

# COMBINATION SENSOR

## COM-IN-100A



*This combination sensor consists of 4-stacked photoelectric beams and 24.1GHz microwave which reinforces the range and stability in severe weather conditions.*

### TWO FREQUENCIES (H) and (L) SELECTION

Two models are available with different microwave frequencies, COM-IN-100AH (H) and COM-IN100AL (L).

### INTELLIGENT FUNCTIONS

- \* Four frequencies selection  
Four channel frequency is selectable to avoid crosstalk between sensors which are stacked, in-line, or other configurations which have the potential of spillover transmission from one beam to another.
- \* Environmental output selector  
The environmental signal is initiated when the beam reception level is reduced below an acceptable level by poor weather conditions (dense fog or torrential rain etc.).
- \* Alarm memory  
Alarm memory LED indicates which sensor issues an alarm when two or more sensors are placed on a zone.

### FEATURES OF MICROWAVE SENSOR

- \* High immunity against hazardous weather such as heavy fog, snowfall or rain.
- \* Monitor jack output
- \* Easy alignment

### FEATURES OF PHOTOELECTRIC BEAM SENSOR

- \* 4 Synchronized high power infrared beams.
- \* Sensitivity attenuation LED  
Lights when beam level is attenuated, which show low sensitivity.
- \* Monitor jack output.
- \* Protection against frost/dew  
As a special hood is attached on sensor cover, beam protection continues without interruption even when the cover is screened by frost or dew.

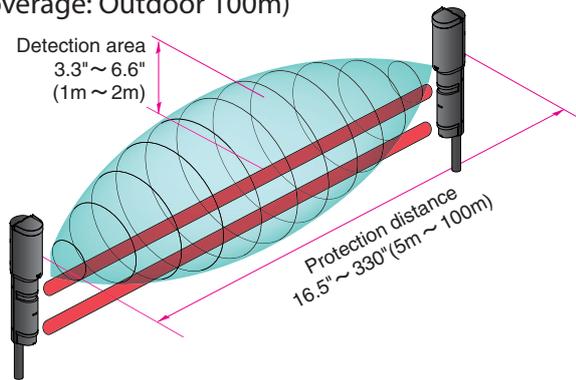
### OTHER FEATURES

- \* Automatic gain control (AGC) circuit
- \* Alarm output mode "AND" or "OR" are selectable with a switch.
- \* Microwave antenna and PE beam lenses adjustable (horizontal  $\pm 90^\circ$ , vertically  $\pm 10^\circ$ .)
- \* Tamper output
- \* Pole or wall mount
- \* Optional accessories

# COMBINATION SENSOR

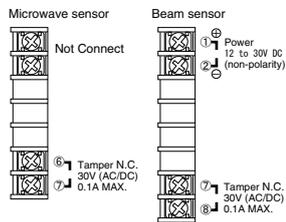
## COVERAGE

(Coverage: Outdoor 100m)

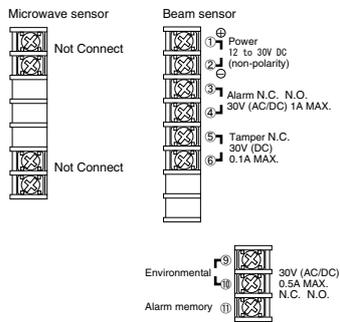


## TERMINAL ARRANGEMENT

[Transmitter]



[Receiver]



