

PMT

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

| | | | |
|-----------------------------|---------------------------------|--------------------------------|---------------------------|
| Алматы (7273)495-231 | Казань (843)206-01-48 | Новокузнецк (3843)20-46-81 | Смоленск (4812)29-41-54 |
| Архангельск (8182)63-90-72 | Калининград (4012)72-03-81 | Новосибирск (383)227-86-73 | Сочи (862)225-72-31 |
| Астрахань (8512)99-46-04 | Калуга (4842)92-23-67 | Омск (3812)21-46-40 | Ставрополь (8652)20-65-13 |
| Барнаул (3852)73-04-60 | Кемерово (3842)65-04-62 | Орел (4862)44-53-42 | Сургут (3462)77-98-35 |
| Белгород (4722)40-23-64 | Киров (8332)68-02-04 | Оренбург (3532)37-68-04 | Тверь (4822)63-31-35 |
| Брянск (4832)59-03-52 | Краснодар (861)203-40-90 | Пенза (8412)22-31-16 | Томск (3822)98-41-53 |
| Владивосток (423)249-28-31 | Красноярск (391)204-63-61 | Пермь (342)205-81-47 | Тула (4872)74-02-29 |
| Волгоград (844)278-03-48 | Курск (4712)77-13-04 | Ростов-на-Дону (863)308-18-15 | Тюмень (3452)66-21-18 |
| Вологда (8172)26-41-59 | Липецк (4742)52-20-81 | Рязань (4912)46-61-64 | Ульяновск (8422)24-23-59 |
| Воронеж (473)204-51-73 | Магнитогорск (3519)55-03-13 | Самара (846)206-03-16 | Уфа (347)229-48-12 |
| Екатеринбург (343)384-55-89 | Москва (495)268-04-70 | Санкт-Петербург (812)309-46-40 | Хабаровск (4212)92-98-04 |
| Иваново (4932)77-34-06 | Мурманск (8152)59-64-93 | Саратов (845)249-38-78 | Челябинск (351)202-03-61 |
| Ижевск (3412)26-03-58 | Набережные Челны (8552)20-53-41 | Севастополь (8692)22-31-93 | Череповец (8202)49-02-64 |
| Иркутск (395)279-98-46 | Нижний Новгород (831)429-08-12 | Симферополь (3652)67-13-56 | Ярославль (4852)69-52-93 |
| Россия (495)268-04-70 | Киргизия (996)312-96-26-47 | Казахстан (7172)727-132 | |

Photoelectrics

Through-beam, Industrial Door Market

Type PMT20.M, Mute Input

CARLO GAVAZZI



- 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 Hz
- 25 x 65 x 81 mm reinforced PC housing, IP 67
- CE, UL325 and UL508 approved



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 x 65 x 81 mm plastic

housing. PG 13.5 or 1/2" NPT cable gland. With Mute Input on the transmitter the sensor fulfill EN12978

Ordering Key

PMT20 R G M

Type _____
 Receiver _____
 Cable gland _____
 Mute Input _____

Type Selection

Housing
W x H x D

25 x 65 x 81
 PG 13.5 cable gland
 1/2" NPT cable gland

Ordering no.
Receiver without timer

PMT 20R GM
PMT 20R IM

Ordering no.
Emitter

PMT 20 GM
PMT 20 IM

Specifications Emitter

| | |
|---|--|
| Rated operational volt. (U_B) AC: 45 to 65 Hz | 24 VDC ± 20% 24 VAC ± 20% |
| Rated operational power | ≤ 1 W (1.2 VA) |
| Light source | GaAlAs LED, 880 nm |
| Light type | Infrared, modulated |
| Optical angle | ± 2° |
| Indication Power supply ON | LED, green |
| Output function | Switch selectable, make or break switching |

