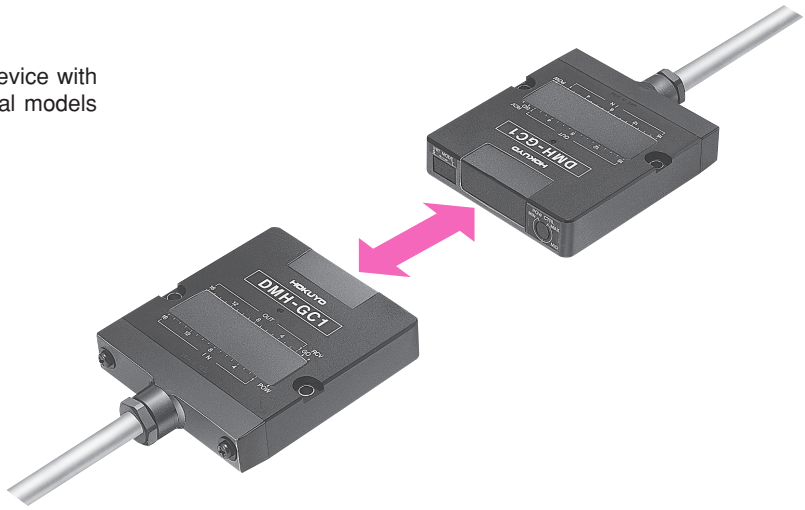
DMH-GC/HC

DMH-GC/HC is a high speed type data transmission device with 16 bit. This is smaller size and lighter weight than usual models and also, adjuster for beam amount is provided.

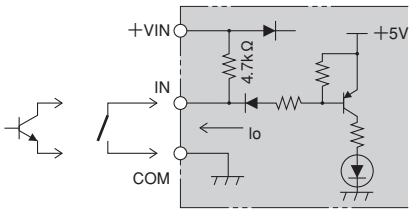


■ Specifications

Type	Parallel type	
Model No.	DMH-GC1	DMH-HC1
Direction	Head-on	Side-on
Transmission distance	0 to 3m (Setting distance can be changed by adjuster)	
Directional angle (full angle)	±13°	
Transmission capacity	16BIT	
Transmission method	Half duplex two-way transmission	
Transmission time	15msec	
Modulation method	FSK modulation	
Detection method	bit-reverse comparing system	
Power source	18 to 30VDC (ripple 10% or less)	
Current consumption	150mA or less	
Input	Contact input	
Output	NPN Open-collector output	
Connection	Cable (0.125mm² 40 cores Cabtyre cable in 2m)	
Ambient illuminance	10,000lux or less	
Ambient temperature/humidity	-10 to +50℃, 85%RH or less (not icing, not condensing)	
Vibration resistance	Double amplitude 1.5mm, 10 to 55Hz, each 2 hour in X, Y and Z directions	
Impact resistance	500m/s², each 10 time in X, Y and Z directions	
Protective structure	IP64 (IEC Standard)	
Case materials	Cover: Polycarbonate, base/cable cover: ABS resin	
Weight	Approx. 400g (including 2m cable)	

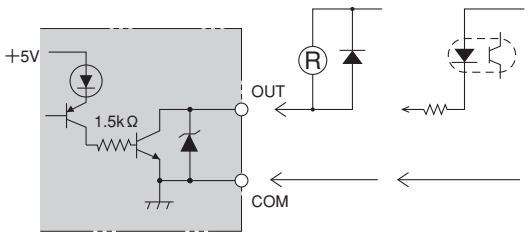
■ Input/Output circuit

Input section



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

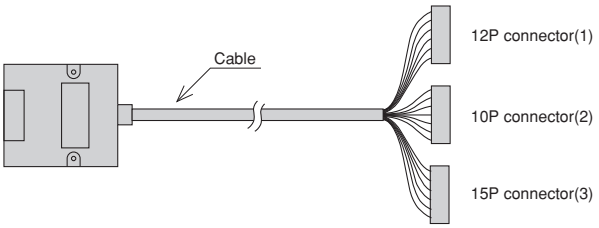
Output section



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

☆D-sub connector type is lined-up too.

