

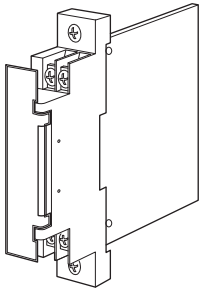
## DCS Input/Output Relay Card Series

### ONE-SHOT OUTPUT RELAY CARD

(with test switch)

#### Functions & Features

- Accepting status signals from a DCS
- With test switch
- Status LED for input
- Attaching jumper enables to switch N.O. or N.C. contact of output relay and common or separation of start and stop



### MODEL: 38BSH3-[1]-R

#### ORDERING INFORMATION

- Code number: 38BSH3-[1]-R
- Specify a code from below for [1].  
(e.g. 38BSH3-0-R)

#### [1] TEST SWITCH

- 0: None
- 1: With

#### POWER INPUT

##### DC Power

R: 24 V DC

(Operational voltage range 24 V  $\pm$ 10 %, ripple 10 %p-p max.)

#### RELATED PRODUCTS

- Standard Rack (model: 38BXx)

#### GENERAL SPECIFICATIONS

**Construction:** Rack-mounted; terminal access via screw terminals on the front and connector on the rear; terminal cover provided

##### Connection

- Input:** Connector
- Output:** M3.5 screw terminals (torque 0.8 N·m)
- Power input:** Supplied from connector
- Screw terminal:** Nickel-plated steel
- Isolation:** Input or power to ch.1 to ch.2

**Power interruption:** Operate at  $\geq$  150 msec.

**Status LED:** Turn on when input is on or test switch is on

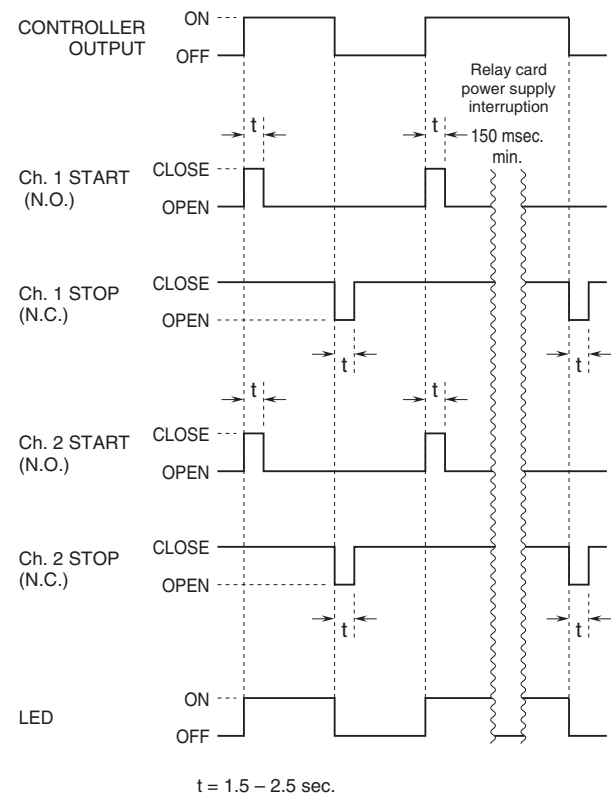
##### Test switch

**AUTO:** Output the signal by input

**OFF:** Forced input signal off

**ON:** Forced input signal on

#### OPERATION



N.O. or N.C. selectable with jumpers. (a or b of CH1 START, CH1 STOP, CH2 START or CH2 STOP)

#### INPUT SPECIFICATIONS

**Input:** Dry contact or open collector

Approx. 3 V DC (2.5 mA)

**ON resistance:**  $\leq$  200  $\Omega$

**OFF resistance:**  $\geq$  100 k $\Omega$

**Minimum input interval:** 10 sec.

#### OUTPUT SPECIFICATIONS

**Output:** Dry contact

**Rating:** 250 V AC @ 3 A ( $\cos \theta = 1$ )

30 V DC @ 3 A (resistive load)

**Maximum switching voltage:** 250 V AC or 120 V DC (0.2 A)

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

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

**One-shot pulse width:** 1.5 – 2.5 sec. (fixed)



## Relay life

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

**Electrical:**  $10^6$  cycles

**External protection:** Recommended to protect the contact and to eliminate noise when driving an inductive load (coils, etc.)

Attaching jumper to SHORT or OPEN of CH1 COM and CH2 COM enables to switch common or separation.

## INSTALLATION

**Current consumption:** Approx. 50 mA

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

**Operating humidity:** 30 to 95 %RH (non-condensing)

**Mounting:** Standard Rack 38BXx

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

## PERFORMANCE

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

**Dielectric strength:** 1500 V AC @ 1 minute

(input or power to ch.1 to ch.2 to ground)

500 V AC @ 1 minute (ch.1 start - ch.1 stop)

500 V AC @ 1 minute (ch.2 start - ch.2 stop)

(Non-isolation when common is connected)

## STANDARDS & APPROVALS

### CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007/A1: 2011

EMS EN 61000-6-2: 2005

Low Voltage Directive (2006/95/EC)

