



M.T.M. s.r.l.

DATA SHEET
Injector IN03 MY09

Rev. 02
Emission date 10/02/2011

Page 1 of 5

GASEOUS CNG/LPG
BOTTOM FEED INJECTOR

IN03 MY09

DATA SHEET



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Page 2 of 5

BRC Injector IN03 MY09

1. General Characteristic

ITEM		DETAIL	Ref.	
Fuel feeding		Bottom feed		
Environment	Outside	Muddy water, dust, oil mist		
	Inside	CNG	Methane, Compressor oil, Nitrogen, Particles <10 µm	
		LPG	Butane, Propane, Pentane, Particles <10 µm	
	Approval operating temperature	CNG	-40°C to 120°C	R110
		LPG	-20°C to 120°C	E67-01
	Function assured temperature	CNG	-15°C to 120°C	M.T.M
		LPG	-15°C to 120°C	M.T.M
	Storage temperature	-40°C to 120°C		
Vibration	30g from 40 to 400Hz			
Working pressure		300 kPa	M.T.M	
Standard Operating pressure	CNG	200 kPa above manifold pressure	M.T.M	
	LPG	150 kPa above manifold pressure	M.T.M	
Classification pressure		450 kPa (Class 2)	E67-01 R110	
Electrical	Working voltage range	6V to 16V		
	Driver type	Peak & hold		
	Coil resistance	1,66± 0,1 Ω at 20°C		
	Injector inductance	1.77 ± 0.1 mH		
	Socket	AMP 284556		
Leak	Internal air thigtness	< 0,20 cm ³ /min	M.T.M	
	External air thigtness	< 0,20 cm ³ /min		
Mass		≈ 70g		
Type approvals / Certifications		67R – 010223 110R – 000041 ISO15500		

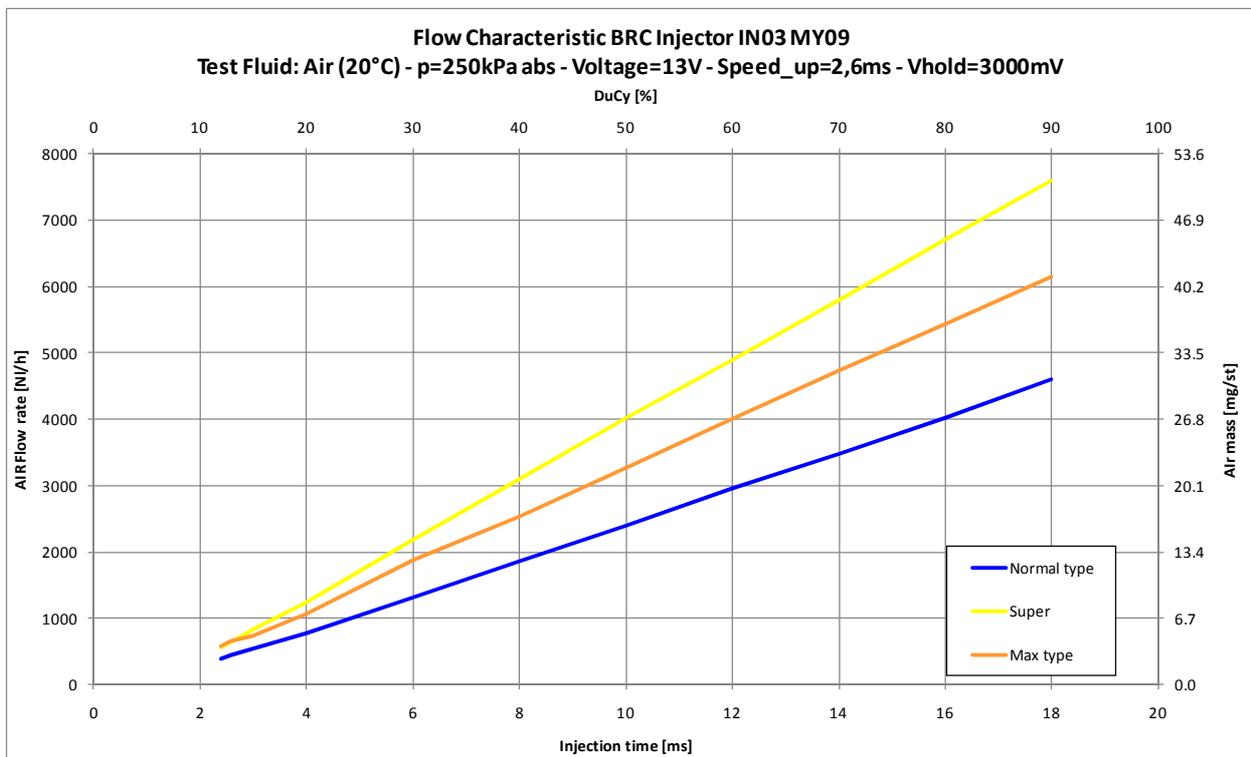
2. Flow Characteristics

The flow characteristics are measured driving the injector with a peak & hold current.

