FOR.A
INNOVATIONS IN VIDEO
and AUDIO TECHNOLOGY

# OPERATION MANUAL

## HVS-TALOC20
## HVS-TALOC32
Tally Open Collector Unit

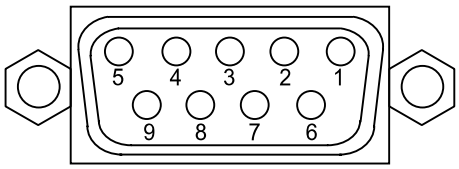
## HVS-TALR20
## HVS-TALR32
Tally Relay Unit

(2nd Edition, 2008/03/06)

FOR-A COMPANY LIMITED

# 1. Connector Information

## 1-1. CONTROL IN



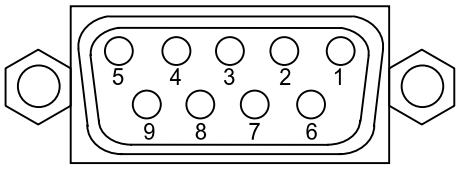

■ **CONTROL IN Connector Pin Assignment Table (RS422 9-pin D-sub, female)**

| PIN No. | Signal | Description |
|---|---|---|
| 1 | FG | Frame ground |
| 2 | T (-) | Transmit data (-) |
| 3 | R (+) | Receive data (+) |
| 4 | SG | Signal ground |
| 5 | SG | Signal ground |
| 6 | SG | Signal ground |
| 7 | T (+) | Transmit data (+) |
| 8 | R (-) | Receive data (-) |
| 9 | FG | Frame ground |

■ **Cabling**

Use accessory control cable supplied with your Hanabi TALLY unit.

## 1-2. CONTROL OUT



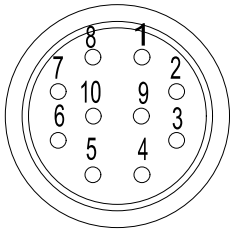

■ **CONTROL OUT Connector Pin Assignment Table (RS422 9-pin D-sub, female)**

| PIN No. | Signal | Description |
|---|---|---|
| 1 | FG | Frame ground |
| 2 | R (-) | Receive data (-) |
| 3 | T (+) | Transmit data (+) |
| 4 | SG | Signal ground |
| 5 | SG | Signal ground |
| 6 | SG | Signal ground |
| 7 | R (+) | Receive data (+) |
| 8 | T (-) | Transmit data (-) |
| 9 | FG | Frame ground |

■ **Cabling**

Use accessory control cable supplied with other Hanabi TALLY unit.

