

Product Discontinuation Notices

August 1, 2011

Photomicro Sensors

No. 2011258E

Discontinuation Notice of Photomicrosensors EE-SX67[]/67[]P-C1J-R series and EE-1016-R-1 2M

Product Discontinuation



EE-SX67[]-C1J-R series
EE-SX67[]P-C1J-R series
EE-1016-R-1 2M



Recommended Replacement

EE-SX97[]-C1 series
EE-SX97[]P-C1 series
EE-1017-R 1M / 3M

EE-SX673
EE-SX673P
EE-1010-R 1M / 2M

Discontinuation date : The end of March, 2012

Caution on recommended replacement

- The EE-SX67 series should be used L terminal for switching operating mode, however recommended replacement, the EE-SX97 series, can be switched operating mode by changing the wiring OUT1 or OUT2.
- Cable length of recommended connectors with robot cable for the EE-SX97 series are 1m or 3m type only, can not be selected 2m type.

Difference from discontinued product

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
EE-SX97[]-C1	**	*	--	**	*	*	**
EE-SX97[]P-C1	**	*	--	**	*	*	**

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

Product Discontinuation and recommended replacement

Product discontinuation	Recommended replacement
EE-SX670-C1J-R	EE-SX970-C1
EE-SX670P-C1J-R	EE-SX970P-C1
EE-SX671-C1J-R	EE-SX971-C1
EE-SX671P-C1J-R	EE-SX971P-C1
EE-SX672-C1J-R	EE-SX972-C1
EE-SX672P-C1J-R	EE-SX972P-C1
EE-SX673-C1J-R	EE-SX673
EE-SX673P-C1J-R	EE-SX673P
EE-SX674-C1J-R	EE-SX974-C1
EE-SX674P-C1J-R	EE-SX974P-C1
EE-SX675-C1J-R	EE-SX975-C1
EE-SX675P-C1J-R	EE-SX975P-C1
EE-SX676-C1J-R	EE-SX976-C1
EE-SX676P-C1J-R	EE-SX976P-C1
EE-SX677-C1J-R	EE-SX977-C1
EE-SX677P-C1J-R	EE-SX977P-C1
EE-1016-R-1 2M	EE-1017-R 1M *1
	EE-1017-R 3M *2
	EE-1010-R 1M *2
	EE-1010-R 2M *2

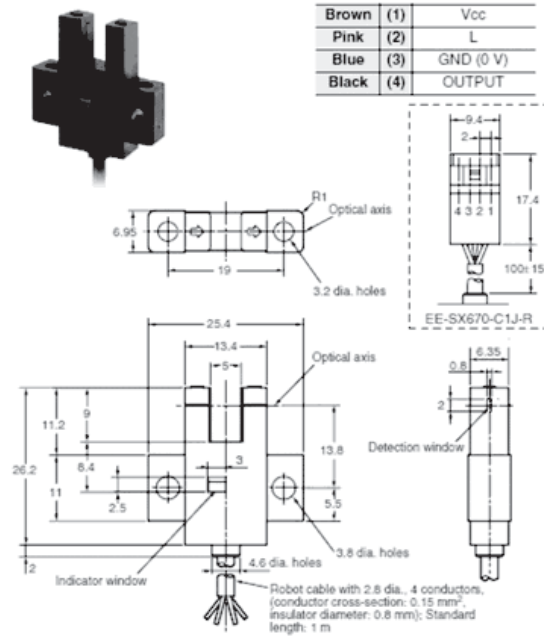
*1. EE-1017 series is accessories of EE-SX97□ and EE-SX97□P.

*2. EE-101-R series is accessories of EE-SX673 and EE-SX673P.

