



SR. No.

Yamatake Corporation

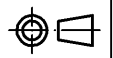
製品仕様書  
SPECIFICATIONS

## SPECIFICATIONS

CATALOG LISTING	FE8B-TA6P FE8B-TB6P FE8B-TD6P FE8B-TE6P	FE8B-TLA6P FE8B-TLB6P	FE8B-RPA6P FE8B-RPB6P FE8B-RPD6P	FE8B-RA6P FE8B-RB6P FE8B-RD6P	FE8B-DA6P FE8B-DB6P FE8B-DD6P FE8B-DE6P	FE8B-DLA6P FE8B-DLB6P FE8B-DLD6P FE8B-DLE6P
SCANNING TYPE	THROUGH SCAN		POLARIZED RETROREFLECTIVE SCAN	RETROREFLECTIVE SCAN	DIFFUSE SCAN	
SUPPLY VOLTAGE	10~28V DC (RIPPLE 10% max.)					
CURRENT CONSUMPTION	45mA max. EMITTER:30mA max. RECEIVER:15mA max.	55mA max. EMITTER:40mA max. RECEIVER:15mA max.	25mA max.	15mA max.	25mA max.	35mA max.
SCANNING DISTANCE	5m	10m	0.1~3m (REFLECTOR:FE-RR8) 0.1~2m (REFLECTOR:FE-RR15)	0.1~2m (REFLECTOR:FE-RR8)	30cm	50cm WHITE PAPER 20x20cm (KODAK 90% REFLECTIVE CARD)
TARGET	OPAQUE MATERIALS MORE THAN $\phi 9$		OPAQUE MATERIALS MORE THAN $\phi 71$ (REFLECTOR:FE-RR8) MORE THAN $\phi 50$ (REFLECTOR:FE-RR15)		TRANSPARENT AND OPAQUE MATERIALS	
OPERATING ANGLE	3~20°		SENSOR: 2~10°, REFLECTOR: 30° min.		—————	
HYSTERESIS	—————		—————		20% max. OF SCANNING DISTANCE	
OPERATING MODE	FE8B- $\square$ A6P, FE8B- $\square$ D6P: DARK-OPERATED FE8B- $\square$ B6P, FE8B- $\square$ E6P: LIGHT-OPERATED				FE8B- $\square$ A6P, FE8B- $\square$ D6P: LIGHT-OPERATED FE8B- $\square$ B6P, FE8B- $\square$ E6P: DARK-OPERATED	
OUTPUT MODE	FE8B- $\square$ A6P, FE8B- $\square$ B6P: OPEN COLLECTOR OF NPN TRANSISTOR FE8B- $\square$ D6P, FE8B- $\square$ E6P: OPEN COLLECTOR OF PNP TRANSISTOR					
OUTPUT	LOAD CURRENT: 100mA max. (RESISTIVE LOAD), SATURATION VOLTAGE: 1V max. (AT 100mA LOAD CURRENT) SHORT CIRCUIT PROTECTION					
SELF-DIAGNOSIS OUTPUT (SD OUTPUT)	THE SD OUTPUT IS SWITCHED ON WHILE THE LIGHT RECEPTION IS A MARGINAL ZONE. (INDICATOR IS 'RED' WHEN THE SD OUTPUT IS ON.) LOAD CURRENT: 50mA max.(RESISTIVE LOAD), SATURATION VOLTAGE: 1V max.(AT 50mA LOAD CURRENT) (SHORT CIRCUIT PROTECTION IS NOT EQUIPPED)					
REMOTE CONTROL (THROUGH SCAN ONLY)	FE8B-TX6PE: LIGHT SOURCE IS STOPPED WHEN REMOTE CONTROL TERMINAL CONNECTED TO '0V' FE8B-TY6PE: LIGHT SOURCE IS STOPPED WHEN REMOTE CONTROL TERMINAL CONNECTED TO 'Vcc'					
RESPONSE TIME	5ms max.	10ms max.	5ms max.			
LIGHT SOURCE	INFRARED LED		RED LED	INFRARED LED		
INDICATOR	GREEN LED 'ON' WITH STABLE RECEPTION OF LIGHT. RED LED 'ON' WHILE THE LIGHT RECEPTION IS A MARGINAL ZONE.					
AMBIENT LIGHT	INCANDESCENT: 3,000lx max. SUNLIGHT: 10,000lx max.					
OPERATING TEMPERATURE	-20~+60°C					
STORAGE TEMPERATURE	-40~+70°C					
HUMIDITY	35~85%RH (WITHOUT CONDENSATION)					
INSULATION RESISTANCE	20M $\Omega$ min. (AT 500V DC)					
DIELECTRIC STRENGTH	500V AC 1 MINUTE					
VIBRATION	10~55Hz, 1.5mm DOUBLE AMPLITUDE, 2HOURS IN EACH DIRECTION OF X,Y,Z					
SHOCK	490m/s <sup>2</sup> 10TIMES EACH DIRECTION OF X,Y,Z					
SEALING	IP67 (IEC STANDARD)					
WEIGHT	APPROX. 105g					
PROTECTION	FALSE PULSE PROTECTION (70ms typ.), REVERSE POLARITY PROTECTION					