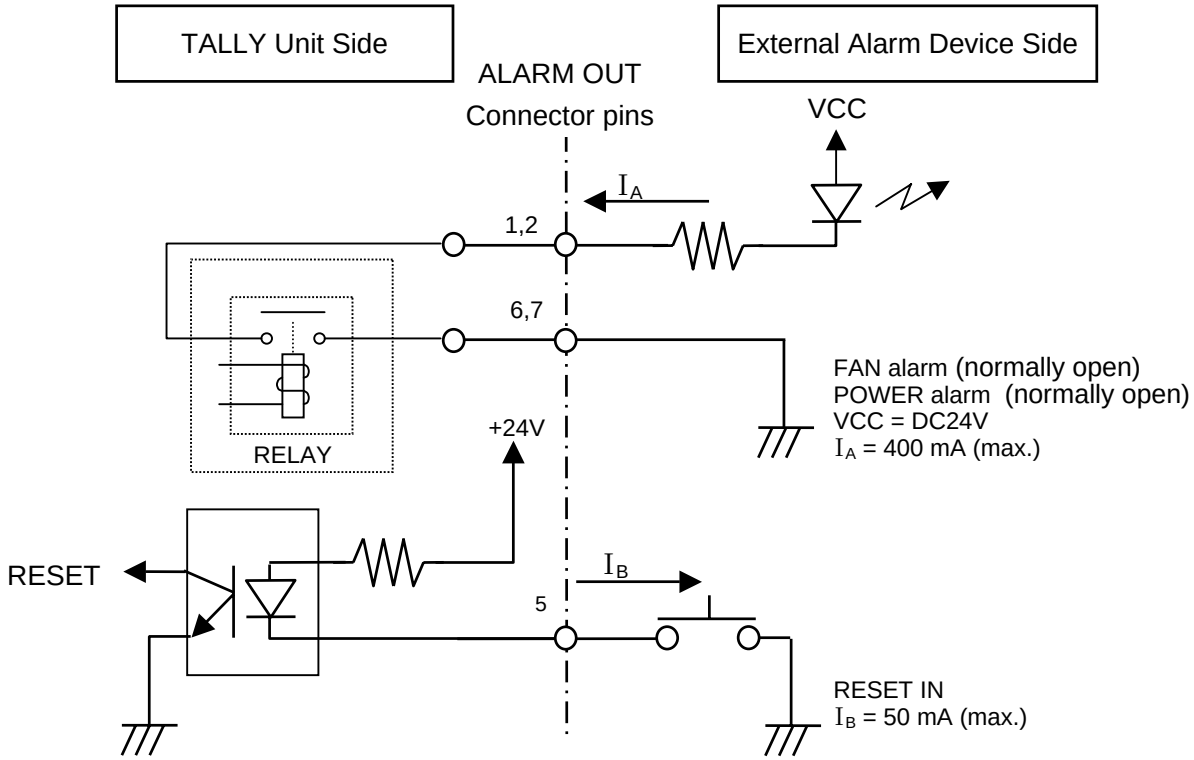
# 1-3. ALARM OUT




■ **ALARM OUT Connector Pin Assignment Table (10-pin round connector, female)**

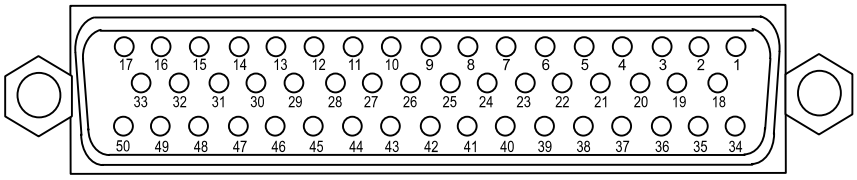
| Pin No. | Signal | Description |
|---|---|---|
| 1 | FAN ALARM OUT | Fan failure alarm. Normally open relay. |
| 2 | POWER ALARM OUT | Power failure alarm. Normally open relay. |
| 3 | - | Open |
| 4 | - | Open |
| 5 | RESET IN | External reset input. Active low initiate. |
| 6 | FAN ALARM COMMON | Fan alarm signal common. |
| 7 | POWER ALARM COMMON | Power alarm signal common. |
| 8 | - | Open |
| 9 | SG | Signal ground |
| 10 | - | Open |

■ **ALARM OUT Circuit**



# 1-4. TALLY OUT(HVS-TALOC20)

## 1-4-1. TALLY OUT1




■ **TALLY OUT1 Connector Pin Assignment Table (50-pin D-sub, female)**

| Pin No. | Signal | Pin No. | Signal |
|---|---|---|---|
| 1 | Tally OUT1 | 26 | OPEN |
| 2 | Tally OUT2 | 27 | OPEN |
| 3 | Tally OUT3 | 28 | OPEN |
| 4 | Tally OUT4 | 29 | OPEN |
| 5 | Tally OUT5 | 30 | OPEN |
| 6 | Tally OUT6 | 31 | OPEN |
| 7 | Tally OUT7 | 32 | OPEN |
| 8 | Tally OUT8 | 33 | OPEN |
| 9 | Tally OUT9 | 34 | GND |
| 10 | Tally OUT10 | 35 | GND |
| 11 | Tally OUT11 | 36 | GND |
| 12 | Tally OUT12 | 37 | GND |
| 13 | Tally OUT13 | 38 | GND |
| 14 | Tally OUT14 | 39 | GND |
| 15 | Tally OUT15 | 40 | GND |
| 16 | Tally OUT16 | 41 | GND |
| 17 | Tally OUT17 | 42 | GND |
| 18 | Tally OUT18 | 43 | GND |
| 19 | Tally OUT19 | 44 | GND |
| 20 | Tally OUT20 | 45 | GND |
| 21 | OPEN | 46 | GND |
| 22 | OPEN | 47 | GND |
| 23 | OPEN | 48 | GND |
| 24 | OPEN | 49 | GND |
| 25 | OPEN | 50 | GND |

