



FS-TSRO-0824 Digital output (relay) FTA for AK5/6 applications (8 channels)

Description

The field termination assembly module FS-TSRO-0824 is the interface between the system interconnection cable SIC-C-12 and the external field wiring (screw terminals). It has eight relay-based potential-free output channels suitable for applications up to AK6 without making use of fault exclusions.

The FS-TSRO-0824 module complies with safety requirements for general use in safety requirement classes AK5/6 as defined in DIN V 19250.

Each channel consists of:

- three relays,
- a fused NO field contact (5 AT, slow-acting), and
- a status indication LED.

The relays are capable of driving a wide variety of loads including 115/230 Vac, which gives the FSC system a 115/230 Vac output capability for AK5/6 applications. The energized state of the relay is indicated by an LED on the module.

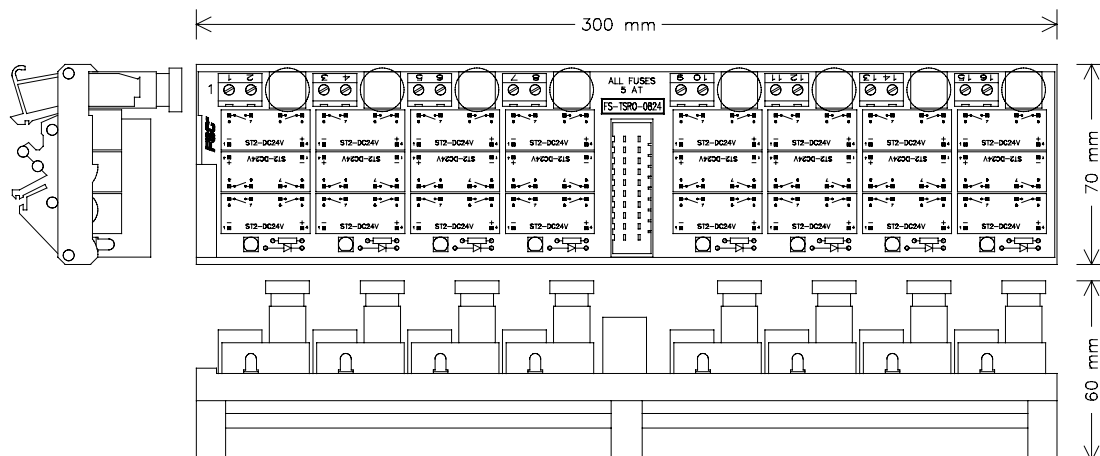


Figure 1 Mechanical layout

Eight channels can be connected to the FS-TSRO-0824 module via the system interconnection cable SIC-C-12. This cable is plugged into the SIC connector on the FTA module, and connects to a (redundant pair of) 10201/2/1 module(s).

The FTA module has a universal snap-in facility for standard DIN EN rails, and screw terminals for connecting field wiring.

