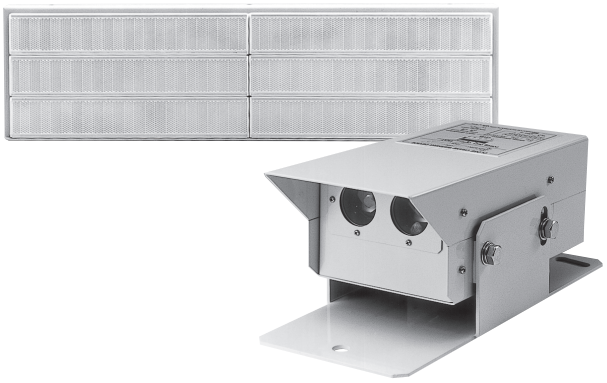
Long distance type

Range-finder Type Close Crane Warning Device

KAD-200/300



Easy to set optional distance

This equipment is composed of the amplifier unit and the reflector. It detects when crane or AGV etc. is close.
It measures the distance between the unit and the reflector with phase and executes output. Trouble output(FAULT) executes when light-emitting amount or light-receiving amount is getting lower or troubled.

- Speed-down and stop of crane etc. can be controlled by 2-step output.(3-step for KAD-300)
- It is easy to set optional detecting distance by pushing the button for distance setting.
- It always makes a self-diagnosis with inner circuit and it prevent the troubles beforehand.
- It outputs the distance data(R mode) with analog value(0 to 10V) and it outputs light-receiving amount(T mode) with analog value.
- It is easy to make an optical axis with 5-point level meter.*

*KAD-200 only.

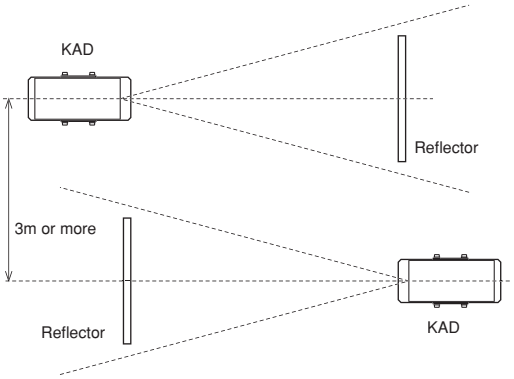
■ Specifications

Type	Retro-reflection type	
Model	**KAD-200**	**KAD-300**
Power source	100 to 240VAC(15%, -10% 50/60Hz)	
Power consumption	10VA or less when 100VAC, 15VA or less when 100VAC	
Detecting distance	0.4 to 20m	1 to 30m
Detectable objects	Reflector RRP-KAD01	
Directional angle	±2.5°	———
Absolute precision	±400mm	———
Repeatability	±200mm	———
Hysteresis	500mm	
Resolution	80mm	———
Response time	50msec*3	
Operating mode	Changeover for Light-ON/Dark-ON	
Control output (OUT1, 2*1)	Contact output: 1C relay(250VAC 3A cosϕ=1), Relay isn't excited, lamp lights up when within setting distance	
Trouble output(FAULT)	1C relay(250VAC 3A cosϕ=1) Relay isn't excited, lamp lights up or flickers when light-emitting/receiving amout is getting lower	
Distance/light-receiving amout analog output	It output distance data/light-receiving amout*2 with analog value. (Don't use it except for adjustment)	———
Connection	M4 screw terminal(15 pins)	
Ambient illuminance	10,000lux or less(Halogen and mercury light), 6,000lux (incandescent lamp: Max.illuminance)	
Ambient temperature/humidity	-10 to +55℃, 85%RH or less(not icing)	
Case	Steel plate(SPCC)	
Weight	Sensor: Approx. 3kg, reflector: Approx. 4.5kg	

*1. KAD-300 is OUT1, 2, 3 *2. Changed by mode setting switch(T side: light-receiving amount analog output, R side: distance analog output)
*3. It doesn't operate for 2 sec. after putting power source in.