Specifications Receiver




| | |
|---|---|
| Rated operational volt. (U_B) AC: 45 to 65 Hz | 24 VDC ± 20% 24 VAC ± 20% |
| Rated operational power (Relay ON) | ≤ 2 W (2.5 VA) |
| Output | |
| Contact ratings (AgCdO) | μ (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 life | ≥ 40 x 10 ⁶ operations |
| Electrical life | ≥ 5 x 10 ⁵ operations at 220 VAC - 3 A resistive load: 360 impulses/h |
| Dielectric voltage | 2 kVAC (rms) (cont./supply) |
| Sensitivity | Adjustable, single turn pot. |
| Optical angle | ± 2° |
| Rated operating dist. (S_n) (0 to 5,000 lux) | 20 m |
| Operating frequency (f) | 20 Hz |
| Response time | OFF-ON (t _{ON}) ≤ 20 ms ON-OFF (t _{OFF}) ≤ 20 ms |
| Power ON delay (t_v) | ≤ 300 ms (typ. 100 ms) |
| Output function | Mute function |

General Specifications

| | |
|-------------------------|--|
| Environment | |
| Overvoltage category | III (IEC 60664/60664A, 60947-1) |
| Pollution degree | 3 (IEC 60664/60664A, 60947-1) |
| Degree of protection | IP 67 (IEC 60529, 60947-1) |
| Temperature | |
| Operating | -25° to +55°C (-13° to +131°F) |
| Storage | -30° to +80°C (-22° to +176°F) |
| Vibration | 10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6) |
| Shock | 2 x 1 m & 100 x 0.5 m (IEC 60068-2-32) |
| 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 x 2 x 1 mm ² |
| Cable gland | PG 13.5 or 1/2" NPT for cable 6 to 10 mm |
| Weight | |
| Emitter | 110 g |
| Receiver | 115 g |
| UL-Approval | |
| cULus | UL325, CSA-C22.2 No.247 |
| cULus | UL508 |
| CE-marking | Yes |

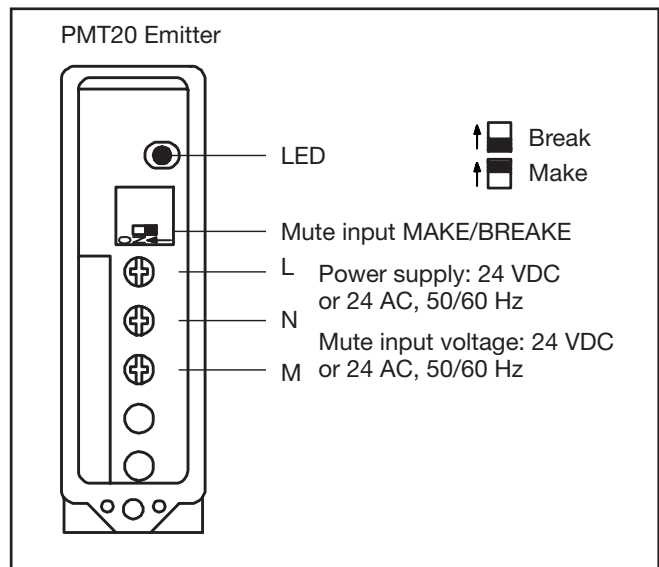
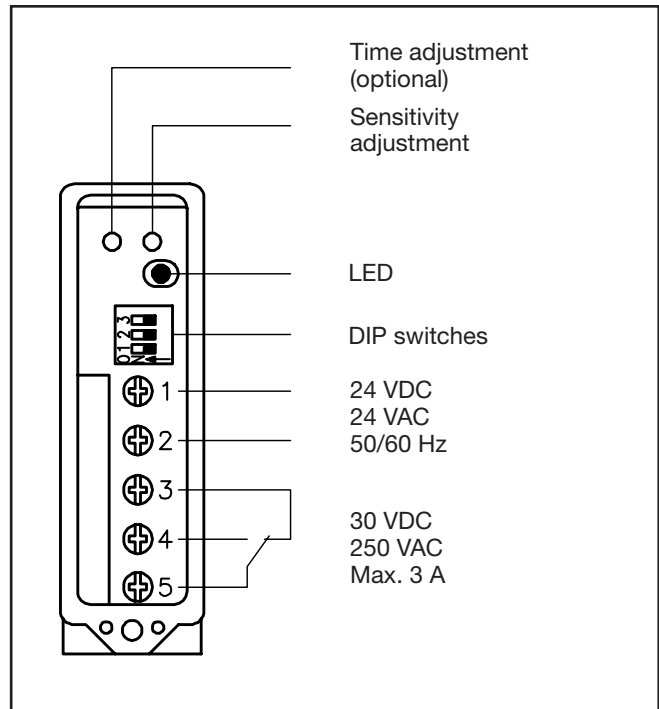
Selection of Function

