

## ▶ laser sensors

**product:** rectangular devices: plastic  
**analog/digital**

**design:** 70 30x90x70



- robust plastic housing
- laser class 2
- 2 switching outputs pnp/npn
- analog output 1-10V
- outputs adjustable via teach button
- connection with 5-pin M12-connector

### technical data

#### optical data, error limits, timing

measuring range <sup>1)</sup>	150 ... 2300mm
light source	laser, pulsed, 635nm, laser class 2
light spot	divergent, 3x8mm at 2300mm
resolution <sup>2)</sup>	1 ... 5mm
absolute measurement accuracy <sup>1)</sup>	± 3%
repeatability <sup>3)</sup>	± 2%
b/w detection tresh (6%-90% Rem.)	≤ 1%
temperature drift	≤ 0.1% / °C
measurement time	≤ 7ms
response time	≤ 20ms
delay before start-up	≤ 300ms

1) luminosity coefficient 6% ... 90%, at 20°C, measurement object ≥ 50x50mm<sup>2</sup>

2) minimum and maximum value depend on measurement distance and configuration of the analog output

3) same object, identical environmental conditions, measurement object ≥ 50x50mm<sup>2</sup>

#### electrical data

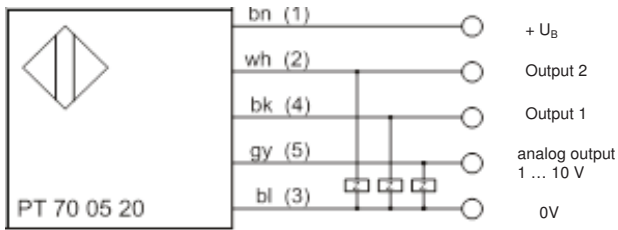
operating voltage U <sub>B</sub>	18 ... 30V DC, (incl. residual ripple)
residual ripple	≤ 15% of U <sub>B</sub>
open-circuit current	≤ 150mA
switching output/function	2xpush-pull switching outputs PNP, no / NPN, nc
protective circuit	reverse polarity and short-circuit protected
analog output	1 ... 10V
signal voltage high	≥ (U <sub>B</sub> - 2V)
signal voltage low	≤ 2V
analog output	R <sub>L</sub> ≥ 2kΩ

#### mechanical data, environmental data

housing	plastic
optics cover	plastic
weight	140g
connection type	M12 connector, 5-pin
ambient temp. operation	-20 ... +40°C
ambient temp. storage	-30 ... +70°C
VDE safety class <sup>1)</sup>	II, all-insulated
protection class	IP 67 (acc. to EN 60529)
standards applied	IEC 60947-5-2

1) Rating voltage 250V AC

electrical connection



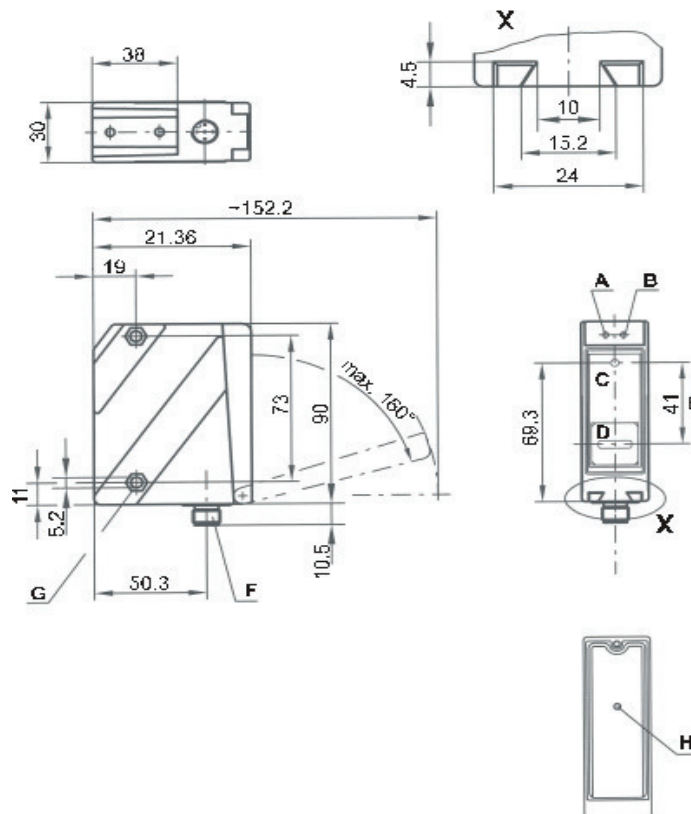
bn=brown, wh=white, bk=black, gy=grey, bl= blue  
description of connecting terminal in brackets



**CAUTION, Laser Radiation**  
Do not stare into Beam!  
laser class 2  
max. output power : 1.2mW  
pulse duration: 3msec  
wave length: 635nm

dimensional drawing

- A green indicator diode
- B yellow indicator diode
- C transmitter
- D receiver
- E optical axis
- F device plug M12 x 1
- G countersinking for SK nut M5 / 4.2 deep
- H teach button



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We recommend e. g. the cable socket: VK 20 56 21