

General Specifications

CL-530-A3

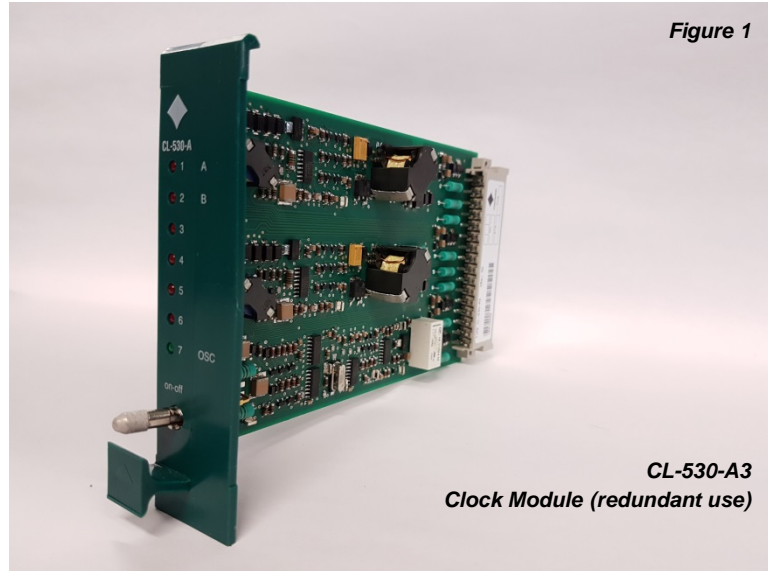
ProSafe-SLS™

GS48C30A03-00E-N

Clock Module (redundant use)

■ GENERAL

This clock module generates A-voltage and B-voltage clock signals.



These system clock signals are required by most of the ProSafe-SLS (Solid-state Logic Solver) modules and are distributed via an internal bus. The signals are trapezium shaped voltage pulses, inducing low EMI noise.

The A-voltage and B-voltage signals are based on a stable crystal oscillator with additional circuitry, producing an output signal with a repetition-time of 1 msec. The A-voltage and B-voltage signals are extracted from the same oscillator. They have the same frequency and shape. The phase-relation between the A-voltage and B-voltage signals is 180°.

The pulse frequency is monitored, and the A-voltage and B-voltage signals are switched off when the pulse frequency speeds up more than 50%. The frequency monitoring circuit also drives a relay.

