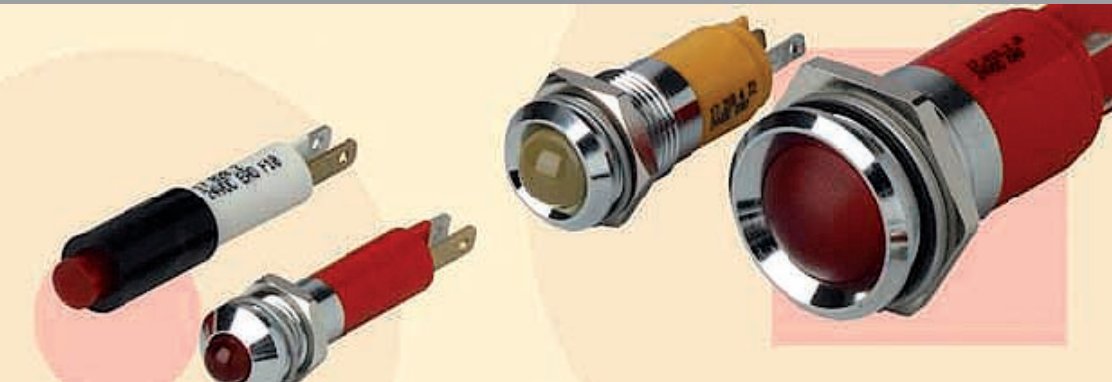


EAO – Your Expert Partner for
Human Machine Interfaces



EAO Product Information

Series 17



| | |
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Product Information

General notes

The LED indicators are fitted with an integrated series resistor so that additional wiring can be dispensed with.

The different front versions, such as:

- internal/external reflector
- flat front
- satin-chrome or black-chrome
- optical lens

allow them to be used in most frequent applications.

Mounting

Mounted from the front through cut out.

The indicators are secured to the panel by means of a fixing nut and washer.

Terminals

Connection is through plug-in terminals 2.0 x 0.5 mm or 2.8 x 0.8 mm.

The anode (+) and cathode (-) are marked at the rear.

*We reserve the right to modify technical data
All dimensions in mm*

Indicator, raised mounting

- 1 Indicator
- 2 Fixing nut



Indicator 6 mm dia., LED 3 mm



| Indicator 6 mm dia., LED 3 mm | Front protection | Reflector | Light colour | | Operating voltage/ current | Terminals | Ø 7 mm Typ-Nr. | Technical drawing | |
|----------------------------------|------------------|--------------------------------|-----------------|---------|-------------------------------|---------------|-------------------|-------------------|-------|
| | | | Lumi. Intensity | | | | | 1 | 0.003 |
| | IP 40 | Metal satin-chrome exterior | green | 6 mcd | 24 VDC, 15 mA | PT | 17-020351 | 1 | 0.003 |
| | | | red | 8 mcd | 24 VDC, 15 mA | PT | 17-020350 | 1 | 0.003 |
| | | | white | 410 mcd | 24 VDC, 15 mA | PT | 17-02035W | 1 | 0.003 |
| | | | yellow | 6 mcd | 24 VDC, 15 mA | PT | 17-020352 | 1 | 0.003 |
| | | Metal satin-chrome flush | green | 6 mcd | 24 VDC, 15 mA | PT | 17-000351 | 1 | 0.003 |
| | | | red | 8 mcd | 24 VDC, 15 mA | PT | 17-000350 | 1 | 0.003 |
| | | | yellow | 6 mcd | 24 VDC, 15 mA | PT | 17-000352 | 1 | 0.003 |
| | | Metal satin-chrome interior | blue | 26 mcd | 24 VDC, 15 mA | PT | 17-030357 | 1 | 0.003 |
| | | | green | 6 mcd | 24 VDC, 15 mA | PT | 17-030351 | 1 | 0.003 |
| | | | red | 8 mcd | 24 VDC, 15 mA | PT | 17-030350 | 1 | 0.003 |
| | | | white | 410 mcd | 24 VDC, 15 mA | PT | 17-03035W | 1 | 0.003 |
| | | | | yellow | 6 mcd | 24 VDC, 15 mA | PT | 17-030352 | 1 |

