates and maximum performance due to optimally matched geometries and materials.**
- **Precise positioning of the cutter insert due to Vee insert seating and secure clamping by the centre bore.**
- **High concentricity when assembled.**
- **Shank support for optimum stability in operation.**

**Application:**

For stationary and rotating use. For holes up to IT9 accuracy.

**Note:**

The insert screw must be replaced after every fifth change of cutter insert.

Further sizes up to Ø 50.99 mm available on request.

Clamp in a hydraulic chuck (such as No. 302026 size 20) for optimum radial run-out.

For optimum stability, clamp the drill so the overhang is as short as possible.

Number of cutting edges Z: 2

Dia. range D<sub>c</sub>: 13 - 13.49 mm

Reach L<sub>1</sub>: 21 mm

Shank Ø D<sub>s</sub>: 16 mm

Shank length L<sub>s</sub>: 48 mm

Clamping screw: 231999\_7IP (0.6 Nm)

**Technical description**

|                      |                     |
|----------------------|---------------------|
| Reach L <sub>1</sub> | 21 mm               |
| Clamping screw       | 231999_7IP (0.6 Nm) |

|                           |                                    |
|---------------------------|------------------------------------|
| Shank $\varnothing D_s$   | 16 mm                              |
| Dia. range $D_c$          | 13 - 13.49 mm                      |
| Shank length $L_s$        | 48 mm                              |
| Number of cutting edges Z | 2                                  |
| Drill depth up to         | 1.5xD                              |
| Shank                     | ISO 9766                           |
| Use for drilling          | limited drilling with oblique exit |
| Use for drilling          | limited drilling through a stack   |
| Use for drilling          | limited oblique spot drilling      |
| Use for drilling          | limited cross-drilling             |
| Through-coolant           | yes                                |
| Type of product           | Indexable drill                    |

## Accessories

|   |            |
|---|------------|
| Torx Plus® screw Drive 7IP                                      | 231999 7IP |
| PrecisionBit for Torx Plus®, shank E 6.3 Torx Plus® profile 7IP | 674252 7IP |
| Torque screwdriver, fixed setting set torque 0,6 Nm             | 211750 0,6 |