

# CONNECTOR INFORMATION

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## FRC-7000

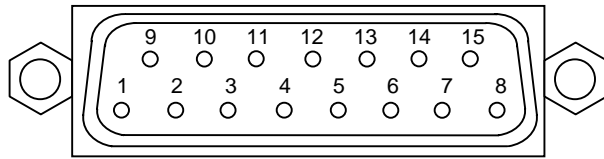
HD Frame Rate Converter

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(3<sup>rd</sup> Edition-Rev.4, 2008/03/06)

# 1-1. ALARM Interface

## 1-1-1. ALARM Connector



15-pin D-sub, female

Compatible connector:

15-pin D-sub, male  
DA-15PF-N (JAE)

Cover:

Metal hood  
Short screw  
DA-C4-J10-S1 (JAE)

\* Inch screws

### ◆ ALARM Connector Pin Assignment (15-pin D-sub, female)

No.	Signal	Signal Details	No.	Signal	Signal Details
1	+24V	+24VDC output (*1)	9	+24V	+24VDC output (*1)
2	GND	GND	10	GND	GND
3	GND	GND	11	ALARM2	Power alarm (*2)
4	ALARM1	Fan alarm (*2)	12	GND	GND
5	COM	Common alarm	13	POWALM 1-	Common contact alarm1- (*3)
6	POWALM 1+	Contact alarm1+ (*3)	14	POWALM 2-	Common contact alarm2- (*4)
7	POWALM 2+	Contact alarm2+ (*4)	15	N.C.	N.C.
8	N.C.	N.C.			

(\*1) The pin supplies 24VDC. A maximum loading current on each pin is 125mA. A maximum load of 250mA is available by using both Pin1 and Pin9.

(\*2) Open collector output. Max 24VDC /50mA

(\*3) A short circuit occurs between Pin6 (contact alarm1+) and Pin13 (common contact alarm1-) whenever a power voltage (Max 24VDC/0.5A) error, fan stoppage, or a temperature error occurs in the primary power unit (upper slot).

(\*4) A short circuit occurs between Pin7 (contact alarm2+) and Pin14 (common contact alarm2-) whenever a power voltage (Max 24VDC/0.5A) error, fan stoppage, or a temperature error occurs in the redundant power unit (bottom slot).

## 1-1-2. Alarm Output

The ALARM connector output and front LED status corresponding to each unit and board status are shown in the tables below.

### Primary power supply only (upper slot)

Power ON/OFF		OFF	ON			
Fan operation				x		
Power unit temperature					x	
Power output voltage						x
Front LED status	POWER	-	Green	Green	Green	Green
	GENLOCK IN	*1	*1	*1	*1	*1
	FAN	-	-	Red	-	-
	TEMP	-	-	-	Red	-
	DC POWER	-	-	-	-	Red
ALARM1		Open	Open	0V	Open	Open
ALARM2		Open	Open	Open	Open	0V
POWALM 1+, POWALM 1- status		Shorted (Electrical conduction)	Open (No electrical conduction)	Shorted (Electrical conduction)	Shorted (Electrical conduction)	Shorted (Electrical conduction)

:Normal, x :Error, - : Off

\*1: Based on GENLOCK IN signal status

### Redundant power supply only (bottom slot)

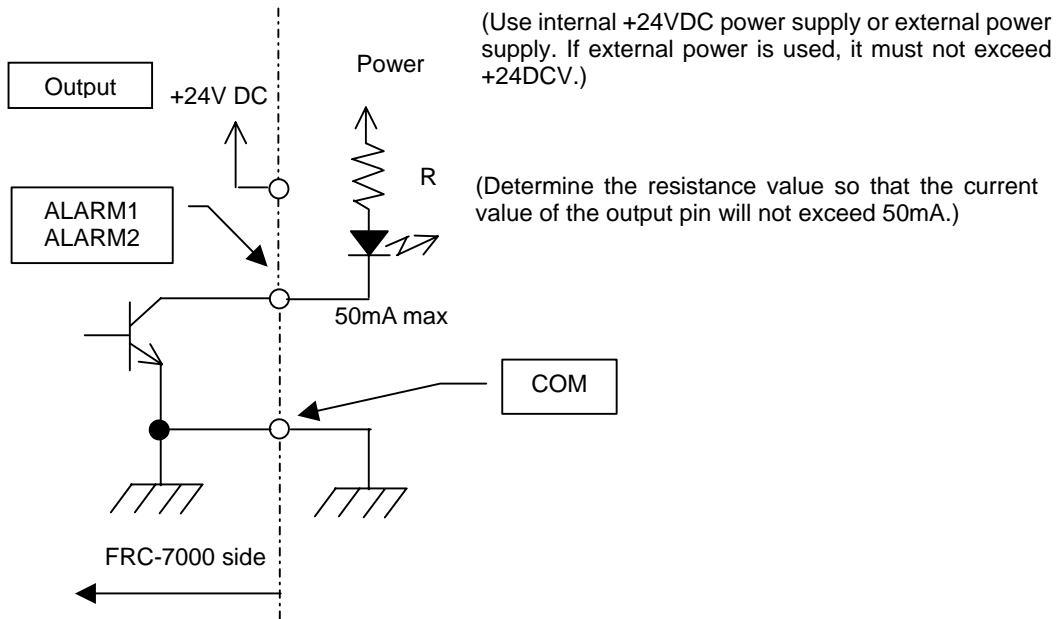
Power ON/OFF		OFF	ON			
Fan operation				x		
Power unit temperature					x	
Power output voltage						x
Front LED status	POWER	-	Green	Green	Green	Green
	GENLOCK IN	*1	*1	*1	*1	*1
	FAN	-	-	Red	-	-
	TEMP	-	-	-	Red	-
	DC POWER	-	-	-	-	Red
ALARM1		Open	Open	0V	Open	Open
ALARM2		Open	Open	Open	Open	0V
POWALM 2+, POWALM 2- status		Shorted (Electrical conduction)	Open (No electrical conduction)	Shorted (Electrical conduction)	Shorted (Electrical conduction)	Shorted (Electrical conduction)