Terminals: PT = Plug-in terminal
 Technical drawing from page 13

Indicator 8 mm dia., LED 5 mm



| | Front protection | Reflector | Light colour | Lumi. Intensity | Operating voltage/-current | Terminals | Ø 9.5 mm Typ-Nr. | Technical drawing | IP | |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|----------------------------|--------------------|------------------|-------------------|-------|-------|
| Indicator 8 mm dia., LED 5 mm | IP 67 | Metal black-chrome exterior | blue | 60 mcd | 24 VDC, 20 mA | PT | 17-041357 | 2 | 0.005 | |
| | | | green | 32 mcd | 24 VDC, 20 mA | PT | 17-041351 | 2 | 0.005 | |
| | | | red | 80 mcd | 24 VDC, 20 mA | PT | 17-041350 | 2 | 0.005 | |
| | | | yellow | 32 mcd | 24 VDC, 20 mA | PT | 17-041352 | 2 | 0.005 | |
| | | Metal black-chrome interior | blue | 60 mcd | 24 VDC, 20 mA | PT | 17-051357 | 2 | 0.005 | |
| | | | green | 32 mcd | 24 VDC, 20 mA | PT | 17-051351 | 2 | 0.005 | |
| | | | red | 80 mcd | 24 VDC, 20 mA | PT | 17-051350 | 2 | 0.005 | |
| | | | yellow | 32 mcd | 24 VDC, 20 mA | PT | 17-051352 | 2 | 0.005 | |
| | | Metal satin-chrome exterior | blue | 57 mcd | 24 VAC, 19 mA | PT | 17-040367 | 2 | 0.005 | |
| | | | | 60 mcd | 24 VDC, 20 mA | PT | 17-040357 | 2 | 0.005 | |
| | | | green | 30 mcd | 24 VAC, 19 mA | PT | 17-040361 | 2 | 0.005 | |
| | | | | 32 mcd | 24 VDC, 20 mA | PT | 17-040351 | 2 | 0.005 | |
| | green/yellow | | 20/15 mcd | 24 VDC, 22 mA | PT | 17-120356 | 3 | 0.005 | | |
| | red | | 76 mcd | 24 VAC, 19 mA | PT | 17-040360 | 2 | 0.005 | | |
| | | | 80 mcd | 24 VDC, 20 mA | PT | 17-040350 | 2 | 0.005 | | |
| | red/green | | 11/30 mcd | 24 VDC, 22 mA | PT | 17-120354 | 3 | 0.005 | | |
| | red/yellow | | 10/11 mcd | 24 VDC, 22 mA | PT | 17-120355 | 3 | 0.005 | | |
| | yellow | | 30 mcd | 24 VAC, 19 mA | PT | 17-040362 | 2 | 0.005 | | |
| | | | 32 mcd | 24 VDC, 20 mA | PT | 17-040352 | 2 | 0.005 | | |
| | Metal satin-chrome flat | | green | 8 mcd | 24 VDC, 20 mA | PT | 17-010351 | 2 | 0.005 | |
| | | red | 13 mcd | 24 VDC, 20 mA | PT | 17-010350 | 2 | 0.005 | | |
| | | red/green/yellow | 3/3/6 mcd | 24 VDC, 15/15/30 mA | PT | 17-100354 | 3 | 0.005 | | |
| | | yellow | 8 mcd | 24 VDC, 20 mA | PT | 17-010352 | 2 | 0.005 | | |
| | Metal satin-chrome interior | blue | 57 mcd | 24 VAC, 19 mA | PT | 17-050367 | 2 | 0.005 | | |
| | | | 60 mcd | 24 VDC, 20 mA | PT | 17-050357 | 2 | 0.005 | | |
| | | green | 32 mcd | 24 VDC, 20 mA | PT | 17-050351 | 2 | 0.005 | | |
| | | green/yellow | 20/15 mcd | 24 VDC, 22 mA | PT | 17-130356 | 3 | 0.005 | | |
| | | red | 76 mcd | 24 VAC, 19 mA | PT | 17-050360 | 2 | 0.005 | | |
| | | | 80 mcd | 24 VDC, 20 mA | PT | 17-050350 | 2 | 0.005 | | |
| | | red/green | 11/30 mcd | 24 VDC, 22 mA | PT | 17-130354 | 3 | 0.005 | | |
| | | red/yellow | 10/11 mcd | 24 VDC, 22 mA | PT | 17-130355 | 3 | 0.005 | | |
| | | yellow | 30 mcd | 24 VAC, 19 mA | PT | 17-050362 | 2 | 0.005 | | |
| 32 mcd | | | 24 VDC, 20 mA | PT | 17-050352 | 2 | 0.005 | | | |
| Sunlight visibility Light reduction of around 25 % by use of AC | | IP 67 | Metal satin-chrome exterior | blue | 600 mcd | 24 VAC/DC, 9/17 mA | PT | 17-080357 | 2 | 0.005 |
| | | | | green | 1300 mcd | 24 VAC/DC, 9/17 mA | PT | 17-080355 | 2 | 0.005 |
| | red | | | 1200 mcd | 24 VAC/DC, 9/17 mA | PT | 17-080350 | 2 | 0.005 | |
| | white | | | 1000 mcd | 24 VAC/DC, 9/17 mA | PT | 17-08035W | 2 | 0.005 | |
| | yellow | | | 1100 mcd | 24 VAC/DC, 9/17 mA | PT | 17-080352 | 2 | 0.005 | |
| | Metal satin-chrome interior | blue | 600 mcd | 24 VAC/DC, 9/17 mA | PT | 17-090357 | 2 | 0.005 | | |
| | | green | 1300 mcd | 24 VAC/DC, 9/17 mA | PT | 17-090355 | 2 | 0.005 | | |
| | | red | 1200 mcd | 24 VAC/DC, 9/17 mA | PT | 17-090350 | 2 | 0.005 | | |
| | | white | 1000 mcd | 24 VAC/DC, 9/17 mA | PT | 17-09035W | 2 | 0.005 | | |
| | | yellow | 1100 mcd | 24 VAC/DC, 9/17 mA | PT | 17-090352 | 2 | 0.005 | | |