CATALOG LISTING	FE8B-T(L)*6P	FE8B-R(P)*6P	FE8B-D(L)*6P
EMC	EN61000-4-2:1995	LEVEL 2	
	EN61000-4-3:1996	LEVEL 2	
	EN61000-4-6:1996	LEVEL 3	
	EN61000-4-4:1995	LEVEL 0	LEVEL 3
	IEC60255-5:1977	LEVEL 2	

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改番 REV.	来歴 RECORD	: 日付 DATE	担当 BY 検閲 APPD.

作成DR. A.Onohara 4-20 '93		尺度SCALE	記入のない公差TOL. UNLESS NOTED
検図CHK. Y.Nishi 5-13 '93	形番 MODEL	FE8B SERIES	
認可APPD. S.Nonaka 5-13 '93	名称 NAME	PHOTOELECTRIC SWITCH	
日付DATE	図番 NO.	改番REV.	2/4
	AD41047E	02	

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## CATALOG LISTING

SCANNING TYPE	SCANNING DISTANCE	OPERATING MODE		OPERATING MODE		SENSITIVITY ADJUSTMENT		LIGHT SOURCE		CATALOG LISTING		
		LIGHT-OPERATED	DARK-OPERATED	NPN TRANSISTOR	PNP TRANSISTOR	EQUIPPED	NONE	INFRARED LED	RED LED	THROUGH SCAN TYPE		
										EMITTER ONLY	RECEIVER ONLY	
THROUGH	5m		○	○			○	○		FE8B-TA6P	FE8B-TX6PE	FE8B-TA6PR
		○		○			○	○		FE8B-TB6P	FE8B-TX6PE	FE8B-TB6PR
		○	○		○		○	○		FE8B-TD6P	FE8B-TY6PE	FE8B-TD6PR
	10m	○		○			○	○		FE8B-TE6P	FE8B-TY6PE	FE8B-TE6PR
		○	○	○			○	○		FE8B-TLA6P	FE8B-TLX6PE	FE8B-TLA6PR
		○		○			○	○		FE8B-TLB6P	FE8B-TLX6PE	FE8B-TLB6PR
POLARIZED RETROREFLECTIVE	0.1~3m		○	○		○			○	FE8B-RPA6P		
		○		○		○			○	FE8B-RPB6P		
			○		○		○		○	FE8B-RPD6P		
RETROREFLECTIVE	0.1~3m		○	○			○	○		FE8B-RA6P		
		○		○			○	○		FE8B-RB6P		
			○		○		○	○		FE8B-RD6P		
DIFFUSE	30cm	○		○		○		○		FE8B-DA6P		
			○	○		○		○		FE8B-DB6P		
		○			○	○		○		FE8B-DD6P		
	50cm		○	○		○		○		FE8B-DE6P		
		○		○		○		○		FE8B-DLA6P		
		○	○	○		○		○		FE8B-DLB6P		
	○			○	○		○		FE8B-DLD6P			
	○		○	○		○	○		FE8B-DLE6P			

## CABLE LENGTH

CABLE LENGTH	CATALOG LISTING
2m	FE8B-□□6□
5m	FE8B-□□6□-L5
10m	FE8B-□□6□-L10

作成DR. A.Onohara 4-20 '93		尺度SCALE	記入のない公差 TOL. UNLESS NOTED
検図CHK. Y.Nishi 5-13 '93	形番 MODEL	FE8B SERIES	
認可APPD S.Nonaka 5-13 '93	名称 NAME	PHOTOELECTRIC SWITCH	
日付DATE	図番 NO.	AD41047E	改番REV. 3/4