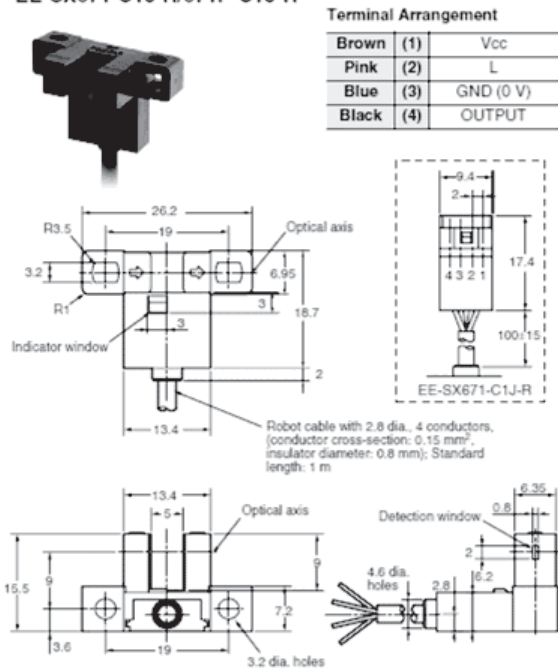
Dimensions

Product discontinuation EE-SX67[(P)-C1J-R

EE-SX670-C1J-R/670P-C1J-R

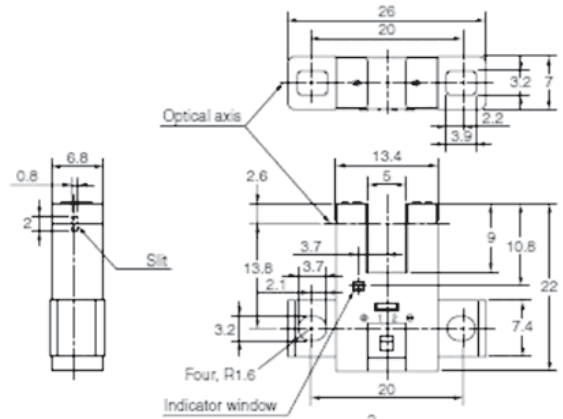


EE-SX671-C1J-R/671P-C1J-R



Recommendable replacement EE-SX97[(P)-C1

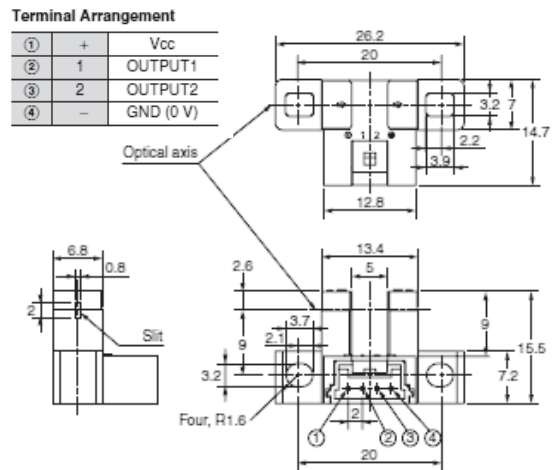
EE-SX970-C1/EE-SX970P-C1



Terminal Arrangement

①	+	Vcc
②	1	OUTPUT1
③	2	OUTPUT2
④	-	GND (0 V)

