

SPECIFICATIONS

OPTICAL DATA TRANSMISSION DEVICE
(WITH PROJECTION AMOUNT ADJUSTER)Withstanding high-Frequency wave noise
Cable 10m length with D-sub connector

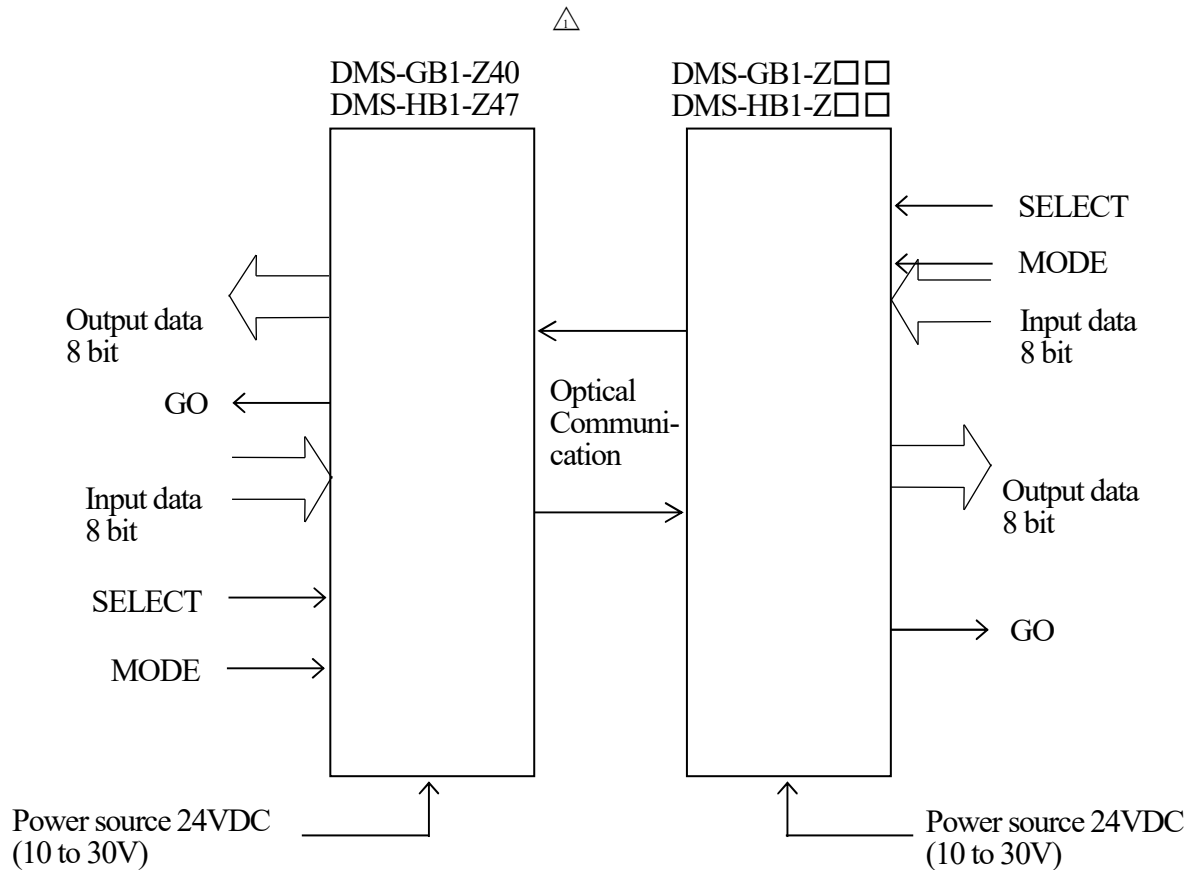
DMS-GB1-Z40

DMS-HB1-Z47

Corresponding to SI unit

△× 5	Update of the cable length and added the Head-ON model		1 - 4	Feb.10,'12	Iguchi FA-7030
Symbol	Amended reason		Pages	Date	Corrector Amended No.
Approved by	Checked by	Drawn by	Designed by	Title Optical Data Transmission Device DMS-GB1-Z40/HB1-Z47 Specifications	1/5
MAEJIMA	HINO	IGUCHI	IGUCHI		