■ **To fabricate connection cable:**

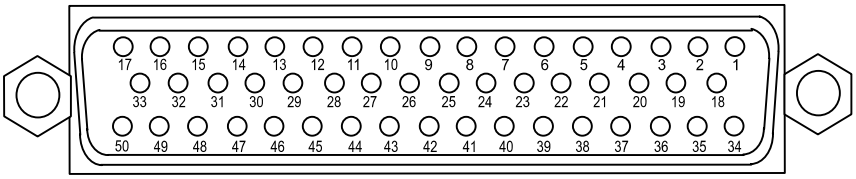
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALOC20. Assembly parts supplied are as given below.

Backshell: DD-C8-J13 (JAE)
Connector Core: D50P-N (JAE)

| **NOTE** |
|---|
| The table above is pin assignments for the HVS-TALOC20 (open collector units). |

# 1-5. TALLY OUT(HVS-TALOC32)

## 1-5-1. TALLY OUT1




■ **TALLY OUT 1 Connector Pin Assignment Table (50-pin D-sub, female)**

| Pin No. | Signal | Pin No. | Signal |
|---|---|---|---|
| 1 | Tally OUT1 | 26 | Tally OUT26 |
| 2 | Tally OUT2 | 27 | Tally OUT27 |
| 3 | Tally OUT3 | 28 | Tally OUT28 |
| 4 | Tally OUT4 | 29 | Tally OUT29 |
| 5 | Tally OUT5 | 30 | Tally OUT30 |
| 6 | Tally OUT6 | 31 | Tally OUT31 |
| 7 | Tally OUT7 | 32 | Tally OUT32 |
| 8 | Tally OUT8 | 33 | OPEN |
| 9 | Tally OUT9 | 34 | GND |
| 10 | Tally OUT10 | 35 | GND |
| 11 | Tally OUT11 | 36 | GND |
| 12 | Tally OUT12 | 37 | GND |
| 13 | Tally OUT13 | 38 | GND |
| 14 | Tally OUT14 | 39 | GND |
| 15 | Tally OUT15 | 40 | GND |
| 16 | Tally OUT16 | 41 | GND |
| 17 | Tally OUT17 | 42 | GND |
| 18 | Tally OUT18 | 43 | GND |
| 19 | Tally OUT19 | 44 | GND |
| 20 | Tally OUT20 | 45 | GND |
| 21 | Tally OUT21 | 46 | GND |
| 22 | Tally OUT22 | 47 | GND |
| 23 | Tally OUT23 | 48 | GND |
| 24 | Tally OUT24 | 49 | GND |
| 25 | Tally OUT25 | 50 | GND |

■ **To fabricate connection cable:**

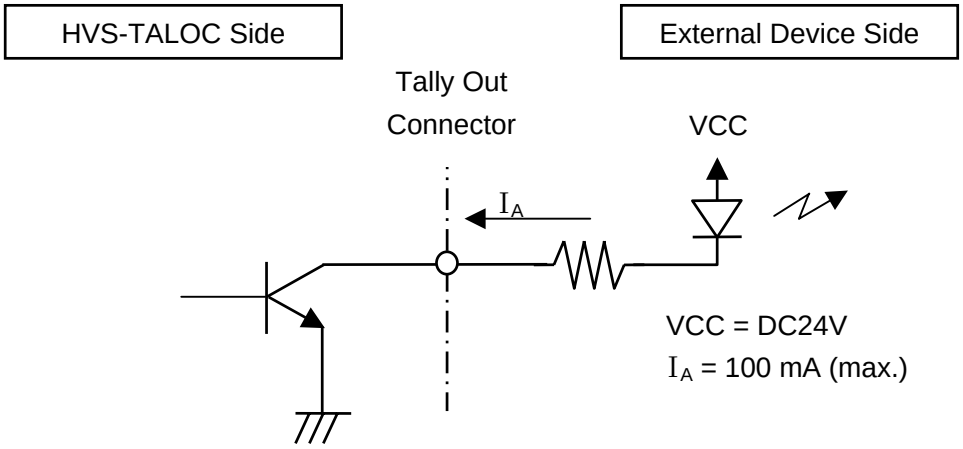
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALOC32. Assembly parts supplied are as given below.