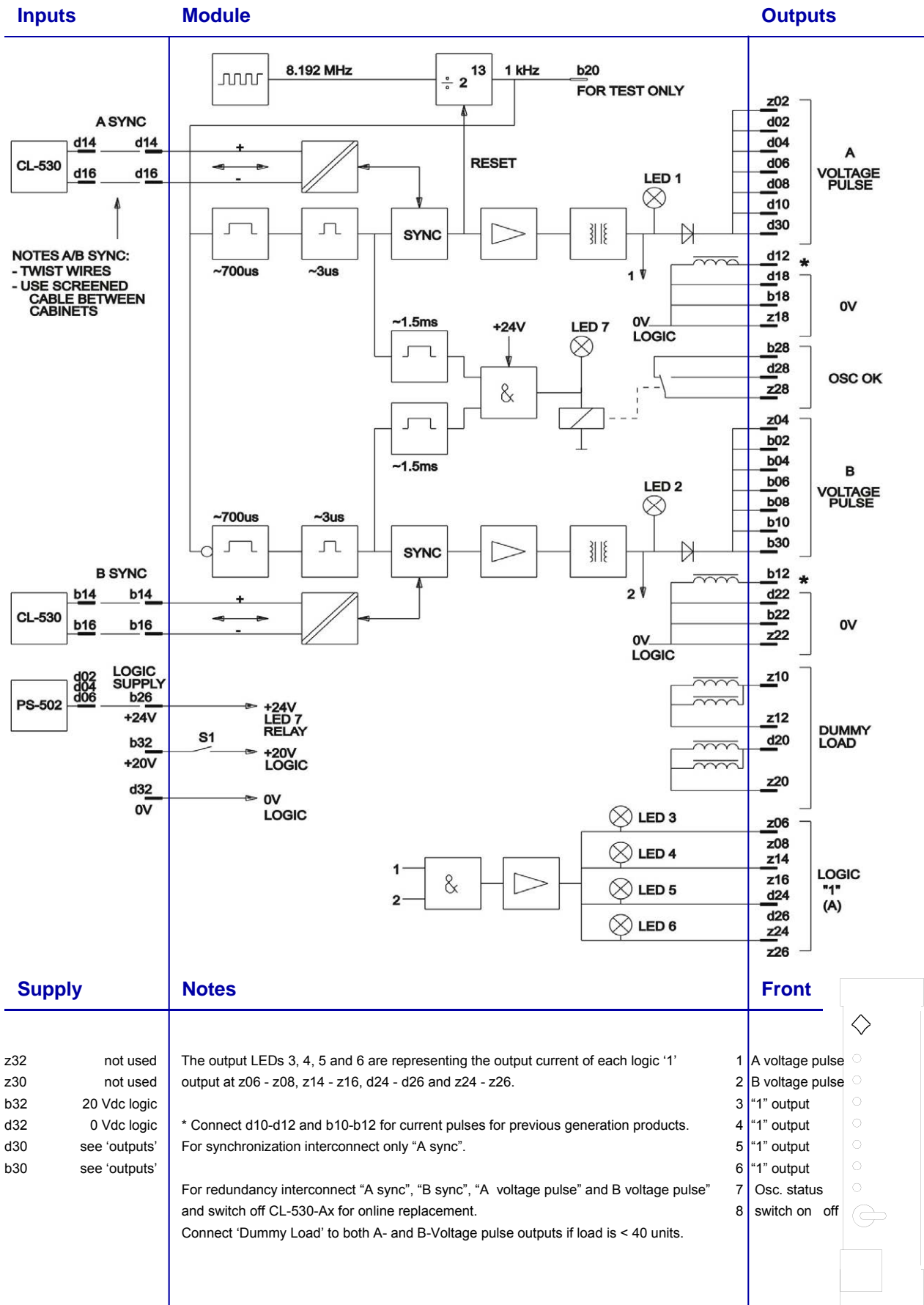
The module is suited for synchronization or redundancy with other CL-530 modules by means of the synchronization input/output. In case of synchronization the module with the highest frequency rules the bus and other modules are synchronized to that frequency.

The module is also equipped with 4 “logic one” current pulse outputs. These outputs can be used to connect pulse logic inputs.

The module is provided with 6 red LEDs, indicating the A-voltage and B-voltage pulses and the 4 “logic one” output signals, and 1 green LED, indicating the oscillator output.

The module is also equipped with an on/off switch for switching on and off the module. This must be used for on-line replacement of the module in case of redundant use.

FUNCTIONAL DIAGRAM



■ SPECIFICATIONS

Description		Data
General	Number of channels	1
	Width	6HP
	Identification	CL-530-A on front and more detailed on connector label
	Weight	170 gram
Input	A / B sync	Isolated input and output, voltage pulses
	Voltage	20 V
	Pulse width	3 μ sec.
	Frequency	1 kHz
	Capacity	Max. 10 modules
Output	A / B Voltage pulse	System clock voltage pulses
	Voltage	16 – 20 V
	Pulse width	3.6 μ sec. @ 10 V level
	Frequency	1 kHz (998.5 \pm 0.5 Hz)
	Capacity	Max. 200 modules
	Status indication	A / B red LED
	Logic '1' (A)	Current pulses 500 mA
	Capacity	10 unit loads
	Status indication	Red LED per output
	Choke at d12 / b12	Current pulses 500 mA (when connected to voltage pulse)
	Capacity	10 unit loads
	Chokes at z10 - z12 / d20 - z20	Redundancy load
	Oscillator status	Relay contact SPDT
	Voltage	60 Vdc, 48 Vac
	Current	0.5 A
	Minimum switching load	1 V and 0.5 mA
Status indication	Green LED	
Supply	Logic supply at b26	24 Vdc \pm 10% 15 mA
	Logic supply	20 Vdc 40 mA with no load 80 mA with full load
Dissipation		1.2 W with no load to full load

NOTES