



İMAJ TEKNİK
ELEKTRİK ELEKTRONİK MALZ. SAN. VE TİC. LTD. ŞTİ.



DMH-GC/HC

Optical Data Transmission Devices



This device is high-speed type, data transmission device with 16 bits.

This device is smaller size and lighter weight than old type. This device provides light-projecting amount adjuster and so it is easy to adjust the communication distance.

Specifications

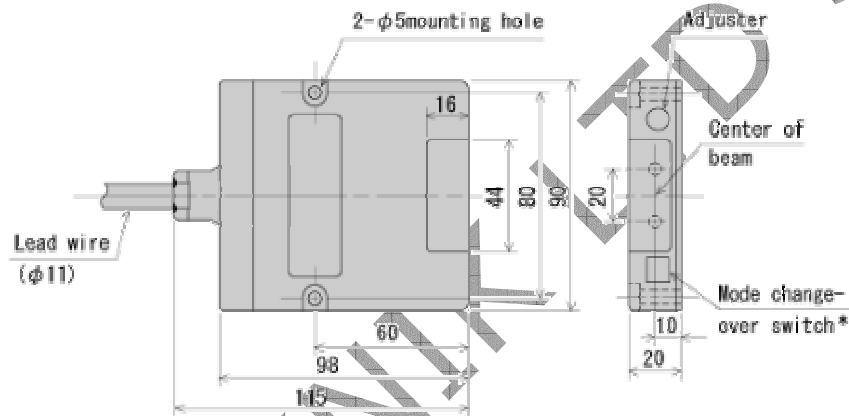
Type	Parallel type 16-bit type	
Model No.	DMH-GC1	DMH-HC1
Transmission capacity(I/O)	16BIT/16BIT	
Direction	HEAD-ON	SIDE-ON
Transmission distance	0 to 3m(can be adjusted by adjuster)	
Directional angle	$\pm 13^\circ$	
Transmission method	Half-duplex two-way transmission	
Transmission time	15ms	
Modulation method	FSK modulation	
Detection method	Bit-reverse comparison system	
Power source	DC18 to 30V(ripple 10% or less)	
Current consumption	150mA 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 55Hz, 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 , 40 cores, shield cable 2m long)
Protective structure	IP64(IEC standard)
Weight	Approx. 400g(including the cable 2m)

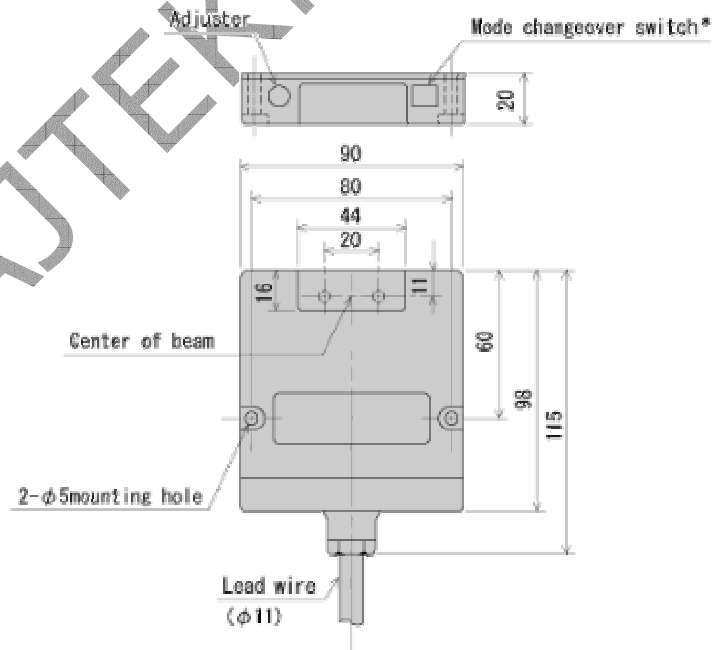
D-sub connector type and long distance type(15m) are lined-up.

External dimension

DMH-GC1(HEAD-ON type)



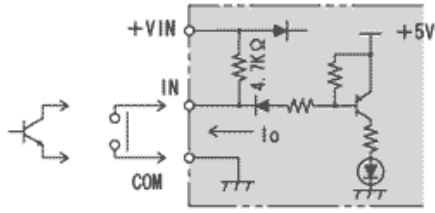
DMH-HC1(SIDE-ON type)



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

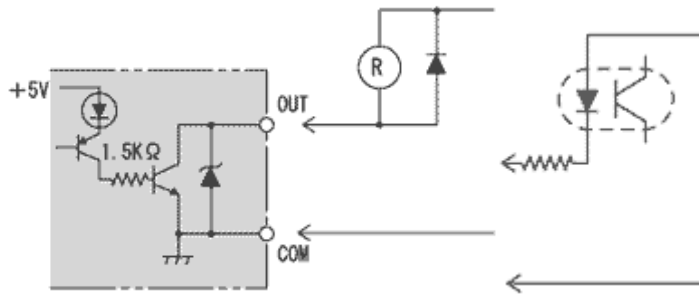
Input/output circuit

Input



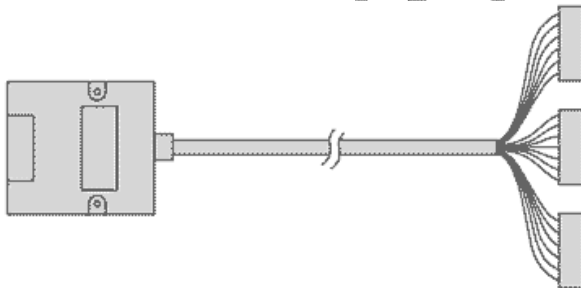
Flow current when ON(I_O) : approx. 5mA(when 24VDC)
 ON voltage : 2V or less, OFF voltage : 8V or more

Output



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

Connection



Connector (1)
 12Pin
 (JAE IL-S-12S)

Connector (2)
 10Pin
 (JAE IL-S-10S)

Connector (3)
 15Pin
 (JAE IL-S-15S)

Connector (1)		
Colors	Pin No.	Functions
Pink(red 1)	1	Power +V
Pink(red 2)	2	Power -V(COM)
Pink(red 3)	3	OUT16

Connector (2)		
Colors	Pin No.	Functions
Pale blue (Black 1)	1	OUT11
Pale blue (Black 2)	2	IN11

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
Pale blue(red 1)	9	OUT13
Pale blue(red 2)	10	IN13
Pale blue(red 3)	11	OUT12
Pale blue(red 4)	12	IN12

Pale blue (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
Green(red 1)	9	IN2
Green(red 2)	10	OUT2
Green(red 3)	11	IN1
Green(red 4)	12	OUT1
Green(black 1)	13	SELECT ^{*1}
Green(black 2)	14	GO ^{*2}

Green(black 3)

15

STROBE³

Note) Don't use pale blue(black4), gray(black4) and green(black4). If cable is cut on the way, cut it at the base.

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

*1 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

*2 GO output

This is to check correct optical single

*ON when receiving correct optical axis

*OFF when interrupting optical axis(Not-receiving)

*3 STROBE

ON when data is fixed.



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