PMT 20R.M

| | | |
|---|-------|-----------------|
| Switch | 1 2 3 | |
|  | 1 | Break switching |
|  | 2 | Make switching |
|  | 3 | Don't care |

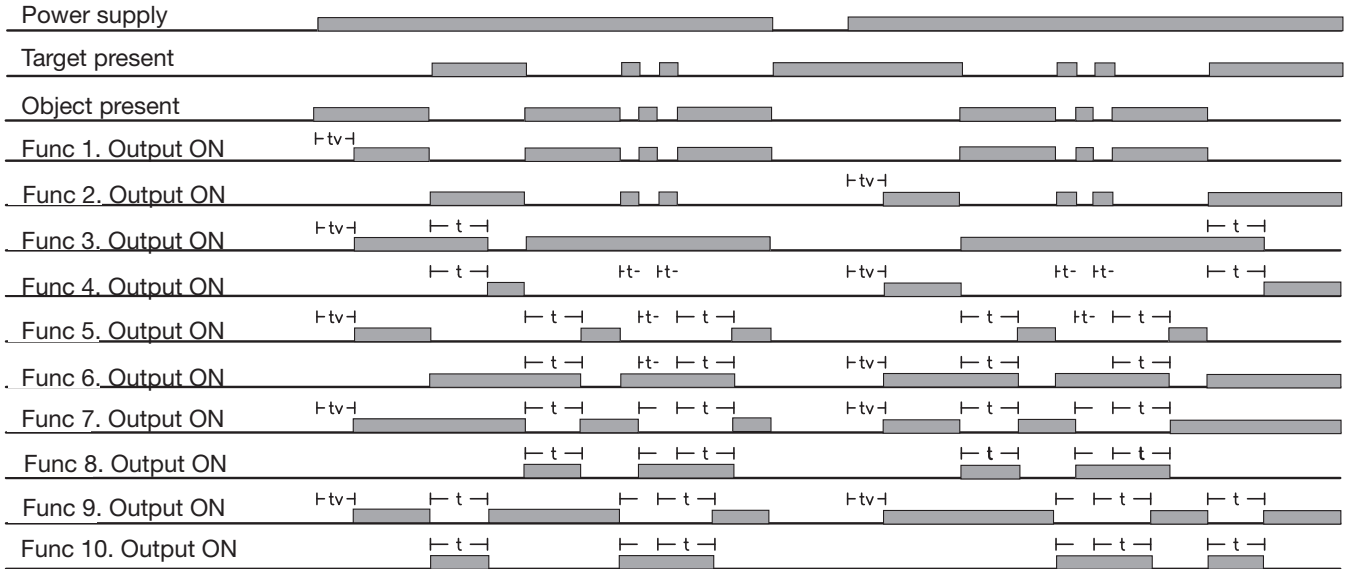
Upper position ON (Mode 1)
Lower position OFF (Mode 0)

