

**AWC**

# Capacitance Autowide

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The Capacitance Autowide Sensor AWC is a sensor system that provides continuous, contactless detection of the center position of a strip moving on a line, for use in Center Position Control (CPC).

Like our previous sensors, the sensor is maintenance free and can be used continuously with no decline in sensitivity caused by wear over time, giving stable, long-term service. The sensor is now a far easier product to use, offering improvements such as taking away the need for on-field calibration\*.

\* If there are metal structural elements close to the sensor, some simple adjustment may be required.

## Features

- No field calibration required
- Maintenance free
- Uninfluenced by light
- Insensitive to dirt, scale
- Unaffected by passline changes or wavy edges

## Operating principles

Figure 1. Operating principles

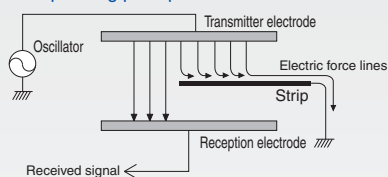
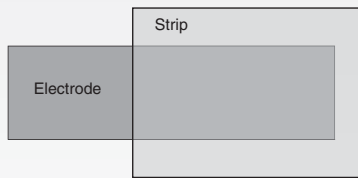


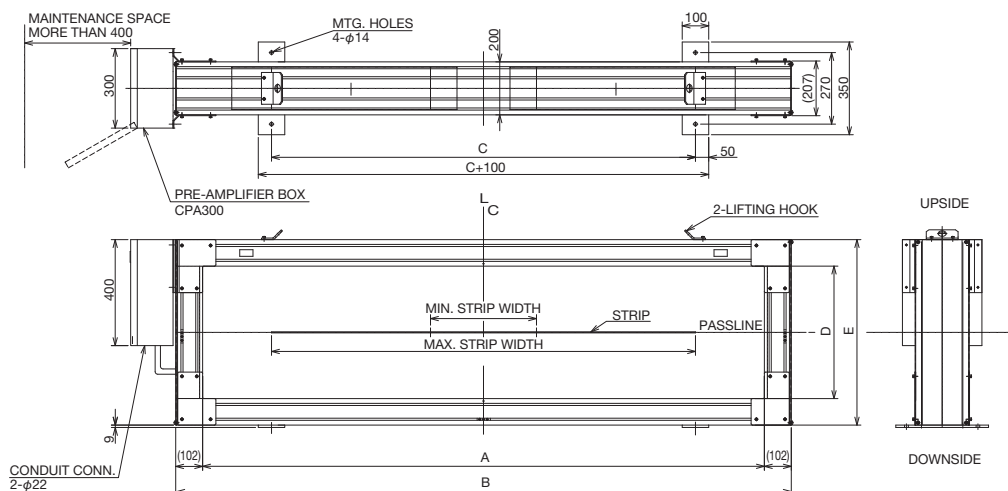
Figure 2. Electrodes



The Capacitance Autowide AWC Series generates lines of electric force between electrodes situated on each side of the strip, and calculates the position of the strip between the electrodes from the changing amount in the number of lines (see Figure 1). The sensor has two sets of transmission and reception electrodes that are installed opposite each other with the strip between them. The transmitter electrode generates electric force lines and the receiver receives them. When a strip enters between the transmitter and reception electrodes, the difference in the blocked transmitter electrodes causes a variation in the force lines received by the reception electrodes (see Figure 2). Therefore, by calculating the lines of electric force received by the reception electrodes, the position of the strip becomes apparent.

## Specifications and External Dimensions

Ambient temperature:	AWC***.*-P (With Pre-amp) (0°C to 50°C)	Frequency response:	5Hz
	AWC***.*-N (Without Pre-amp) (0°C to 60°C)	Output:	Strip deviation $\pm 5V / \pm 200mm$
Power supply:	AC85V to AC264V, 50/60Hz		Alarm Healthy, Roll out, No strip
Sensor accuracy:	Within $\pm 5mm$	Weight:	63 to 79kg



Mdel No.	Strip Width		Dimension(mm)					Approx weight(kg)
	Min Width *	Max Width *	A	B	C	D	E	
AWC640-3	400	1300	1820	2020	1300	300	500	63
AWC640-4	400	1300	1820	2020	1300	400	600	65
AWC640-5	400	1300	1820	2020	1300	500	700	66
AWC790-3	400	1600	2120	2320	1600	300	500	67
AWC790-4	400	1600	2120	2320	1600	400	600	69
AWC790-5	400	1600	2120	2320	1600	500	700	70
AWC940-3	400	1900	2420	2620	1900	300	500	72
AWC940-4	400	1900	2420	2620	1900	400	600	73
AWC940-5	400	1900	2420	2620	1900	500	700	75
AWC1090-3	400	2200	2720	2920	2200	300	500	76
AWC1090-4	400	2200	2720	2920	2200	400	600	77
AWC1090-5	400	2200	2720	2920	2200	500	700	79

\*: In case of zero for meandering quantity

Information in this catalog may change without notice. Please check with us when planning to use the equipment listed herein.



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