Continuation see next page

Continued from previous page

| | Front protection | Reflector | Light colour | Lumi. Intensity | Operating voltage/-current | Terminals | Ø 9.5 mm Typ-Nr. | Technical drawing | |
|----------------------|------------------|-----------------------------|--------------|-----------------|----------------------------|-----------|------------------|-------------------|-------|
| with protection tube | IP 67 | Metal satin-chrome exterior | green | 5 mcd | 230 VAC, 3 mA | PT | 17-510431 | 9 | 0.006 |
| | | | red | 22 mcd | 230 VAC, 3 mA | PT | 17-510430 | 9 | 0.006 |
| | | | yellow | 7 mcd | 230 VAC, 3 mA | PT | 17-510432 | 9 | 0.006 |
| | | Metal satin-chrome interior | green | 5 mcd | 230 VAC, 3 mA | PT | 17-500431 | 9 | 0.005 |
| | | | red | 22 mcd | 230 VAC, 3 mA | PT | 17-500430 | 9 | 0.005 |
| | | | yellow | 7 mcd | 230 VAC, 3 mA | PT | 17-500432 | 9 | 0.005 |

Terminals: PT = Plug-in terminal

Technical drawing from page 13

Indicator 8 mm dia., LED 5 mm, flush mounted

The mounting is performed by cementing the LED Indicator using a solvent free two element epoxy-based adhesive



| | Front protection | Light colour | Lumi. Intensity | Operating voltage/-current | Terminals | Ø 8 mm Typ-Nr. | Technical drawing | |
|---|------------------|------------------|-----------------|----------------------------|-----------|------------------|-------------------|-------|
| Indicator 8 mm dia., LED 5 mm, flush mounted | IP 40 | green | 10 mcd | 24 VDC, 22 mA | PT | 17-590351 | 6 | 0.002 |
| | | red | 11 mcd | 24 VDC, 22 mA | PT | 17-590350 | 6 | 0.002 |
| | | yellow | 9 mcd | 24 VDC, 22 mA | PT | 17-590352 | 6 | 0.002 |
| Tri-colour LED | IP 40 | red/green/yellow | 3/3/6 mcd | 24 VDC, 15/15/30 mA | PT | 17-590354 | 6 | 0.002 |

Operation modes (tri-colour LED): Red, green or yellow. Both diodes produce yellow as a mixed colour.

