

- Range: 20 m
- Modulated, infrared light
- LED-indication for power supply ON (emitter) and target detected (receiver)
- Multi supply voltage:

24 VDC and 24 VAC, $50 / 60 \mathrm{~Hz}$

- $25 \times 65 \times 81 \mathrm{~mm}$ reinforced PC housing, IP 67


## C (H) N

## Product Description

Through-beam photoelectric switch. Range up to 20 m . Immune to ambient light. Precise detection through narrow beam. LED-indication. Protection degree IP 67. Screw terminal connection. $25 \times 65 \times 81 \mathrm{~mm}$ plastic
housing. PG 13.5 or $1 / 2^{\prime \prime}$ NPT cable gland. With Mute Input on the transmitter the sensor fullfill EN12978

Ordering Key
Type

## Receiver

Cable gland
Mute Input

## Type Selection

| Housing <br> W x H x D |  | Ordering no. <br> Receiver without timer |
| :--- | :--- | :--- |
| $25 \times 65 \times 81$ |  |  |
| PG 13.5 cable gland |  | PMT 20R G |
| 1/2" NPT cable gland | PMT 20R I |  |

## Specifications Emitter

| Rated operational volt. $\left(U_{B}\right)$ <br> AC: 45 to 65 Hz | $24 \mathrm{VDC} \pm 20 \%$ <br> $24 \mathrm{VAC} \pm 20 \%$ |
| :--- | :--- |
| Rated operational power | $\leq 1 \mathrm{~W}(1.2 \mathrm{VA})$ |
| Light source <br> Light type <br> Optical angle | GaAIAs LED, 880 nm <br> Infrared, modulated <br> $\pm 2^{\circ}$ |
| Indication <br> Power supply ON | LED, green <br> break switching |
| Output function |  |
|  |  |

Ordering no.
Emitter

PMT 20 GM
PMT 20 IM

## Specifications Receiver

| Rated operational volt. ( $U_{B}$ ) AC: 45 to 65 Hz | $\begin{aligned} & 10.8 \text { to } 264 \text { VDC } \\ & 21.6 \text { to } 264 \text { VAC } \end{aligned}$ |
| :---: | :---: |
| Rated operational power (Relay ON) | $\leq 2 \mathrm{~W}$ (2.5 VA) |
| Output |  |
| Contact ratings (AgCdO) | $\mu$ (micro gap) |
| Resistive loads AC 1 | 3 A/250 VAC |
| DC 1 | 3 A/30 VDC |
| Small inductive loads AC 15 | 2 A/250 VAC |
| DC 13 | 3 A/30 VDC |
| Mechanical lifeElectrical life | $\geq 40 \times 10^{6}$ operations |
|  | $\geq 5 \times 10^{5}$ operations |
|  | at $220 \mathrm{VAC}-3$ A resistive load: 360 impulses/h |
| Dielectric voltage | 2 kVAC (rms) (cont./supply) |
| Sensitivity | Adjustable, single turn pot. |
| Optical angle | $\pm 2^{\circ}$ |
| Rated operating dist. ( $\mathrm{S}_{\mathrm{n}}$ ) (0 to 5,000 lux) | 20 m |
| Operating frequency (f) | 20 Hz |
| Response time OFF-ON ( $\mathrm{ton}^{\text {a }}$ ) | $\leq 20 \mathrm{~ms}$ |
| ON-OFF ( $\mathrm{t}_{\text {OFF }}$ ) | $\leq 20 \mathrm{~ms}$ |
| Power ON delay ( $\mathrm{t}_{v}$ ) | $\leq 300 \mathrm{~ms}$ (typ. 100 ms ) |
| Output function | Mute function |

## General Specifications

| Environment |  |
| :---: | :---: |
| Overvoltage category | $\begin{aligned} & \text { III (IEC 60664/60664A, } \\ & 60947-1) \end{aligned}$ |
| Pollution degree | 3 (IEC 60664/60664A, 60947-1) |
| Degree of protection | IP 67 (IEC 60529, 60947-1) |
| Temperature |  |
| Operating | $-25^{\circ}$ to $+55^{\circ} \mathrm{C}\left(-13^{\circ}\right.$ to $\left.+131^{\circ} \mathrm{F}\right)$ |
| Storage | $-30^{\circ}$ to $+80^{\circ} \mathrm{C}\left(-22^{\circ}\right.$ to $+176^{\circ} \mathrm{F}$ ) |
| Vibration | $\begin{aligned} & 10 \text { to } 150 \mathrm{~Hz}, 0.5 \mathrm{~mm} / 7.5 \mathrm{~g} \\ & \text { (IEC } 60068-2-6 \text { ) } \end{aligned}$ |
| Shock | $\begin{aligned} & 2 \times 1 \mathrm{~m} \& 100 \times 0.5 \mathrm{~m} \\ & (\text { IEC 60068-2-32) } \end{aligned}$ |
| Housing material |  |
| Body | PC, grey, reinforced |
| Front | PC, black |
| Cover | PC, black |
| Cable gland | PA, black, reinforced |
| Mounting bracket | Steel, black |
| Connection |  |
| Screw terminal | $5 \times 2 \times 1 \mathrm{~mm}^{2}$ |
| Cable gland | PG 13.5 or $1 / 2^{\prime \prime}$ NPT for cable 6 to 10 mm |
| Weight |  |
| Emitter | 110 g |
| Receiver | 115 g |
| Approvals | UL, CSA |
| CE-marking | Yes |

## Selection of Function



## Connection Diagram



PMT20 Emitter


## Operation Diagram

t = Time delay
tv = Power ON delay
Power supply
Target present
Object present
Func 1. Output ON
Func 2. Output ON
Func 3. Output ON
Func 4. Output ON
Func 5. Output ON
Func 6. Output ON

## Dimensions



## Installation Hints

To avoid interference from inductive voltage/
current peaks, separate the prox. switch pow-
er cables from any other power cables, e.g.
motor, contactor or solenoid cables Relief of cable strain

## Delivery Contents

- Photoelectric switch: PMT 20
- Cable gland
- Installation instruction
- M ounting bracket
- Packaging: Corrugated cardboard (environmentally friendly recycling material)


## Accessories

- MB02 (longer mounting bracket), please refer to "Accessories"