Connection Diagram

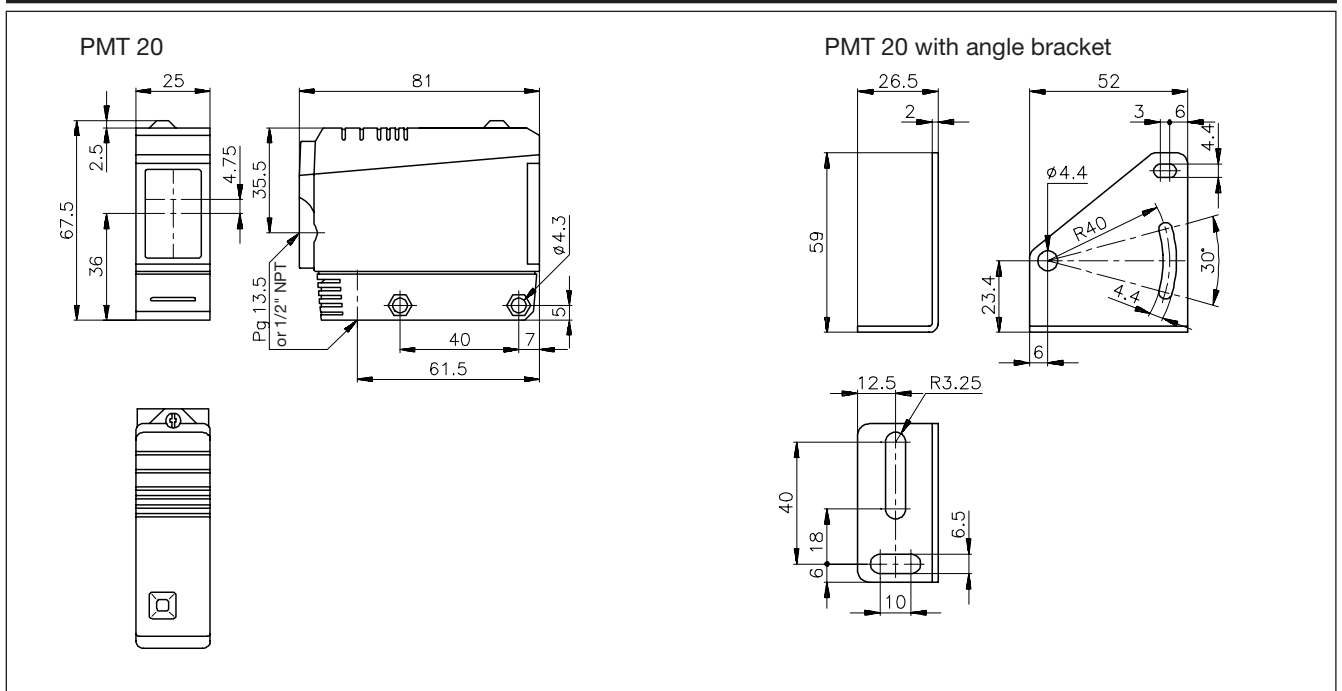


Operation Diagram

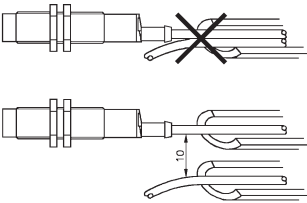
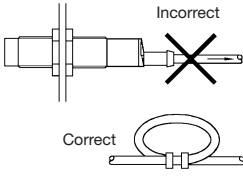
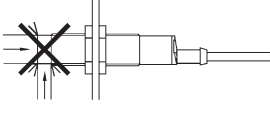
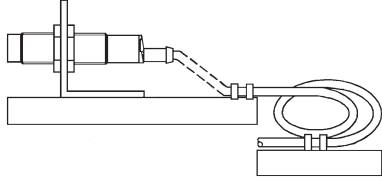
t = Time delay
tv = Power ON delay



Dimensions



Installation Hints

| | | | |
|--|--|--|---|
| <p><i>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</i></p>  | <p><i>Relief of cable strain</i></p>  <p>The cable should not be pulled</p> | <p><i>Protection of the sensing face</i></p>  <p>A proximity switch should not serve as mechanical stop</p> | <p><i>Switch mounted on mobile carrier</i></p>  <p>Any repetitive flexing of the cable should be avoided</p> |
|--|--|--|---|

Delivery Contents

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

Accessories

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

Photoelectrics Through-beam Type PMT

CARLO GAVAZZI



- Range: 20 m
- Adjustable sensitivity
- Modulated, infrared light
- Make or break switching function (switch selectable)
- LED-indication for power supply ON (emitter) and target detected (receiver)
- Multi supply voltage:
12 to 240 VDC and
24 to 240 VAC, 50/60 Hz
- 25 x 65 x 81 mm reinforced PC housing, IP 67
- Timer options (adjustable)



Product Description

Through-beam photoelectric switch. Range up to 20 m. Adjustable sensitivity. Immune to ambient light. Precise detection through narrow beam. LED-indication. Output function switch selectable. Relay output (NO/NC). Protection

degree IP 67. Screw terminal connection. 25 x 65 x 81 mm plastic housing. PG 13.5 or 1/2" NPT cable gland. Timer options: Delay on operate, delay on release, one shot (triggered on leading or trailing edge).

