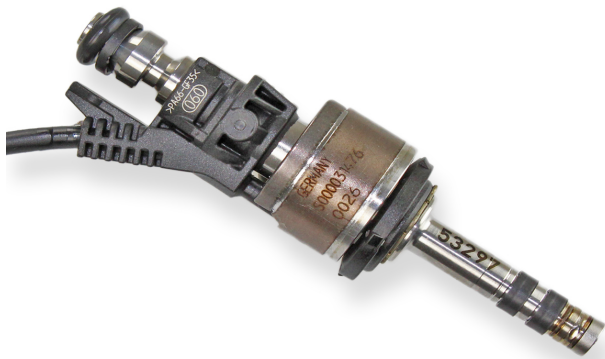


HP Injection Valve HDEV 6



- ▶ Flow rate at 100 bar: up to 1,640 g/min (n-heptane)
- ▶ Max. 350 bar (higher on request)
- ▶ Up to 20 holes
- ▶ Spray angle 8 to 20°

The high-pressure fuel injector HDEV 6 is a component of a gasoline-direct fuel-injection system of an otto cycle engine. The HDEV 6 is arranged between the fuel rail and the combustion chamber in the cylinder head.

The function of the HDEV 6 is to meter the high-pressurized fuel and achieve a targeted atomized air and fuel mixture in a defined location in the combustion chamber.

It is an inward opening solenoid injector which is optimized regarding high mass flow, fast opening and closing, leading to a very stable linearity.

The benefit of this injector is a high spray variability concerning hole numbers, spray shape, and spray angles. Also, the flow rate can be defined in a wide range.

Bosch offers the spray targeting design according to the individual customer requirements and can support with additional services, e.g. CFD Simulation, State of the art Spray measurements, and further services.

If your application conditions will not match the listed performance data, please ask for consultancy at Bosch Motorsport. Bosch offers cost effective production HDEV 6 on request.

Application

Application at 100 bar (typical)	308 to 1,640 g/min
Fuel input	Top-feed injector
Fuel	Gasoline
Operating pressure	Up to 350 bar (higher on request)
Operating temperature range	-40 to 130°C
Injector tip temperature range	-40 to 250°C

Fuel temperature range	-40 to 110°C (active) -40 to 130°C (passive, hot soak)
Max. vibration	600 m/s ²

Technical Specifications

Mechanical Data

Weight w/o wire	58 g (short) 63 to 102 g (long)
Diameter body	20.7 mm
Diameter nozzle	6 mm
Length	87 mm (short) 129 to 194 mm (long)
Flow rate at 100 bar (n-heptane)	up to 1,640 g/min
Number of holes	1 to 20 holes
Spray type	Single or Multi hole
Spray angle overall	110° (typical)
Spray angle single beam	8 to 20°
Static flow tolerance	±4 % (lower on request)
Dynamic flow tolerance	±6 % at ti = 1.5 ms
Leakage (hydraulic)	≤1.95 mm ³ /min at 23°C

Electrical Data

All listed electrical values are approximate and depend on the injector design.

Booster supply	65 V
Booster current	12 to 13 A
Power supply	12 V
Pick up current	5.3 A

Pick up time	600 µs
Hold power supply	12 V
Hold current	2.6 to 3.6 A
Coil resistance	1,830 mOhm (ambient temp.)

Connectors and Wires

Mating connector Compact	On request
Connector Jetronic (wire)	D261.205.288-01
Connector motorsport (wire)	On request
Pin 1	Pos
Pin 2	Gnd

Installation Notes

The injector must be supplied by a Bosch Motorsport ECU or Power Stage Unit (e.g. HPI 5 or HPI 1.16).

The injector can be cleaned (mechanically or chemically), if the tip will not be damaged. Do not use supersonic cleaning.

