

OPTICAL DATA TRANSMISSION DEVICE
 (CE MARKING TYPE)
 SPECIFICATIONS

BWF-11A-CE (WBWF015)
 BWF-11B-CE (WBWF016)
 BWF-21A-CE (WBWF017)
 BWF-21B-CE (WBWF018)

SYMBOL	CORRECTED REASON			PAGES	DATE	CORRECTOR NO.
APPROVED BY	CHECKED BY	DRAWN BY	DESIGNED BY	TITLE	OPTICAL DATA TRANSMISSION DEVICE (CE MARKING) BWF-11A/B-CE, BWF-21A/B-CE SPECIFICATIONS	
MORI	MAEJIMA	HAMAKO	HAMAKO	DRAWING NO.	C-42-2787	1 / 4

1. General

This is a wireless type optical data transmission device. This is suitable for hand-shake between moving device on the rail & fixed station such as AGVs, stacker cranes or overhead cranes.

2. Features

*Unnecessary cable between device

Cable between devices is unnecessary because of optical transmission. This is suitable for the places where cable construction is difficult.

*No legal control

There is no legal control such as microwave because of optical transmission.

*Long distance transmission

Long distance transmission can be made. (100m or 200m)

*Provided level lowering output

Lowering of reception amount can be confirmed.

*Easy light axis adjustment

It is easy to adjust light axis with analog output for reception amount check and also, optical axis checker is available as option.

3. Construction

This transmission system is full-duplex two-way transmission and this device is divided to A type & B type with different frequency due to prevent the interference between transmission signal & reception signal. Be sure to use A type & B type in pairs.



4. Specifications

Model No.	BWF-11A-CE, BWF-11B-CE	BWF-21A-CE, BWF-21B-CE
Transmission distance	100m	200m
Directional angle	$\pm 2^\circ$	$\pm 1^\circ$
Power source	10~30VDC	
Current consumption	150mA (12VDC), 80mA (24VDC)	
Transmission method	Full-duplex two-way transmission system	
Transmission speed	DC~19200BPS	
Interface	RS232C, RS422	
Modulated method	FSK	
Modulated frequency	A type:transmission 5.5MHz, reception 6.0MHz B type:transmission 6.0MHz, reception 5.5MHz	
Connection	D-sub connector 25P, M3 terminal only for power source	
Ambient temperature/ humidity	-10°C~+50°C, 85%RH or less(not frozen)	
Ambient illuminance	20000lux or less(Halogen, incandescent lamp)	
Impact resistance	500m/S ² each 10 time in X, Y & Z directions	
Vibration resistance	Double amplitude 1.5mm 10~30Hz each 2 hour in X, Y & Z directions	
Protective structure	IP60(IP64 is available as option)	
Weight	500g	
Indication lamps	POW:Power lamp CD:Carrier detect lamp(reception level margin 1) RD:Serial reception lamp SD:Serial transmission lamp L1:Reception level lamp(reception level margin 1.5 times) L2:Reception level lamp(reception level margin 2.0 times) L3:Reception level lamp(reception level margin 2.5 times)	