Terminals: PT = Plug-in terminal

Technical drawing from page 13

Indicator 14 mm dia., LED 10 mm



| | Front protection | Reflector | Lumi. Intensity | Light colour | Operating voltage/-current | Terminals | Ø 16 mm Typ-Nr. | Technical drawing | kg/m³ |
|--|------------------|--------------------------------------|-----------------|------------------|----------------------------|-----------|------------------|-------------------|-------|
| Indicator 14 mm dia., LED 10 mm | IP 67 | Metal black-chrome interior-exterior | 150 mcd | red | 24 VDC, 20 mA | PT | 17-211350 | 4 | 0.014 |
| | | | 70 mcd | green | 24 VDC, 20 mA | PT | 17-211351 | 4 | 0.014 |
| | | | | yellow | 24 VDC, 20 mA | PT | 17-211352 | 4 | 0.014 |
| | | Metal satin-chrome interior-exterior | 150 mcd | red | 24 VDC, 20 mA | PT | 17-210350 | 4 | 0.014 |
| | | | 70 mcd | green | 24 VDC, 20 mA | PT | 17-210351 | 4 | 0.014 |
| | | | | yellow | 24 VDC, 20 mA | PT | 17-210352 | 4 | 0.014 |
| flashing | IP 67 | Metal black-chrome interior-exterior | 100 mcd | red | 24 VDC, 38 ... 56 mA | PT | 17-221350 | 4 | 0.014 |
| | | | 70 mcd | green | 24 VDC, 38 ... 56 mA | PT | 17-221351 | 4 | 0.014 |
| | | | | yellow | 24 VDC, 38 ... 56 mA | PT | 17-221352 | 4 | 0.014 |
| | | Metal satin-chrome interior-exterior | 100 mcd | red | 24 VDC, 38 ... 56 mA | PT | 17-220350 | 4 | 0.014 |
| | | | 70 mcd | green | 24 VDC, 38 ... 56 mA | PT | 17-220351 | 4 | 0.014 |
| | | | | yellow | 24 VDC, 38 ... 56 mA | PT | 17-220352 | 4 | 0.014 |
| Sunlight visibility Light reduction of around 25 % by use of AC | IP 67 | Metal satin-chrome interior-exterior | 1000 mcd | yellow | 24 VAC/DC, 9/17 mA | PT | 17-2A0352 | 4 | 0.014 |
| | | | 1250 mcd | green | 24 VAC/DC, 9/17 mA | PT | 17-2A0355 | 4 | 0.014 |
| | | | 1350 mcd | white | 24 VAC/DC, 9/17 mA | PT | 17-2A035W | 4 | 0.014 |
| | | | 500 mcd | blue | 24 VAC/DC, 9/17 mA | PT | 17-2A0357 | 4 | 0.014 |
| | | | 700 mcd | red | 24 VAC/DC, 9/17 mA | PT | 17-2A0350 | 4 | 0.014 |
| Tri-colour LED | IP 67 | Metal satin-chrome interior-exterior | 90/60/150 mcd | red/green/yellow | 24 VDC, 20/20/20 mA | PT | 17-240354 | 4 | 0.014 |
| with protection tube | IP 67 | Metal black-chrome interior-exterior | 11 mcd | green | 230 VAC, 3 mA | PT | 17-351231 | 5 | 0.015 |
| | | | 18 mcd | red | 230 VAC, 3 mA | PT | 17-351230 | 5 | 0.015 |
| | | | 8 mcd | yellow | 230 VAC, 3 mA | PT | 17-351233 | 5 | 0.015 |
| | | Metal satin-chrome interior-exterior | 11 mcd | green | 230 VAC, 3 mA | PT | 17-350231 | 5 | 0.015 |
| | | | 18 mcd | red | 230 VAC, 3 mA | PT | 17-350230 | 5 | 0.015 |
| | | | 8 mcd | yellow | 230 VAC, 3 mA | PT | 17-350233 | 5 | 0.015 |

