



INJ-505 (Blue Dot) Injector Information

Part Number:	INJ-505	
Length:	Full 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 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	980 cc/min ±1.5%	
Qdyn, Dynamic Flow Rate	72.5mg/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]	10.82	11.28	12.11	12.69	13.03	13.25	13.76	14.47	15.20	16.12

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	0.967	0.943	0.897	0.862	0.841	0.859	0.904	0.973	1.041	1.132
	14	1.074	1.066	1.050	1.039	1.032	1.050	1.095	1.163	1.231	1.322
	13	1.275	1.272	1.265	1.260	1.257	1.279	1.331	1.411	1.491	1.597
	12	1.484	1.491	1.505	1.515	1.522	1.556	1.639	1.766	1.893	2.061
	11	1.770	1.788	1.820	1.845	1.861	1.919	2.061	2.279	2.497	2.786
	10	1.974	2.059	2.218	2.338	2.412	2.516	2.768	3.153	3.539	4.051
	9	2.490	2.662	2.983	3.226	3.376	3.543	3.950	4.571	5.193	6.018
	8	3.492	3.762	4.268	4.651	4.887	4.977	5.195	5.529	5.863	6.306
	7	5.208	5.380	5.704	5.948	6.099	6.295	6.771	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]	10.84	11.30	12.23	12.88	13.26	13.50	14.05	14.80	15.55	16.50
[cc/min]	952	993	1075	1132	1165	1186	1234	1300	1366	1449

For Ford/GM Plug and Play data, please visit

<https://www.raceworks.com.au/fuel/injectors/data/INJ-505>



INJ-505 (Red Dot) Injector Information

Part Number:	INJ-505	
Length:	Full 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 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	1040 cc/min ±1.5%	
Q _{dyn} , Dynamic Flow Rate	75.1mg/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]	10.98	11.45	12.31	12.97	13.37	13.63	14.28	15.27	16.04	17.02

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	0.544	0.603	0.713	0.796	0.847	0.864	0.905	0.968	1.031	1.114
	14	0.926	0.943	0.974	0.998	1.012	1.029	1.069	1.130	1.192	1.273
	13	1.217	1.210	1.196	1.186	1.179	1.201	1.255	1.337	1.418	1.527
	12	1.421	1.424	1.429	1.433	1.436	1.458	1.513	1.595	1.678	1.788
	11	1.686	1.685	1.682	1.681	1.680	1.703	1.760	1.846	1.933	2.048
	10	1.983	1.992	2.011	2.025	2.033	2.059	2.121	2.217	2.312	2.439
	9	2.407	2.412	2.422	2.430	2.435	2.474	2.570	2.718	2.865	3.060
	8	2.888	2.922	2.988	3.037	3.067	3.158	3.377	3.713	4.048	4.494
	7	2.924	3.809	5.470	6.725	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]	11.43	11.91	12.82	13.47	13.86	14.11	14.71	15.58	16.37	17.37
[cc/min]	1004	1046	1126	1183	1217	1240	1293	1369	1438	1526

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INJ-505 (Yellow Dot) Injector Information

Part Number:	INJ-505	
Length:	Full 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 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	1010 cc/min ±1.5%	
Q _{dyn} , Dynamic Flow Rate	73.8mg/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]	10.86	11.33	12.18	12.76	13.10	13.32	13.81	14.48	15.21	16.13

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	0.815	0.844	0.898	0.939	0.965	0.967	0.971	0.977	0.984	0.993
	14	0.958	0.987	1.043	1.085	1.111	1.120	1.142	1.176	1.209	1.253
	13	1.102	1.152	1.244	1.314	1.357	1.379	1.433	1.515	1.598	1.708
	12	1.292	1.360	1.488	1.584	1.644	1.694	1.818	2.006	2.195	2.445
	11	1.557	1.649	1.822	1.953	2.033	2.125	2.347	2.687	3.027	3.478
	10	1.891	2.035	2.305	2.509	2.635	2.752	3.037	3.474	3.910	4.489
	9	1.940	2.304	2.988	3.504	3.823	3.967	4.317	4.852	5.387	6.096
	8	3.424	3.822	4.567	5.130	5.478	5.541	5.695	5.930	6.165	6.477
	7	5.299	5.503	5.884	6.172	6.350	6.511	6.902	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]	10.98	11.45	12.34	12.97	13.33	13.57	14.11	14.86	15.61	16.56
[cc/min]	965	1006	1084	1139	1171	1192	1239	1305	1371	1454

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