

## IWP189 Fuel injector

This IWP189 "Pico" top feed injector is a production component with a multi hole 'cone' spray pattern and very high flow for use as a 'shower' injector directly downwards into the air intake of high performance engines.

The characteristics of the injector are a fast pulse response, high precision, high dynamic range and optimum fuel atomisation. These are achieved by a high performance ON-OFF actuating electromagnet with opposing expansion poles that moves an internal injector valve on high-precision ground cylindrical slides, and a high precision nozzle. The injector has a stainless steel body, a fuel-resistant plastic connector, martensitic stainless steel internal valve and an electromagnet with a low carbon content stainless steel armature.



The electrical connection to the control unit is via a Mini-Timer plastic plug.

### Technical Data

#### Performance - Typical

Flow.....510 cc/min - 5.8g/s +/- 4%  
 Cone – Inclusive 80%..... 50° Typ  
 Linearity range (Tj = 4 ms) .....± 4 %  
 Max. fuel pressure .....500 kPa  
 Maximum duty cycle .....90 %  
 Operating temperature range.....-30...110 °C  
 Vibration (peak) .....30 g

#### Test conditions

Fluid ..... N-Heptane  
 density (@ 20°C) .....0.684 kg/litre  
 Ambient and fluid temperature .....23 °C  
 Power supply ..... 14 Vdc

#### Test conditions – cont'd

Injection frequency..... Fully open  
 Pressure ..... 3 bar

#### Mechanical Characteristics

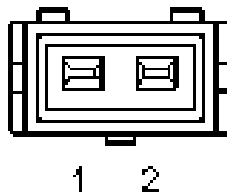
Height .....47.2 mm  
 Outside diameter (connector excluded).....15.3 mm  
 Weight .....35 g  
 Connector angle from body .....60 °

#### Electrical Characteristics

Connector .....Mini-Timer 2 way  
 Power supply .....8 ÷ 16 Vdc  
 Resistance.....14.5 Ω  
 Driver type ..... ON-OFF

### Electrical connections

PIN	Description
1	GND
2	+12 V



### Ordering information

Part No.	Connector	Description
IWP189	2 way minitimer	High flow rate shower injector – multi hole