The driving wave has completely defined by the parameters:

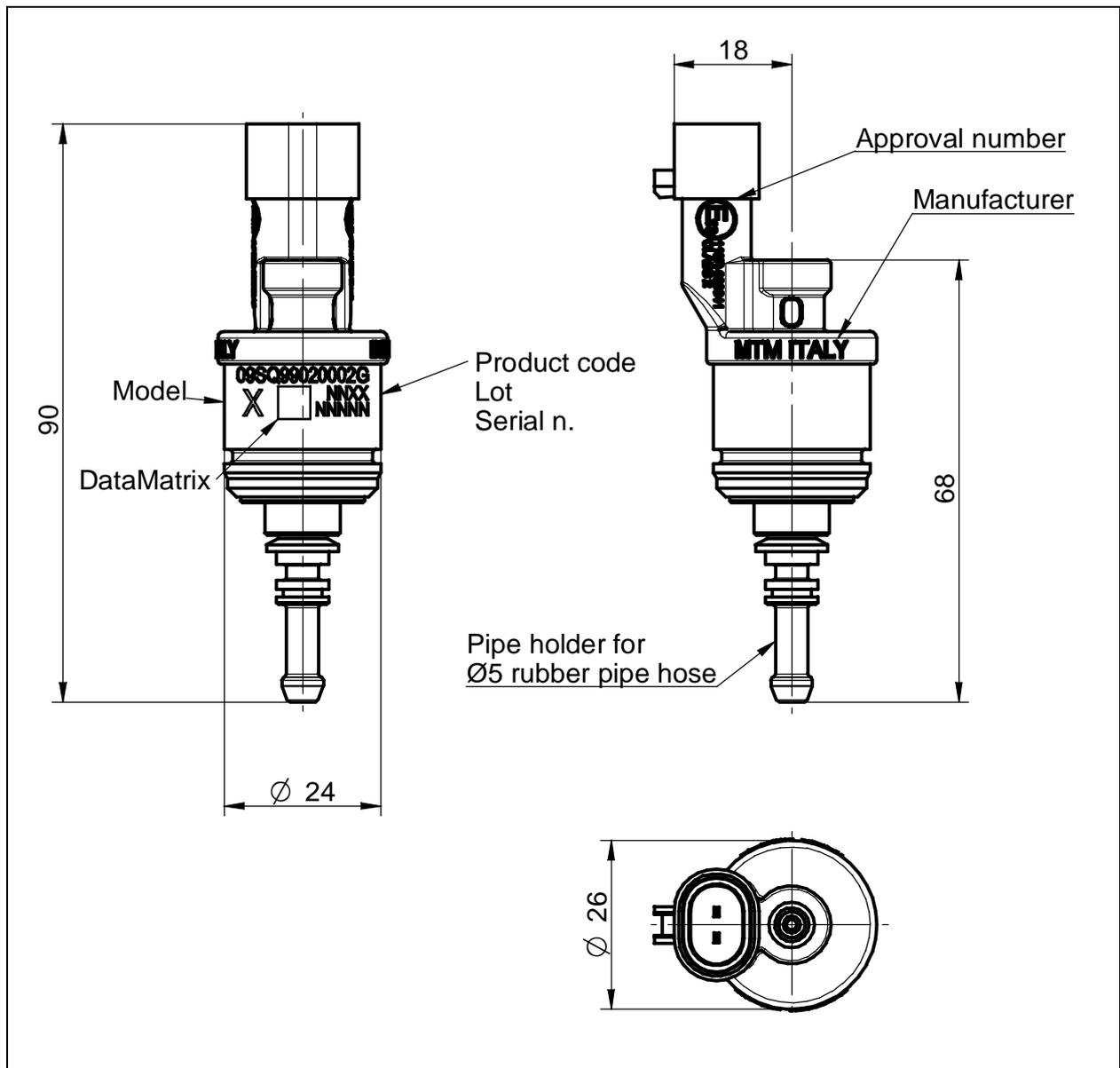
- Period (T): the reciprocal of the frequency of injection; that is the time elapsed between the beginning of one injection to the beginning of the next injection, expressed in units of ms
- Pulse width (t_{on}): increment of time that the injectors are commanded to deliver fuel for a single injection events (ms)
- Speed_up time: time during the injector has driven with the full battery voltage
Standard value 2.8ms @13V
- Hold voltage (mV): mean value of voltage during the holding phase
Standard value 3500mV (Voltage PWM @10kHz)

Futhermore the opening time (t_{trap}) is defined as the measure of the time required for the injector armature to first reach its fully opened positioned after initiation of the driver circuit pulse unit (ms).



