

PK639191

LASER SENSORS • CONTRAST SCANNERS

Contrast scanners are capable to distinguish the the visual differences (e.g. reflectivity, brightness differences) between adjacent areas. In general, the devices project a light spot on an object's surface and analyze the reflected light. Fiber optic amplifier versions can be used in addition to the incident light mode also in the transmitted light mode. Contrast scanners are versatile. They can be used, among other things, for position control of printing or color marks, distinction of brightness variations or in the intensity control of luminous objects (like LEDs, displays etc.).



MECHANICAL DATA

Ambient temperature	-20 °C ... 55 °C
Degree of protection (IP)	IP64
Housing design	Cuboid
Housing material	Aluminium
Material of optical surface	Glass
Sensor height	82 mm
Sensor length	65 mm
Sensor width	65 mm
Storage temperature	85 °C
Storage temperature	-20 °C

ELECTRICAL DATA

Analogue output 0 V ... 10 V	Yes
Analogue output 4 mA ... 20 mA	Yes
Equipment protection class	Protection class 3
High scanning frequency	Yes
Large sensing range	Yes
Max. output current	100 mA
No-load current	160 mA
Operating voltage	26.4 V ... 21.6 V
Programmable via software	Yes
Rated control supply voltage U_s at DC	21.6 V ... 26.4 V
Relative repeat accuracy	0.05 %
Reverse polarity protection	Yes
Sensing range	90 mm ... 300 mm
Setting procedure	Parameterization
Short-circuit-proof	Yes
Switching frequency	60000 Hz
Type of communication interface	Connector M5
Type of electrical connection	Connector M9
Type of switching function	Push-pull

ELECTRICAL DATA

Type of switching output	PNP/NPN
Voltage type	DC
With communication interface, RS-232	Yes
With LED display	Yes
With time function	Yes

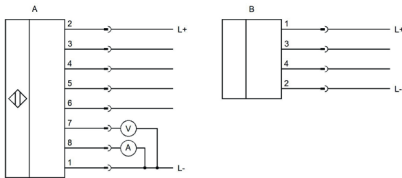
OPTICAL DATA

Detection of print marks	Yes
Laser protection class	Class 2
Light color, version 2	Laser diode, red light
Light source	Laser diode, red light
Light spot	0.2 mm ²
Nominal sensing range	200 mm
Small light beam diameter	Yes
Wavelength of the sensor	670 nm

OTHER DATA

For counting tasks	Yes
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CONNECTION

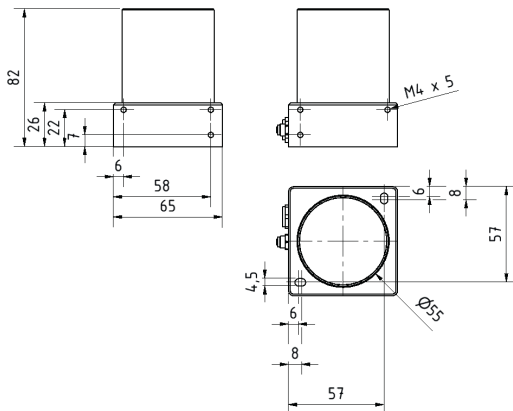


Colors: A: M9: 1 = WH (white), 2 = BN (brown), 3 = GN (green), 4 = YE (yellow), 5 = GY (gray), 6 = PK (pink), 7 = BU (blue), 8 = RD (red)

Functions: A: M9: 1 = L-, 2 = L+, 3 = In 0, 4 = in 1, 5 = out 0, 6 = out 1, 7 = 0-10V, 8 = 4-20mA

B: M5: 1 = L+, 2 = L-, 3 = Rx/D, 4 = Tx/D

DIMENSIONAL DRAWING



INSTALLATION

DISPOSAL



Mounting / Installation may only be carried out by a qualified electrician!



SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!