

## Bike Sport Developments Ltd

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## 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

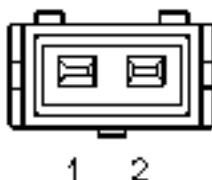
Height .....47.2 mm  
Outside diameter (connector excluded).....15.3 mm  
Weight .....35 g  
Connector angle from body .....60 °

### 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