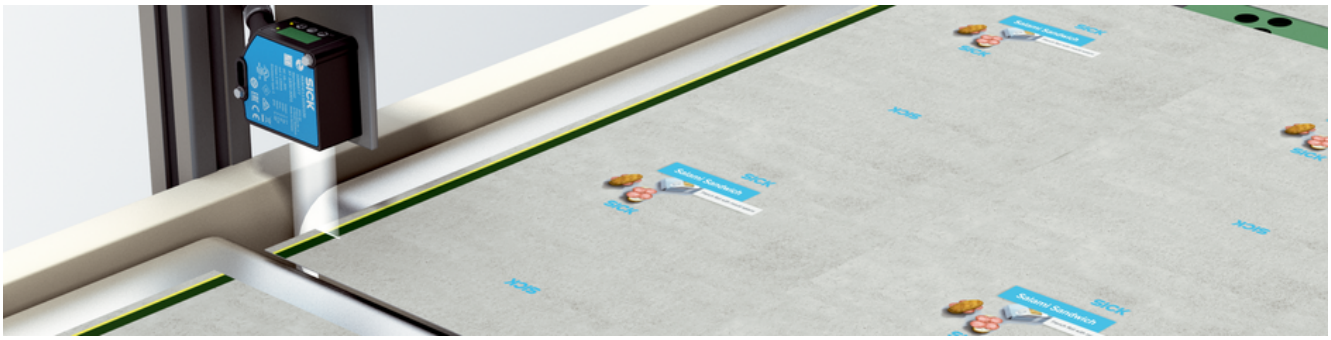
Product overview

AS30

More flexibility and efficient communication

SICK
Sensor Intelligence.

Advantages



More process reliability through edge and area teach-in

The AS30 provides the option to teach-in edge positions or areas. The sensor can then detect a taught-in contrast edge while ignoring spurious edges in the surroundings or on the object to be detected. This results in increased process reliability and stability. The area teach-in can be used to define detection zones, which simplifies position control.

Edge and area teach-in can be performed directly via the control panel or via IO-Link.

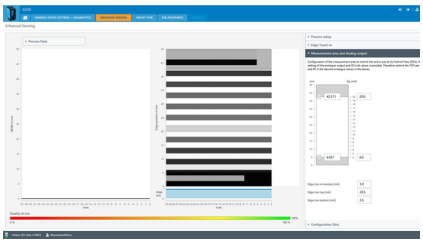
The edge teach-in is simple and intuitive to perform via the TFT display or SOPAS ET. A few clicks is all it takes to teach-in the desired edge

The area teach-in is used to define switching zones around the desired edge position. This, too, requires only a few clicks to achieve effective area control

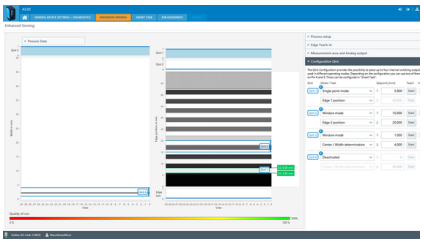
The AS30 enables you to achieve more process reliability and save time during commissioning. The sensor can be taught-in, and switching zones defined in just a few clicks.

High application flexibility through sensor configuration and IO-Link

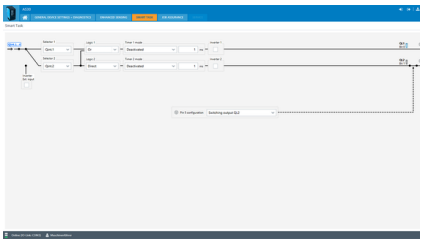
Through the flexible configuration of the array sensor via IO-Link, the SOPAS ET configuration software, and the intuitive full color TFT display, the AS30 can solve a wide variety of application tasks. Thanks to various preset operating modes, the AS30 can be employed, for example, for edge guiding, object positioning or width measurement. Through a simple switchover from proximity scanning mode to reflector mode, the AS30 is able to detect opaque and transparent objects.



Flexible application: the size of the measuring range can be changed and adapted to the application conditions

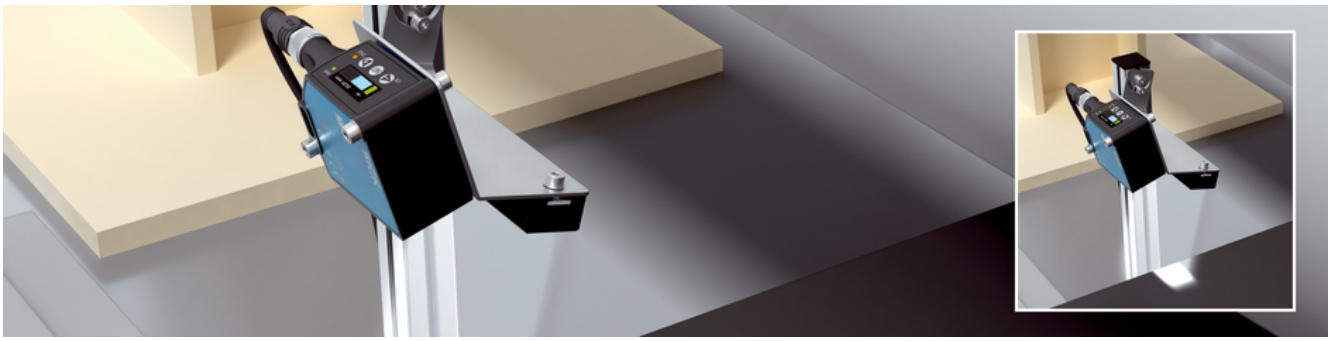


Easy to configure: Various position zones, thresholds or widths can be configured and monitored by means of different switching criteria



Smart sensor: Various switching outputs and external inputs can be logically linked. This makes the sensor flexibly configurable for a wide variety of applications

The AS30 lets you solve a wide variety of tasks with just one device. Whether it be edge or width measurement, opaque or transparent materials: The AS30 is the right solution.