Ordering Key

PMT20 R G T

Type _____
Receiver _____
Cable gland _____
Option: Timer function _____

Type Selection

| Housing W x H x D | Ordering no. Receiver without timer | Ordering no. Receiver with timer | Ordering no. Emitter |
|---|--|--|------------------------------------|
| 25 x 65 x 81 PG 13.5 cable gland 1/2" NPT cable gland | PMT 20R G PMT 20R I | PMT 20R GT PMT 20R IT | PMT 20 G PMT 20 I |

Specifications Emitter

| | |
|---|------------------------------------|
| Rated operational volt. (U_B) AC: 45 to 65 Hz | 10.8 to 264 VDC 21.6 to 264 VAC |
| Rated operational power | ≤ 2 W (2.5 VA) |
| Light source | GaAlAs LED, 880 nm |
| Light type | Infrared, modulated |
| Optical angle | ± 2° |
| Indication Power supply ON | LED, green |

Specifications Receiver

| | |
|---|---|
| Rated operational volt. (U_B) AC: 45 to 65 Hz | 10.8 to 264 VDC 21.6 to 264 VAC |
| Rated operational power (Relay ON) | ≤ 2 W (2.5 VA) |
| Output | μ (micro gap) |
| Contact ratings (AgCdO) | 3 A/250 VAC |
| Resistive loads AC 1 | 3 A/30 VDC |
| DC 1 | 2 A/250 VAC |
| Small inductive loads AC 15 | 3 A/30 VDC |
| DC 13 | ≥ 40 x 10 ⁶ operations |
| Mechanical life | ≥ 5 x 10 ⁵ operations |
| Electrical life | at 220 VAC - 3 A resistive load: 360 impulses/h |
| Dielectric voltage | 2 kVAC (rms) (cont./supply) |
| Sensitivity | Adjustable, single turn pot. |
| Optical angle | ± 2° |
| Rated operating dist. (S_n) (0 to 5,000 lux) | 20 m |
| Operating frequency (f) | 20 Hz |
| Response time OFF-ON (t _{ON}) | ≤ 20 ms |
| ON-OFF (t _{OFF}) | ≤ 20 ms |

Specifications Receiver (cont.)

| | |
|---|--|
| Power ON delay (t_v) | ≤ 300 ms (typ. 100 ms) |
| Output function | Switch selectable, make or break switching |
| Indication | |
| Target detected (make swit.) | LED, yellow |
| Target not detected (break swit.) | LED, yellow |
| Optional timer | |
| Delay on operate | 0.1 to 7 s ± 2 s |
| Delay on release | 0.1 to 7 s ± 2 s |
| One shot | 0.1 to 7 s ± 2 s |

