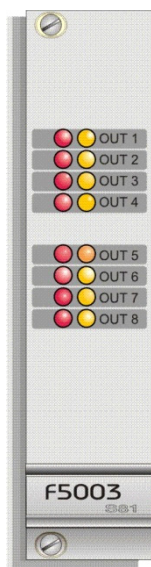


## F5003 Alarm Control Card, 8 Output Lines Monitored via Polarity Reversal

The eight 500 mA output lines, which the card monitors through reversal of their polarity, are mainly utilized to control actuators. The card is suitable for use in systems that include devices conforming to the NFPA standards, where it can activate the alarm sounders.



### Main Characteristics

- Line monitoring through polarity reversal
- Outputs activated in both steady and pulsing mode
- Can be hot-swapped
- 250 mA available per each command output
- Non redundant (Note 1)
- Temperature testing of DMOS and electronic components
- Software-configurable operating mode
- Communication management by FPGA
- Internal logic management by micro-controller
- SMD technology multilayer circuit
- Front plug-in on 19" rack, with locking screws.
- The card can be connected to T8008 which provides four polarity reversal 2A/24Vdc outputs.

Status	Outputs 1-8	
	Yellow LED	Red LED
Line in normal condition	-	-
Line excluded or disabled	⊗	-
Line in trouble condition	∅	-
Line activated	-	⊗
<i>LED status legend</i> ⊗ = on      ∅ = blinking      - = off		

### Operation

The card periodically performs the test on the single channels by inverting the output signal for a duration of about 200 microseconds. In case of discrepancy between the configured signal and read signal, the station signals a fault situation. For each single output, the following situations are checked: Line opening, Short-circuit towards positive, Short-circuit towards negative, pilot DMOS device fault, pilot DMOS device overheating, Supply voltage out of admitted limits. All the channels are tested during operation every 2 seconds.


### Parameter Configuration Via Software

Parameter	
Activation mode	<ul style="list-style-type: none"> <li>• Steady, normally energized</li> <li>• Steady, normally de-energized</li> <li>• Periodical</li> <li>• Pulsing mode 1</li> <li>• Pulsing mode 2</li> <li>• ISA 1A logics</li> <li>• Delayed after activation</li> <li>• Delayed after deactivation</li> <li>• Delayed after enabling</li> </ul>
Period	1 to 255 seconds, in pulsing and periodical mode only
Type of output	normal or sounder

### Connections

The card F5003 can be connected directly or through the card T8008

Function	Connection with PLUG CABLE		
Command line 1	+	1	White
	-	2	Brown
Command line 1	+	3	Green
	-	4	Yellow
Command line 1	+	5	Grey
	-	6	Pink
Command line 1	+	7	Blue
	-	8	Red
Command line 1	+	9	Black
	-	10	Purple
Command line 1	+	11	Grey/Pink
	-	12	Red/Blue
Command line 1	+	13	White/Green
	-	14	Brown/Green
Command line 1	+	15	White/Yellow
	-	16	Yellow/Brown

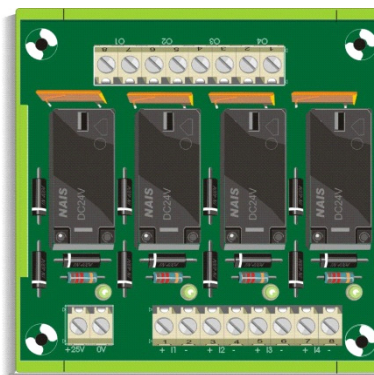


CCT1

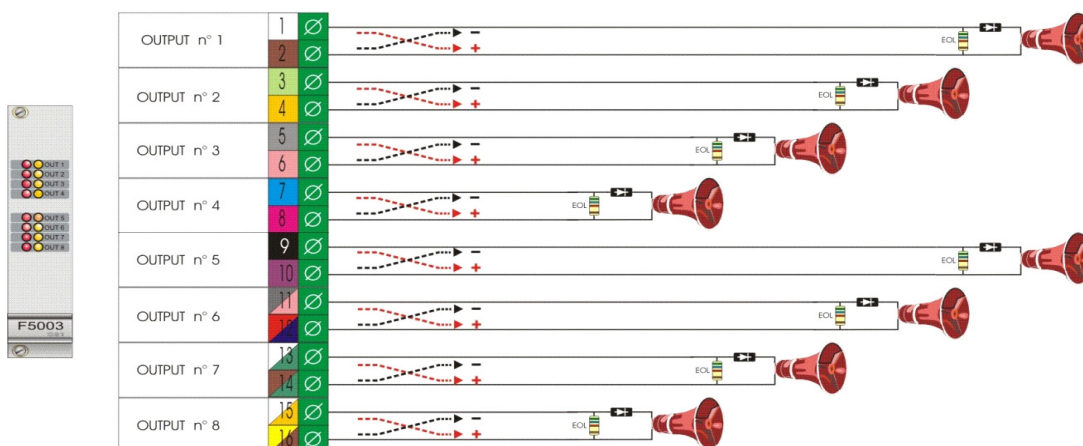
### Optional Card T8008

If the available 500mA per channel are not sufficient, the card can be connected to this module, which provides four polarity reversal 2A/24VDC outputs. Connection between the card and the module is effected by interposition of an CCT1 cable plug.

BR1 Terminal Block			
∅ 1		Positive of 25Vdc electric supply	
∅ 2		Negative of 25Vdc electric supply	
BR2 Term. Block from card		BR3 Term. Block to field	
∅ 1	Output 1	∅ 1	Output 1
∅ 2	F5003	∅ 2	Sounders (2A)
∅ 3	Output 2	∅ 3	Output 2
∅ 4	F5003	∅ 4	Sounders (2A)
∅ 5	Output 3	∅ 5	Output 3
∅ 6	F5003	∅ 6	Sounders (2A)
∅ 7	Output 4	∅ 7	Output 4
∅ 8	F5003	∅ 8	Sounders (2A)



### Connection example of actuators managed with polarity reversal



**NOTE:** The card cannot be redundant due to the polarity reversal for line monitoring.