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DMH-GB/HB

Optical Data Transmission Devices

This device is high-speed type, data transmission device.
It is 5 times faster than DMS series and this device can communicate more data in specific time.

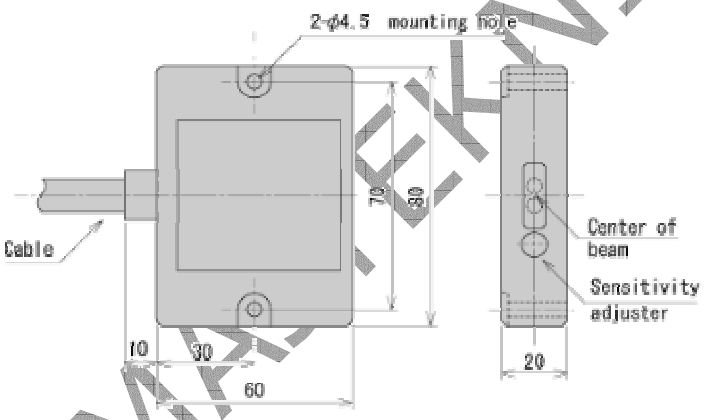
Specifications

Type	Parallel type 8-bit type			
Model No.	**DMH-GB1**	**DMH-GB2**	**DMH-HB1**	**DMH-HB2**
Transmission capacity(I/O)	8BIT/8BIT			
Direction	HEAD-ON		SIDE-ON	
Transmission distance	0.6m	3m	0.6m	3m
Directional angle	±15°	±5°	±15°	±5°
Transmission method	Half-duplex two-way transmission			
Transmission time	7msec			
Modulation method	FSK modulation			
Detection method	Bit-reverse comparison system			
Power source	18 to 30VDC(ripple 10% or less)			

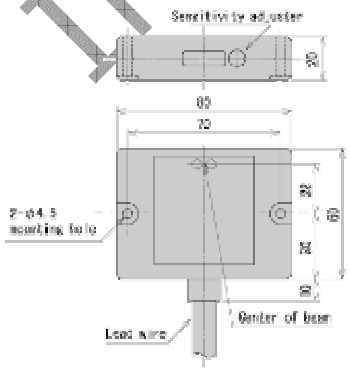
Current consumption	100mA Max.
Ambient illuminance	10,000lux or less
Ambient temperature/ humidity	-10 to +50 degrees C, 85%RH or less
Vibration resistance	Double amplitude 1.5mm, 10 to 30Hz, each 2 hour in X, Y and Z directions
Impact resistance	500m/s^2, each 10 time in X, Y and Z directions
Connection	Lead wire (0.2mm^2, 26 cores, shield cable 2m long)
Protective structure	IP64(IEC standard)

External dimension

DMH-GB1, DMH-GB2(HEAD-ON type)

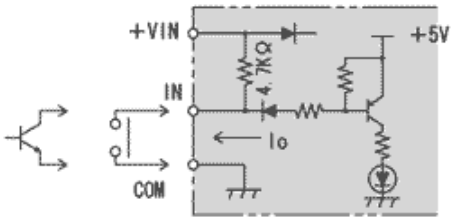


DMH-HB1, DMH-HB2(SIDE-ON type)



Input/output circuit

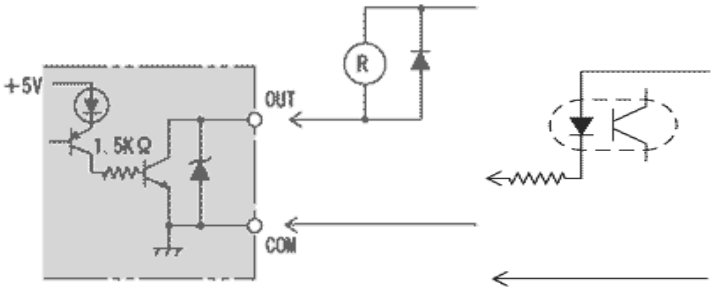
Input



Flow current when ON(IO) : approx. 5mA(when 24VDC)

Allowable residual voltage when ON : use it with 1.8V or less

Output



NPN open-collector output

35DC 50mA residual voltage 1.5V or less

Connector (1)		
Colors	**Pin No.**	**Functions**
Pale blue	1	Power 0V
Pink	2	Power +V
White	3	IN1
White / black	4	IN2
Brown	5	IN3
Brown / black	6	IN4
Red	7	IN5
Red / black	8	IN6
Orange	9	IN7
Orange / black	10	IN8
Yellow	11	MODE*1

Connector (2)		
Colors	**Pin No.**	**Functions**
Green / black	1	GO*3
Blue	2	STROBE
Blue / black	3	(BSY)
Purple	4	OUT8
Purple / black	5	OUT7
Gray	6	OUT6
Gray / black	7	OUT5
Pink / black	8	OUT4
Pale blue /	9	OUT3

Yellow / black	12	COM(0V)
Green	13	SELECT*2

black		
Pink/red	10	OUT2
Yellow/red	11	OUT1
Pale blue/red	12	(M/S)
White/red	13	(RDY)
Shield	Shield	

*1 MODE input

This is to choose transmission/reception mode when standing by

*Transmission stand-by mode by opened between mode and I/O COM

*Reception stand-by mode by short-circuited between mode and I/O COM

Note) If one side is set to transmission stand-by mode, other one should be set to reception standby mode.

*2 SELECT input

This is to stop transmission/reception optionally by outer signal

*Operating by opened between select and I/O COM

*Stopping by short-circuited between select and I/O COM

*3 GO output

This is to check correct optical single

*ON when receiving correct optical axis

*OFF when interrupting optical axis(Not-receiving)

Note) Don't use the connector attached to the cables as connecting terminal.

Note) Don't use (BSY), (MS) and (RDY).