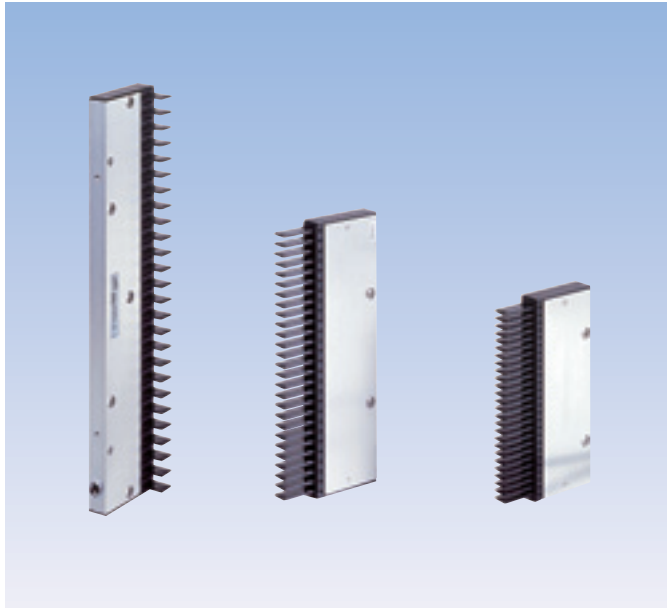


ASW-SG series

Wafer detection sensors



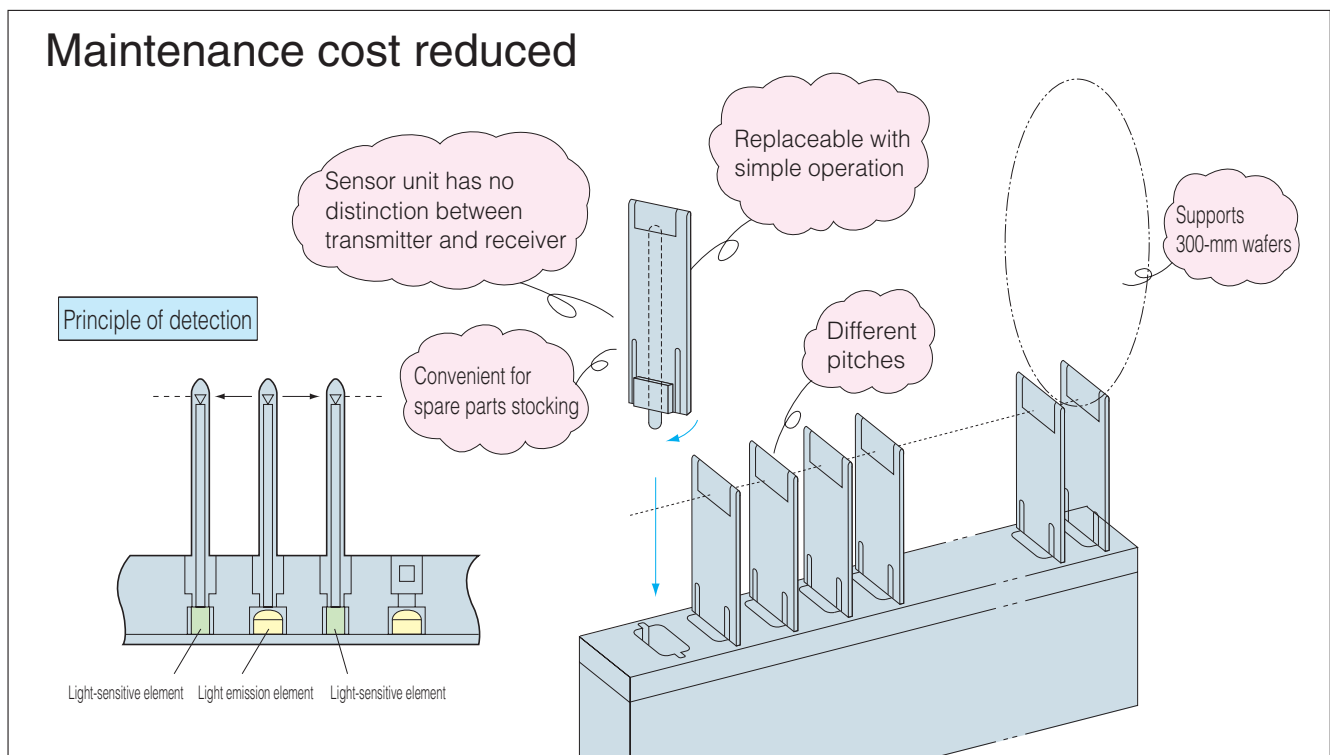
- Comb tooth-shaped part (sensor unit) replaceable with single operation
 - No need to replace entire sensor
 - Reduction of maintenance cost
- Supports 300-mm wafers
 - 12-inch type now available in addition to 6- and 8-inch types
 - Side-on type (-SG 1225 V) available
- Unique optical system along with fiber optic technology
- Through-beam model for reliable detection