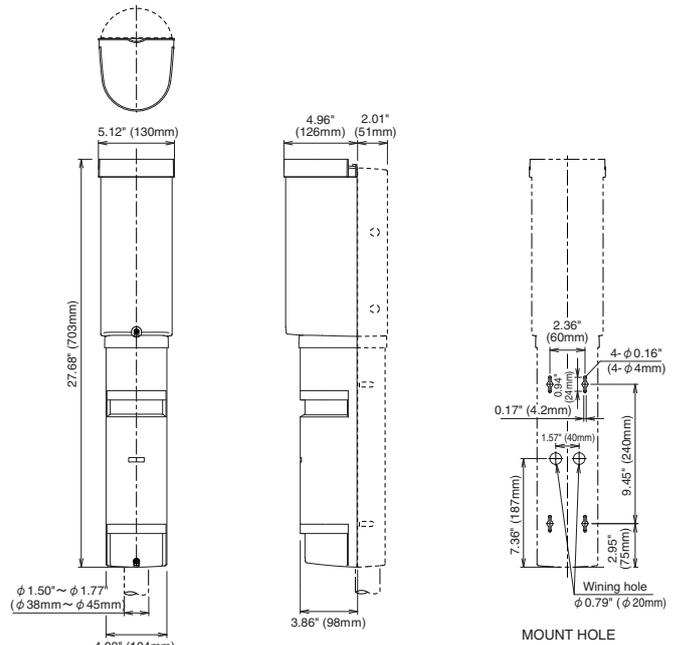
## OPTIONAL

- Pole cover  
BP-100 COM



## EXTERNAL DIMENSIONS

[Unit : inch (mm)]



## SPECIFICATIONS

Type	Combination sensor	
Model	COM-IN-100A	
Protection distance	16.5ft. (5m) to 330ft. (100m)	
Max. arrival distance	Photoelectric beam : 3300ft. (1000m) (tenfold margin distance) Microwave : approx. 660ft. (200m)	
Infrared beam	LED (pulsed beam by LED) Double modulation	
Microwave	(L) 24.11GHz	(H) 24.17GHz
Detection system	Photoelectric beam and microwave	
Response time	Photoelectric beam sensor : 0.05sec. to 0.7sec. (Variable at pot) Microwave : 0.04sec. to 0.3sec. (Variable at pot)	
Alarm signal	Dry contact relay output N.O. N.C. Contact action : Interruption time + delay time (approx. 2sec.) Contact capacity : 30V (AC/DC) 1A	
Environmental signal	Dry contact relay output N.O. N.C. Contact capacity : 30V (AC/DC) 0.5A	
Supply voltage	12~30V DC	
Power consumption	When alarmed 175mA or less ● Transmitter : 75mA or less ● Receiver : 100mA or less When adjusted 210mA or less ● Transmitter : 75mA or less ● Receiver : 135mA or less	
Tamper signal	Dry contact output N.C. Contact capacity : 30V (AC/DC) 0.1A	
Functions	Alignment tone switch, Attenuation LED, Monitor jack, Alarm memory indication, Modulation frequency selectable (4stage), Environmental check, Automatic gain control (AGC) circuit, Frost protection cover, Alarm output selectable (AND/OR)	
Weight	Transmitter 72.5oz (2070g)	Receiver 77.7oz (2220g)
Appearance	PC resin (Wine red)	

※The specifications are subject to change without notice.

**Please Note** : This sensor is designed to detect intrusion and to initiate an alarm; it is not a burglary-preventing device, TAKEX is not responsible for damage, injury or losses caused by accident, theft, Acts of God (including inductive surge by lightning), abuse, misuse, abnormal usage, faulty installation or improper maintenance.

# TAKEX

In Japan

**Takenaka Engineering Co., Ltd.**  
83-1, Gojo-sotokan, Higashino,  
Yamashina-ku, Kyoto 607-8156, Japan  
Tel : 81-75-501-6651  
Fax : 81-75-593-3816  
http : // www. takex-eng. co. jp

In the U.S.

**Takex America Inc.**  
3350 Montgomery Drive, Santa  
Clara, CA 95054, U.S.A.  
Tel : 408-747-0100  
Fax : 408-734-1100  
http : // www. takex. com

In Australia

**Takex America Inc.**  
Unit 16/35 Garden Road, Clayton,  
3168 Victoria, Australia  
Tel : 03-9546-0533  
Fax : 03-9547-9450

**Takex America Inc.**  
Brisbane office : 1/50 Logan  
Road, Woolloongabba  
Queensland 4102, Australia  
Tel : 07-3891-3344  
Fax : 07-3891-3355

In the U.K.

**Takex Europe Ltd.**  
Takex House, Aviary Court, Wade Road,  
Basingstoke, Hampshire. RG24 8PE, U.K.  
Tel : (+44) 01256-475555  
Fax : (+44) 01256-466268  
http : // www. takexeurope. com

No.05-485 0808