Backshell: DD-C8-J13 (JAE)
Connector Core: D50P-N (JAE)

| **NOTE** |
|---|
| The table above is pin assignments for the HVS-TALOC32 (open collector units). |

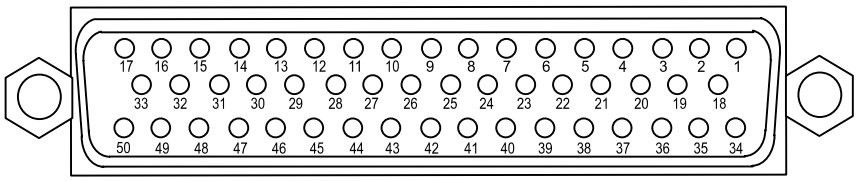
## 1-5-2. TALOC Circuit Diagram

■ **HVS-TALOC20/ HVS-TALOC32 (Equivalent circuit)**



# 1-6. TALLY OUT (HVS-TALR20)

## 1-6-1. TALLY OUT 1(HVS-TALR20)




◆ **TALLY OUT 1 Connector Pin Assignment Table (50-pin D-sub, female)**

| Pin No. | Signal | # | Pin No. | Signal | # |
|---|---|---|---|---|---|
| 1 | Tally OUT1 (C.) *1 | 1 | 28 | Tally OUT 10 (C.) | 10 |
| 2 | Tally OUT1 (COM.) *2 | | 29 | Tally OUT 10 (COM.) | |
| 3 | Tally OUT1 (O.) *3 | | 30 | Tally OUT 10 (O.) | |
| 4 | Tally OUT2 (C.) | 2 | 31 | Tally OUT 11 (C.) | 11 |
| 5 | Tally OUT2 (COM.) | | 32 | Tally OUT 11 (COM.) | |
| 6 | Tally OUT2 (O.) | | 33 | Tally OUT 11 (O.) | |
| 7 | Tally OUT3 (C.) | 3 | 34 | Tally OUT 12 (C.) | 12 |
| 8 | Tally OUT3 (COM.) | | 35 | Tally OUT 12 (COM.) | |
| 9 | Tally OUT3 (O.) | | 36 | Tally OUT 12 (O.) | |
| 10 | Tally OUT4 (C.) | 4 | 37 | Tally OUT 13 (C.) | 13 |
| 11 | Tally OUT4 (COM.) | | 38 | Tally OUT 13 (COM.) | |
| 12 | Tally OUT4 (O.) | | 39 | Tally OUT 13 (O.) | |
| 13 | Tally OUT5 (C.) | 5 | 40 | Tally OUT 14 (C.) | 14 |
| 14 | Tally OUT5 (COM.) | | 41 | Tally OUT 14 (COM.) | |
| 15 | Tally OUT5 (O.) | | 42 | Tally OUT 14 (O.) | |
| 16 | Tally OUT6 (C.) | 6 | 43 | Tally OUT 15 (C.) | 15 |
| 17 | Tally OUT6 (COM.) | | 44 | Tally OUT 15 (COM.) | |
| 18 | Tally OUT6 (O.) | | 45 | Tally OUT 15 (O.) | |
| 19 | Tally OUT7 (C.) | 7 | 46 | Tally OUT 16 (C.) | 16 |
| 20 | Tally OUT7 (COM.) | | 47 | Tally OUT 16 (COM.) | |
| 21 | Tally OUT7 (O.) | | 48 | Tally OUT 16 (O.) | |
| 22 | Tally OUT8 (C.) | 8 | 49 | OPEN | |
| 23 | Tally OUT8 (COM.) | | 50 | GND | |
| 24 | Tally OUT8 (O.) | | | | |
| 25 | Tally OUT9 (C.) | 9 | | | |
| 26 | Tally OUT9 (COM.) | | | | |
| 27 | Tally OUT9 (O.) | | | | |