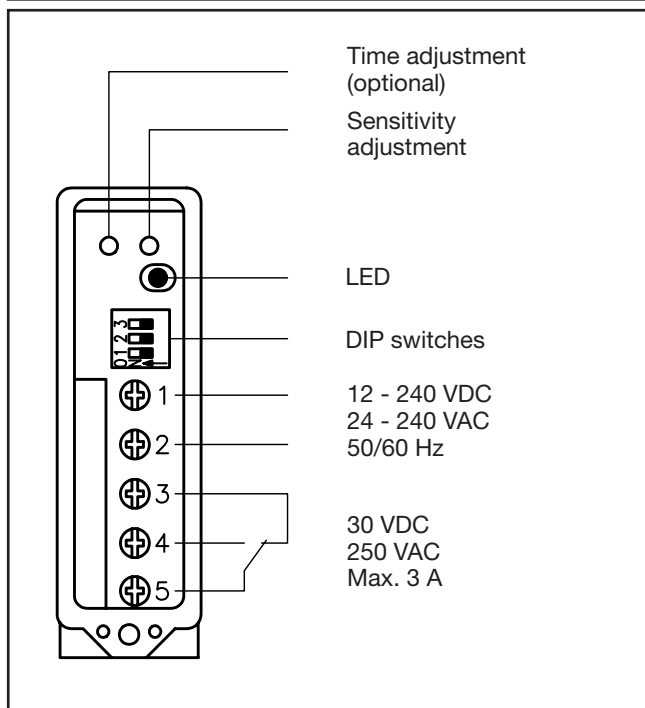
General Specifications

| | |
|---------------------------------|--|
| Environment | |
| Overvoltage category | III (IEC 60664/60664A, 60947-1) |
| Pollution degree | 3 (IEC 60664/60664A, 60947-1) |
| Degree of protection | IP 67 (IEC 60529, 60947-1) |
| Temperature | |
| Operating | -25° to +55°C (-13° to +131°F) |
| Storage | -30° to +80°C (-22° to +176°F) |
| Vibration | 10 to 150 Hz, 0.5 mm/7.5 g (IEC 60068-2-6) |
| Shock | 2 x 1 m & 100 x 0.5 m (IEC 60068-2-32) |
| Rated insulation voltage | 250 VAC (rms) |
| 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 x 2 x 1 mm ² |
| Cable gland | PG 13.5 or 1/2" NPT for cable 6 to 10 mm |
| Weight | |
| Emitter | 110 g |
| Receiver | 115 g |
| Approvals | UL, CSA |
| CE-marking | Yes |

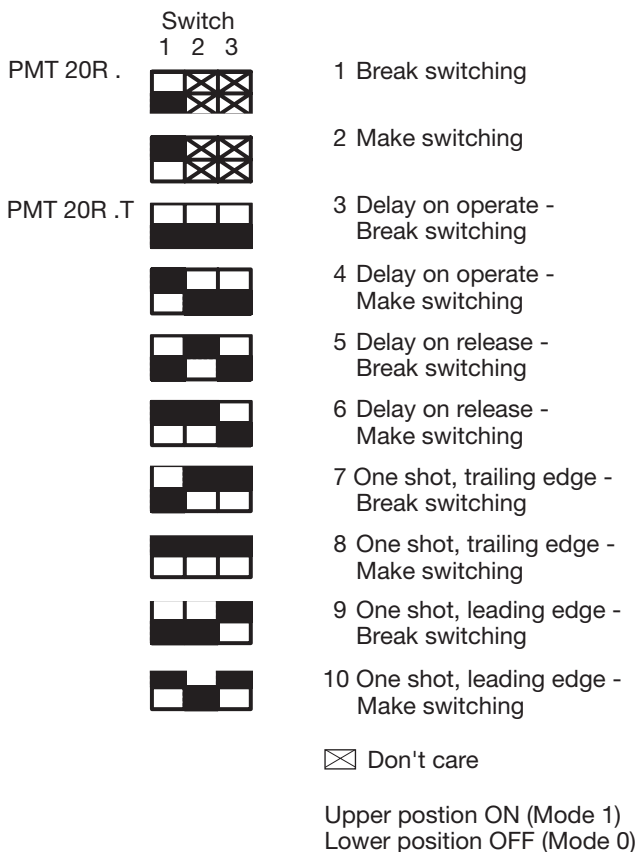
Truth Table

| | Make switching | | Break switching | |
|----------------|----------------|--------|-----------------|------------|
| | Yes | No | Yes | No |
| Object present | Yes | No | Yes | No |
| LED | OFF | ON | OFF | ON |
| Load | Non-active | Active | Active | Non-active |