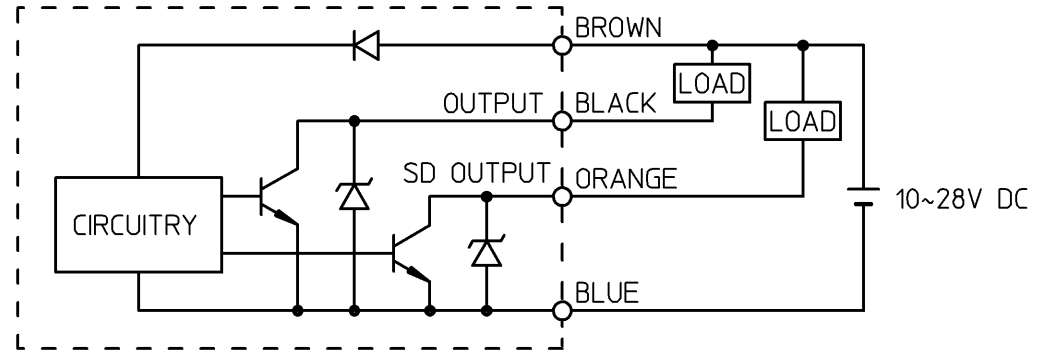
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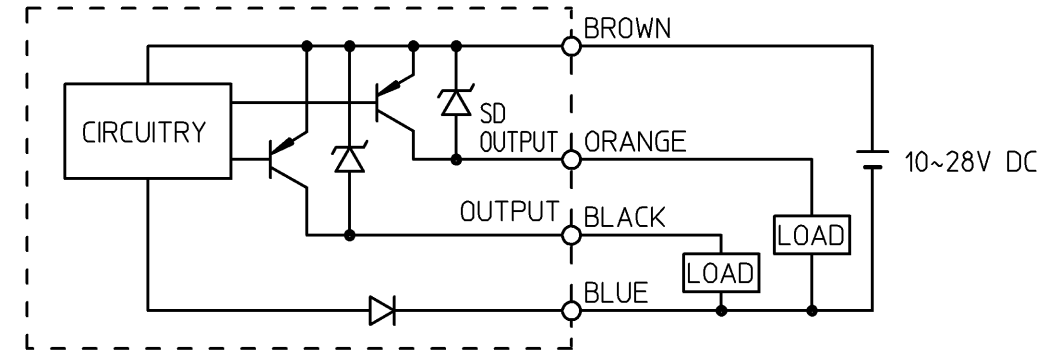
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WIRING DIAGRAM

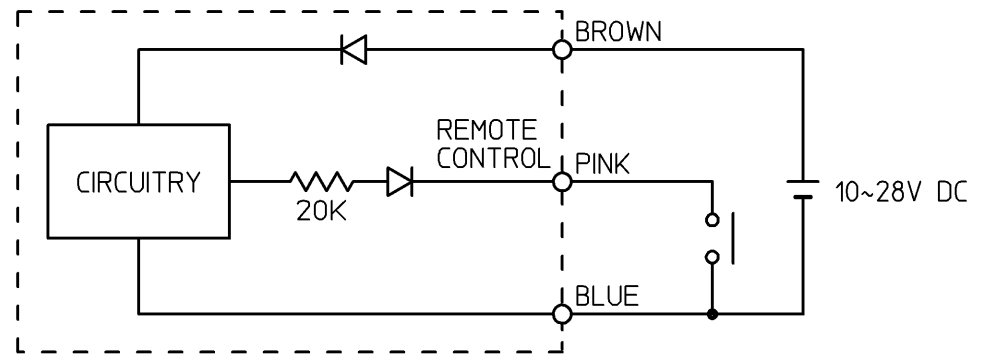
FE8B-□A6P(R), FE8B-□B6P(R)



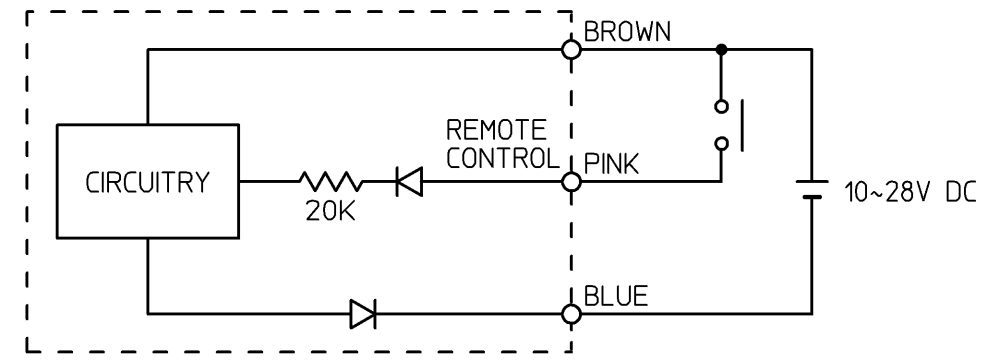
FE8B-□D6P(R), FE8B-□E6P(R)



FE8B-T(L)X6PE



FE8B-TY6PE



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形番 MODEL		FE8B SERIES			
名称 NAME		PHOTOELECTRIC SWITCH			
図番 NO.		AD41047E		改番REV.	4/4

SP.NO.

“RESTRICTIONS ON USE”

This product has been designed, developed and manufactured for general-purpose application in machinery and equipment.

Accordingly, when used in applications outlined below, special care should be taken to implement a fail-safe and/or redundant design concept as well as a periodic maintenance program.

- Safety devices for plant worker protection
- Start/stop control devices for transportation and material handling machines
- Aeronautical/aerospace machines
- Control devices for nuclear reactors

Never use this product in applications where human safety may be put at risk.

1	00	00	First issue	12-2-02	Harada	Miura
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	REV.	REV.	RECORD	DATE	BY	APPD.