GAS INJECTORS GIRS12

The gas from the filter goes into Joint “A” then floods the injector unit common chamber.
The metered gas is expelled from the injectors through nozzles “B” and arrives through special ducting in the intake manifold then into the engine.
The injectors are governed by the gas ECU and are linked to it with the “D” connectors.
Thanks to five sizes, injectors may be fitted to different displacement and power engines.
The size of plastic injectors is indicated under its body by a numerical code. The higher an injector’s number, the higher the flow rate. Injectors with a metal casing have interchangeable nozzles.

Maximum Engine Power [kW]		N° CYLINDERS					
		2	3	4	5	6	8
GIRS12 Injector Size	XXS	-> 30	-> 46	-> 61	-> 77	-> 92	-> 123
	XS	30 - 37	46 - 56	61 - 74	77 - 93	92 - 112	123 - 150
	S	37 - 44	56 - 66	74 - 88	93 - 110	112 - 132	150 - 176
	M	44 - 57	66 - 85	88 - 114	110 - 143	132 - 171	176 - 229
	L	57 ->	85 ->	114 ->	143 ->	171 ->	229 ->

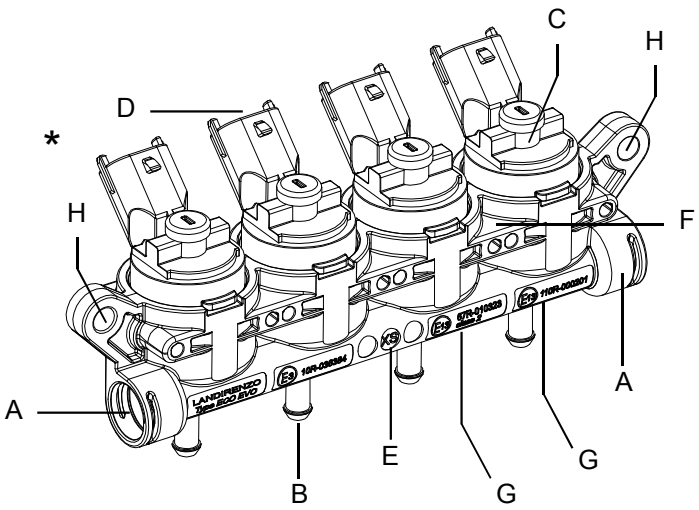
The table shows the data acquired from the installation of a series of engines (*), however, once installation has been completed, a check can be carried out to make sure that the right size of injector gas been fitted:

1. Calibrate the GAS system correctly;
2. Stabilise tick-over running on GAS;
3. Check the GAS injection time:

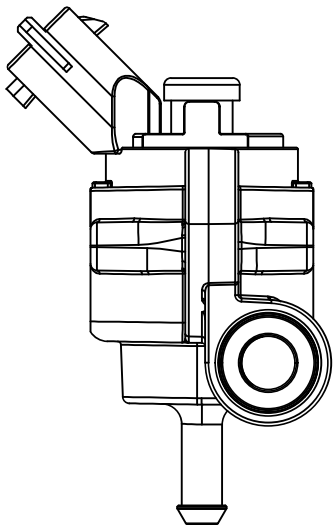
- if this time is between 4.5 ms and 6.0 ms, the installed injectors are fine;
- if the time is less than 4.5 ms, the injectors are too big;
- if the time is longer than 6.0 ms, the injectors are too small.

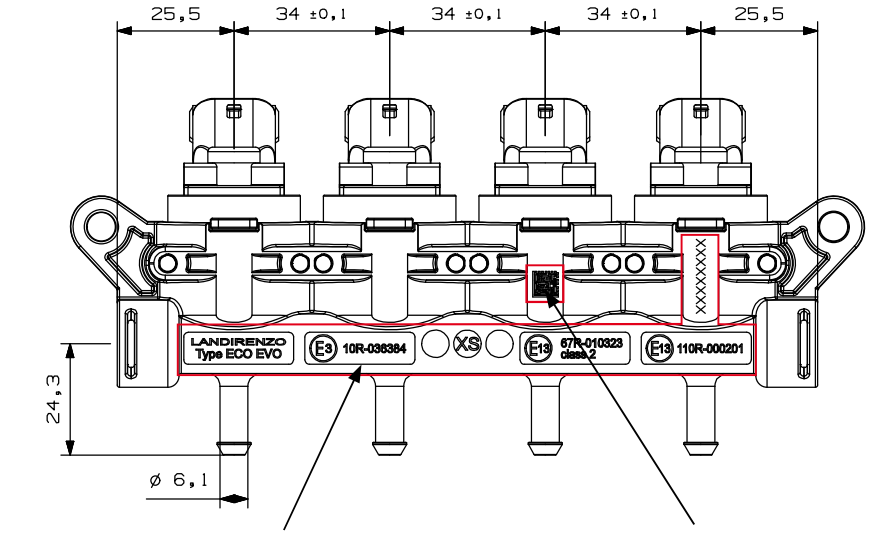
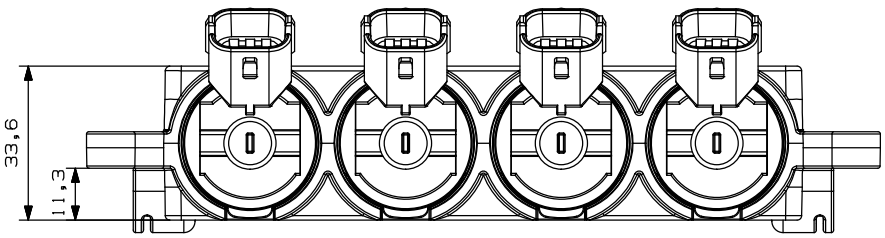
* with operating pressure of 2 bar; with different pressures, each ±1/3 bar changes the size of injector by plus or minus one.

A. Gas inlet joint
B. Gas outlet nozzles
C. Injectors
D. Injector connectors
E. Injector size
F. Injector casing
G. Homologation
H. Mounting points for injector units



* The injector rail is available in version for 2-3-4-cylinders engines.



TECHNICAL DATA

SIZES	XXS	XS	S	M	B
COLOR CAP	BROWN	YELLOW	GREEN	BLACK	WHITE
TYPE OF INJECTOR	normally closed				
GAS INLET	side feed				
WORKING PRESSURE	0,8 ÷ 4,5 bar				
ENDURANCE	300 millions of cycles				
COIL RESISTANCE	1,084 ohm				
PEAK CURRENT	7 A				
MAINTENANCE CURRENT	1,5 A peak&hold				
VOLTAGE WORKING	9/16 V				
OPENING TIME	1,8 ms				
CLOSING TIME	1,5 ms				
OPERATING TEMPERATURE	-40°C / +120°C				
LINEARITY	+/- 8%				
REPEATABILITY	+/- 9%				
HOMOLOGATIONS	E3 10 R-036384				
	E13 110 R -010201				
	E13 67 R -010323