TITLE

OPTICAL DATA TRANSMISSION DEVICE(CE MARKING)
BWF-11A/B-CE, BWF-21A/B-CE SPECIFICATIONS

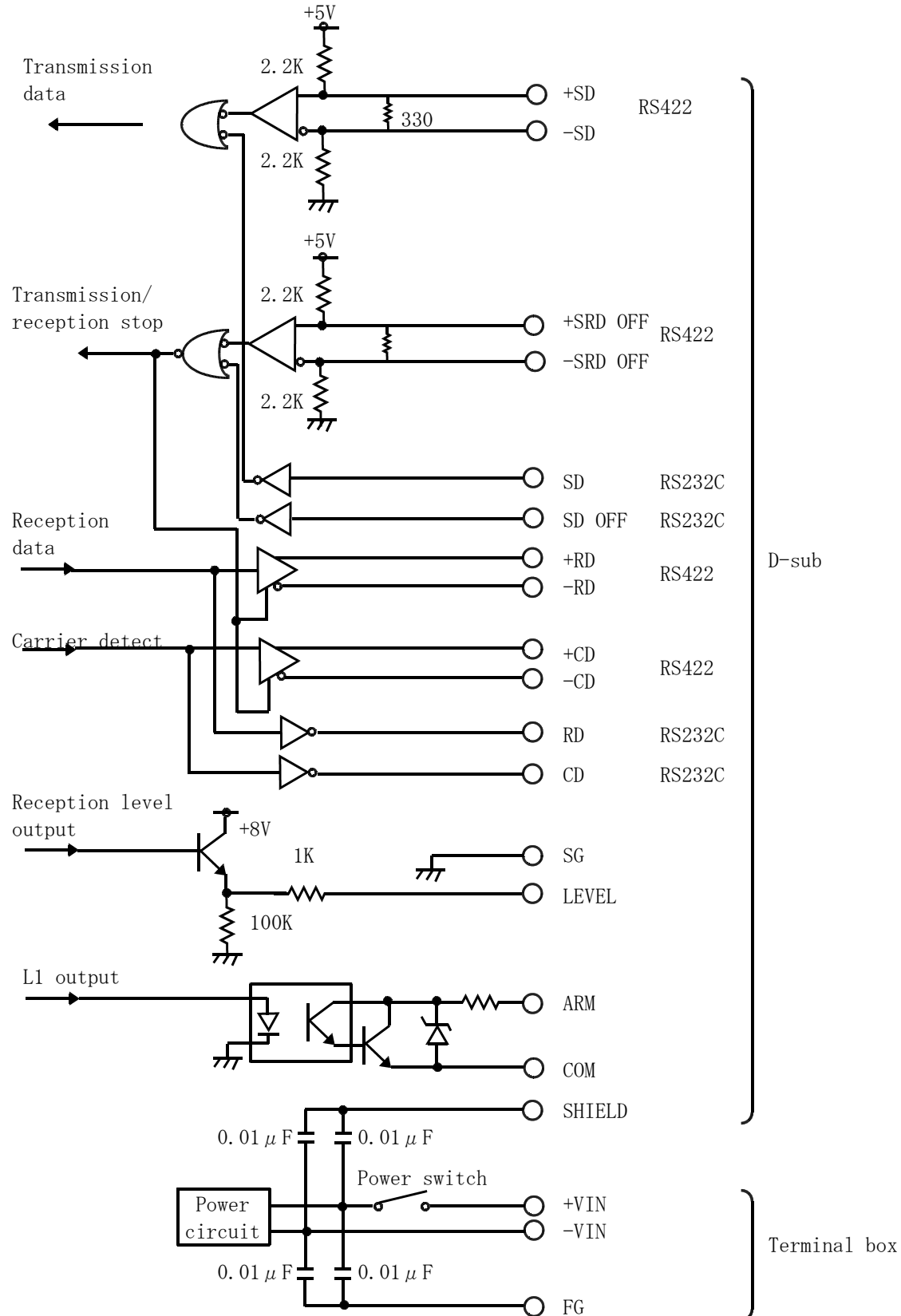
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Alarm output	Executed at 1.5 times or more of reception level margin Photo-coupler open-collector 35V 50mA
Reception level output	0~5V(In proportion to reception amount)
EMC Directive	Emission(EMI):EN55022/1995 Class B Immunity(EMS):EN50082-2/1994
External dimensions	MC-40-2353A

5. Input/output circuit

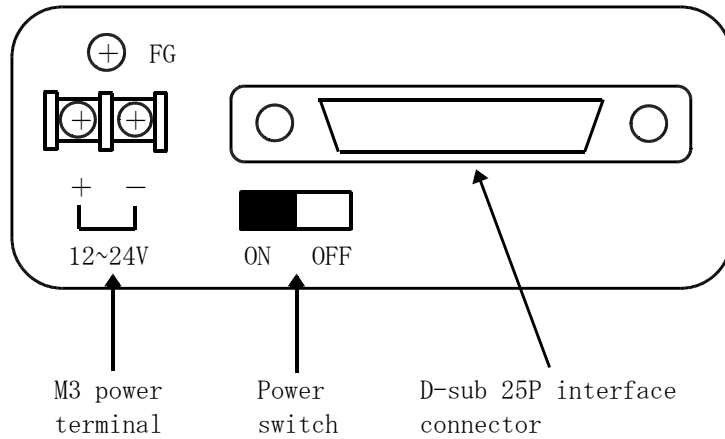


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6. Connection

6-1. I/O panel arrangement

(1) BWF-11A/B, BWF-21A/B



6-2. Interface connector pin arrangement

I / F	Pin No.	Symbols	Functions
RS422	1 4	+SD	Transmission data +
	1 5	-SD	Transmission data -
	1 2	+SRD OFF	Transmission/reception stop +
	1 3	-SRD OFF	Transmission/reception stop -
	1	+RD	Reception data +
	1 7	-RD	Reception data -
	1 8	+CD	Reception carrier detect +
	1 9	-CD	Reception carrier detect -
RS232C	2	SD	Transmission data
	2 1	SD OFF	Transmission stop
	3	RD	Reception data
	8	CD	Reception carrier detect
SGND	7, 2 0	SG	GND for signal
SHIELD	2 5	SHIELD	Shield
ALARM	4	ARM	Alarm output
	5	COM	
ANALOG	6	LEVEL	Reception level output