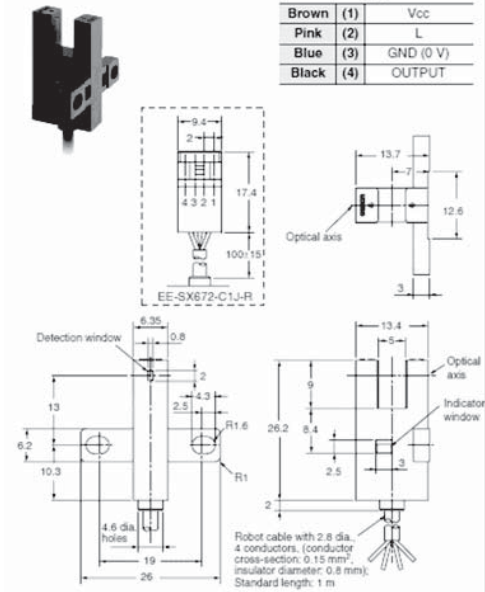
EE-SX971-C1/EE-SX971P-C1



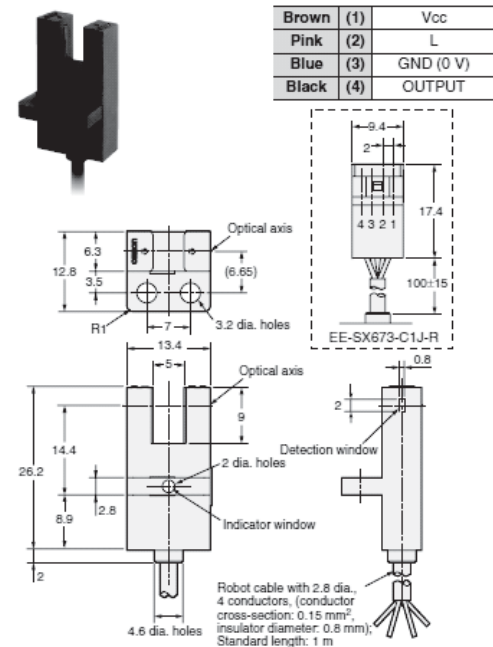
Dimensions

Product discontinuation EE-SX67[(P)-C1J-R

EE-SX672-C1J-R/672P-C1J-R

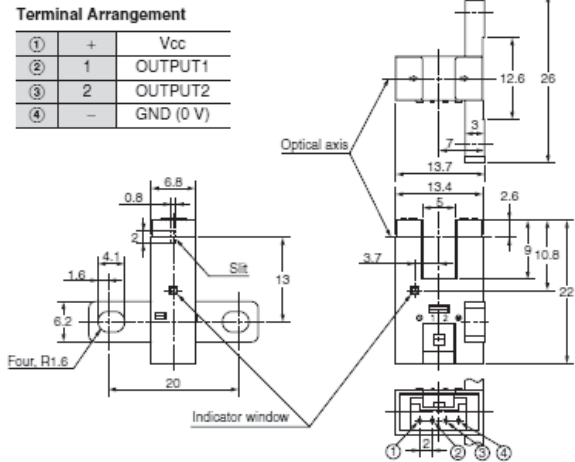


EE-SX673-C1J-R/673P-C1J-R

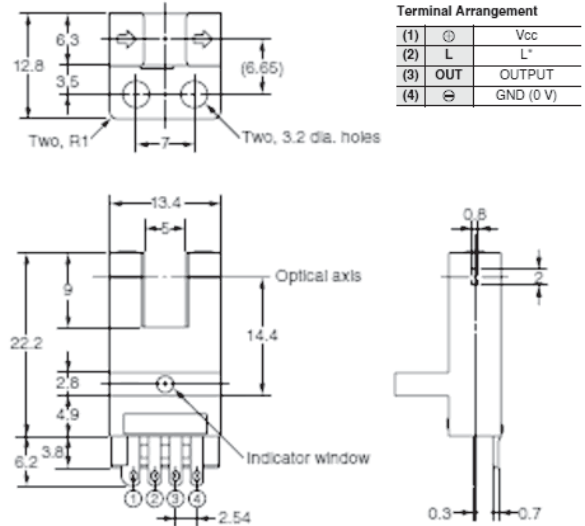


Recommendable replacement EE-SX97[(P)-C1

EE-SX972-C1/EE-SX972P-C1



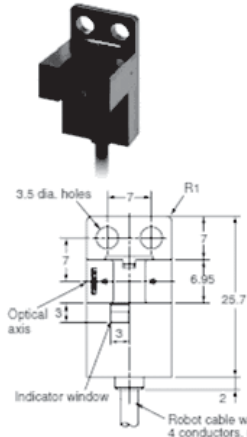
EE-SX673/EE-SX673P



Dimensions

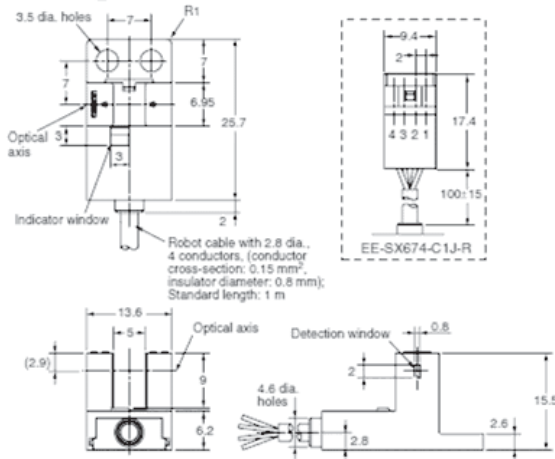
Product discontinuation EE-SX674(P)-C1J-R

