

## DCS Input/Output Relay Card Series

### INPUT RELAY CARD

#### Functions & Features

- This relay card is a DCS-front-end use relay card installed in a dedicated 19-inch rack, used to convert a field SW signal into a DCS input
- Contact input
- Two re-transmitted outputs (dry contact and voltage contact)
- Test switch useful for the DCS debugging and test running
- 0.5 A fuse for the voltage output

### MODEL: 38N-5

### ORDERING INFORMATION

- Code number: 38N-5

### INPUT CARD

5: DCS input use

### RELATED PRODUCTS

- Standard Rack (model: 38N-B)

### GENERAL SPECIFICATIONS

**Construction:** Rack mounted; terminal access via screw terminals at the front and via connector at the rear

#### Connection

**External contact:** M3.5 screw terminals (torque 0.8 N·m)

**DCS input, fuse alarm output, voltage output:** Card-edge connector

**Re-transmitted output:** M3.5 screw terminals (torque 0.8 N·m)

**Power input:** Supplied from card edge connector

**Screw terminal:** Nickel-plated steel

**Isolation:** DCS input to power or external contact to re-transmitted output (dry contact) to re-transmitted output (voltage contact) or power for voltage output to fuse alarm output

**Fuse for voltage output:** 0.5 A incorporated

**Alarm contact:** Dry contact output at the alarm output terminals of the rack when the fuse is blown

**Indicator LED:** Amber LED turns on with the output ON

### INPUT SPECIFICATIONS

■ **EXTERNAL CONTACT** (field SW): Dry contact

**Contact detecting:** 24 V DC @ 30 mA (approx.)

### OUTPUT SPECIFICATIONS

■ **RE-TRANSMITTED OUTPUT:** Voltage contact

**Rated load:** 100 V AC @ 0.5 A ( $\cos \phi = 1$ )

30 V DC @ 0.5 A (resistive load)

**Electrical life**  $10^5$  cycles (rate 30/min.)

**Maximum switching voltage:** 125 V AC or 30 V DC

**Maximum switching power:** 50 VA or 15 W

**Minimum load:** 5 V DC @ 10 mA

**Mechanical life:**  $5 \times 10^7$  cycles

**External protection:** Contact protection and noise quenching recommended when driving an inductive load (coil, etc.)

■ **RE-TRANSMITTED OUTPUT:** Dry contact

**Rated load:** 250 V AC @ 3 A ( $\cos \phi = 1$ )

30 V DC @ 3 A (resistive load)

**Electrical life**  $10^5$  cycles (rate 30/min.)

**Maximum switching voltage:** 264 V AC or 100 V DC

**Maximum switching power:** 750 VA or 90 W

**Minimum load:** 5 V DC @ 10 mA

**Mechanical life:**  $5 \times 10^7$  cycles

**External protection:** Contact protection and noise quenching recommended when driving an inductive load (coil, etc.)

■ **DCS INPUT:** Dry contact

**Minimum load:** 5 V DC @ 10 mA

■ **FUSE ALARM OUTPUT:** Dry contact

**Rated load:** 50 V AC @ 0.5 A ( $\cos \phi = 1$ )

30 V DC @ 0.5 A (resistive load)

**Electrical life**  $10^5$  cycles (rate 30/min.)

**Maximum switching voltage:** 50 V AC or 30 V DC

**Maximum switching power:** 25 VA or 15 W

**Minimum load:** 5 V DC @ 10 mA

**Mechanical life:**  $5 \times 10^7$  cycles

**External protection:** Contact protection and noise quenching recommended when driving an inductive load (coil, etc.)

### INSTALLATION

#### Power input

• **DC:** Operational voltage range 24 V  $\pm 10\%$ ; ripple 10 % p-p max., approx. 40 mA

**Operating temperature:** -5 to +55°C (23 to 131°F)

**Operating humidity:** 30 to 90 %RH (non-condensing)

**Mounting:** Standard Rack 38N-B

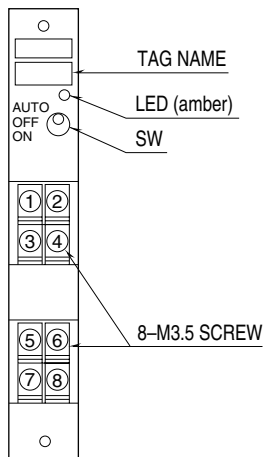
**Weight:** 150 g (0.33 lb)

