DCS Input/Output Relay Card Series

INPUT RELAY CARD

MODEL **38N-5**

DESCRIPTIONS

The 38N-5 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
- 0.5A fuse for the voltage output

MODEL & SUFFIX CODE SELECTION

38N–5

MODEL

INPUT CARD

5 : DCS input use

ORDERING INFORMATION

Specify code number. (e.g. 38N-5)

RELATED PRODUCTS

- Standard rack (model: 38N-BY1, -BH1)

GENERAL SPECIFICATIONS

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

Connection

Input: M3.5 screw terminals

DCS input: Card-edge connector

Dry/voltage contact output: M3.5 screw terminals

Screw terminal material: Nickel-plated steel (torque 0.8 N·m)

Power input: Supplied via card-edge connector

Fuse for voltage output: 0.5A incorporated

Alarm: Dry contact output at the rack terminal when the fuse is blown.

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

Indicator LED: Orange light turns on with the output ON

INPUT

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

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

OUTPUT

■ **DCS INPUT**: Dry contact

Minimum load: 5V DC @10mA

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

Rated load: 250V AC @3A (cosø=1)
30V DC @3A (resistive load)
Electrical life 10^5 cycles (rate 30/min.)

Maximum switching voltage: 264V AC or 100V DC

Maximum switching power: 750VA or 90W

Minimum load: 5V DC @10mA

Mechanical life: 5×10^7 cycles

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

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

Rated load: 100V AC @0.5A (cosø=1)
30V DC @0.5A (resistive load)
Electrical life 10^5 cycles (rate 30/min.)

Maximum switching voltage: 125V AC or 30V DC

Maximum switching power: 50VA or 15W

Minimum load: 5V DC @10mA

Mechanical life: 5×10^7 cycles

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

■ **FUSE ALARM OUTPUT**: Dry contact

Rated load: 50V AC @0.5A (cosø=1)
30V DC @0.5A (resistive load)
Electrical life 10^5 cycles (rate 30/min.)

Maximum switching voltage: 50V AC or 30V DC

Maximum switching power: 25VA or 15W

Minimum load: 5V DC @10mA

Mechanical life: 5×10^7 cycles

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

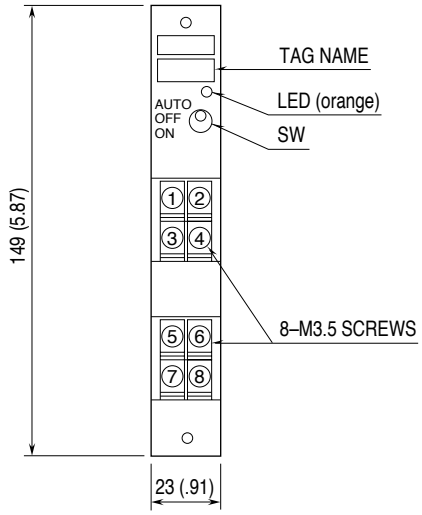
INSTALLATION

Power input: Operational voltage range 24V DC ±10%, ripple 10% p-p max., approx. 40mA
Operating temperature: -5 to +55°C (23 to 131°F)
Operating humidity: 30 to 90% RH (non-condensing)
Dimensions: W23×H149×D102 mm (0.91"×5.87"×4.02")
Weight: 150 g (0.33 lbs)

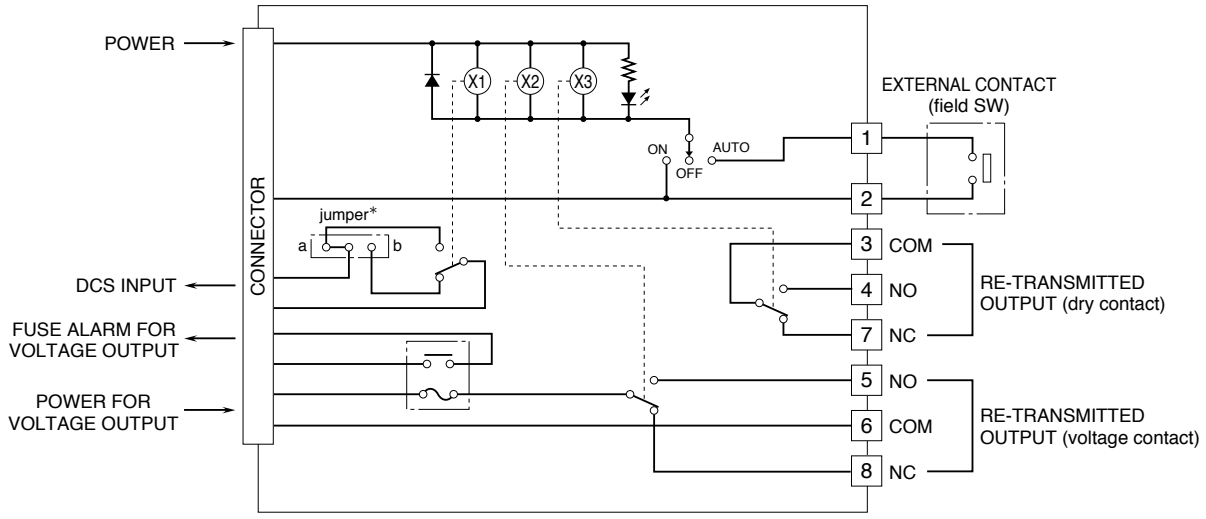
PERFORMANCE

Insulation resistance: ≥100MΩ with 500V DC (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)
Dielectric strength: 1000V 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)

FRONT VIEW



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*The jumper is factory set N.O. (position "a")
Select position "b" for N.C.