

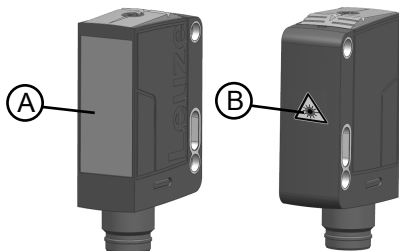
Laser diffuse reflection sensor

HT25CL2



We reserve the right to make changes – 2018/10 – 50141439

1



2

50141243

LASERSTRALHUNG

NICHT IN DEN STRAHL BLICKEN

Max. Laserleistung (peak): $\leq 5,2 \text{ mW}$
 Divergenz des Strahls: $\leq 4,5 \text{ mrad}$
 Wellenlänge: 680 nm

LASER-KLASSE 2

EN 60825-1:2008-05

LASER RADIATION

DO NOT STARE INTO BEAM

Maximum Output (peak): $\leq 5,2 \text{ mW}$
 Pulse duration: $\leq 4,5 \text{ }\mu\text{s}$
 Wavelength: 680 nm

CLASS 2 LASER PRODUCT

EN 60825-1:2007

AVOID EXPOSURE - LASER RADIATION IS EMITTED FROM THIS APERTURE

RADIAZIONE LASER

NON FISSARE IL FASCIO

Potenza max. (peak): $\leq 5,2 \text{ mW}$
 Divergenza dell'impulso: $\leq 4,5 \text{ mrad}$
 Lunghezza d'onda: 680 nm

APPARECCHIO LASER DI CLASSE 2

EN 60825-1:2007

RAYONNEMENT LASER

NE PAS REGARDER DANS LE FASCIAU

Puissance max. (crête): $\leq 5,2 \text{ mW}$
 Divergence d'impulsion: $\leq 4,5 \text{ mrad}$
 Longueur d'onde: 680 nm

APPAREIL À LASER DE CLASSE 2

EN 60825-1:2007

DISPOSITIOUN LASERLÄSUNG - NUR ANSCHAUEN
 LASER EST EMIS PAR CETTE OUVERTURE

RADIAÇÃO LASER

NÃO OLHEM FICAMENTE AL FEIXE

Potência máx. (pico): $\leq 5,2 \text{ mW}$
 Divergência do impulso: $\leq 4,5 \text{ mrad}$
 Comprimento de onda: 680 nm

PRODUTO LASER DE CLASSE 2

EN 60825-1:2007

RADIAÇÃO LASER

NÃO OLHEM FICAMENTE O FEIXE

Potência máx. (pico): $\leq 5,2 \text{ mW}$
 Pulso de duração: $\leq 4,5 \text{ }\mu\text{s}$
 Comprimento de onda: 680 nm

EQUIPAMENTO LASER CLASSE 2

EN 60825-1:2007

LASER RADIATION

DO NOT STARE INTO BEAM

Maximum Output (peak): $\leq 5,2 \text{ mW}$
 Pulse duration: $\leq 4,5 \text{ }\mu\text{s}$
 Wavelength: 680 nm

CLASS 2 LASER PRODUCT

EN 60825-1:2007

Complies with 21 CFR 1040.10

レーザー放射

直視厳禁

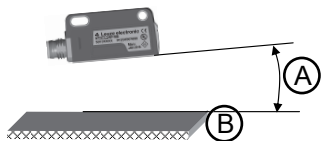
最大出力 (ピーク): $\leq 5,2 \text{ mW}$
 脉冲持続時間: $\leq 4,5 \text{ }\mu\text{s}$
 波長: 680 nm

2 類レーザー製品

EN 60825-1:2007



3











*Laser safety notices - laser class 2***1**

- A Laser aperture
B Laser warning sign

 **WARNING****LASER RADIATION – LASER CLASS 2****Never look directly into the beam!**

The device satisfies the requirements of IEC 60825-1:2007 (EN 60825-1:2007) safety regulations for a product of **laser class 2** as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to "Laser Notice No. 50" from June 24, 2007.

-  Never look directly into the laser beam or in the direction of reflected laser beams! If you look into the beam path over a longer time period, there is a risk of injury to the retina.
-  Do not point the laser beam of the device at persons!
-  Interrupt the laser beam using a non-transparent, non-reflective object if the laser beam is accidentally directed towards a person.
-  When mounting and aligning the device, avoid reflections of the laser beam off reflective surfaces!
-  **CAUTION!** The use of operating or adjusting devices other than those specified here or carrying out of differing procedures may lead to dangerous exposure to radiation.
-  Observe the applicable statutory and local laser protection regulations.
-  The device must not be tampered with and must not be changed in any way.
There are no user-serviceable parts inside the device.
-  Repairs must only be performed by Leuze electronic GmbH + Co. KG.

Laser information and warning signs

2

NOTICE

Affix laser information and warning signs!

Laser information and warning signs attached to the device. Also included with the device are self-adhesive laser warning and laser information signs (stick-on labels) in multiple languages.



☞ Affix the laser information sheet to the device in the language appropriate for the place of use.

When using the device in the US, use the stick-on label with the "Complies with 21 CFR 1040.10" notice.

☞ Affix the laser information and warning signs near the device if no signs are attached to the device (e.g. because the device is too small) or if the attached laser information and warning signs are concealed due to the installation position.

Affix the laser information and warning signs so that they are legible without exposing the reader to the laser radiation of the device or other optical radiation.

Application notes

3

A Slight inclination $5^\circ \dots 7^\circ$

B Glossy object surface within the operating range

Detection of glossy surfaces within the operating range

When detecting glossy surfaces (e.g. metals), the light beam should not hit the object surface at a right angle. A slight inclination is enough to detect the object reliably. The following applies: the smaller the range, the greater the angle of inclination (approx. 5° to 7°).

NOTICE



It is imperative to note the task and the associated inclination of the sensor of approx. $5^\circ \dots 7^\circ$.