# Output number

*1) C. = Closed circuit, *2) COM. = Common, *3) O. = Open circuit

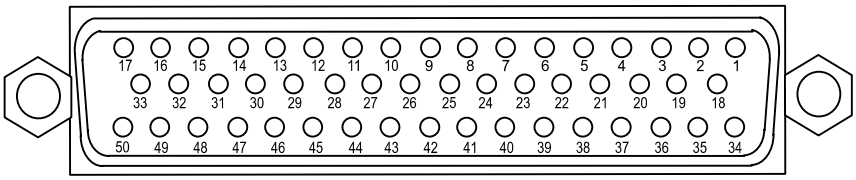
◆ **To fabricate connection cable:**

Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALR20. Assembly parts supplied are as given below.

Backshell: DD-C8-J13 (JAE))
Connector Core: D50P-N (JAE)

| **NOTE** |
|---|
| The table above is pin assignments for the HVS-TALR20 (relay units). |

# 1-6-2. TALLY OUT 2(HVS-TALR20)




◆ **TALLY OUT 2 Connector Pin Assignment Table (50-pin D-sub, female)**

| Pin No. | Signal | # | Pin No. | Signal | # |
|---|---|---|---|---|---|
| 1 | Tally OUT17 (C.) *1 | 17 | 28 | OPEN | |
| 2 | Tally OUT17 (COM.) *2 | | 29 | OPEN | |
| 3 | Tally OUT17 (O.) *3 | | 30 | OPEN | |
| 4 | Tally OUT18 (C.) | 18 | 31 | OPEN | |
| 5 | Tally OUT18 (COM.) | | 32 | OPEN | |
| 6 | Tally OUT18 (O.) | | 33 | OPEN | |
| 7 | Tally OUT19 (C.) | 19 | 34 | OPEN | |
| 8 | Tally OUT19 (COM.) | | 35 | OPEN | |
| 9 | Tally OUT19 (O.) | | 36 | OPEN | |
| 10 | Tally OUT20 (C.) | 20 | 37 | OPEN | |
| 11 | Tally OUT20 (COM.) | | 38 | OPEN | |
| 12 | Tally OUT20 (O.) | | 39 | OPEN | |
| 13 | OPEN | | 40 | OPEN | |
| 14 | OPEN | | 41 | OPEN | |
| 15 | OPEN | | 42 | OPEN | |
| 16 | OPEN | | 43 | OPEN | |
| 17 | OPEN | | 44 | OPEN | |
| 18 | OPEN | | 45 | OPEN | |
| 19 | OPEN | | 46 | OPEN | |
| 20 | OPEN | | 47 | OPEN | |
| 21 | OPEN | | 48 | OPEN | |
| 22 | OPEN | | 49 | OPEN | |
| 23 | OPEN | | 50 | GND | |
| 24 | OPEN | | | | |
| 25 | OPEN | | | | |
| 26 | OPEN | | | | |
| 27 | OPEN | | | | |

# Output number

*1) C. = Closed circuit, *2) COM. = Common, *3) O. = Open circuit

◆ **To fabricate connection cable:**

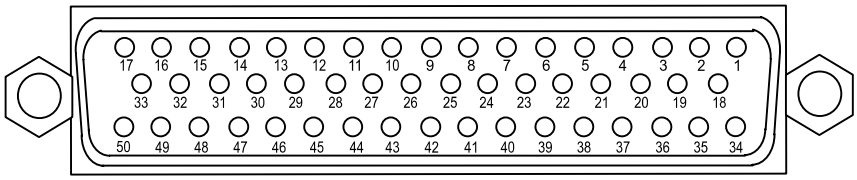
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALR20. Assembly parts supplied are as given below.