1. Configuration



2. Specifications

Model No.	DMS-GB1-Z40 \triangle	DMS-HB1-Z47
Transmission distance	0 to 0.6m (Changeable by adjuster) Max. 0.75m or more	
Directive angle	20 degrees (Full angle)	
Transmission directions	HEAD-ON \triangle	SIDE-ON
Transmission capacity (Input/Output)	8-bit/8-bit	
Transmission method	Half-duplex two-way transmission	
Transmission time	40msec	
Modulation method	Pulse modulation	
Verification method	Parity check	
Power source	24VDC (10 to 30V)	
Current consumption	100mA Max.	
Ambient illuminance	4,000lx or less	
Ambient temperature/humidity	-10 to 50°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 times in X, Y and Z directions	
Connection	Cable type (0.2mm ² , 22-core shield cable)	
Protective structure	IP64	

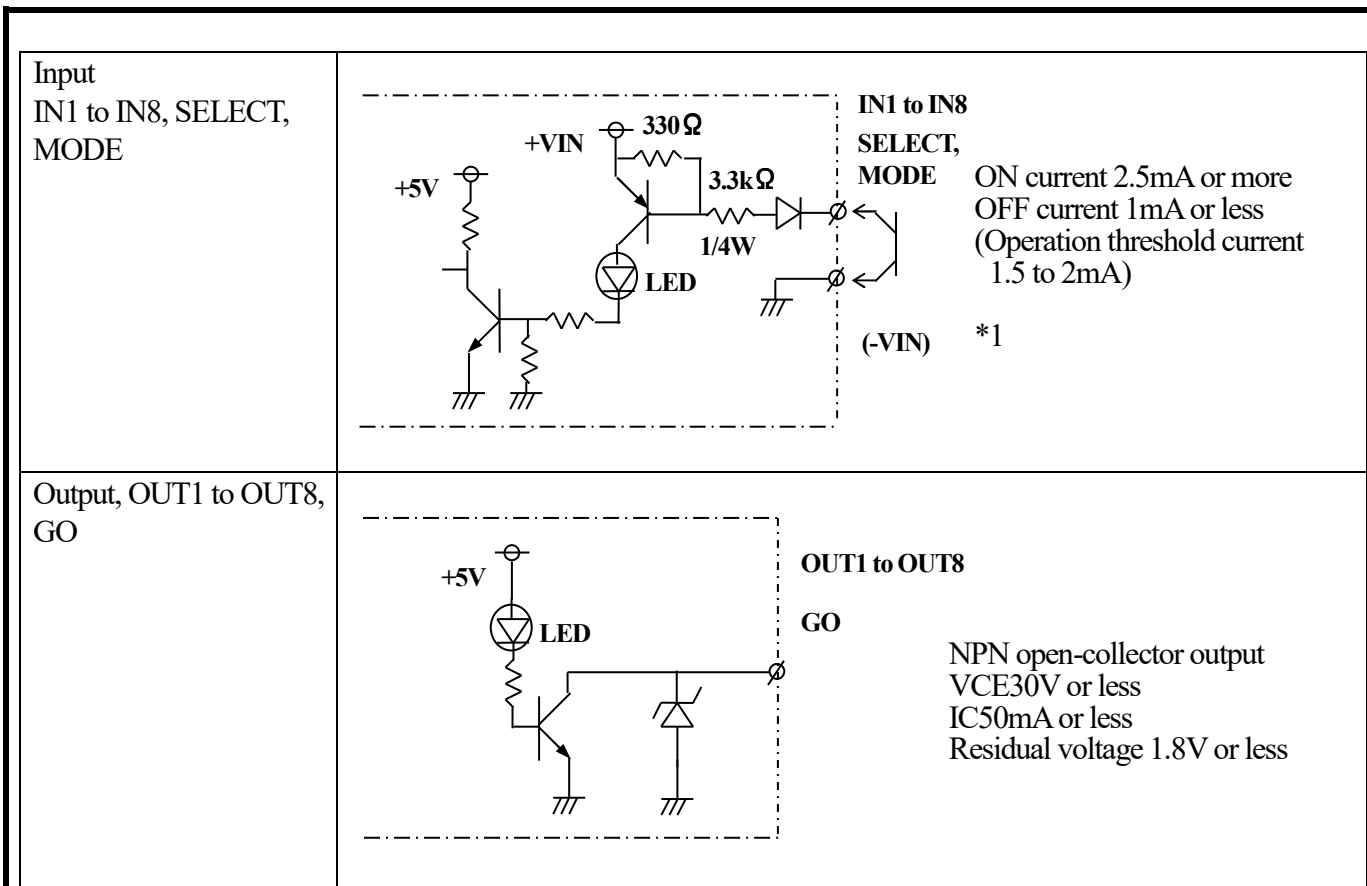
Title

Optical Data Transmission Device
DMS-GB1-Z40/HB1-Z47 Specifications

Drawing
No.

C-42-3889

2/5



*1. 2-wire sensor is not available.

Note)