Type

Detection method	Applicable wafer size	Model	No. of channels	Comb tooth pitch	Power supply	Operation mode	Output mode
Through-beam type	6 inches	ASW-SG625	25	4.76mm	DC24V	Dark-ON	NPN open collector
	8 inches	ASW-SG825	25	6.35mm			
		ASW-SG826	26				
	12 inches (300mm)	ASW-SG1225V	25	10.00mm	DC12-24V		
ASW-SG1225V-J							

(Contact Takex for prices.)

Maintenance cost reduced



Rating/Performance/Specification

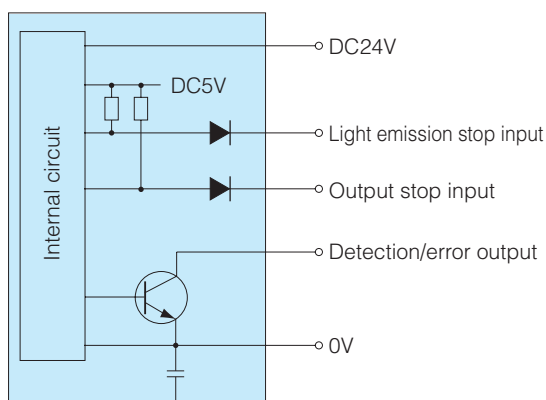
Model	ASW-SG 625	ASW-SG 825	ASW-SG 826	ASW-SG 1225V	ASW-SG 1225V-J
Applicable wafer size	6 inches	8 inches		12 inches (300mm)	
No. of detection channels	25		26	25	
Detection method	Through-beam type				
Power supply	24V DC $\pm 10\%$ / Ripple 10% max.			12-24V DC $\pm 10\%$ / Ripple 10% max.	
Power consumption	2.4W max.			1.7 W max.	
Output mode	NPN open collector Rating: sink current 30 mA (30V DC) max.				
Operation mode	Dark-ON (error output activated at detection of error)			Dark-ON	
Response time	4 ms max.				
Light source (wavelength)	Infrared LED (830 nm)			Infrared LED (860 nm)	
Connection	Permanently attached cord with connector (cord length: 3 m)				Connector type (Cord length: 3m)
Light emission stop input	Light emitted with open or at 4 V or higher, emission stopped at 1.5 V or lower				
Output stop input	Output permitted with open or at 4 V or higher, prohibited at 1.5 V or lower				
Material	Sensor: polycarbonate / Case: aluminum / Cord: flame-retardant PVC sheath (UL 2464)				
Mass (max.)	330g	365g	400g	500g	

Environmental Specification

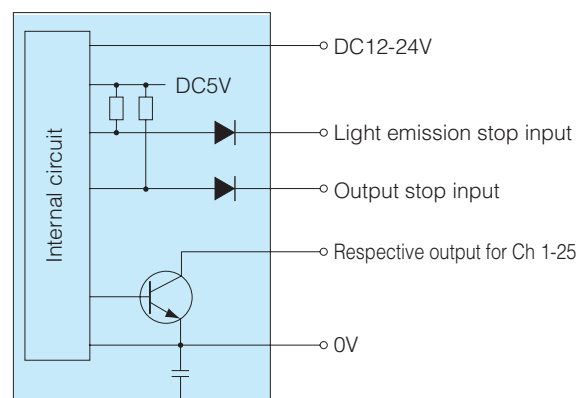
- Ambient light
6-/8-inch types: 700 lx max.
12 inch type: 1500 lx max.
- Ambient temperature
-10 - +55 °C (non-freezing)
- Ambient humidity:
35-85%RH (non-condensing)
- Protective structure: IP40