Backshell: DD-C8-J13 (JAE))
Connector Core: D50P-N (JAE)

| **NOTE** |
|---|
| The table above is pin assignments for the HVS-TALR20 (relay units). |

# 1-7. TALLY OUT (HVS-TALR32)

## 1-7-1. TALLY OUT 1(HVS-TALR32)




◆ **TALLY OUT 1 Connector Pin Assignment Table (50-pin D-sub, female)**

| Pin No. | Signal | # | Pin No. | Signal | # |
|---|---|---|---|---|---|
| 1 | Tally OUT1 (C.) *1) | 1 | 28 | Tally OUT 10 (C.) | 10 |
| 2 | Tally OUT1 (COM.) *2) | | 29 | Tally OUT 10 (COM.) | |
| 3 | Tally OUT1 (O.) *3) | | 30 | Tally OUT 10 (O.) | |
| 4 | Tally OUT2 (C.) | 2 | 31 | Tally OUT 11 (C.) | 11 |
| 5 | Tally OUT2 (COM.) | | 32 | Tally OUT 11 (COM.) | |
| 6 | Tally OUT2 (O.) | | 33 | Tally OUT 11 (O.) | |
| 7 | Tally OUT3 (C.) | 3 | 34 | Tally OUT 12 (C.) | 12 |
| 8 | Tally OUT3 (COM.) | | 35 | Tally OUT 12 (COM.) | |
| 9 | Tally OUT3 (O.) | | 36 | Tally OUT 12 (O.) | |
| 10 | Tally OUT4 (C.) | 4 | 37 | Tally OUT 13 (C.) | 13 |
| 11 | Tally OUT4 (COM.) | | 38 | Tally OUT 13 (COM.) | |
| 12 | Tally OUT4 (O.) | | 39 | Tally OUT 13 (O.) | |
| 13 | Tally OUT5 (C.) | 5 | 40 | Tally OUT 14 (C.) | 14 |
| 14 | Tally OUT5 (COM.) | | 41 | Tally OUT 14 (COM.) | |
| 15 | Tally OUT5 (O.) | | 42 | Tally OUT 14 (O.) | |
| 16 | Tally OUT6 (C.) | 6 | 43 | Tally OUT 15 (C.) | 15 |
| 17 | Tally OUT6 (COM.) | | 44 | Tally OUT 15 (COM.) | |
| 18 | Tally OUT6 (O.) | | 45 | Tally OUT 15 (O.) | |
| 19 | Tally OUT7 (C.) | 7 | 46 | Tally OUT 16 (C.) | 16 |
| 20 | Tally OUT7 (COM.) | | 47 | Tally OUT 16 (COM.) | |
| 21 | Tally OUT7 (O.) | | 48 | Tally OUT 16 (O.) | |
| 22 | Tally OUT8 (C.) | 8 | 49 | OPEN | |
| 23 | Tally OUT8 (COM.) | | 50 | GND | |
| 24 | Tally OUT8 (O.) | | | | |
| 25 | Tally OUT9 (C.) | 9 | | | |
| 26 | Tally OUT9 (COM.) | | | | |
| 27 | Tally OUT9 (O.) | | | | |

# Output number

*1) C. = Closed circuit, *2) COM. = Common, *3) O. = Open circuit

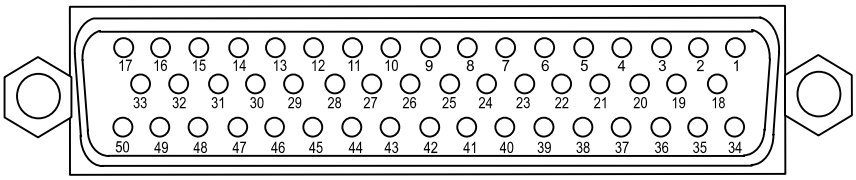
◆ **To fabricate connection cable:**

Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALR32. Assembly parts supplied are as given below.

Backshell: DD-C8-J13 (JAE))
Connector Core: D50P-N (JAE)

| **NOTE** |
|---|
| The table above is pin assignments for the HVS-TALR32 (relay units). |

