

# HP Fuel Pump HDP 5-FCV/-FCV HP

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- ▶ 200 bar or more
- ▶ Max.  $1.1 \text{ cm}^3/\text{rot}_{\text{cam}}$
- ▶ Integrated control valve
- ▶ 780 g

The HDP 5 FCV is a compact high pressure single piston pump. The design allows achieving a big delivery volume as well as high efficiency, as needed in motorsport applications. Modifications in the number of cam lobes and cam lifts allow different flow requirements to be addressed.

We offer two variations of the HDP 5 FCV: one is equipped with an internal pressure relief valve to limit the maximum fuel pressure (HDP 5-FCV). This variation does not require a fuel return line into the fuel tank. The other variation (HDP 5-FCV HP) is not equipped with an internal pressure relief valve and therefore requires a pressure regulation valve in the common rail to avoid overload pressure.

Both variations have an integrated demand control for metering the amount of fuel supplied into the high pressure fuel system. Both variations can be ordered with a compact connector or a motorsport connector. Depending on the requirements of your engine (e.g. fuel consumption over rotation ratio) we recommend different types of tappets, piston springs and cam profiles. Please notice: Fuel delivery and maximum driveshaft speed depend on cam profile and type of tappet.

## Application

For high pressure manifold injection or gasoline direct injection

## Technical Specifications

### Variations

| Model        | Max. pressure | Connector   |
|--------------|---------------|-------------|
| HDP 5-FCV    | 200 bar       | Compact     |
| HDP 5-FCV    | 200 bar       | Motorsports |
| HDP 5-FCV HP | Over 200 bar  | Compact     |
| HDP 5-FCV HP | Over 200 bar  | Motorsports |

### Mechanical Data

|                               |   |
|-------------------------------|---|
| Theoretical fuel delivery     | 0.5 to $1.1 \text{ cm}^3/\text{rot}_{\text{cam}}$ |
| Nominal pressure              | Please see variations                             |
| Weight                        | Approx. 780 g                                     |
| Max. speed at pump driveshaft | Depends on cam profile and type of tappet         |
| Supply pressure               | 4 to 7 bar  |
| Operating temperature         | -40 to 120°C                                      |
| Storage temperature           | -40 to 70°C                                       |
| Compatible fuels              | Unleaded fuels, E22, E85, M15                     |

|                  |                        |
|------------------|------------------------|
| Fuel temperature | 80°C, short term 130°C |
| Max. vibration   | 600 m/s <sup>2</sup>   |

### Connectors and Wires

|                                    |                  |
|------------------------------------|------------------|
| Electrical connector compact       | D 261 205 359-01 |
| Electrical connector motorsports   | F 02U 000 426-01 |
| Mechanical connector intake side   | M14x1.5          |
| Mechanical connector pressure side | M14x1.5          |

### Installation Notes

Mounting on cylinder head or adapter flag.

Available cam profiles on request.

Please notice: Fuel delivery and maximum driveshaft speed depends on cam profile and type of tappet.

### Ordering Information

#### HDP 5-FCV

Compact connector, max. 200 bar  
Order number **F 02U V00 912-01**

#### HDP 5-FCV

Motorsports connector, max. 200 bar  
Order number **F 02U V01 114-01**

#### HDP 5-FCV HP

Compact connector, over 200 bar  
Order number **F 02U V01 128-01**

#### HDP 5-FCV HP

Motorsports connector, over 200 bar  
Order number **F 02U V01 115-01**

### Accessories

#### Flat tappet (26 mm)

Order number **F 02U V01 156-01**

#### Roller tappet (26 mm)

Order number **F 02U V01 163-01**

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