HP Injection Valve Mini-HDEV LV 8A

The Mini-HDEV LV 8A is a high pressure injector, which is developed to be used in high performance gasoline engines with a manifold injection system.

The function of the Mini-HDEV LV 8A is both to meter out the fuel and to obtain a well-defined mixture of fuel and air. It is an inward opening solenoid injector which is optimised regarding very short opening and closing times, which ensures a very stable linearity at short injection times. It is suitable for a standard peak and hold power stage based on 12 V.

Its most remarkable features are the small size and weight. Another benefit of this injector is a high spray variability concerning spray angle and spray shape. Also the flow rate can be defined in a big range. An additional advantage of this injector is a high accuracy regarding leakage and linearity.

Application	
Application	335 ... 2000 g/min @ 100 bar
Fuel Input	Top-Feed Injector
Fuel	Gasoline
Fuel Input	Top-Feed Injector
Operating Pressure	100 bar
Operating Temperature Range	-20 °C ... 140 °C
Storage Temperature Range	-20 °C ... 70 °C

Mechanical Data	
Weight w/o cable	48 g
Diameter	20,7 mm
Length	51,6 mm
Max. Vibration	600 m/s² (guide value)

Electrical Data	
Peak Power Supply Us	12 V
Peak Current	7,5 A
Peak Sustain Time	800 µs
Hold Power Supply	12 V
Hold Current	3,5 A
Coil Resistance	270 mΩ

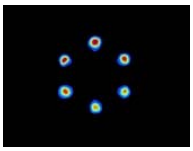
Connectors and Cables	
Cable Size	AWG18
Cable Length	< 100 cm
Sleeve	DR 25
Various military and automotive connectors on request.	

Application Hint
The injector can be supplied by a peak and hold power stage with maximum 8 A @ 12 V.
If your application conditions will not match the listed performance data, please ask for consultancy at Bosch Motorsport.
The injector can be cleaned (mechanically or chemically) if the tip will not be damaged.
Do not use supersonic cleaning.
Please find further application hints in the offer drawing (http://www.bosch-motorsport.com).

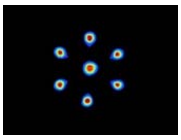
Characteristic	
Spray Type	Multihole
Number of Holes	6 ... 16
Spray Angle Overall	< 100°
Spray Angle Single Beam	8° ... 18°
Static Flow Tolerance	+/- 4 %
Dynamic Flow Tolerance	+/- 4 % @ ti = 1,5 ms
Leakage	< 2,0 mm³/min @ 23 °C
Fly Time (t_on)	220 µs
Closing Time (t_off)	250 µs
Droplet Size SMD	15 µm
Example Spray Pattern	
Static Flow	335 ... 2000 g/min @ 100 bar

Part Number	
Mini-HDEV LV 8A	on request

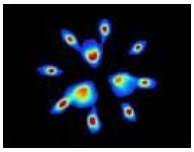
Examples of variations, further variations on request



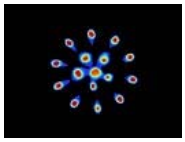
Jets on a circle



Jets on a circle and a middle jet

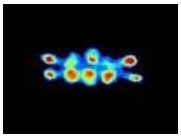


Jets on two circles



Jets on two circles and a middle jet

Jet configuration regarding the spark plug position



Flat jet configuration