

■ INT-DO8-R-F-PS

8 channels - isolated discrete output with relay and fuse, and contact polarization

Description :

The **INT-DO8-R-F-PS** interface unit allows to connect up to 8 discrete outputs to a Discrete Outputs card of a Distributed Control System (DCS), or a Programmable Logic Controller (PLC).

The **INT-DO8-R-F-PS** can be connected to a DO card of a DCS or a PLC either via a SUBD15 pin connector and a round cable, or via a HE10-10 pin connector and a flat cable.

Each signal controls a 24Vdc relay in order to drive a motor, a valve or a solenoid or other type of load...

The contact of each relay is polarized by group of 4 channels. TB2 and TB3 terminals are used to power the relays contacts (24V, 48V or 250V power voltage is allowed)

Each relay is replaceable and is protected by a 5x20 fuse.
The status of each channel is indicated by a yellow LED.



Product options :

Option **F2A** : **INT-DO8-R-F2A-PS-STD** interface unit with 2A fuses for each channel (instead of the standard 5A)

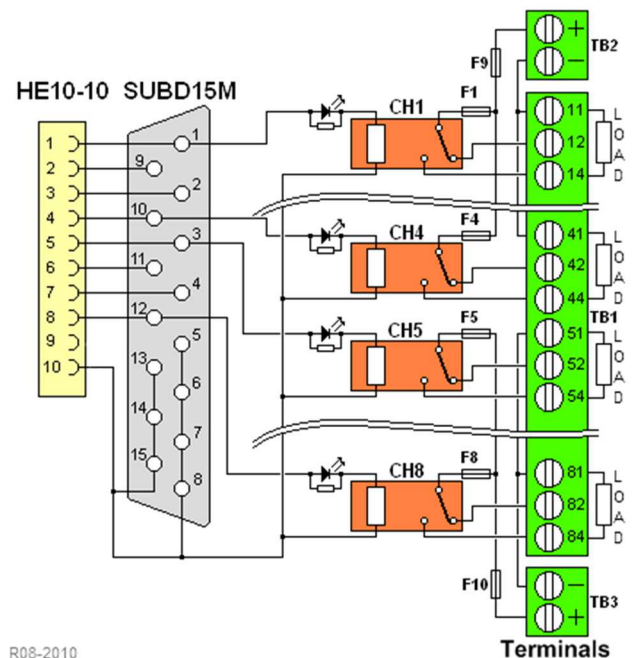
Option **STD, SLD, SLA** : **INT-DO8-R-F-PS-STD**

Option **STD** is interface unit with standard electromechanical relays
Option **SLD** interface unit with solid state relays for DC powered load.

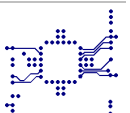
Option **SLA** interface unit with solid state relays for AC powered load.

Refer to pages 2 and 3 to choose the right option.

Option **VSH** : Conformal coating (Tropicalization)

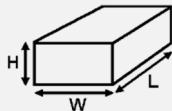


R08-2010



Technical specifications :
Dimensions :

Length : 180 mm
 Width : 80 mm
 Height : 65 mm


Weight :

450 g

Temperature range :

Operating : 0°C to 50°C
 Storage : -20°C to 60°C

Humidity :

Up to 90% (no condensation)

Mounting :

Asymmetric or symmetric DIN rail

Insulation voltage :

1500 Vac between input (control signal) and output (contacts), and
 1000 Vac between NO and NC terminals.

Conductor cross section :
Screw Terminals only
TB1 : Outputs

24 to 12 AWG (0,2 to 2,5mm²)

TB2 and TB3 : Contact PSU

24 to 10 AWG (0,14 to 4mm²)

Fuse Protection :
STD and SLD options :

5A (5x20) time lag fuse(250V / 35A)

for each channel

F2A and SLA option :

2A (5x20) fuse(250V / 35A)

for each channel

Contact power supply :

16A (250V / 35A) (5x20) by group of 4 channels

Shield connection :

