

# COMBINATION SENSOR

## COM-IN-50HF



Application

*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-50HF (H) and COM-IN-50HF (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

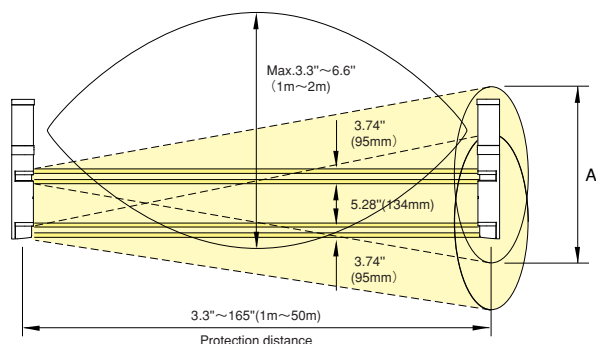
- \* 4 synchronized high power infrared beams.
- \* Sensitivity attenuation LED  
Lights when beam level is attenuated, which shows low sensitivity.
- \* Monitor jack output
- \* Protection against frost/dew  
As a special hood is attached on sensor cover, beam protection continues without interruption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

### OTHER FEATURES0

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

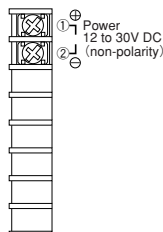
# COMBINATION SENSOR

## ■ COVERAGE

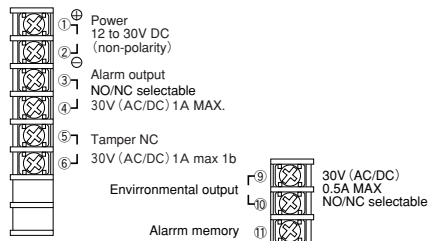


## ■ TERMINAL ARRANGEMENT

### <Transmitter>



### <Receiver>

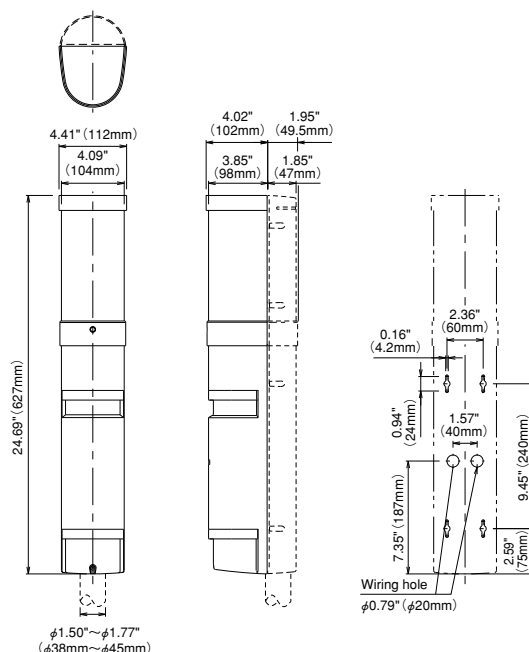


## ■ OPTIONAL

- Pole cover  
BP-50 COM



## ■ EXTERNAL DIMENSIONS (Unit : inch(mm))



## ■ SPECIFICATIONS

Type	Combination sensor
Model	COM-IN-50HF
Protection distance	3.3ft. (1m) to 165ft. (50m)
Max. arrival distance	Photoelectric beam : 1500ft. (500m) (tenfold margin distance) Microwave : approx. 330ft. (100m)
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 : 50msec. to 700msec. (Variable at pot) Microwave : 40msec. to 300msec. (Variable at pot)
Alarm signal	Dry contact relay output 1C Contact action : Interruption time + delay time (approx. 2sec.) Contact capacity : 30V (AC/DC) 1A
Environmental signal	Dry contact relay output NO or NC Contact capacity : 30V (AC/DC) 0.5A
Supply voltage	12 to 30V DC
Power consumption	165mA or less at protection ● Transmitter : 65mA ● Receiver : 100mA 200mA or less while beam alignment ● Transmitter : 65mA ● Receiver : 135mA
Tamper signal	Dry contact output 1b (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 1850g Receiver 2000g
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 or a crime preventing device. TAKEX is not responsible for damage, injury or losses caused by accident, theft, Acts of God (including inductive surge by lighting), abuse, misuse, abnormal usage, faulty installation or improper maintenance.



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