# **General Specifications**

## FO-529-02

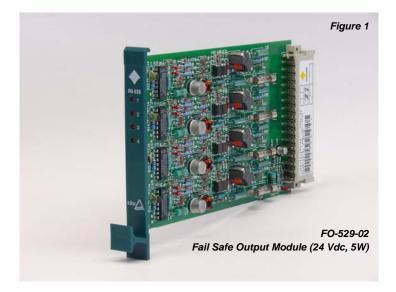


GS48C29Z02-00E-N

Fail Safe Output Module (24 Vdc, 5W)

#### ■ GENERAL

The module converts 4 logic output channels into 24 Vdc outputs.



Each channel converts pulse logic signals to a fail-safe galvanically isolated 24 Vdc output.

The outputs are suited for 0.1 - 5 W loads.

The outputs are of the fail-safe type intended for de-energized to trip systems. Outputs can also be used to drive fail-safe digital inputs to realize fail-safe dc interconnections between (sub) systems.

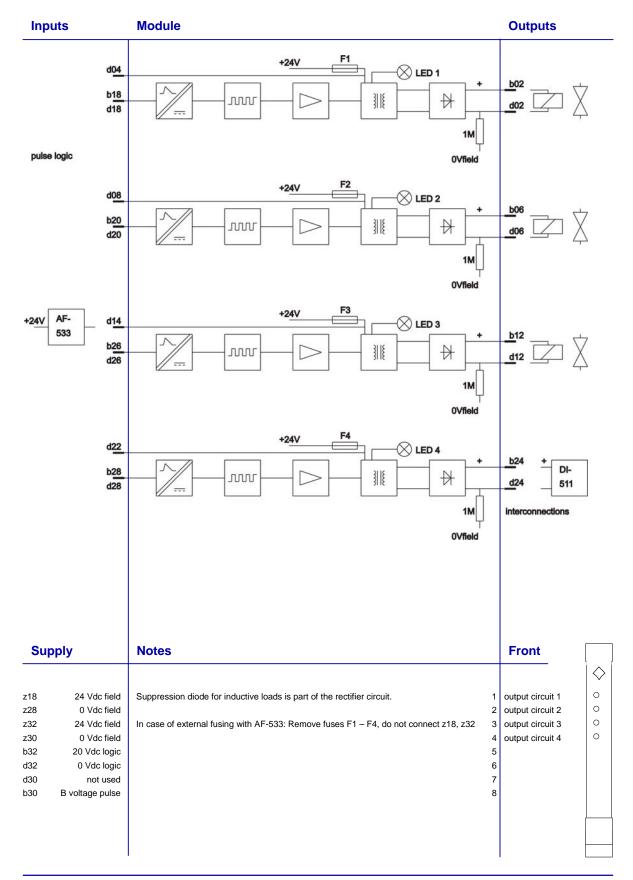
Each output is short circuit protected, by means of a power supply fuse.

The module is provided with 4 red LED's, indicating the outputs of the channels.



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### **■ FUNCTIONAL DIAGRAM**



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## ■ SPECIFICATIONS

	Description	Data
General	No. of channels	4
	Size	single Euro format 3TE (160x100x15 mm)
	Connector	DIN 41612 Bauform F 48p
	Identification	FO-529 on front
Environmental	Temperature (working)	-20 to +70 °C
	Temperature (storage)	-25 to +85 °C
	Relative humidity	max. 95%, no condensation
	EMC	EN 61000-6-2 Immunity EN 61000-6-4 Emission
	01 1	With an EMC system enclosure
	Shock	10g; 16 ms
	Vibration	10-55 Hz ; ± 0.35 mm
Input	Pulse logic	current pulses 500 mA
	Unit load	1
Output	Output type	isolated dc/dc-converter output, fail-safe
	Voltage	24 Vdc +10%, -5% and field voltage tolerance
	Current	max. 0.22 A (5.3 W load @ 24 Vdc)
	Minimum load	0.1 W (4 mA @ 24 Vdc)
	Isolation resistance	1 MΩ (minus terminal to 0V field)
	Efficiency	> 85% @ full load
	Converter frequency	32 kHz
	Field supply fuse	0.4 A fast per output
	Status indication	red LED per output
Propagation	On delay	1 – 5 ms
	Off delay	5 – 15 ms @ full load
		< 35 ms @ minimum load
Supply	Field supply	24 Vdc ± 10% (+20% temporary) max. 1 V top-top ripple
		< 1 mA @ all channels off
		60mA @ all channels no load
		1.03 A @ all channels full load
		fusing : see 'Output'
	Logic supply	20 Vdc, 1 mA
	Clock signal	B voltage pulse
Isolation	Pulse logic inputs	0.5 kV (test)
	Isolated dc-outputs	0.5 KV (test; note isolation resistance at 'Output')
Dissipation	.colated do catputo	3.5 W @ all channels full load

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■ NOTES