IG3 "HORIZON"

RAIL

TECHNICAL DATA

		E3	E2
Working pressure		from 0,5 to 2,0 bar	
Max Pressure		4,5 bar	
Alimentation		10,8 - 14,4 V	
Minimum copper wire section for coil connection		0,75 mmq	
COIL TYPE		**E3**	**E2**
Coil Resistance (±15%)		2,8 Ohm	2,0 Ohm
Peak current (±10%)		4 A	6 A
Suggested holding current (±10%)		1 A	1 A
Tested at 12 V and Δp = 1 bar	**Complete opening/closing time (±5%) (Total injection time 5 ms)**	2,5 ms / 2,0 ms	2,0 ms / 2,0 ms
	Minimum injection pulse (±5%)	2,8 ms	2,3 ms
	Suggested peak current time	3,0 ms	2.5 ms
Inlet gas fitting		Rubber hose Ø 10 mm / Ø 12 mm / Ø 16 mm	
Outlet gas fitting		Calibrated nozzles M8x1 for rubber hose Ø 6 mm	
Calibrated hole range (for nozzles)		1,0 - 3,5 mm (0,25 mm step)	
T range		-20° C / +120° C	
Agreement		67R-01 / 110R-00	

Nozzle	HP / CYL.	
Ø	from	to
1,00	…	11
1,50	12	16
2,00	17	22
2,50	23	30
3,00	31	38
3,50	39	50

Note: this is only a suggestion; use also intermediate nozzles diameter to have correct running at idle.
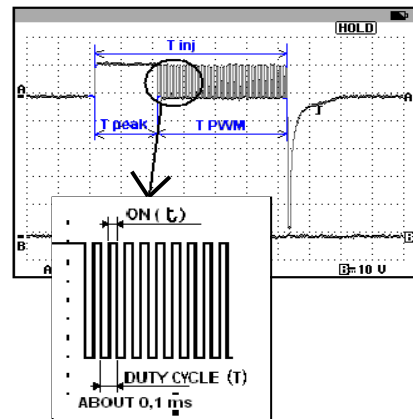
Note 2: Values suggested for 1 bar working pressure.

Note 3: Suggested nozzles are based on E3 type; for E2 type, consider +10-15% of gas mass flow.

Tinj = total injection time for gas injector
Tpeak = max current time
Tpwm = maintenance/holding time using pulse-width modulation

Pulse-width modulation (PWM) of a signal or power source involves the modulation of its duty cycle, to either convey information over a communications channel or control the amount of power sent to a load.

Pulse-width modulation uses a square wave whose duty cycle is modulated resulting in the variation of the average value of the waveform.

The duty cycle (D) is defined as the ratio between the pulse duration (t) and the period (T) of a rectangular waveform.

Duty cycle is the proportion of time during which a component, device, or system is operated. Suppose a plunger operates for 0,100 milliseconds, and is shut off for 0,070 ms, then is run for 0,030 ms again, and so on. The drive runs for 30 out of 100 microseconds, or 30/100 of the time, and its duty cycle is therefore 30/100, or D=30% (percent).