Terminals: PT = Plug-in terminal

Technical drawing from page 13

Indicator 16 mm dia., LED 10 mm



| Indicator 16 mm dia., LED 10 mm | Front protection | Lense | Reflector | Light colour | Lumi. Intensity | Operating voltage/- current | Terminals | Ø 18.3 mm Typ-Nr. | Technical drawing | Fig. |
|---------------------------------|------------------|-------------|---------------|---------------|-----------------|--------------------------------|-----------|----------------------|-------------------|-------|
| | | | | | | | | | | |
| Indicator 16 mm dia., LED 10 mm | IP 67 | conical | Plastic black | blue | 860 mcd | 24 VDC, 14 mA | PT | 17-391357Z | 10 | 0.007 |
| | | | | | | 28 VDC, 14 mA | PT | 17-391457Z | 10 | 0.007 |
| | | | | green | 820 mcd | 24 VDC, 15 mA | PT | 17-391351Z | 10 | 0.007 |
| | | | | | | 28 VDC, 15 mA | PT | 17-391451Z | 10 | 0.007 |
| | | | | red | 1470 mcd | 24 VDC, 16 mA | PT | 17-391350Z | 10 | 0.007 |
| | | | | | | 28 VDC, 16 mA | PT | 17-391450Z | 10 | 0.007 |
| | | | | ultra-green | 5030 mcd | 24 VDC, 14 mA | PT | 17-391355Z | 10 | 0.007 |
| | | | | | | 28 VDC, 14 mA | PT | 17-391455Z | 10 | 0.007 |
| | | | | white | 2760 mcd | 24 VDC, 14 mA | PT | 17-39135WZ | 10 | 0.007 |
| | | | | | | 28 VDC, 14 mA | PT | 17-39145WZ | 10 | 0.007 |
| | | | | yellow | 1640 mcd | 24 VDC, 16 mA | PT | 17-391352Z | 10 | 0.007 |
| | | | | | | 28 VDC, 16 mA | PT | 17-391452Z | 10 | 0.007 |
| | | convex | Plastic black | blue | 860 mcd | 24 VDC, 14 mA | PT | 17-371357Z | 10 | 0.007 |
| | | | | | | 28 VDC, 14 mA | PT | 17-371457Z | 10 | 0.007 |
| | | | | green | 980 mcd | 24 VDC, 15 mA | PT | 17-371351Z | 10 | 0.007 |
| | | | | | | 28 VDC, 15 mA | PT | 17-371451Z | 10 | 0.007 |
| | | | | red | 1200 mcd | 24 VDC, 16 mA | PT | 17-371350Z | 10 | 0.007 |
| | | | | | | 28 VDC, 16 mA | PT | 17-371450Z | 10 | 0.007 |
| | | | | ultra-green | 5440 mcd | 24 VDC, 14 mA | PT | 17-371355Z | 10 | 0.007 |
| | | | | | | 28 VDC, 14 mA | PT | 17-371455Z | 10 | 0.007 |
| | | | | white | 2460 mcd | 24 VDC, 14 mA | PT | 17-37135WZ | 10 | 0.007 |
| | | | | | | 28 VDC, 14 mA | PT | 17-37145WZ | 10 | 0.007 |
| | | | | yellow | 1650 mcd | 24 VDC, 16 mA | PT | 17-371352Z | 10 | 0.007 |
| | | | | | | 28 VDC, 16 mA | PT | 17-371452Z | 10 | 0.007 |
| flush | Plastic black | blue | 740 mcd | 24 VDC, 14 mA | PT | 17-381357Z | 10 | 0.007 | | |
| | | | | 28 VDC, 14 mA | PT | 17-381457Z | 10 | 0.007 | | |
| | | green | 870 mcd | 24 VDC, 15 mA | PT | 17-381351Z | 10 | 0.007 | | |
| | | | | 28 VDC, 15 mA | PT | 17-381451Z | 10 | 0.007 | | |
| | | red | 870 mcd | 24 VDC, 16 mA | PT | 17-381350Z | 10 | 0.007 | | |
| | | | | 28 VDC, 16 mA | PT | 17-381450Z | 10 | 0.007 | | |
| | | ultra-green | 4130 mcd | 24 VDC, 14 mA | PT | 17-381355Z | 10 | 0.007 | | |
| | | | | 28 VDC, 14 mA | PT | 17-381455Z | 10 | 0.007 | | |
| | | white | 1290 mcd | 24 VDC, 14 mA | PT | 17-38135WZ | 10 | 0.007 | | |
| | | | | 28 VDC, 14 mA | PT | 17-38145WZ | 10 | 0.007 | | |
| | | yellow | 1250 mcd | 24 VDC, 16 mA | PT | 17-381352Z | 10 | 0.007 | | |
| | | | | 28 VDC, 16 mA | PT | 17-381452Z | 10 | 0.007 | | |

