

CE

Model Number

DK10/35a/8S200

Print mark contrast sensor with 4-pin, M12 x 1 connector

Features

- Diffuse mode sensor for recording any print mark
- Adjustable sensitivity
- Optical system exchangeable by 90°
- 30 µs response time, suitable for extremely rapid scanning processes
- Green transmitter light
- Time function

Product information

The contrast sensor series DK10, DK2X, DKE2X and DK3X have an extreme robust and IP67 tight industrial standard housing with eight M5 metal reinforced inserts for sensor mounting. The lenses are made of high grade glass. All sensors offer different light spot shapes and orientations and have powerful push-pull outputs (NPN/PNP/push-pull).

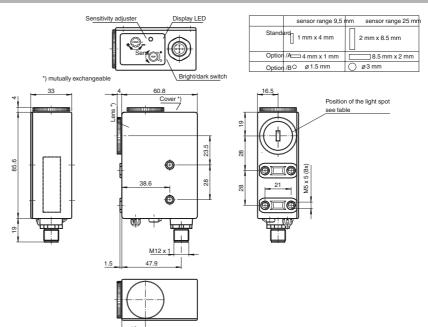
The DK10 sensor series offers laser and LED light sources, a manual sensitivity adjustment and high sensing ranges up to 800 mm.

The DK20/DK21/DKE2X standard contrast sensor series offers a very good contrast recognition and are available in extreme robust stainless-steel housings (DKE).

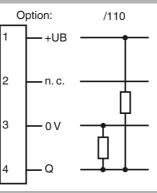
The DK31/DK34/DK35 sensor series is designed for cutting edge contrast recognition at highest sensitivity level.

The series DK20/DK34 offer a static Teach-In, the DK21/DK21/DK31/DK35 series offer a dynamic Teach-In.





Electrical connection



Pinout





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1-08-29

Subject to modifications without notice

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Relative sensitivity 120% 100% 80% 60%		
60%		
20%		

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Subject to modifications without notice

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60 Distance X [mm]

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Adjustment instructions

Switching threshold adjustment

The required switching threshold is adjusted with the sensitivity control. Please proceed as follows:

- 1. Switch the light/dark change-over switch to the light setting.
- 2. Point the light spot at the light part of the surface being scanned.
- 3. If the yellow indicator LED lights up, turn the sensitivity control to the left until the indicator LED goes off again. If the yellow indicator LED does not light up, miss out this step.
- 4. Turn the sensitivity control to the right until the indicator LED just lights up.
- 5. Point the light spot at the dark part of the surface being scanned.
- 6. The indicator LED must have gone off.
- 7. Turn the sensitivity control to the right again until the indicator LED lights up again. Counting the number of turns.
- 8. Turn the sensitivity control back to the left by half the number of counted turns.

Once the DK10 colour mark scanner has been adjusted in this way, the switching thres-hold is exactly in the middle of the measured light and dark values. The greater the number the number of times the sensitivity control is turned between the light and the dark marks, the greater the contrast.

Recommendation: The number of turns should be to > 0.5.

Switching mode adjustment:

Setting of light/dark switch	Receiver	Output PNP	Output NPN
н	exposed	inactive	active
	unexposed	active	inactive
D	exposed	active	inactive
	unexposed	inactive	active