Connection Diagram

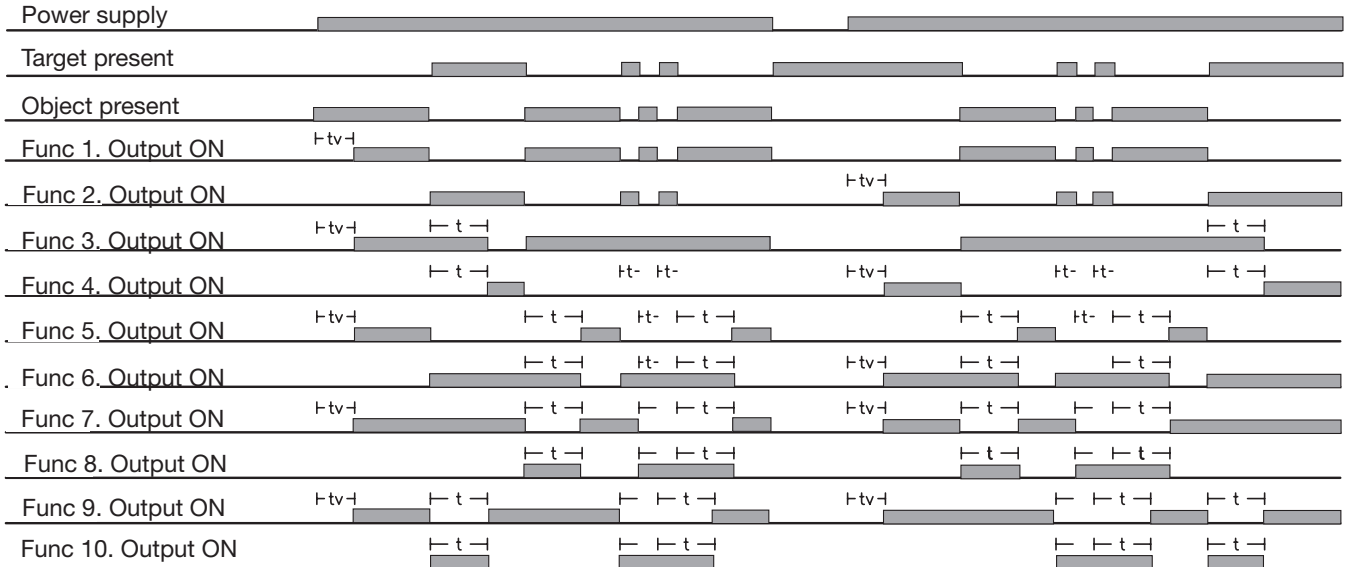


Selection of Function

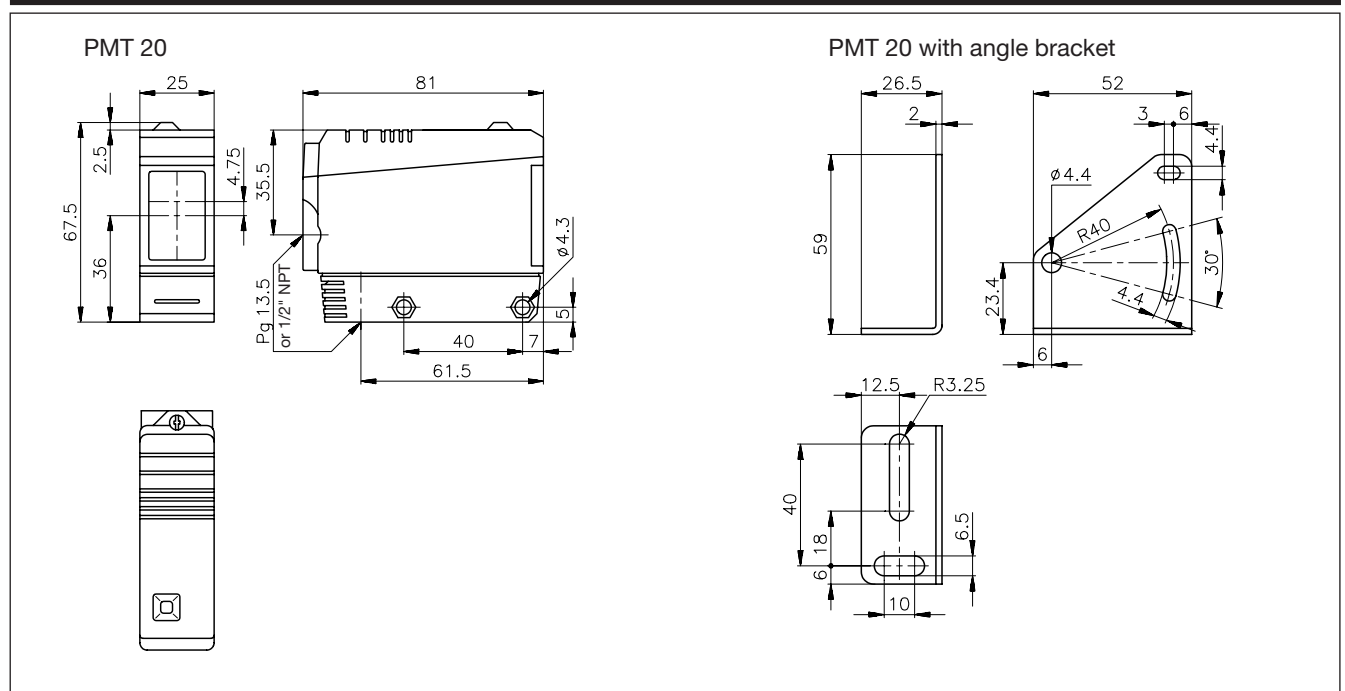


Operation Diagram

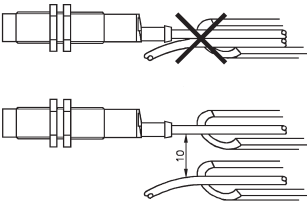
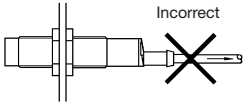

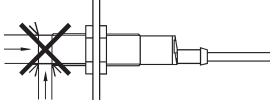
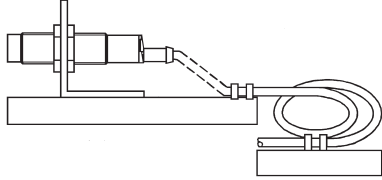
t = Time delay
tv = Power ON delay



Dimensions



Installation Hints

| | | | |
|--|--|--|---|
| <p><i>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</i></p>  | <p><i>Relief of cable strain</i></p> <p>Incorrect</p>  <p>Correct</p>  <p>The cable should not be pulled</p> | <p><i>Protection of the sensing face</i></p>  <p>A proximity switch should not serve as mechanical stop</p> | <p><i>Switch mounted on mobile carrier</i></p>  <p>Any repetitive flexing of the cable should be avoided</p> |
|--|--|--|---|

Delivery Contents

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

Accessories

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

По вопросам продаж и поддержки обращайтесь:

| | | | |
|-----------------------------|---------------------------------|--------------------------------|---------------------------|
| Алматы (7273)495-231 | Казань (843)206-01-48 | Новокузнецк (3843)20-46-81 | Смоленск (4812)29-41-54 |
| Архангельск (8182)63-90-72 | Калининград (4012)72-03-81 | Новосибирск (383)227-86-73 | Сочи (862)225-72-31 |