# 1-7-2. TALLY OUT 2(HVS-TALR32)




◆ **TALLY OUT 2 Connector Pin Assignment Table (50-pin D-sub, female)**

| Pin No. | Signal | # | Pin No. | Signal | # |
|---|---|---|---|---|---|
| 1 | Tally OUT17 (C.) *1) | 17 | 28 | Tally OUT26 (C.) | 26 |
| 2 | Tally OUT17 (COM.) *2) | | 29 | Tally OUT26 (COM.) | |
| 3 | Tally OUT17 (O.) *3) | | 30 | Tally OUT26 (O.) | |
| 4 | Tally OUT18 (C.) | 18 | 31 | Tally OUT27 (C.) | 27 |
| 5 | Tally OUT18 (COM.) | | 32 | Tally OUT27 (COM.) | |
| 6 | Tally OUT18 (O.) | | 33 | Tally OUT27 (O.) | |
| 7 | Tally OUT19 (C.) | 19 | 34 | Tally OUT28 (C.) | 28 |
| 8 | Tally OUT19 (COM.) | | 35 | Tally OUT28 (COM.) | |
| 9 | Tally OUT19 (O.) | | 36 | Tally OUT28 (O.) | |
| 10 | Tally OUT20 (C.) | 20 | 37 | Tally OUT29 (C.) | 29 |
| 11 | Tally OUT20 (COM.) | | 38 | Tally OUT29 (COM.) | |
| 12 | Tally OUT20 (O.) | | 39 | Tally OUT29 (O.) | |
| 13 | Tally OUT21 (C.) | 21 | 40 | Tally OUT30 (C.) | 30 |
| 14 | Tally OUT21 (COM.) | | 41 | Tally OUT30 (COM.) | |
| 15 | Tally OUT21 (O.) | | 42 | Tally OUT30 (O.) | |
| 16 | Tally OUT22 (C.) | 22 | 43 | Tally OUT31 (C.) | 31 |
| 17 | Tally OUT22 (COM.) | | 44 | Tally OUT31 (COM.) | |
| 18 | Tally OUT22 (O.) | | 45 | Tally OUT31 (O.) | |
| 19 | Tally OUT23 (C.) | 23 | 46 | Tally OUT32 (C.) | 32 |
| 20 | Tally OUT23 (COM.) | | 47 | Tally OUT32 (COM.) | |
| 21 | Tally OUT23 (O.) | | 48 | Tally OUT32 (O.) | |
| 22 | Tally OUT24 (C.) | 24 | 49 | OPEN | |
| 23 | Tally OUT24 (COM.) | | 50 | GND | |
| 24 | Tally OUT24 (O.) | | | | |
| 25 | Tally OUT25 (C.) | 25 | | | |
| 26 | Tally OUT25 (COM.) | | | | |
| 27 | Tally OUT25 (O.) | | | | |

# Output number
*1) C. = Closed circuit, *2) COM. = Common, *3) O. = Open circuit

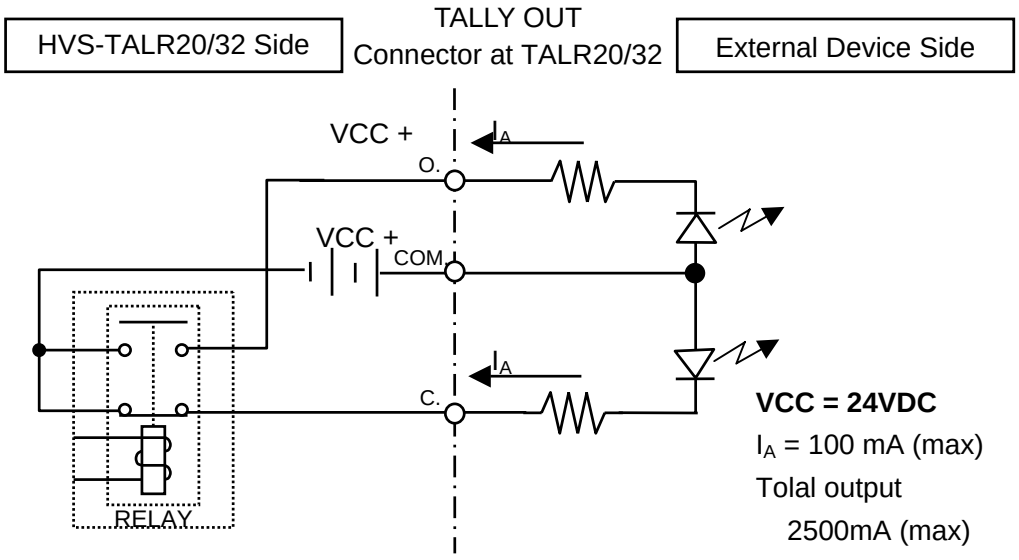
◆ **To fabricate connection cable:**
Use accessory 50-pin D-sub (male) connector assembly supplied with your HVS-TALR32. Assembly parts supplied are as given below.

