



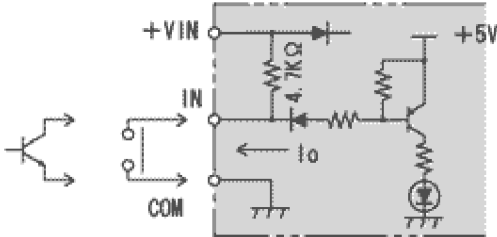
DMH-GC/HC Series Optical Transceivers

- High-speed Parallel type optical data transmission device
- 16 bit
- Bidirectional data transfer
- Transmission rates of 15 milliseconds
- 0 to 3 meter transmission ranges
- Head-on and Side-on directional mounting
- 10-30 VDC

Type	Parallel	
	16-bit	
Model No.	DMH-GC1	DMH-HC1
Direction	Head on	Side on
Transmission distance	0 to 3m (adjustable)	
Directional angle	±13°	
Transmission method	Half-duplex two-way transmission	
Transmission time	15msec	
Modulation method	FSK modulation	
Detection method	Bit-reverse comparison	
Power source	10 to 30VDC	
Current consumption	150mA Max.	
Ambient illuminance	10,000lux or less(Incandescent lamp)	
Ambient temperature/humidity	-10 to +50° C, 85%RH or less	
Connection	40 conductor lead wire 2m long	
Protective structure	IP64(IEC standard)	

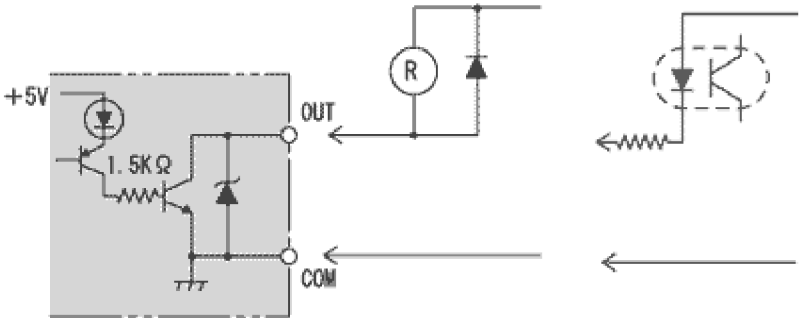
Input/output circuits

Input



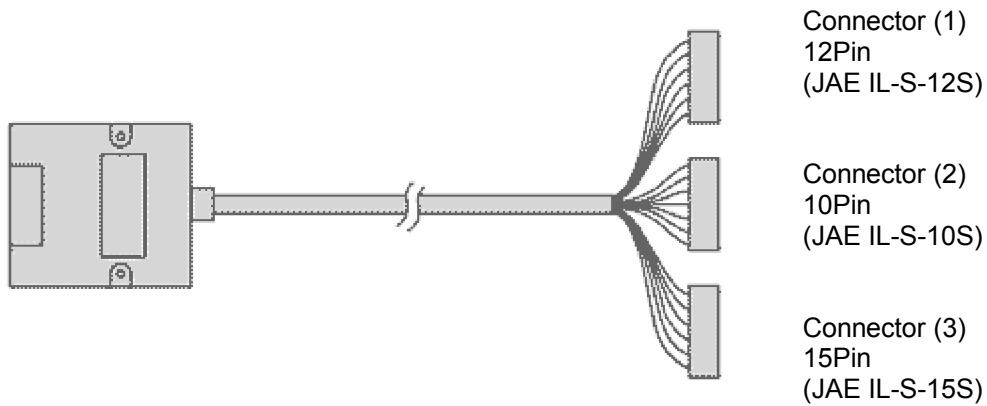
Flow current when ON(I_O) : approx. 5mA(when 24VDC)
ON voltage : 2V or less, OFF voltage : 8V or more

Output



NPN open-collector output
35VDC 50mA residual voltage 0.9V or less

Connection



Connector (1)		
Colors	Pin No.	Functions
Pink(red 1)	1	Power +V
Pink(red 2)	2	Power - V(COM)
Pink(red 3)	3	OUT16
Pink(red 4)	4	IN16
Pink(black 1)	5	OUT15
Pink(black 2)	6	IN15
Pink(black 3)	7	OUT14
Pink(black 4)	8	IN14
White(red 1)	9	OUT13
White(red 2)	10	IN13
White(red 3)	11	OUT12
White(red 4)	12	IN12

Connector (2)		
Colors	Pin No.	Functions
White(Black 1)	1	OUT11
White(Black 2)	2	IN11
White(Black 3)	3	OUT10
Gray(red 1)	4	IN10
Gray(red 2)	5	IN9
Gray(red 3)	6	OUT9
Gray(red 4)	7	IN8
Gray(black 1)	8	OUT8
Gray(black 2)	9	IN7
Gray(black 3)	10	OUT7

Connector (3)		
Colors	Pin No.	Functions
Orange(red 1)	1	IN6
Orange(red 2)	2	OUT6
Orange(red 3)	3	IN5
Orange(red 4)	4	OUT5
Orange(black 1)	5	IN4
Orange(black 2)	6	OUT4
Orange(black 3)	7	IN3
Orange(black 4)	8	OUT3
Yellow(red 1)	9	IN2
Yellow(red 2)	10	OUT2
Yellow(red 3)	11	IN1
Yellow(red 4)	12	OUT1
Yellow(black 1)	13	SELECT ^{*1}
Yellow(black 2)	14	GO ^{*2}
Yellow(black 3)	15	STROBE ^{*3}

***1 SELECT input**

Used for stopping transmission and reception to prevent signal interference with other devices in close proximity

Activated by open circuit between select and I/O COM

Deactivated by closed circuit between select and I/O COM

***2 GO output**

This is used to verify correct optical signal

ON when signal reception is possible

OFF when signal reception is not possible

***3 STROBE**

ON when data is fixed.

Note) Do not use White(black4), gray(black4) and Yellow(black4). Cut unused conductors back at the base.

Note) Do not use the connectors attached to the cables as connecting terminal. They are for factory testing only.



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