| Астрахань (8512)99-46-04 | Калуга (4842)92-23-67 | Омск (3812)21-46-40 | Ставрополь (8652)20-65-13 |
| Барнаул (3852)73-04-60 | Кемерово (3842)65-04-62 | Орел (4862)44-53-42 | Сургут (3462)77-98-35 |
| Белгород (4722)40-23-64 | Киров (8332)68-02-04 | Оренбург (3532)37-68-04 | Тверь (4822)63-31-35 |
| Брянск (4832)59-03-52 | Краснодар (861)203-40-90 | Пенза (8412)22-31-16 | Томск (3822)98-41-53 |
| Владивосток (423)249-28-31 | Красноярск (391)204-63-61 | Пермь (342)205-81-47 | Тула (4872)74-02-29 |
| Волгоград (844)278-03-48 | Курск (4712)77-13-04 | Ростов-на-Дону (863)308-18-15 | Тюмень (3452)66-21-18 |
| Вологда (8172)26-41-59 | Липецк (4742)52-20-81 | Рязань (4912)46-61-64 | Ульяновск (8422)24-23-59 |
| Воронеж (473)204-51-73 | Магнитогорск (3519)55-03-13 | Самара (846)206-03-16 | Уфа (347)229-48-12 |
| Екатеринбург (343)384-55-89 | Москва (495)268-04-70 | Санкт-Петербург (812)309-46-40 | Хабаровск (4212)92-98-04 |
| Иваново (4932)77-34-06 | Мурманск (8152)59-64-93 | Саратов (845)249-38-78 | Челябинск (351)202-03-61 |
| Ижевск (3412)26-03-58 | Набережные Челны (8552)20-53-41 | Севастополь (8692)22-31-93 | Череповец (8202)49-02-64 |
| Иркутск (395)279-98-46 | Нижний Новгород (831)429-08-12 | Симферополь (3652)67-13-56 | Ярославль (4852)69-52-93 |
| Россия (495)268-04-70 | Киргизия (996)312-96-26-47 | Казахстан (7172)727-132 | |

cgo@nt-rt.ru || <https://gavazzi.nt-rt.ru/>