



### INJ-501 (Blue Dot) Injector Information

Part Number:	INJ-501	
Length:	3/4 Length	
Connector:	USCAR	
O-Ring Diameter:	14mm Top and Bottom	
Coil Resistance:	12 Ω @ 22°C	
Min Opening Voltage:	10V @ 22°C	
Test Fluid:	N-Heptane	
Fluid Density:	0.684 g/cm <sup>3</sup>	
Fluid Viscosity:	0.61 mm <sup>2</sup> /s	
Test Temperature:	21±2°C	
Test Pressure:	300, 400 and 500 kPa	
Test Voltage:	6-15 V	
Qstat, Static Flow Rate	970 cc/min ±1.5%	
Qdyn, Dynamic Flow Rate	70.4 mg/pulse @ 7.5ms	
Fuel Compatibility	Gasoline, Ethanol and Methanol	
Spray Pattern	Narrow Cone	
Spray Direction	Straight	

### Slope [g/s] vs. Pressure [kPa]

Fuel Pressure

[psi]	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0
[kPa]	276	300	345	379	400	414	448	500	552	621
[g/s]	10.45	10.90	11.81	12.43	12.79	13.01	13.51	14.17	14.88	15.79

### Injector Offset [ms] vs. Pressure [kPa] vs. Voltage [V]

Fuel Pressure

[psi]	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0	
[kPa]	276	300	345	379	400	414	448	500	552	621	
Voltage [V]	15	0.615	0.642	0.693	0.732	0.756	0.762	0.778	0.802	0.826	0.858
	14	0.749	0.780	0.840	0.885	0.913	0.923	0.949	0.989	1.028	1.081
	13	0.893	0.930	0.998	1.050	1.083	1.103	1.154	1.231	1.308	1.410
	12	1.087	1.137	1.230	1.301	1.344	1.365	1.415	1.491	1.568	1.669
	11	1.328	1.385	1.493	1.574	1.624	1.670	1.780	1.949	2.117	2.341
	10	1.603	1.695	1.866	1.996	2.076	2.139	2.290	2.522	2.755	3.063
	9	2.047	2.189	2.454	2.655	2.779	2.941	3.334	3.936	4.537	5.335
	8	2.761	2.976	3.378	3.683	3.871	4.050	4.484	5.149	5.814	6.696
	7	4.170	4.404	4.844	5.176	5.382	5.678	6.398	7.500	7.500	7.500
	6	6.024	6.309	6.845	7.250	7.500	7.500	7.500	7.500	7.500	7.500

### Static Flow Rate vs. Pressure [kPa]

Fuel Pressure

(psi)	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0
(kPa)	276	300	345	379	400	414	448	500	552	621
[g/min]	10.63	11.08	11.95	12.57	12.93	13.17	13.73	14.53	15.27	16.20
[cc/min]	934	973	1049	1104	1136	1157	1206	1277	1341	1423

For Ford/GM Plug and Play data, please visit

<https://www.raceworks.com.au/fuel/injectors/data/INJ-501>



### INJ-501 (Red Dot) Injector Information

Part Number:	INJ-501	
Length:	3/4 Length	
Connector:	USCAR	
O-Ring Diameter:	14mm Top and Bottom	
Coil Resistance:	12 Ω @ 22°C	
Min Opening Voltage:	10V @ 22°C	
Test Fluid:	N-Heptane	
Fluid Density:	0.684 g/cm <sup>3</sup>	
Fluid Viscosity:	0.61 mm <sup>2</sup> /s	
Test Temperature:	21±2°C	
Test Pressure:	300, 400 and 500 kPa	
Test Voltage:	6-15 V	
Qstat, Static Flow Rate	1130 cc/min ±1.5%	
Qdyn, Dynamic Flow Rate	72.3 mg/pulse @ 7.5ms	
Fuel Compatibility	Gasoline, Ethanol and Methanol	
Spray Pattern	Narrow Cone	
Spray Direction	Straight	

### Slope [g/s] vs. Pressure [kPa]

Fuel Pressure

[psi]	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0
[kPa]	276	300	345	379	400	414	448	500	552	621
[g/s]	10.83	11.29	12.19	12.81	13.17	13.39	13.91	14.59	15.33	16.26