Continuation see next page

Continued from previous page

| | Front protection | Lense | Reflector | Light colour | Lumi. Intensity | Operating voltage/-current | Terminals | Ø 18.3 mm Typ-Nr. | Technical drawing | |
|----------------------|------------------|---------|---------------|--------------|-----------------|----------------------------|-------------------|-------------------|-------------------|-------|
| with protection tube | IP 67 | conical | Plastic black | blue | 200 mcd | 230 VAC, 3 mA | PT | 17-421237Z | 11 | 0.008 |
| | | | | green | 120 mcd | 230 VAC, 3 mA | PT | 17-421231Z | 11 | 0.008 |
| | | | | red | 240 mcd | 230 VAC, 3 mA | PT | 17-421230Z | 11 | 0.008 |
| | | | | ultra-green | 1280 mcd | 230 VAC, 3 mA | PT | 17-421235Z | 11 | 0.008 |
| | | | | white | 500 mcd | 230 VAC, 3 mA | PT | 17-42123WZ | 11 | 0.008 |
| | | | | yellow | 190 mcd | 230 VAC, 3 mA | PT | 17-421232Z | 11 | 0.008 |
| | | convex | Plastic black | blue | 200 mcd | 230 VAC, 3 mA | PT | 17-401237Z | 11 | 0.008 |
| | | | | green | 150 mcd | 230 VAC, 3 mA | PT | 17-401231Z | 11 | 0.008 |
| | | | | red | 240 mcd | 230 VAC, 3 mA | PT | 17-401230Z | 11 | 0.008 |
| | | | | ultra-green | 1560 mcd | 230 VAC, 3 mA | PT | 17-401235Z | 11 | 0.008 |
| | | | | white | 350 mcd | 230 VAC, 3 mA | PT | 17-40123WZ | 11 | 0.008 |
| | | | | yellow | 210 mcd | 230 VAC, 3 mA | PT | 17-401232Z | 11 | 0.008 |
| | | flush | Plastic black | blue | 150 mcd | 230 VAC, 3 mA | PT | 17-411237Z | 11 | 0.008 |
| | | | | green | 120 mcd | 230 VAC, 3 mA | PT | 17-411231Z | 11 | 0.008 |
| | | | | red | 140 mcd | 230 VAC, 3 mA | PT | 17-411230Z | 11 | 0.008 |
| | ultra-green | | | 970 mcd | 230 VAC, 3 mA | PT | 17-411235Z | 11 | 0.008 | |
| | white | | | 280 mcd | 230 VAC, 3 mA | PT | 17-41123WZ | 11 | 0.008 | |
| | yellow | | | 130 mcd | 230 VAC, 3 mA | PT | 17-411232Z | 11 | 0.008 | |