1 x M3 screw

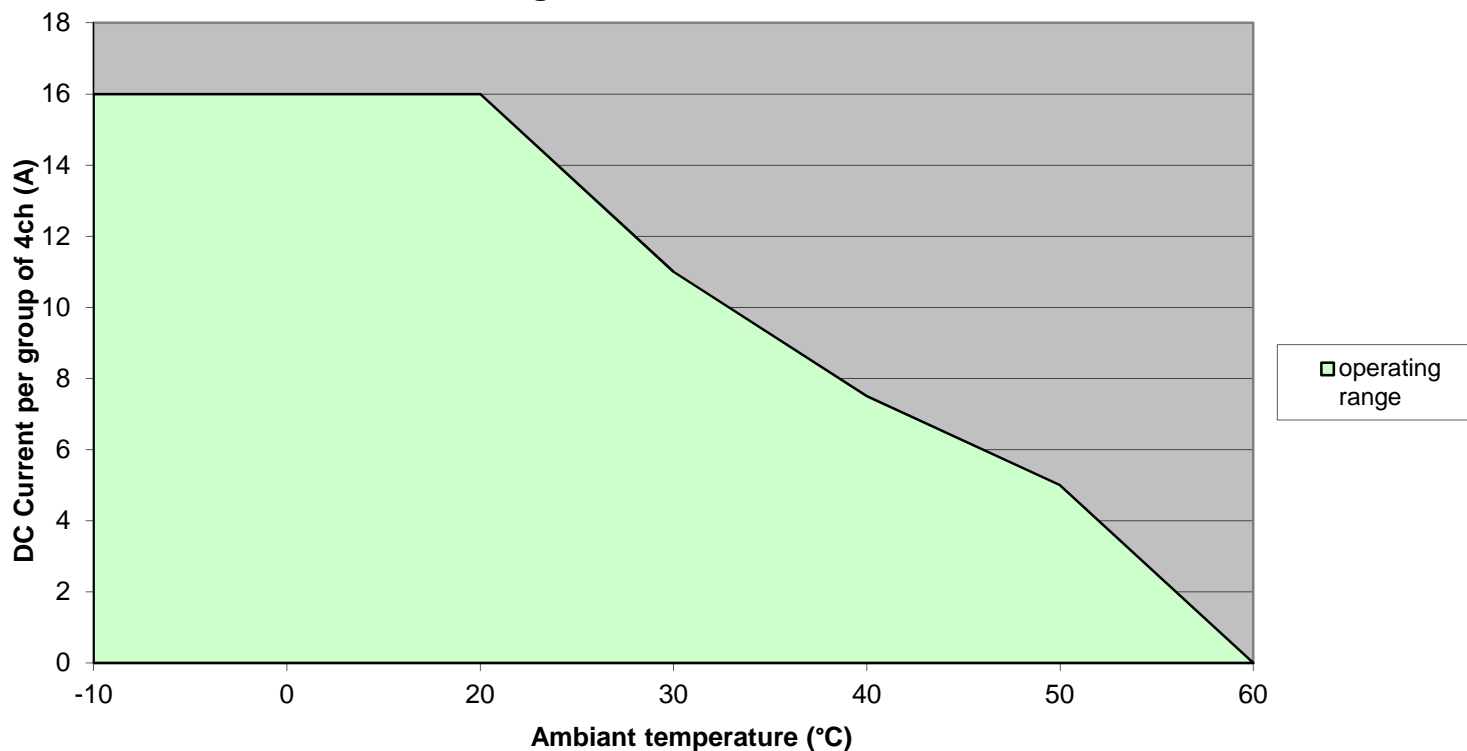
Connection to the DCS or to the PLC :
To a Discrete Output card :

1 x HE10-10 pin male connectors with locks for female connector, central polarization and strain relief.

1 x Sub-D 15 pin male connector with UNC 4-40 female lock.

Derating Curve

Rev01



RELAY TO BE PLUGGED ON THE INT-DO8-R-F-PS



TYPE **ELECTROMECHANIC RELAYS**

FIRELEC Reference **REL24STD-945158**

General specifications:

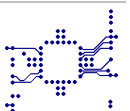
Mechanical expected life AC/DC	10x10 ⁶ Cycles
Electric expected life at full load	50x10 ³ . Cycles
Operating time / Release time	8 ms / 6 ms
Insulation between coil and contact (Pulse : 1,2/50µS)	6000Vac
Dielectric strength between open contacts	1000Vac
Ambient temperature	-40°C to 70°C
Initial Insulation resistance at 500V	>1000 MΩ
Protection category:	RT II
Size :	L: 29mm, W:12.7mm, , H:15,7 mm

Coil characteristics :

Nominal voltage	24Vdc
Operating voltage	16.8 – 36 Vdc
Drop out voltage	2.4Vdc
Nominal operating current	16,7 mA
Coil resistance	1440 Ω +/-15%
Nominal power	0.4W

Contacts characteristics

Contact configuration	1 NO/NC contact (SPDT)
Nominal voltage	250Vac
Nominal current	16A
Nominal switching capacity (resistive load)	at 230Vac (4000 VA)
Nominal switching capacity 30/48/220 Vdc	16A/1.5A/0.12A
Minimum switching load	300mW/5V/5mA
Standard contact material	AgNi 90/10





<u>TYPE</u>	<u>DC SOLID STATE RELAYS</u>	<u>AC SOLID STATE RELAYS</u>
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<u>FIRELEC Reference</u>	<u>STD03510-945159</u>	<u>STA07220-945160</u>
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General specifications:

Response time ON/OFF	50 μ s / 600 μ s	12 ms / 20ms
Input / output isolation	2500Vac	2500Vac
Ambient temperature	-40°C to 70°C	-40°C to 70°C
Size :	L:29.2mm, W: 13mm, H:15,8 mm	L:29.2mm, W: 13mm, H:15,8 mm
Weight:	11g	11g

Control characteristics :

Nominal voltage	24Vdc	24Vdc
Voltage Operating	12 – 30 Vdc	12 – 30 Vdc
Nominal release voltage	9Vdc	9Vdc
Nominal operating current	9,3 mA	9,3 mA
Input internal resistor	2100 ohms +/-15%	2100 ohms +/-15%
Nominal power	0.22W	0.22W

Output characteristics

Contact configuration	1 NO contact	1 NO contact
Nominal load voltage	24VDC	230VAC
Operating range load voltage	1.5 to 30VDC	12 to 275VAC
Max permanent load current	5A	2A
Non repetitive overload current (100 μ s)	25A	40A
Minimum load current	1mA	50mA
Off state leakage current	<1mA	<1mA
On state voltage drop	0.5V	1V