EE-SX674-C1J-R/674P-C1J-R



Terminal Arrangement

Brown	(1)	Vcc
Pink	(2)	L
Blue	(3)	GND (0 V)
Black	(4)	OUTPUT

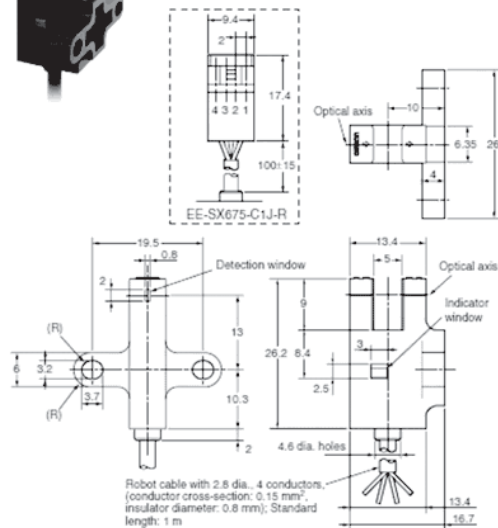


EE-SX675-C1J-R/675P-C1J-R



Terminal Arrangement

Brown	(1)	Vcc
Pink	(2)	L
Blue	(3)	GND (0 V)
Black	(4)	OUTPUT

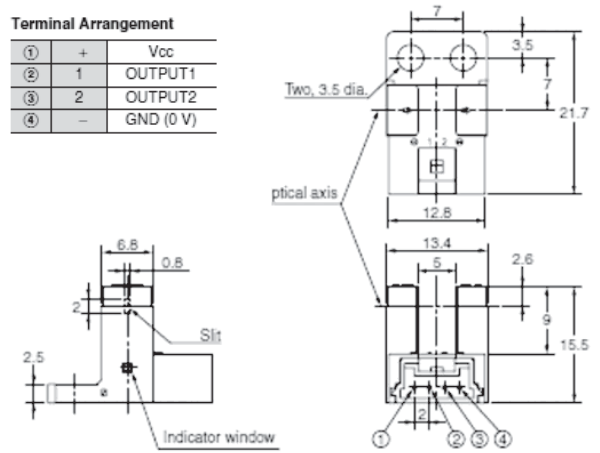


Recommendable replacement EE-SX97(P)-C1

EE-SX974-C1/EE-SX974P-C1

Terminal Arrangement

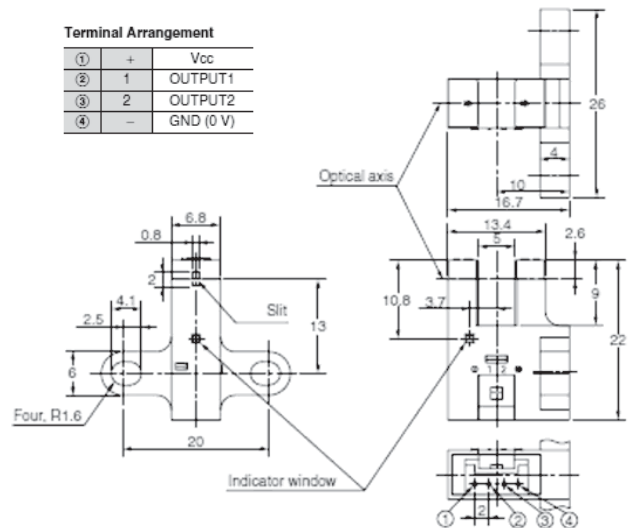
①	+	Vcc
②	1	OUTPUT1
③	2	OUTPUT2
④	-	GND (0 V)



EE-SX975-C1/EE-SX975P-C1

Terminal Arrangement

①	+	Vcc
②	1	OUTPUT1
③	2	OUTPUT2
④	-	GND (0 V)