Terminals: PT = Plug-in terminal

Technical drawing from page 13

Indicator 22 mm dia., LED 15 mm




| | Front protection | Reflector | Light colour | Lumi. Intensity | Operating voltage/-current | Terminals | Ø 25 mm Typ-Nr. | Technical drawing | | | |
|---------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|----------------------------|-----------|------------------|-------------------|------------------|---|-------|
| Indicator 22 mm dia., LED 15 mm | IP 67 | Metal black-chrome interior-exterior | green | 120 mcd | 24 VDC, 19 mA | PT | 17-531351 | 7 | 0.042 | | |
| | | | red | 160 mcd | 24 VDC, 19 mA | PT | 17-531350 | 7 | 0.042 | | |
| | | | red/yellow/green | 51/92/120 mcd | 24 VDC, 26/24/50 mA | PT | 17-541354 | 7 | 0.042 | | |
| | | | yellow | 350 mcd | 24 VDC, 19 mA | PT | 17-531352 | 7 | 0.042 | | |
| | | Metal satin-chrome interior-exterior | green | 120 mcd | 24 VDC, 19 mA | PT | 17-530351 | 7 | 0.042 | | |
| | | | red | 160 mcd | 24 VDC, 19 mA | PT | 17-530350 | 7 | 0.042 | | |
| | | | red/yellow/green | 51/92/120 mcd | 24 VDC, 26/24/50 mA | PT | 17-540354 | 7 | 0.042 | | |
| | | | yellow | 350 mcd | 24 VDC, 19 mA | PT | 17-530352 | 7 | 0.042 | | |
| | | with protection tube | IP 67 | Metal black-chrome interior-exterior | green | 20 mcd | 230 VAC, 4 mA | PT | 17-571231 | 8 | 0.044 |
| | | | | | red | 28 mcd | 230 VAC, 4 mA | PT | 17-571230 | 8 | 0.044 |
| | | | | | yellow | 48 mcd | 230 VAC, 4 mA | PT | 17-571232 | 8 | 0.044 |
| | | | | Metal satin-chrome interior-exterior | green | 20 mcd | 230 VAC, 4 mA | PT | 17-570231 | 8 | 0.044 |
| red | 28 mcd | | | | 230 VAC, 4 mA | PT | 17-570230 | 8 | 0.044 | | |
| yellow | 48 mcd | | | | 230 VAC, 4 mA | PT | 17-570232 | 8 | 0.044 | | |

Terminals: PT = Plug-in terminal

Technical drawing from page 13


Backside

Flat receptacle

| | Typ-Nr. |  |
|--|----------------|---|
| Flat receptacle 2.0 x 0.5 mm | 31-945 | 0.001 |
| 2.8 x 0.8 mm | 84-9420 | 0.001 |



Insulation sleeve

| | Typ-Nr. |  |
|---|---------------|---|
| Insulation sleeve for Flat receptacles 31-945 | 31-928 | 0.001 |
| for Flat receptacles 84-9420 | 31-929 | 0.001 |




Assembling

Fixing nut long

| | Typ-Nr. |  |
|--|---------------|---|
| Fixing nut long Ø 9/M8 x 13 mm | 19-991 | 0.001 |



Mounting tool

| | Typ-Nr. |  |
|--|---------------|---|
| Mounting tool for Fixing nut long 19-991 | 19-905 | 0.011 |
| for Indicator 16 mm dia. | 01-907 | 0.020 |



Technical Data

Material

Actuator

Reflector: Brass satin chrome/black chrome
for indicator 16 mm dia. in black plastic
The plastic (polycarbonate) is limited resistant against chemicals

Mechanical characteristics

Terminals

Plug-in terminal 2.0 x 0.5 mm or 2.8 x 0.8 mm
The indicators with tab-connection are not qualified for soldering

Tightening torque

20 Ncm

Electrical characteristics

Polarity

Anode(+) Brass plug-in connector
Cathode(-) Brass tinned plug-in connector

Voltage tolerance

+10 %

Optical characteristics

Wave length

red 660 nm
super red 625 nm
hyper red 660 nm
orange 625 nm / for execution 230 V: 610 nm
green 565 nm
yellow/green 570 / for execution 230 V: 575 nm
yellow 590 nm
blue 475 nm

red/green 660/565 nm
red/yellow 660/ 590 nm

Environmental conditions

Storage temperature

-25 °C ... +80 °C

Service temperature

-20 °C ... +60 °C

Protection degree

front IP 40
IP 67 as per DIN EN 60529 - Gap between LED and reflector and
gap between reflector and frontplate sealed to IP 67 when using the
supplied gasket

