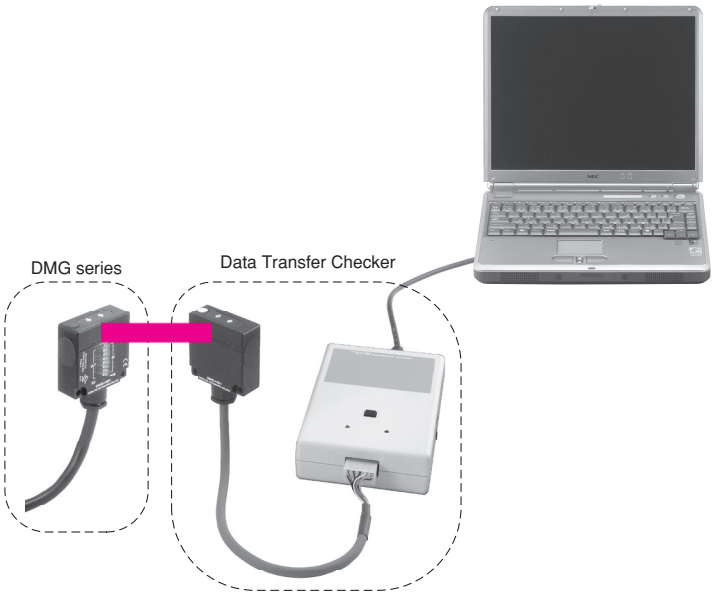
with Logging Function

DMG-G/H

Useful to solve some troubles such as interlocking!

When some troubles such as interlocking etc. happened, memorized data (Logging data) in DMG series can be read out by optical remote controller type, Data Transfer Checker (Option). Also its data can be displayed on PC by application software (SFOC).

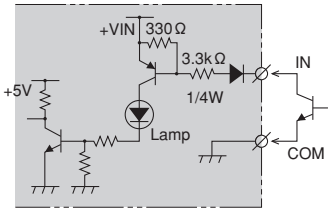


■ Specifications

Type	Parallel type			
Model No.	DMG-GB1	DMG-GB2	DMG-HB1	DMG-GHB2
Direction	Head-on		Side-on	
Transmission distance	1m	3m	1m	3m
Directional angle (full angle)	30°	10°	30°	10°
Transmission capacity	8BIT			
Transmission method	Half duplex two-way transmission			
Transmission time	40msec or less			
Modulation method	Pulse modulation			
Detection method	Parity check			
Projecting element	Near infrared LED			
Receiving element	Photo-transistor			
Power source	10 to 30VDC (Available range)			
Current consumption	100mA or less			
Input	Contact or contactless open-collector (ON current 2.5mA or more, OFF current 1mA or less)			
Output	NPN Open-collector (30V, 50mA or less)			
Connection	Cable (0.2mm² 22 cores shield wire in 2m)			
Ambient illuminance	4,000lux or less (incandescent light)			
Ambient temperature/humidity	-10 to +50°C, 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 material	Polycarbonate			
Weight	Approx. 280g			

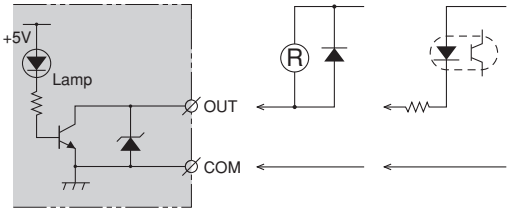
■ Input/Output circuit

Input section (common)



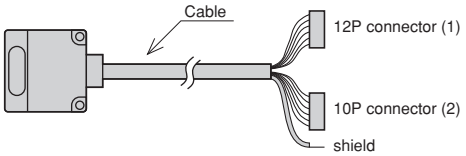
Contact or contactless open-collector
ON current: 2.5mA or more, OFF current: 1mA or less
Note) 2-wire type sensor can't be used. (operating threshold current: 1.5 to 2mA)

Output section (common)