Higher detection performance thanks to external illumination

By using an external illumination unit for array sensors such as the AS30, very good results can be achieved in particular when detecting dark material edges. With the powerful external ELA illumination unit, SICK offers an accessory that can be used together with the AS30 in numerous applications and can eliminate the need for expensive vision systems. The ELA can also be used as a backlight.

Using the ELA as a backlight, it is also possible to detect internal edges such as embossing lines.

Using the ELA, material edges are clearly recognizable even through semi-transparent materials such as battery separator films.

Technical data overview

Functional principle	Web guiding Positioning Width measurement Center point measurement Multi-edge (depends on variant)
Sensing distance	25 mm 100 mm 250 mm
Measurement range	20 mm ... 165 mm (depends on variant)
Reproducibility	0.2 mm [1] 0.03 mm [1] 0.05 mm [1] 0.15 mm [1]
MDO	0.2 mm 1.2 mm 0.5 mm 2 mm
Analog output Q_A	4 mA ... 20 mA

[1] With respect to sensing distance.

Product description

The AS30 array sensor operates on the proximity scanning principle. It detects even the slightest differences in grayscale values within the field-of-view. Positioning of, for example, a paper web based on the web edge or a contrast line is only one of many possible applications. Widths, diameters, and gaps can also be detected. In reflector mode, the AS30 can even detect transparent materials.

At a glance

- Teach-in of selected edges possible
- Full color TFT display
- Various operating modes for different applications
- Core and Prime variant for different fields of application
- Large measuring range of up to 165 mm
- Sensing distance of 25 mm or 100 mm
- Repeatability of up to 30 µm

Your benefits

- Higher reliability and more stable processes thanks to teach-in of contrast edges
- TFT display for flexible configuration options and easy commissioning
- Various operating modes provide the right defaults for every application
- High repeatability of up to 30 µm
- No fine positioning of the sensor required thanks to the large field of view of up to 165 mm
- IO-Link and the SOPAS ET software ensure easy configuration
- Efficient communication and predictive maintenance through smart sensor functionality

Fields of application

- Printing industry: positioning of sheets
- Electronics and solar: edge guiding in battery production
- Packaging industry: edge guiding, tear string detection
- Machine construction: double layer detection, thickness measurement
- Furniture industry: edge guiding for wide-belt sanding machines
- Robotics: weld seam tracking

Ordering information

Other models and accessories ➜ www.sick.com/AS30

- **Communication interface:** IO-Link
- **Sensor principle:** Proximity system
- **Functional principle:** Web guiding, positioning
- **Principle of operation (default):** Web guiding
- **Light source:** LED

Measuring range / sensing distance	Switching output	Connection type Detail	Type	Part no.
30 mm / 25 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-EBM314I110ZZZ	1095581
45 mm / 100 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-EBM434I110ZZZ	1095582
45 mm / 250 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-EBM444I110ZZZ	1121646

- **Communication interface:** IO-Link
- **Sensor principle:** Proximity system
- **Functional principle:** Web guiding, positioning
- **Principle of operation (default):** positioning
- **Light source:** LED

Measuring range / sensing distance	Switching output	Connection type Detail	Type	Part no.
30 mm / 25 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-PBM314I110ZZZ	1095583
45 mm / 100 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-PBM434I110ZZZ	1095584

- **Communication interface:** IO-Link
- **Sensor principle:** Proximity system, Reflector mode
- **Functional principle:** Web guiding, positioning
- **Principle of operation (default):** Web guiding
- **Light source:** LED

Measuring range / sensing distance	Switching output	Connection type Detail	Type	Part no.
30 mm / 25 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-EBM314I220A00	1095577
			AS30-EBM314I220C00	1095585
				1121191
50 mm / 100 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-EBM534I220A00	1095578
			AS30-EBM534I220C00	1095586
				1121192
			AS30-EBM534I220S04000C000ZZZ	1155347

- **Communication interface:** IO-Link
- **Sensor principle:** Reflector mode
- **Functional principle:** Web guiding, positioning
- **Principle of operation (default):** Web guiding
- **Light source:** LED

Measuring range / sensing distance	Switching output	Connection type Detail	Type	Part no.
50 mm / 100 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-EBM544I220A00	1121628

- **Communication interface:** IO-Link
- **Sensor principle:** Proximity system, Reflector mode
- **Functional principle:** Web guiding, positioning, Width measurement, Center point measurement
- **Principle of operation (default):** Width measurement
- **Light source:** LED

Measuring range / sensing distance	Switching output	Connection type Detail	Type	Part no.
30 mm / 25 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-WBM314I220A00	1095579
			AS30-WBM314I220C00	1095587
				1133953
50 mm / 100 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-WBM534I220A00	1095580
			AS30-WBM534I220C00	1095588

- **Communication interface:** IO-Link
- **Sensor principle:** Proximity system, Reflector mode
- **Functional principle:** Multi-edge, Web guiding, positioning, Width measurement, Center point measurement
- **Principle of operation (default):** Multi-edge: Detection and evaluation of up to 8 edges
- **Light source:** LED

Measuring range / sensing distance	Switching output	Connection type Detail	Type	Part no.
165 mm / 100 mm	Push-pull: PNP/NPN	Plug, M12, 5-pin	AS30-MBM834I320A00	1118222

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com

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