:Normal, x :Error, - : Off

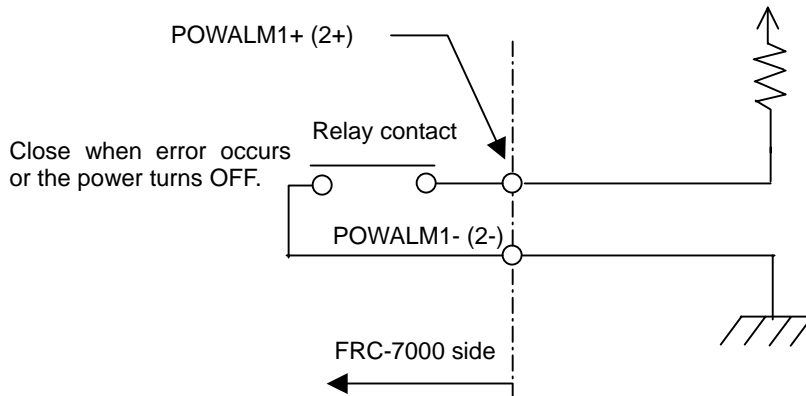
\*1: Based on GENLOCK IN signal status

# 1-1-3. Connection Circuit Example

## 1. Circuit Example for ALARM1 and ALARM2 (Open-collector output)



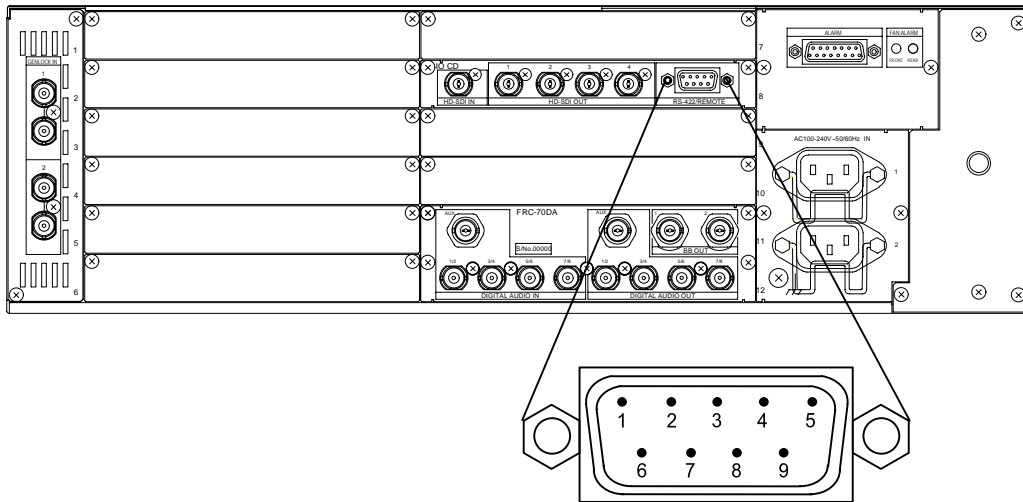
## 2. Circuit Example for POWALM 1 and 2 (Contact closure output)



Rating Voltage	Rating Current
24V DC	0.5A

## 2. Remote Control

### 2-1. Remote Control Serial Connection



#### ◆ Communication Standard

Baud rate	38400 [bps]
Data length	8 [bit]
Stop bit	1 [bit]
Parity	None
X parameter (flow control)	None
Send text interval	More than 0 [ms]
Command interval	More than 10 [ms]

#### ◆ RS-422 Connector Pin Assignments (9-pin D-sub, male)

Pin No.	Signal	Signal Details
1	GND	Frame ground
2	Transmit A (T-)	Transmit data -
3	Receive B (R+)	Receive data +
4	OPEN	N/C
5	OPEN	N/C
6	OPEN	N/C
7	Transmit B (T+)	Transmit data +
8	Receive A (R-)	Receive data -
9	GND	Frame ground

#### IMPORTANT

Note that the pin assignments of this connector differ from an RS422 standard and the connection cable must be suitable for this connector with a length of 100m or less.