■ Connection



Connector (1)		
Lead wire	Pin No.	Spec.
Pink (Red1)	1	Power +V
Pink (Red2)	2	Power -V(COM)
Pink (Red3)	3	OUT16
Pink (Red4)	4	IN16
Pink (Black1)	5	OUT15
Pink (Black2)	6	IN15
Pink (Black3)	7	OUT14
Pink (Black4)	8	IN14
L.blue (Red1)	9	OUT13
L.blue (Red2)	10	IN13
L.blue (Red3)	11	OUT12
L.blue (Red4)	12	IN12

Connector (2)		
Lead wire	Pin No.	Spec.
L.blue (Black1)	1	OUT11
L.blue (Black2)	2	IN11
L.blue (Black3)	3	OUT10
Gray (Red1)	4	IN10
Gray (Red2)	5	OUT9
Gray (Red3)	6	IN9
Gray (Red4)	7	IN8
Gray (Black1)	8	OUT8
Gray (Black2)	9	IN7
Gray (Black3)	10	OUT7

Connector (3)		
Lead wire	Pin No.	Spec.
Orange (Red1)	1	IN6
Orange (Red2)	2	OUT6
Orange (Red3)	3	IN5
Orange (Red4)	4	OUT5
Orange (Black1)	5	IN4
Orange (Black2)	6	OUT4
Orange (Black3)	7	IN3
Orange (Black4)	8	OUT3
Green (Red1)	9	IN2
Green (Red2)	10	OUT2
Green (Red3)	11	IN1
Green (Red4)	12	OUT1
Green (Black1)	13	SELECT*1
Green (Black2)	14	GO*2
Green (Black3)	15	Strobe*3

*1. Select input
This is designed to arbitrarily stop transmission and reception by outside signal.
- It operates when it is opened between Select and GND.
- It stops the operation when it is shorted between Select and GND.

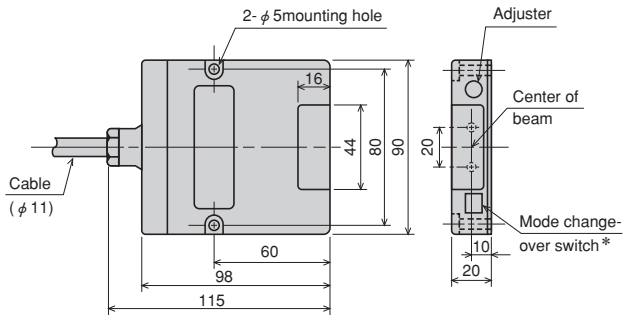
*2. GO output
This is designed to check for correct reception of optical signal.
- It is getting ON when optical signal is received.
- It is getting OFF when optical signal is interrupted (non-receiving state).

*3. Strobe
It is getting ON when data is fixed.

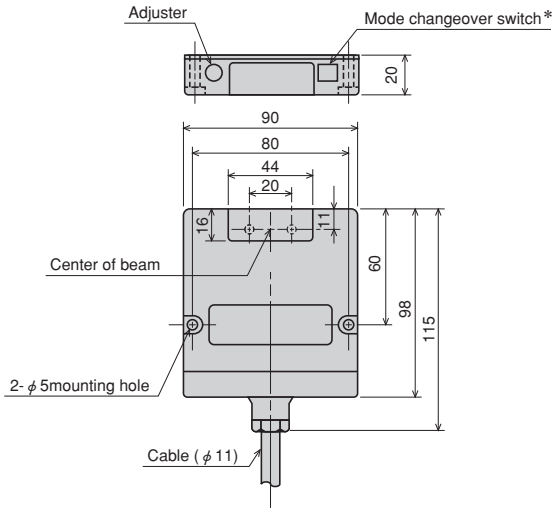
Note) Don't use light blue (Black4), gray (black4) and green (black4). If cable is cut on the way, cut it at the base.
Note) The connector attached can't be used as relay terminals.

■ External dimensions

Head-on type



Side-on type



*Mode changeover switch: If one is set to T side (transmission priority mode), other one have to be set to R side (reception priority mdoe).