This model has 0.6m transmission distance, however it might be shorter depending on the DMSs spec which communicates with. For example of the spec in the case :

* DMSs provided ND/IR filter

* DMSs adjusted the light projection volume to the minimum

Please check the spec and setting condition of the other side DMSs which communicates with this model.

3. Transmission characteristics

(1) Characteristics data

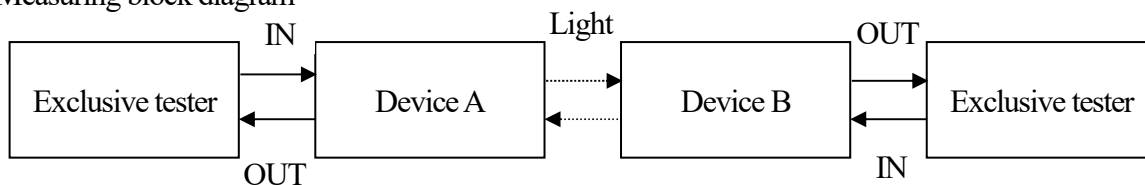
Items	Symbols	MIN	MAX	Unit(msec)
Input data holding time	tIH	30	-	
Transmission time	tON, tOFF	13	40	
Transmission starting delay time (Against optical axis coincidence)	tSD	30	110	
Output holding time (Against SELECT A)	tOH1	50	90	
Output holding time (Against SELECT B)	tOH2	-	5	
Output holding time (Against light-interruption)	tOH3	50	90	

(2) Characteristics measuring condition

*Mode : Side A – Reception stand-by mode, Side B – Transmission stand-by mode

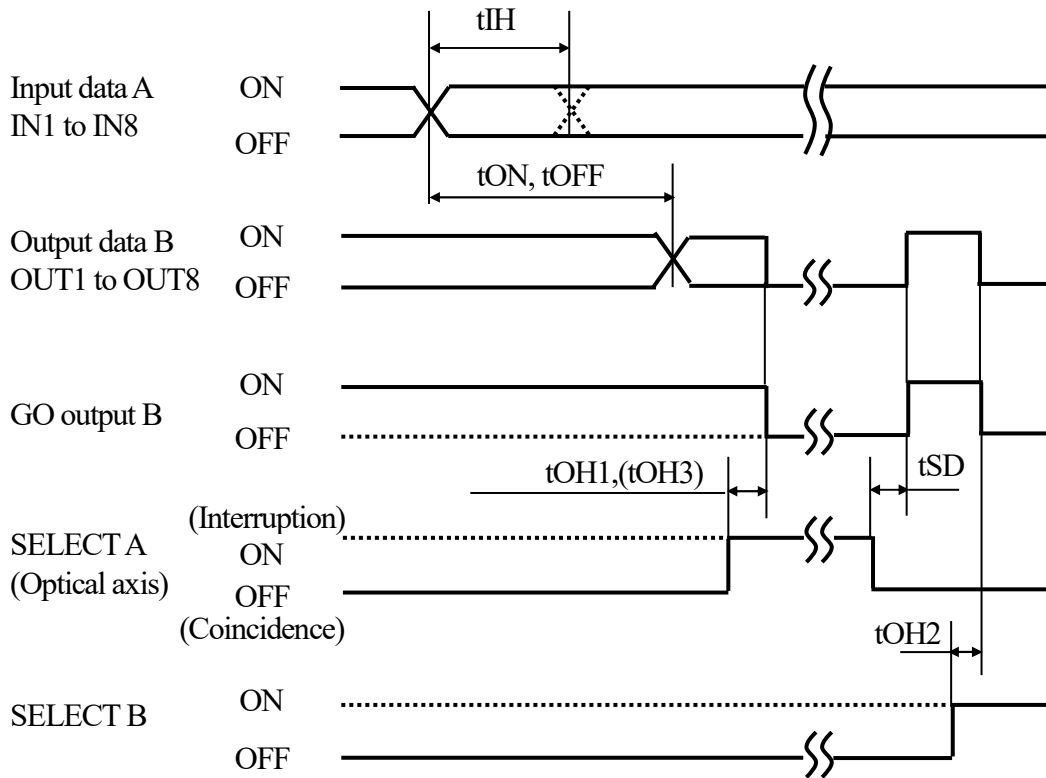
*It was measured under input (side A) and output (side B).