Input/Output Circuit and Connection

ASW-SG625
ASW-SG825
ASW-SG826

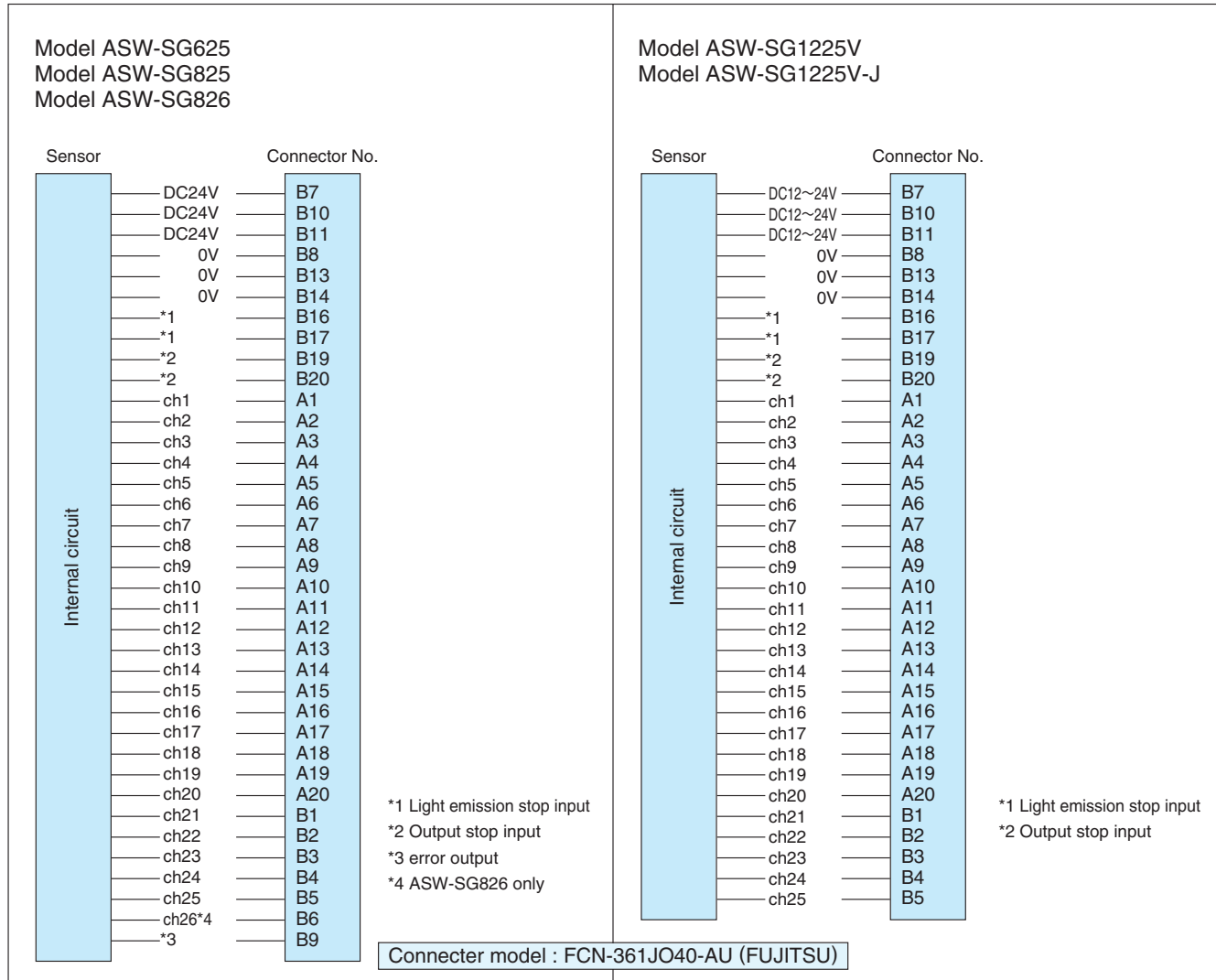


ASW-SG1225V
ASW-SG1225V-J



ASW-SG

Connector External Connection



Convenient Features

7-core robot cable

Serial output up to connector, parallel output from connector.



Useful auxiliary functions

- Light emission stop feature: for diagnosis of sensor output circuits
- Output stop feature: for reduced number of inputs to the PC by parallel connection of multiple outputs
- Error output: for monitoring detection conditions of the sensor (not provided for ASW-SG1225)

• Light emission stop feature

Activating the light emission stop input (+1.5 V or lower) stops the emission of LEDs of all channels, which is the same as detection state, and the output transistors for all channels are activated. Use this function for diagnosis of sensor output circuits.

• Output stop (external synchronization) feature

Activating the output stop input (+1.5 V or lower) deactivates the output transistors of all channels regardless of the sensor operation. This allows parallel connection of two or more sensors, which reduces the number of inputs to the PC.

• Error output (not provided for ASW-SG1225)

Signal is output to indicate faulty operation due to erroneous detection caused by external light or circuit failure. Use this function for monitoring the detection condition of the sensor.