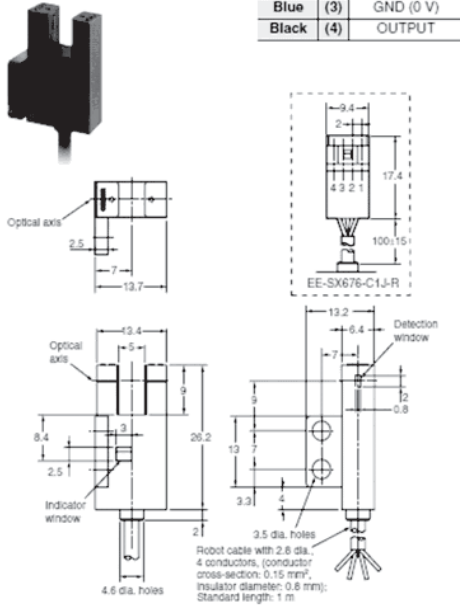


Dimensions

Product discontinuation EE-SX67[(P)-C1J-R

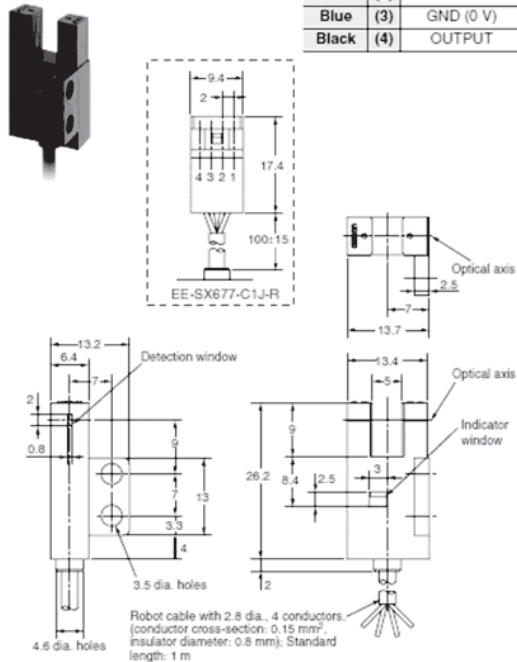
EE-SX676-C1J-R/676P-C1J-R

Brown (1)	Vcc
Pink (2)	L
Blue (3)	GND (0 V)
Black (4)	OUTPUT



EE-SX677-C1J-R/677P-C1J-R

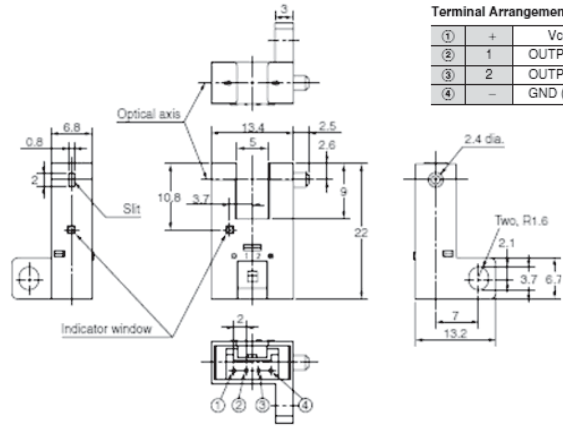
Brown (1)	Vcc
Pink (2)	L
Blue (3)	GND (0 V)
Black (4)	OUTPUT



Recommendable replacement EE-SX97[(P)-C1

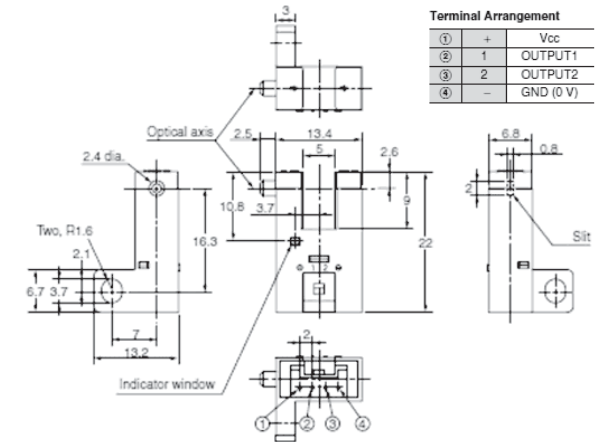
EE-SX976-C1/EE-SX976P-C1

①	+	Vcc
②	1	OUTPUT1
③	2	OUTPUT2
④	-	GND (0 V)



EE-SX977-C1/EE-SX977P-C1

①	+	Vcc
②	1	OUTPUT1
③	2	OUTPUT2
④	-	GND (0 V)