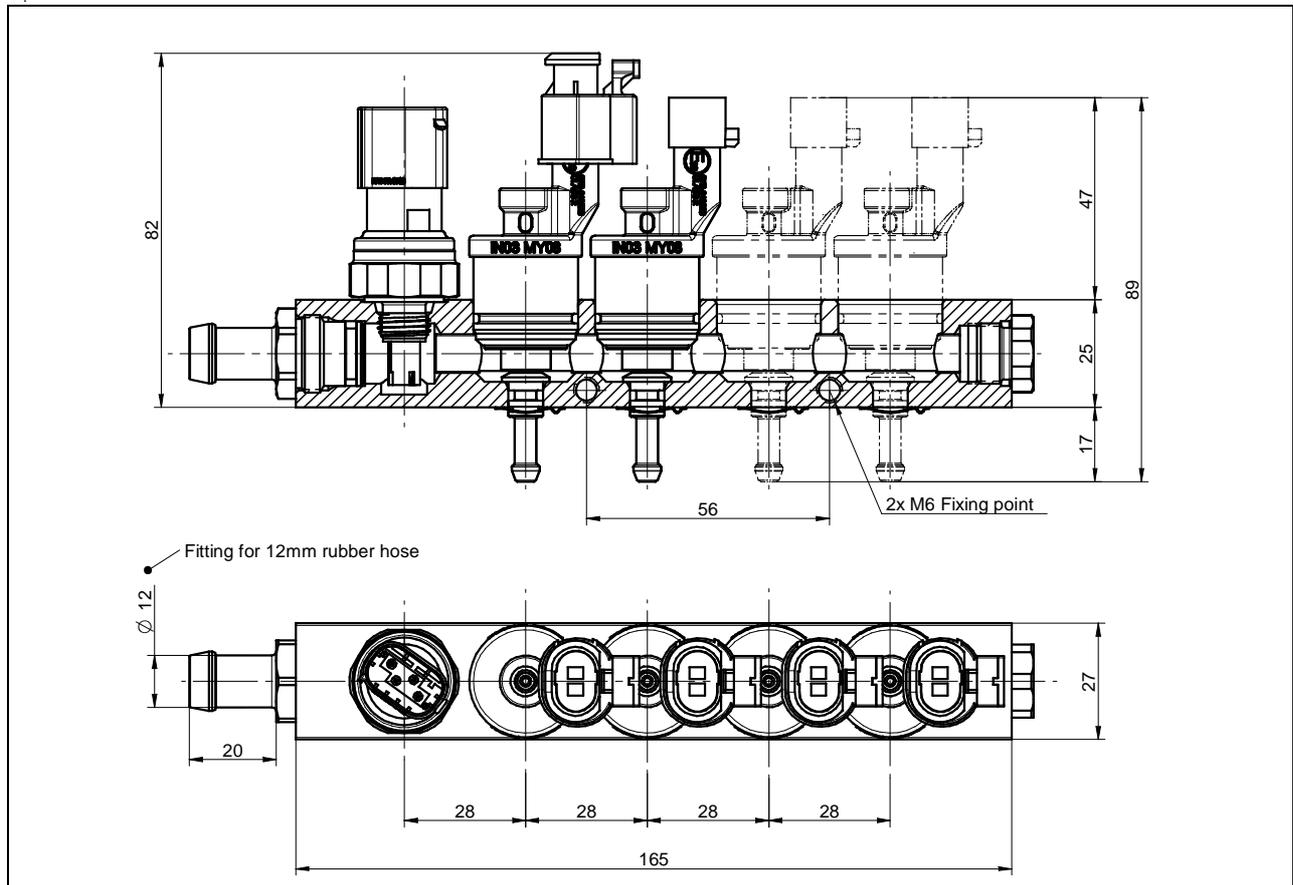
The flow rate scattering on production is guarantee less than $\pm 4\%$ of the mean value for $t_{on} \geq 2.5ms$

4. Dimensions



5. Assembled Configuration with BRC fuel rail

Typical 4 cylinder installation with Pressure Temperature sensor on BRC rail



Recommended injector seat