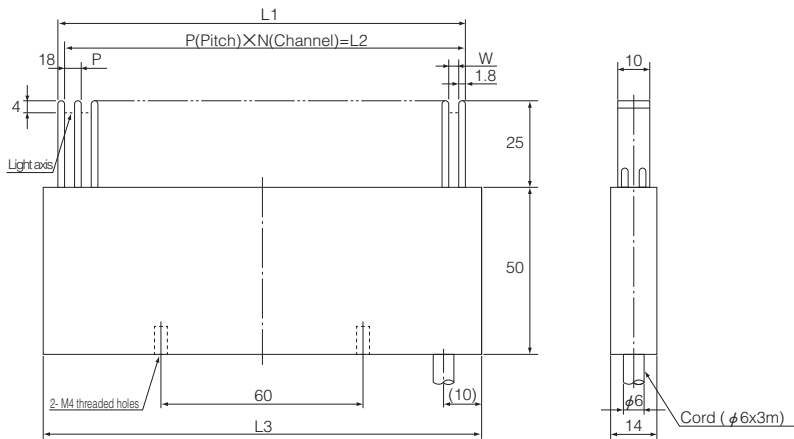
Dimensions (in mm)

ASW-SG625
ASW-SG825
ASW-SG826

CAD

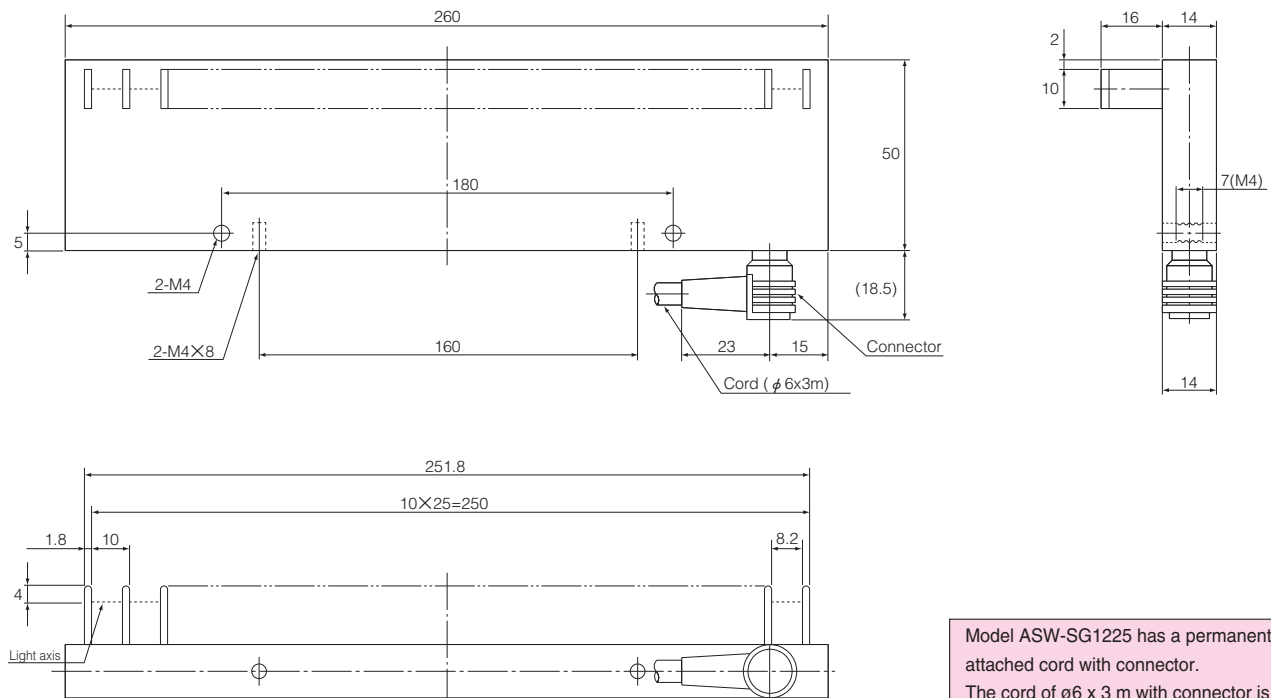
Dimensions of portions

Model	P(Pitch)	N(Channel)	W(Width)	L1	L2	L3
ASW-SG625	4.76±0.05	25	2.96	120.8	119	130
ASW-SG825	6.35±0.05	25	4.55	160.55	158.75	168.65
ASW-SG826		26		166.9	165.1	175



ASW-SG1225V-J

CAD



Model ASW-SG1225 has a permanently attached cord with connector. The cord of $\phi 6 \times 3$ m with connector is attached at the connector portion in the figure.