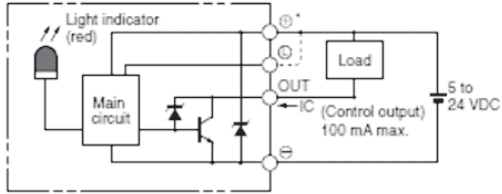
Characteristics

Item	Product discontinuation EE-SX67[(P)-C1J-R	Recommendable replacement EE-SX97[(P)-C1
Sensing distance	5mm (slot width)	5mm (slot width)
Supply voltage	5 to 24 VDC±10%, ripple (P-P):10% max.	5 to 24 VDC±10%, ripple (P-P):10% max.
Current consumption	NPN open collector: 35mA max. PNP open collector: 30mA max.	21mA max.
Sensing object	Opaque 2×0.8mm min.	Opaque 2×0.8mm min.
Differential distance	0.025mm max.	0.025mm max.
Light source	GaAs infrared LED	GaAs infrared LED
Indicator	Light indicator (red)	Light indicator (red)
Control output	NPN open collector: 5 to 24 VDC, 100mA max. 100mA load current with a residual voltage of 0.8V max. 40mA load current with a residual voltage of 0.4V max. OFF current (leakage current): 0.5mA max. PNP open collector: 5 to 24 VDC, 50mA max. 50mA load current with a residual voltage of 1.3V max. OFF current (leakage current): 0.5mA max.	Load power supply voltage: 5 to 24 VDC, Load current: 50mA max., Off-state current: 0.5mA max., 50mA load current with a residual voltage of 1.0V max., 5mA load current with a residual voltage of 0.4V max.
Response frequency	1 kHz min. (3kHz average)	1 kHz min. (3kHz average)
Output at incident	OFF (Open L terminal) ON (Short-circuited terminal)	OFF (OUT2 terminal) ON (OUT1 terminal)
Output at interrupted	ON (Open L terminal) OFF(Short-circuited terminal)	ON (OUT2 terminal) OFF(OUT1 terminal)
Ambient illumination	1,000 lx max. with fluorescent light on the surface of the receiver	1,000 lx max. with fluorescent light on the surface of the receiver
Connecting method	Models with connectors	Connector Models
Degree of protection	IEC60529 IP50	IEC60529 IP50
Ambient temperature range	Operating: -25 to 55°C Storage: -30 to 80°C (with no icing or condensation)	Operating: -25 to 55°C Storage: -30 to 80°C (with no icing or condensation)
Ambient humidity range	Operating: 5% to 85% Storage: 5% to 95% (with no icing or condensation)	Operating: 5% to 85% Storage: 5% to 95% (with no icing or condensation)
Vibration resistance (Destruction)	20 to 2,000 Hz (peak acceleration:100 m/s ²) 1.5-mm double amplitude for 2h (4-min periods) each in X, Y and Z directions	10 to 2,000 Hz 0.75-mm single amplitude (15-min periods, 10 cycles) each in X, Y and Z directions
Shock resistance (Destruction)	Destruction: 500 m/s ² for 3 times each in X, Y, and Z directions	Destruction: 500 m/s ² for 3 times each in X, Y, and Z directions

Output circuit

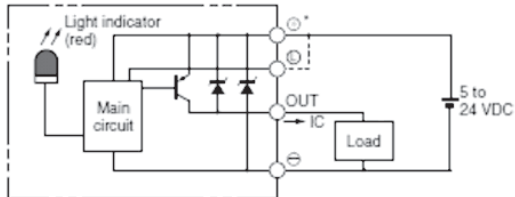
Product discontinuation EE-SX67[(P)-C1J-R

EE-SX67[(P)-C1J-R



*The terminal arrangement depends on the model.
Check the dimensional diagrams.

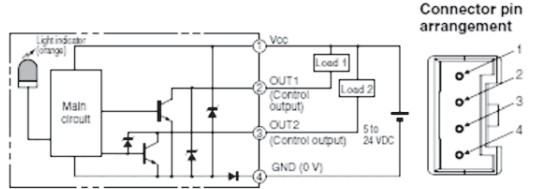
EE-SX67[P-C1J-R



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Check the dimensional diagrams.

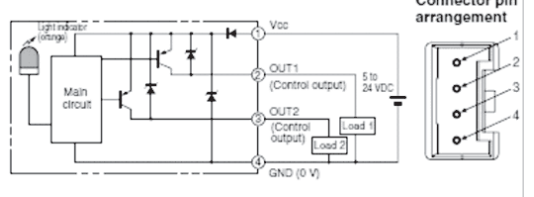
Recommendable replacement EE-SX97[(P)-C1

EE-SX97[-C1



Connector pin arrangement

EE-SX97[P-C1



Connector pin arrangement