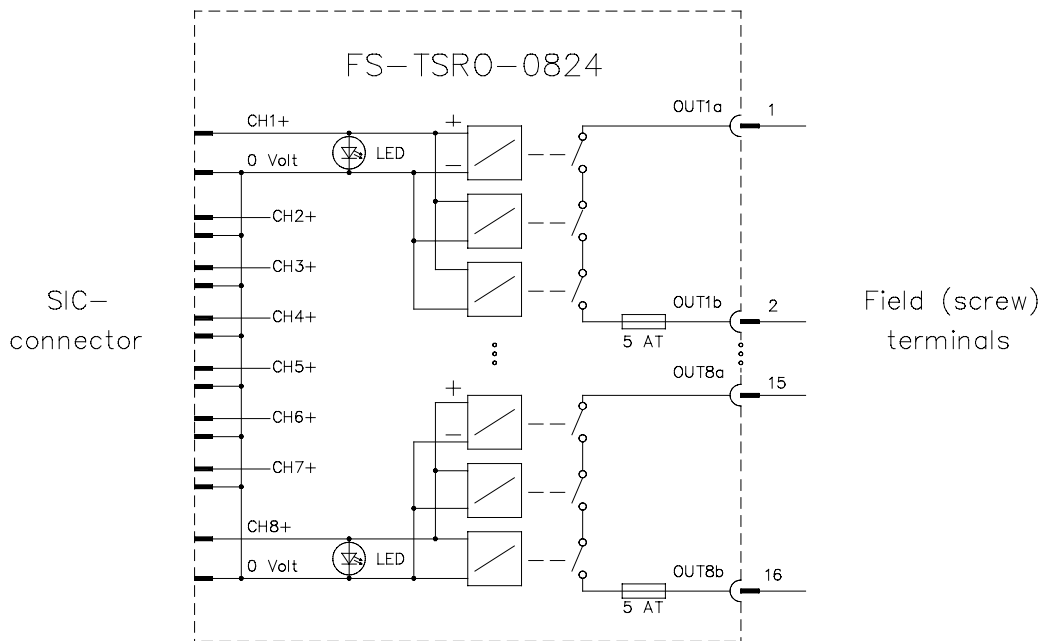


Figure 2 Schematic diagram

Applications

For details on applications and connection options for the FS-TSRO-0824 module refer to the 'SIC to FTA applications' data sheet.



Connections

The connections diagram of the FS-TSRO-0824 module is as follows:

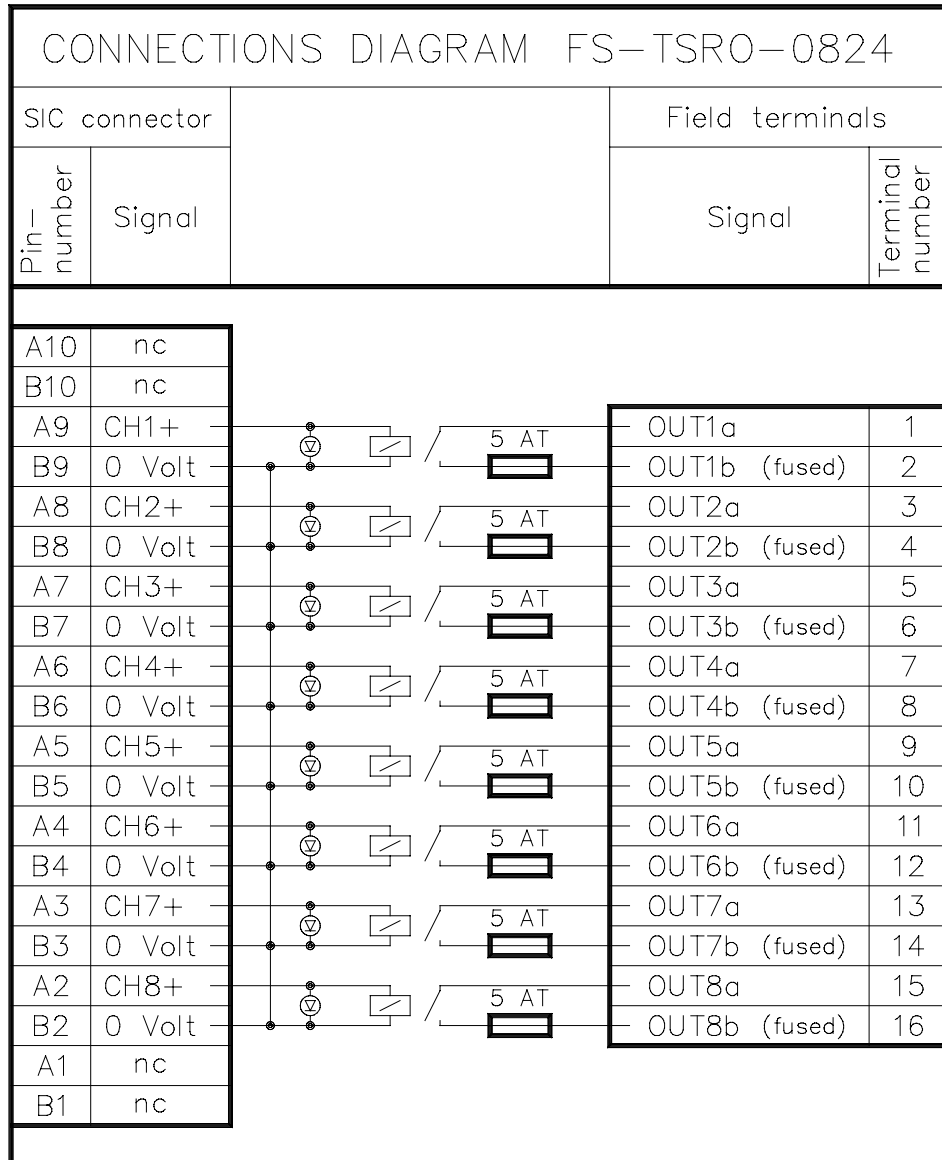


Figure 3 Connections diagram



Technical data

The FS-TSRO-0824 module has the following specifications:

General	Type number:	FS-TSRO-0824
	Approvals:	CE, UL, TÜV approvals pending
	Safety class:	AK1-6
Input	Nominal input voltage:	24 Vdc
	Max. input voltage:	36 Vdc
	Relay pick-up voltage:	19.2 Vdc
	Input current:	typically 40 mA at 24 Vdc
Output	Number of output channels:	8
	Max. output current:	5 A (fused)
	Min. output current:	1 mA at 5 V
	Max. output voltage:	250 Vac / 250 Vdc
	Max. switched load:	1250 VA / 150 W (see Figure 4)
Fuses	Rating:	5 AT (slow-acting)
	Dimensions:	5 x 20 mm (0.2 x 0.78 in)
Physical	Module dimensions:	300 x 70 x 60 mm (L x W x H) 11.81 x 2.76 x 2.36 in (L x W x H)
	DIN EN rails:	TS32 / TS35 x 7.5
	Used rail length:	301 mm (11.85 in)
Termination	Screw terminals:	
	– max. wire diameter:	2.5 mm ² (AWG 14)
	– strip length:	7 mm (0.28 in)
	– tightening torque	0.5 Nm (0.37 ft-lb)
Environment	Ambient temperature:	–5°C to +60°C (23°F to 140°F)
Isolation	Isolation:	
	– coil to contact	3750 Vac
	– contact to contact	1200 Vac



Technical data (continued)

Relay contact	Max. switching load:	250 Vac, 5 A 24 Vdc, 5 A* 48 Vdc, 1 A* 110 Vdc, 500 mA*
	Max. switching frequency:	20 Hz
	Expected life:	
	– electrical	100,000 switch operations
	– mechanical	10,000,000 switch operations
Contact material:	gold flash over silver alloy	

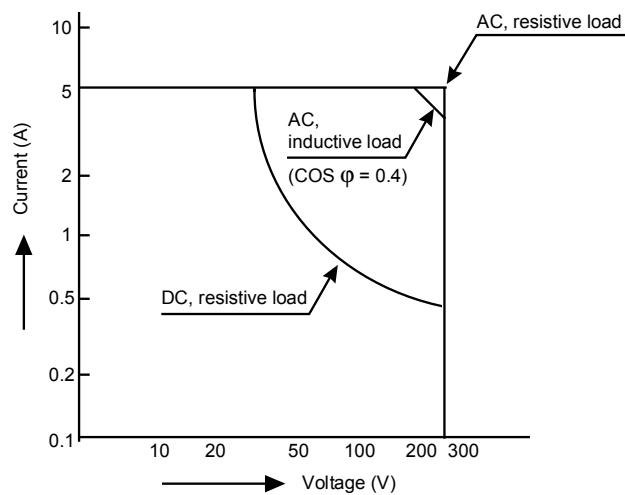


Figure 4 Maximum switched power

*** Note:**

When switching DC loads, only use resistive loads or inductive loads with spark suppression diodes.

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