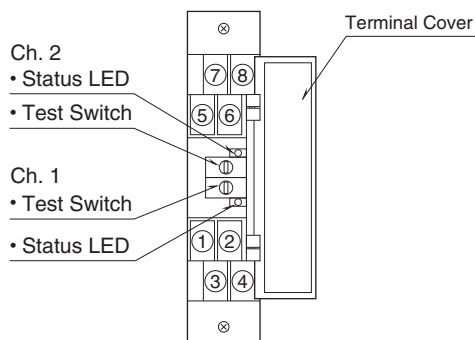
EN 61010-1: 2010

Installation Category II

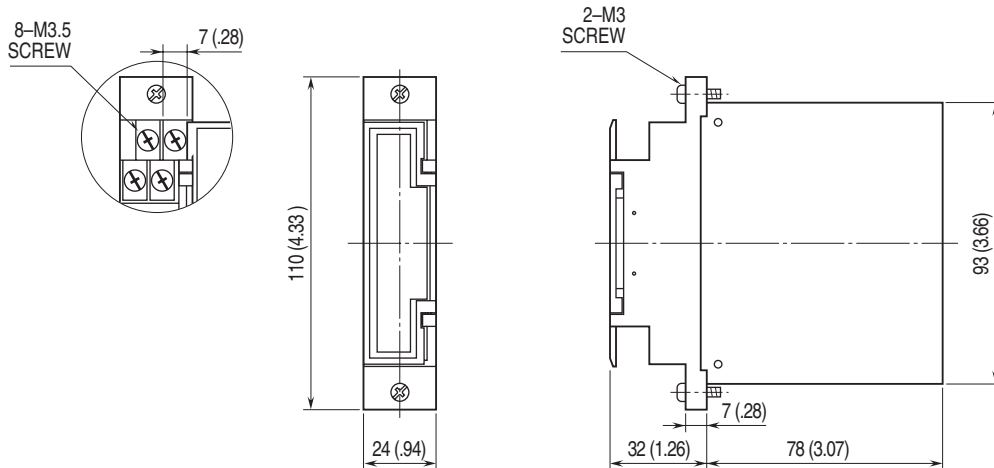
Pollution Degree 2

Input or power to ch.1 to ch.2: Reinforced insulation  
(300 V)

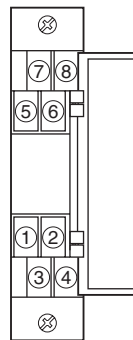
## EXTERNAL VIEW



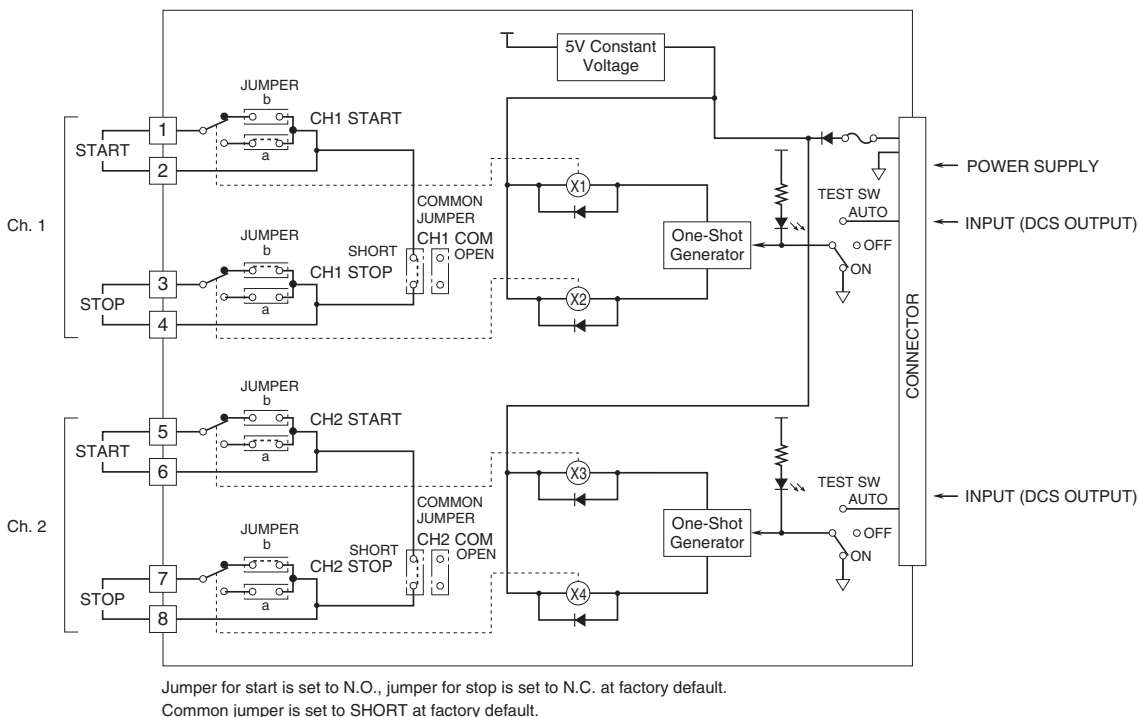
## DIMENSIONS unit: mm (inch)



## TERMINAL ASSIGNMENTS



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





Specifications are subject to change without notice.