### PERFORMANCE

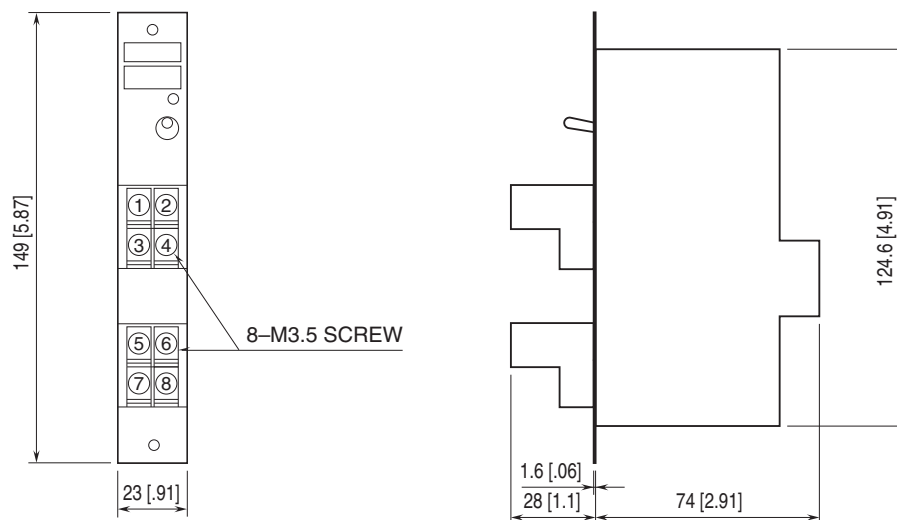
**Insulation resistance:**  $\geq 100 \text{ M}\Omega$  with 500 V DC

**Dielectric strength:** 1000 V AC @ 1 minute (DCS input to power or external contact to re-transmitted output (dry contact) to re-transmitted output (voltage contact) or power for voltage output to fuse alarm output)

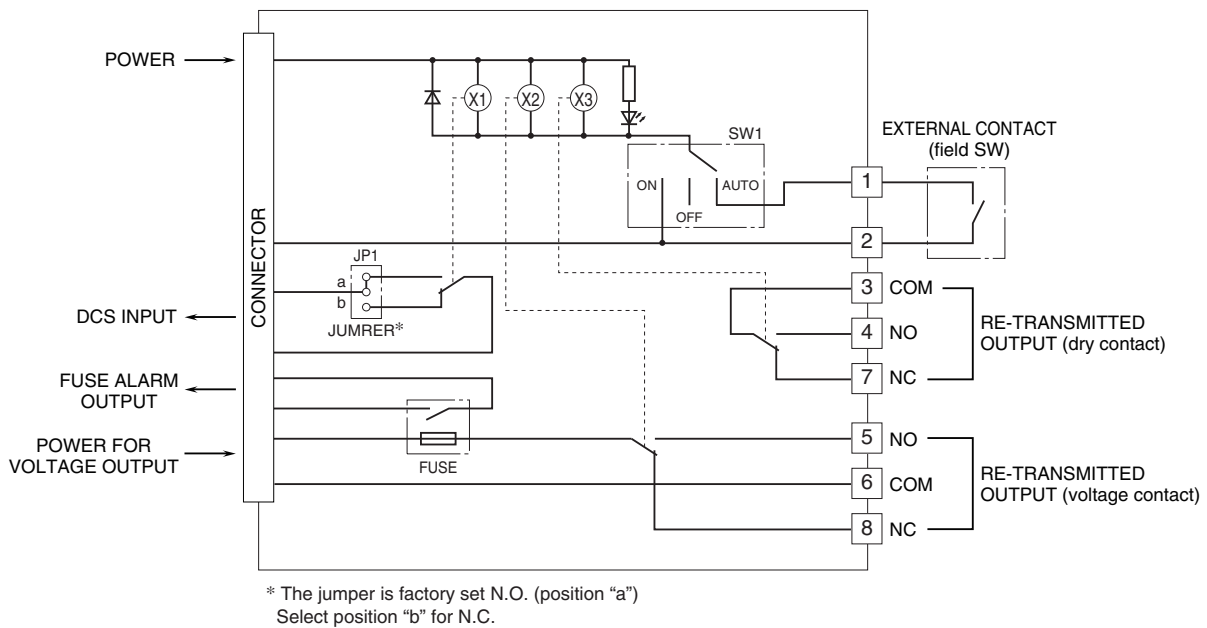
## EXTERNAL VIEW



## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.