(3) Measuring block diagram

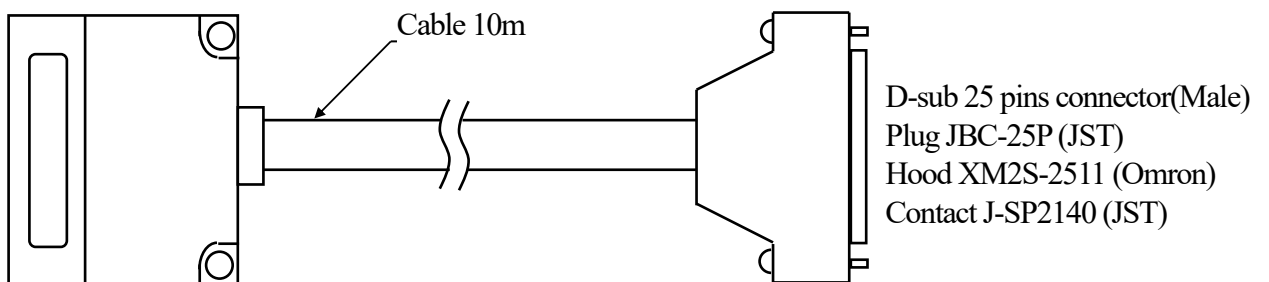


Title	Optical Data Transmission Device DMS-GB1-Z40/HB1-Z47 Specifications	Drawing No.	C-42-3889	3/5
-------	--	----------------	-----------	-----

(4) Transmission timing



4. External wiring



Colors	Pin No.	Functions
Brown/Black	14	OUT1
Red/Black	15	OUT2
Orange/Black	16	OUT3
Yellow/Black	17	OUT4
Green/Black	18	OUT5
Blue/Black	19	OUT6
Purple/Black	20	OUT7
Gray/Black	21	OUT8
White	9	SELECT
White/black	13	GO
Shield	Hood	Shield

Colors	Pin No.	Functions
Brown	1	IN1
Red	2	IN2
Orange	3	IN3
Yellow	4	IN4
Green	5	IN5
Blue	6	IN6
Purple	7	IN7
Gray	8	IN8
Pink/Black	23	+VIN
Pale Blue	25	COM
Pink	24	MODE
Pale Blue/Black		-VIN

5.Function for each terminal

Terminals	Functions	
IN1 to IN 8	Input data	
OUT1 to OUT8	Output data	
SELECT	It is shorted to COM : Transmission/Reception is stopped It is opened : Transmission/Reception is operated	
MODE	It is opened : Transmission standby mode It is shorted to COM : Reception standby mode	
GO	It is ON when normal data was received and OFF when light was interrupted	
COM	Common for input/output	
+VIN	+24V(10 to 30V)	Power source
-VIN	0V	

Note)

This model is set to Reception standby mode. Please set the other side DMSs which communicates with this model to Transmission standby mode

Title	Optical Data Transmission Device DMS-GB1-Z40/HB1-Z47 Specifications	Drawing No.	C-42-3889	5/5
-------	--	----------------	-----------	-----