# **IMS**



# Model AS-□□□□

### **INSTRUCTION MANUAL**

### ! WARNING

Thank for you selecting IMS product. This sheet primarily describes precautions required in installing and operating the product. Before operating the product, read the sheet thoroughly to acquire sufficient knowledge of the product. For your convience, keep the sheet at your disposal.

### ! CAUTION

Failure to follow these instuctions may result in serious injury or death: Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss. (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion appatatus, safety equipment, crime/disaster prevention devices, etc.)

Failure to follow these instructions may result in product damage :

Do not use this unit over rated voltage;

Do not use this unit where there is flammable or explosive gas;

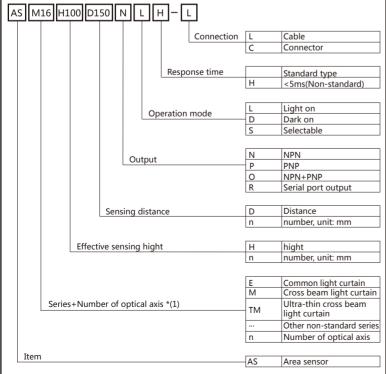
Do not use this unit where there is vibration or impact;

In cleaning the unit, do not use water or an oil-based detergent.

### Features

- High performance ASIC based advance sensor
- Built in power on delay prevent false output as sensor powering up
- Excellent noise immunity to DC light with modulated light source and CDS signal process technology
- Power supply reverse polarity protection, Over load protection, and Output reverse polarity protection

### Model definition



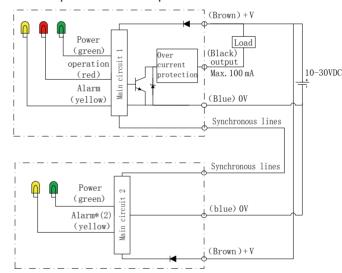
\*(1): The number of optical axes in existing cases has reached up to 800 channels.

# Specification

Model		M16H150D150	M16H150D500	TM16H100D150	TM8H100D500	TM8H100D150
Accuracy		10mm	12mm	5mm	10mm	10mm
Sensing distance		100~200mm	500~1000mm	100~200mm	300~700mm	100~200mm
Response time		1.28ms		2ms	1ms	
Power supply		DC10~30V (including voltage ripple of 10%(p-p)max.)				
Indicator	Receiver	Power (green), Operation (red), Alarm (yellow)				
	Emitter	Power (green) Power (green), Alarm (ye			, Alarm (yellov	v)
Current consumption		Max. 60mA	Max. 60mA	Max. 120mA	Max. 70mA	Max. 60mA
Load current		Max. 100mA				
Output		NPN/PNP				
Circuit protection		Power on delay, power supply reverse polarity protection, output short circuit protection, output reverse polarity protection				
Life expectancy		Min. 100,000 times				
Ambient illumination		Incandescent lamp: Max. 5,000lx /Sunlight: Max. 50,000lx				
Ambient temperature		Operation:-20~65 °C/Storage:-30~80 °C(with no icing and condensation)				
Ambient humidity		Operation: 35 ~ 85 %/Storage: 35% ~ 95% (with no condensation)				
Production degree		IEC IP64				
line color definition	Individual	Synchronous (white, red, yellow) Synchronous (white, grey)				
	Common	Power (brown), grown (blue), output (black)				
Material		Aluminum, silver anode				
Accessory		Instrusction manual				
Weight		Approx. 180g				

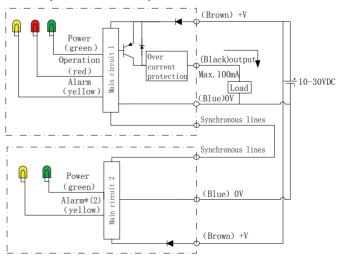
## Control output circuit diagram

### NPN open collector output



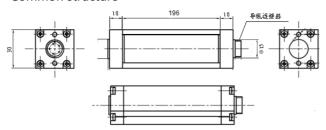
### • PNP open collector output

\*(2) : Only ultra-thin type

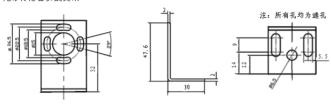


### Dimensions

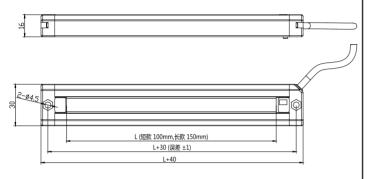
#### • Common structure



#### 光幕传感器安装支架



#### • Ultra- thin structure



# Operation

- The green LED is a power indicator at the emitter and a operation indicator at the receiver. Red LED is a operation indicator and the yellow LED is a power-up and alarm indicator.
- The sensor has the function of automatic adjustment and can actively identify the operating environment. Please fix the sensor before power on.
- 3. When powered on, in the first 3 to 5 seconds, the yellow LED in sensor will blink sensor is adjusting itself to optimal setting. During this period of time, do not do anything that can influence the operation of the sensor, leave the sensor to itself until the yellow LED stop blinking. If the yellow light keeping blinking for a long time without stopping, please power off the sensor and power on again. If the problem remains, this means sensor can' t adjust itself to optimal working condition. If this occurs, please contact us.
- 4. As the sensor's optimal setting is influenced by its environment, after powered on, do not move sensor to another place. If you move sensor to another place, please power off and power on again.
- 5. The sensor has alarm output, when the sensor optimal working condition is degraded due to factors such as dust accumulated on optical window, the sensor will have alarm output —— the yellow LED will light up and the output of white wire will changed (depends on the mode of the sensor operation). If after cleaning the optical window, the sensor still can not work, please contact us.
- 6. If encounting noise problem, please try to isolated high current from the sensor ground loop. Try to use start connection, ground equipment with high current directly to ground, ground the case of inductive motor to ground.
- You can seek technical support through email.
  Support@chinasensors.com.cn or sales@chinasensos.com.cn.

### Caution for using

- 1. Please make sure the wiring is correct before power-on.
- 2. Use a visor or a hood so that excessive light (e.g. sunlight, spotlight) does not directly enter into the inclination angle of the sensor.
- 3. When more than 2 sets of light curtains are used closely, it might cause interference each other. Be sure to put enough space between them in order to avoid malfunction.
- 4. If the sensor is installed directly on a flat surface, the reflection off the surface may cause malfunction. Make sure there is enough space between the sensor and the surface.
- 5. If the sensor is wired with a high voltage line or power line, it may cause product damage or malfunction. Use separate wiring or a dedicated conduit.
- 6. Please use short cables for wiring the sensors. Power surge from extended wiring may cause product malfunction;
- 7. When the lens is stained by foreign substances, clean the lens lightly with dry cloth. Do not use chemical or organic solvents.

## Main product

- Photoelectric sensor
- Light curtain
- Proximity sensor
- Pressure sensor
- Counting sensor
- Distance sensor
- Liquid level sensor
- Label sensor
- Hall sensor
- Pressure meter
- Counting machine
- Dust sensor

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