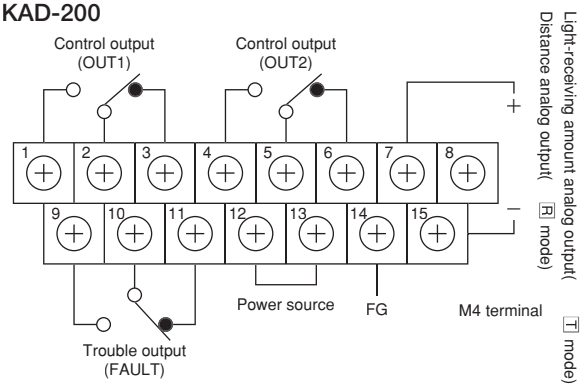
■ Installing example

In case that, 2 pcs or more of KAD are installed closely

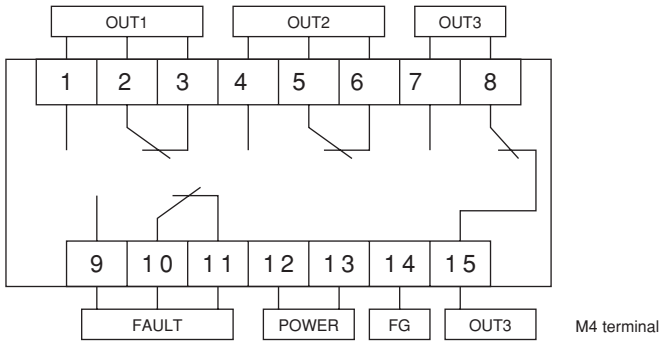


■ Connection

KAD-200



KAD-300



● **Control output (OUT1, OUT2)**

Connector pin No.		1—2	2—3	4—5	5—6
Power-off state		OPEN	CLOSE	OPEN	CLOSE
Power-on state	Within detecting distance	OPEN	CLOSE	OPEN	CLOSE
	Without detecting distance	CLOSE	OPEN	CLOSE	OPEN

● **Trouble output (FAULT)**

Connector pin No.		9—10	10—11
Power-off state		OPEN	CLOSE
Power-on state	When normal	CLOSE	OPEN
	When troubled	OPEN	CLOSE

● **Control output(OUT1, OUT2, , OUT3)**

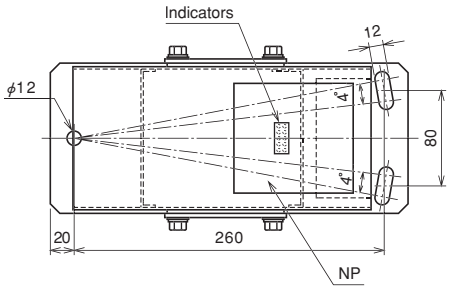
Connector pin No.		1—2	2—3	4—5	5—6	7—8	8—15
Power-off state		OPEN	CLOSE	OPEN	CLOSE	OPEN	CLOSE
Power-on state	Within detecting distance	OPEN	CLOSE	OPEN	CLOSE	OPEN	CLOSE
	Without detecting distance	CLOSE	OPEN	CLOSE	OPEN	CLOSE	OPEN

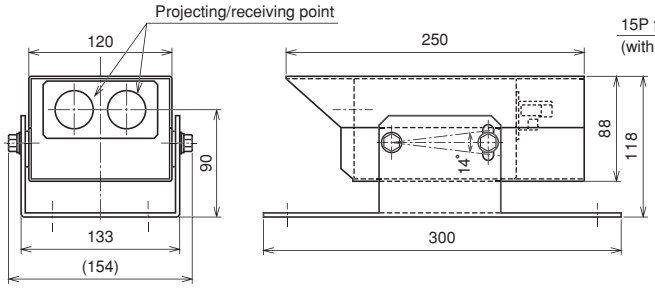
● **Trouble output (FAULT)**

Connector pin No.		9—10	10—11
Power-off state		OPEN	CLOSE
Power-on state	When normal	CLOSE	OPEN
	When troubled	OPEN	CLOSE

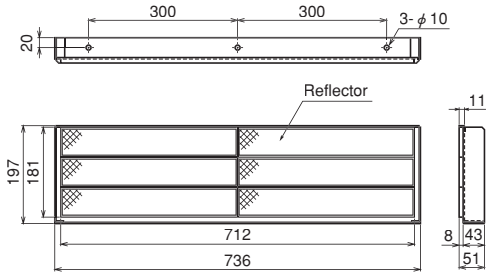
■ External dimensions

Sensor

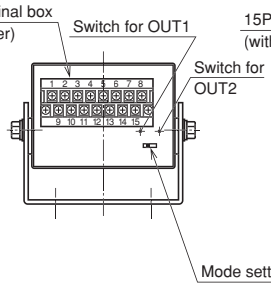




Reflector



● **KAD-200**



● **KAD-300**