NPN open-collector output
30VDC 50mA or less Residual voltage 1.8V or less

■ Connection



Connector (1)		
Lead wire	**Pin No.**	**Spec.**
Light blue	1	COM (0V)
Pink	2	MODE*1
White	3	SELECT*2
White/Black	4	GO*3
Brown	5	IN1
Brown/Black	6	OUT1
Red	7	IN2
Red/Black	8	OUT2
Orange	9	IN3
Orange/Black	10	OUT3
Yellow	11	IN4
Yellow/Black	12	OUT4

Connector (2)		
Lead wire	**Pin No.**	**Spec.**
Green	1	IN5
Green/Black	2	OUT5
Blue	3	IN6
Blue/Black	4	OUT6
Purple	5	IN7
Purple/Black	6	OUT7
Gray	7	IN8
Gray/Black	8	OUT8
Pink/Black	9	+VIN
L.Blue/Black	10	−VIN
Shield	Shield	

*1. Mode input
This is designed to select standby transmission and reception mode.
- Transmission standby mode when it is opened between MODE and I/O COM.
- Reception standby mode when it is short circuited between MODE and I/O COM.

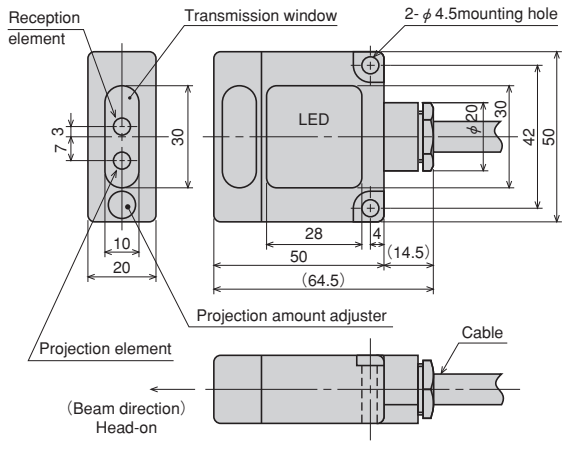
*2. Select input
This is designed to arbitarily stop transmission and reception operation by outside signal.
- Operates when it is opened between SELECT and I/O COM.
- Stops operation when it is short curcuited between SELECT and I/O COM.

*3. GO output
This is designed to check for correct reception of optical signal.
- it is ON when optical signal is receiving.
- it is OFF when optical signal is interrupted (or non-receiving state).

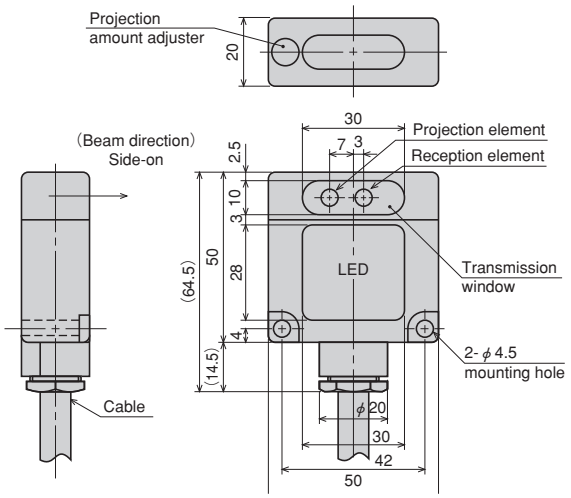
Note) Terminal ends handling of not using input, output, GO output, SELECT input, MODE input NC (4BIT only) are to be treated individually and not touching to the other cables. If handled in one treatment, it will cause malfunction.
Note) The connector attached on the end of cable can not be used as connecting terminal.
Note) Make sure to set to the different mode. (If setting to transmission standby mode at one side, set to reception standby mode at other side.)
Note) COM and -VIN are shorted internally.

■ External dimensions

Head-on type



Side-on type



■ SEMI standard

D-sub with 25 pins in conformity with SEMI E84 provides and it can be connected to load port immediately.

Model No.

Model	Beam direction	Cable length	Remarks
DMG-HB1-Z01	Side-on	2m	Fitting screw: Inch screw
DMG-HB1-Z02			Fitting screw: Millimeter screw
DMG-HB1-Z03		5m	

*Equipment in corresponding to SEMI E84-0699 and -0999 may use millimeter screw. Inch screw is specified on the version after SEMI E84-0200A.

☆DMG series are compatible with DMS series (8BIT type) on the communication.