



INJ-502 (Blue Dot) Injector Information

Part Number:	INJ-502	
Length:	Short with Extended Nose	
Connector:	Bosch Jetronic/Minitimer	
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 ³	
Fluid Viscosity:	0.61 mm ² /s	
Test Temperature:	21±2°C	
Test Pressure:	300, 400 and 500 kPa	
Test Voltage:	6-14 V	
Q _{stat} , Static Flow Rate	1200 cc/min ±1.5%	
Q _{dyn} , Dynamic Flow Rate	87.1mg/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]	12.58	13.12	14.16	14.85	15.23	15.47	15.99	16.62	17.46	18.52

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	0.670	0.689	0.725	0.752	0.769	0.778	0.799	0.833	0.866	0.909
	14	0.836	0.859	0.902	0.935	0.956	0.970	1.004	1.057	1.110	1.180
	13	1.002	1.037	1.101	1.150	1.181	1.211	1.286	1.400	1.515	1.666
	12	1.193	1.252	1.364	1.448	1.500	1.542	1.644	1.799	1.954	2.160
	11	1.504	1.571	1.698	1.794	1.853	1.938	2.144	2.460	2.775	3.194
	10	1.859	1.969	2.176	2.333	2.430	2.562	2.882	3.371	3.861	4.511
	9	2.420	2.582	2.887	3.117	3.259	3.446	3.899	4.593	5.287	6.207
	8	3.286	3.507	3.921	4.234	4.427	4.582	4.960	5.537	6.115	6.881
	7	4.860	5.030	5.348	5.589	5.738	5.984	6.584	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]	13.15	13.71	14.71	15.44	15.87	16.15	16.81	17.76	18.66	19.80
[cc/min]	1155	1204	1292	1356	1394	1419	1477	1560	1640	1739

For Ford/GM Plug and Play data, please visit

<https://www.raceworks.com.au/fuel/injectors/data/INJ-502>



INJ-502 (Red Dot) Injector Information

Part Number:	INJ-502	
Length:	Short with Extended Nose	
Connector:	Bosch Jetronic/Minitimer	
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 ³	
Fluid Viscosity:	0.61 mm ² /s	
Test Temperature:	21±2°C	
Test Pressure:	300, 400 and 500 kPa	
Test Voltage:	6-14 V	
Qstat, Static Flow Rate	1300 cc/min ±1.5%	
Qdyn, Dynamic Flow Rate	91.0mg/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]	13.30	13.87	14.95	15.64	16.02	16.25	16.74	17.29	18.16	19.27

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	0.736	0.748	0.771	0.788	0.798	0.809	0.837	0.878	0.920	0.976
14	0.919	0.938	0.973	1.000	1.017	1.031	1.063	1.114	1.164	1.231
13	1.107	1.152	1.236	1.300	1.339	1.370	1.447	1.565	1.683	1.839
12	1.359	1.429	1.560	1.659	1.720	1.797	1.984	2.271	2.557	2.937
11	1.680	1.807	2.046	2.227	2.338	2.425	2.635	2.957	3.278	3.705
10	2.142	2.330	2.683	2.949	3.114	3.209	3.442	3.797	4.152	4.623
9	3.115	3.304	3.658	3.926	4.091	4.197	4.456	4.851	5.246	5.771
8	4.423	4.590	4.903	5.139	5.285	5.595	6.348	7.500	7.500	7.500
7	5.382	5.792	6.560	7.141	7.500	7.500	7.500	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]	14.23	14.84	16.00	16.84	17.33	17.66	18.42	19.52	20.51	21.76
[cc/min]	1250	1303	1406	1479	1523	1551	1618	1715	1802	1911

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INJ-502 (Yellow Dot) Injector Information

Part Number:	INJ-502	
Length:	Short with Extended Nose	
Connector:	Bosch Jetronic/Minitimer	
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 ³	
Fluid Viscosity:	0.61 mm ² /s	
Test Temperature:	21±2°C	
Test Pressure:	300, 400 and 500 kPa	
Test Voltage:	6-14 V	
Q _{stat} , Static Flow Rate	1250 cc/min ±1.5%	
Q _{dyn} , Dynamic Flow Rate	88.8mg/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]	12.85	13.40	14.64	15.39	15.79	16.01	16.46	16.84	17.70	18.77

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	0.663	0.697	0.762	0.810	0.840	0.842	0.847	0.854	0.861	0.871
	14	0.831	0.870	0.942	0.997	1.031	1.039	1.059	1.088	1.118	1.158
	13	1.038	1.088	1.180	1.249	1.292	1.325	1.406	1.529	1.652	1.816
	12	1.224	1.309	1.468	1.589	1.664	1.681	1.723	1.788	1.853	1.939
	11	1.588	1.705	1.924	2.090	2.192	2.303	2.572	2.984	3.396	3.943
	10	2.001	2.179	2.512	2.764	2.919	3.075	3.453	4.031	4.609	5.376
	9	2.791	3.014	3.431	3.746	3.941	4.097	4.477	5.058	5.638	6.409
	8	4.083	4.306	4.725	5.042	5.237	5.554	6.323	7.500	7.500	7.500
	7	5.276	5.706	6.513	7.123	7.500	7.500	7.500	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]	13.76	14.35	15.56	16.39	16.86	17.15	17.81	18.65	19.60	20.79
[cc/min]	1209	1260	1367	1440	1481	1507	1565	1639	1722	1826

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