### Injector Offset [ms] vs. Pressure [kPa] vs. Voltage [V]

Fuel Pressure

[psi]	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0
[kPa]	276	300	345	379	400	414	448	500	552	621
15	0.669	0.702	0.766	0.813	0.843	0.857	0.890	0.941	0.992	1.060
14	0.817	0.843	0.891	0.927	0.950	0.963	0.995	1.044	1.093	1.158
13	0.986	1.026	1.100	1.156	1.190	1.196	1.212	1.236	1.260	1.292
12	1.175	1.233	1.343	1.426	1.477	1.491	1.525	1.577	1.629	1.697
11	1.450	1.507	1.615	1.696	1.746	1.759	1.789	1.836	1.882	1.944
10	1.900	1.929	1.982	2.022	2.047	2.059	2.090	2.137	2.184	2.247
9	2.459	2.462	2.467	2.470	2.473	2.484	2.511	2.552	2.593	2.648
8	3.676	3.551	3.315	3.137	3.027	3.061	3.144	3.270	3.397	3.565
7	5.290	5.026	4.529	4.155	3.923	4.424	5.640	7.500	7.500	7.500
6	7.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500	7.500

### Static Flow Rate vs. Pressure [kPa]

Fuel Pressure

(psi)	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0
(kPa)	276	300	345	379	400	414	448	500	552	621
[g/min]	11.18	11.65	12.57	13.24	13.64	13.90	14.52	15.41	16.20	17.18
[cc/min]	982	1024	1104	1163	1198	1221	1275	1354	1423	1509

For Ford/GM Plug and Play data, please visit

<https://www.raceworks.com.au/fuel/injectors/data/INJ-501>



### INJ-501 (Yellow Dot) Injector Information

Part Number:	INJ-501	
Length:	3/4 Length	
Connector:	USCAR	
O-Ring Diameter:	14mm Top and Bottom	
Coil Resistance:	12 Ω @ 22°C	
Min Opening Voltage:	10V @ 22°C	
Test Fluid:	N-Heptane	
Fluid Density:	0.684 g/cm <sup>3</sup>	
Fluid Viscosity:	0.61 mm <sup>2</sup> /s	
Test Temperature:	21±2°C	
Test Pressure:	300, 400 and 500 kPa	
Test Voltage:	6-15 V	
Q <sub>stat</sub> , Static Flow Rate	1000 cc/min ±1.5%	
Q <sub>dyn</sub> , Dynamic Flow Rate	71.8 mg/pulse @ 7.5ms	
Fuel Compatibility	Gasoline, Ethanol and Methanol	
Spray Pattern	Narrow Cone	
Spray Direction	Straight	

### Slope [g/s] vs. Pressure [kPa]

Fuel Pressure

[psi]	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0
[kPa]	276	300	345	379	400	414	448	500	552	621
[g/s]	10.74	11.20	12.08	12.68	13.03	13.24	13.74	14.40	15.13	16.05

### Injector Offset [ms] vs. Pressure [kPa] vs. Voltage [V]

Fuel Pressure

[psi]	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0	
[kPa]	276	300	345	379	400	414	448	500	552	621	
Voltage [V]	15	0.653	0.672	0.709	0.736	0.753	0.759	0.773	0.795	0.817	0.845
	14	0.793	0.814	0.853	0.882	0.900	0.912	0.941	0.986	1.030	1.089
	13	0.935	0.968	1.029	1.075	1.103	1.104	1.107	1.112	1.117	1.123
	12	1.123	1.163	1.239	1.297	1.332	1.352	1.399	1.471	1.543	1.638
	11	1.350	1.411	1.524	1.610	1.663	1.685	1.738	1.820	1.902	2.010
	10	1.623	1.719	1.900	2.037	2.122	2.124	2.129	2.136	2.144	2.154
	9	2.060	2.201	2.464	2.663	2.786	2.818	2.894	3.011	3.128	3.283
	8	2.647	2.991	3.637	4.124	4.426	4.446	4.494	4.567	4.641	4.738
	7	4.102	4.423	5.027	5.482	5.764	6.007	6.597	7.500	7.500	7.500
	6	6.016	6.303	6.842	7.249	7.500	7.500	7.500	7.500	7.500	7.500

### Static Flow Rate vs. Pressure [kPa]

Fuel Pressure

(psi)	40.0	43.5	50.0	55.0	58.0	60.0	65.0	72.5	80.0	90.0
(kPa)	276	300	345	379	400	414	448	500	552	621
[g/min]	11.04	11.51	12.33	12.93	13.29	13.53	14.08	14.89	15.64	16.59
[cc/min]	970	1011	1083	1136	1168	1188	1237	1308	1374	1458

For Ford/GM Plug and Play data, please visit

<https://www.raceworks.com.au/fuel/injectors/data/INJ-501>