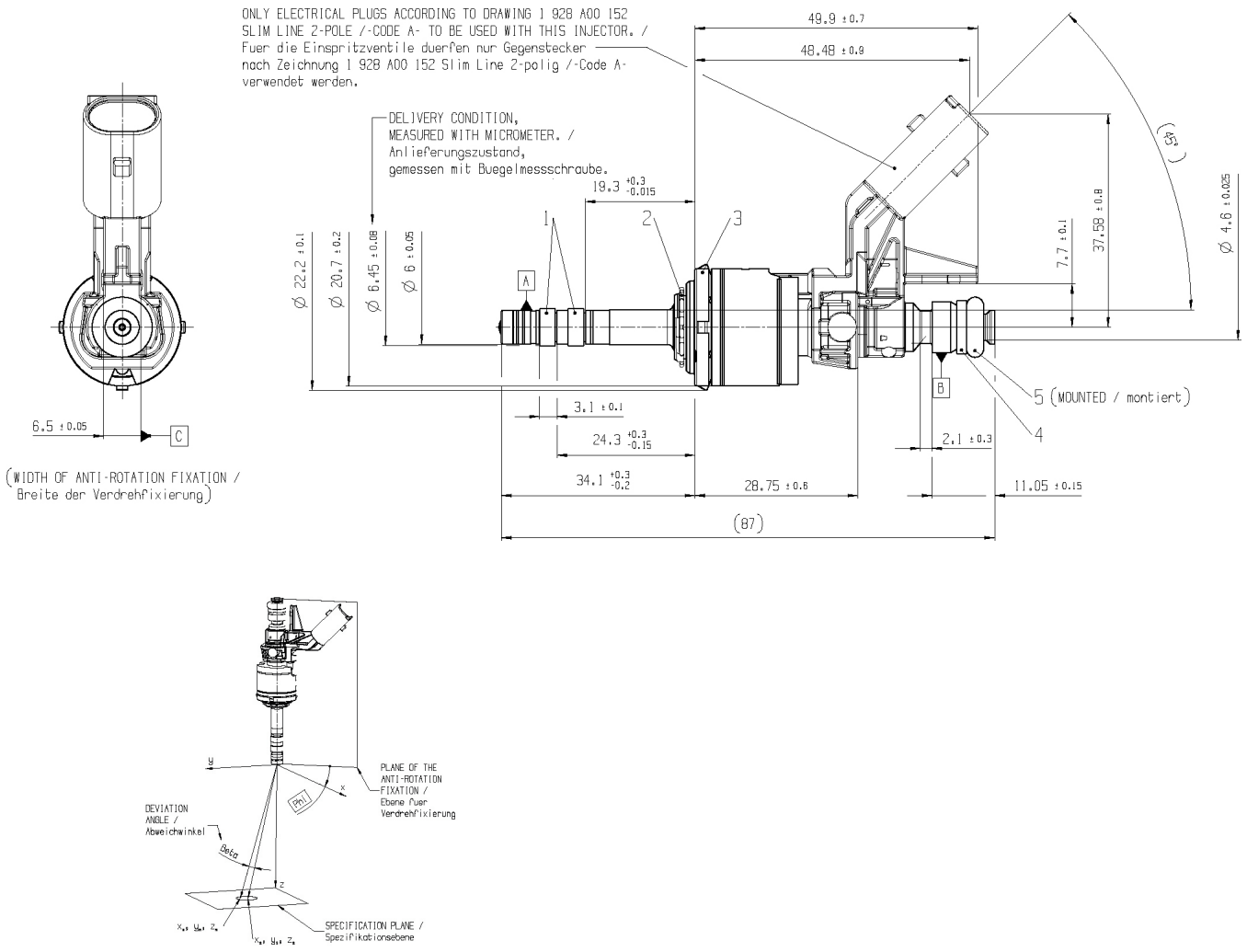
Legal Restrictions

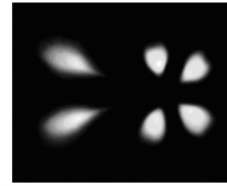
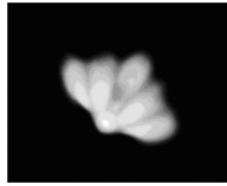
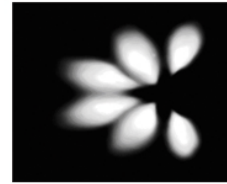
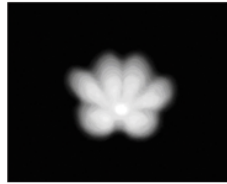
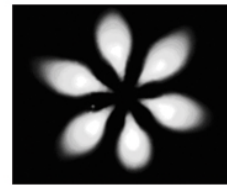
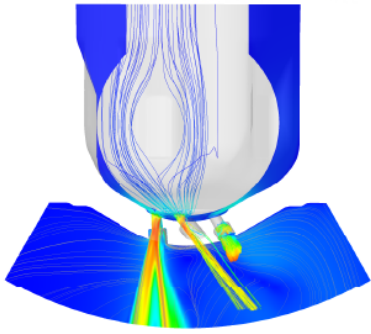
Generally blocked are direct and indirect business involving high risk destinations, including Russia, Belarus, Cuba, Iran, North Korea, Syria, Libya, Afghanistan, and certain non-governmental controlled Ukrainian regions. This list may change as geopolitics evolve.

Ordering Information

HP Injection Valve HDEV 6
Order number **On request**

Dimensions





Spray variations, further variations on request

Represented by:

Europe:
Bosch Engineering GmbH
Motorsport
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