Backshell: DD-C8-J13 (JAE))
Connector Core: D50P-N (JAE)

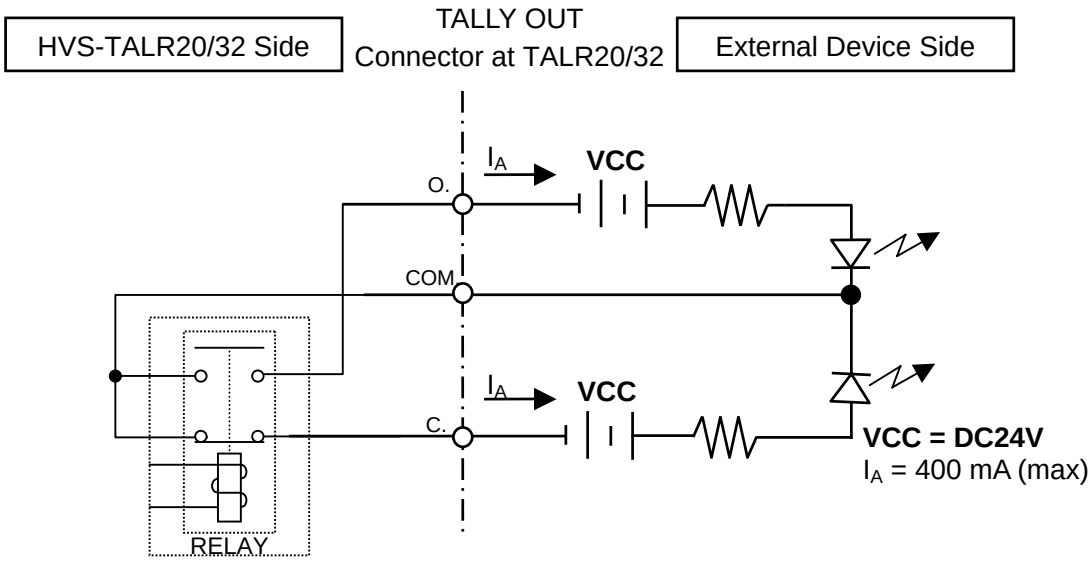
| **NOTE** |
|---|
| The table above is pin assignments for the HVS-TALR32 (relay units). |

## 1-7-3. TALR Circuit Diagrams

■ TALLY OUT 1 – 2 Voltage Output Circuit (HVS-TALR20/32)

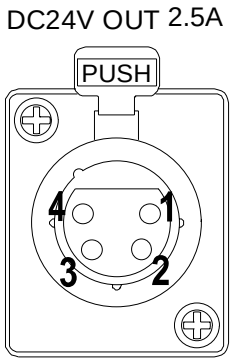



■ TALLY OUT 1 – 2 Contact Initiated Circuit (HVS-TALR20/32)




| | |
|---|---|
| **Caution** | When voltage output is set, the max. load at that pin is 100mA. If more than 100mA is required, set pin to contact initiate mode.<br>The maximum current supplied to the DC OUT connector is 2.5A. Do not feed a current exceeding 2.5A.<br>If the fuse protection starts accidentally, disconnect the DC power cable from the unit, power off the unit and set it aside more than 5 minutes until it cools. |

# 1-8. DC 24V OUT




■ **DC 24V OUT Connector Pin Assignment Table**
**(4-pin power connector, female, Canon XLR 44-313 F77)**

| Pin NO. | Signal | Description |
|---|---|---|
| 1 | +24V DC OUT | 24VDC, 2.5A, Capacitor resettable fuse |
| 2 | +24V DC OUT | |
| 3 | GND | Ground |
| 4 | GND | Ground |

| | |
|---|---|
| **Caution** | The maximum current supplied to the DC OUT connector is 2.5A. Do not feed a current exceeding 2.5A.<br>If the fuse protection starts accidentally, disconnect the DC power cable from the unit, power off the unit and set it aside more than 5 minutes until it cools. |