Approvals

Approbations

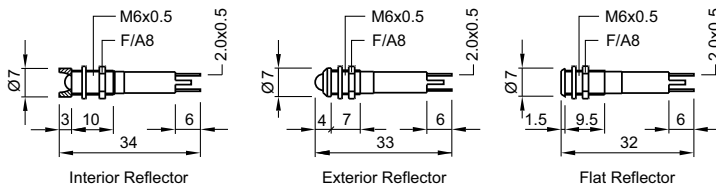
UL
VDE

Declaration of conformity

RoHS

Technical drawing

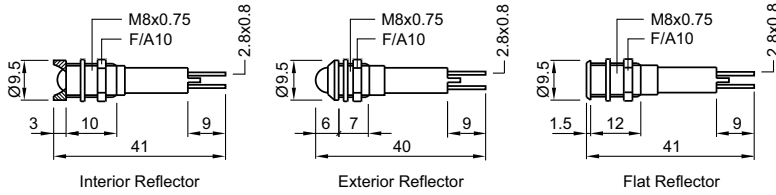
1 Indicator 6 mm dia., LED 3 mm page 5



Mounting hole: 6 mm dia. +0.2/0 mm

Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

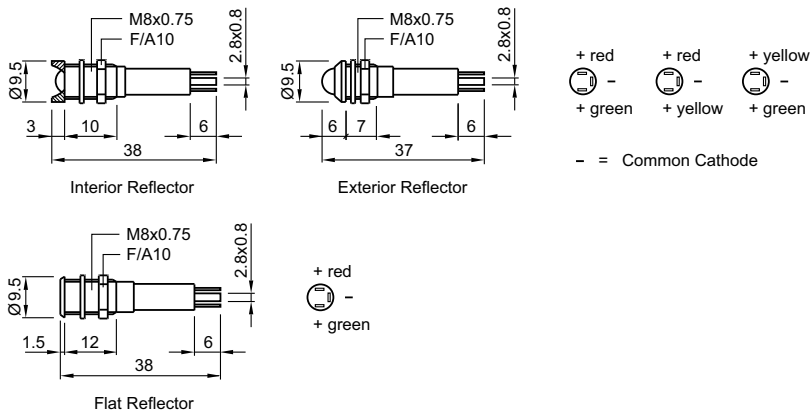
2 Indicator 8 mm dia., LED 5 mm page 6



Mounting hole: 8 mm dia. +0.2/0 mm

Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

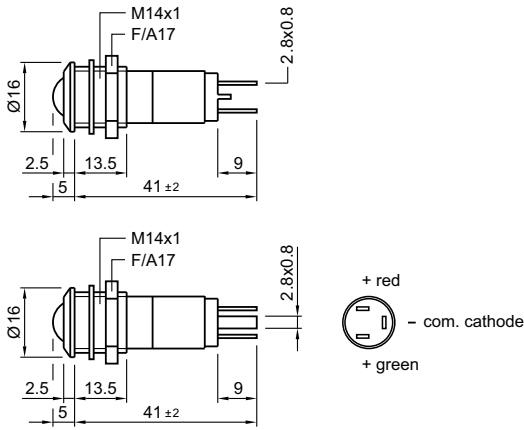
3 Indicator 8 mm dia., LED 5 mm page 6



Mounting hole: 8 mm dia. +0.2/0 mm

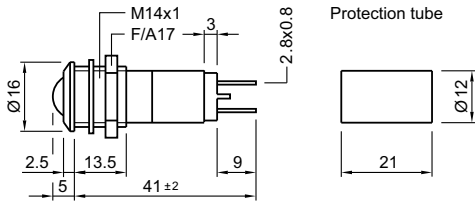
Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

4 Indicator 14 mm dia., LED 10 mm page 8



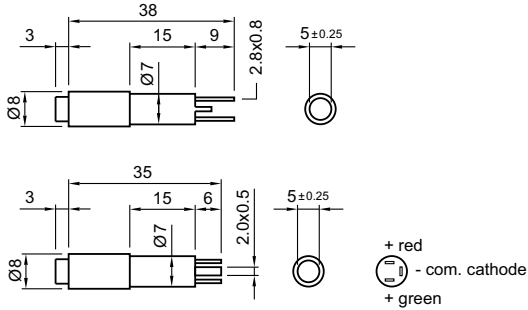
Mounting hole: 14 mm dia. $+0.2/0$ mm
 Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

5 Indicator 14 mm dia., LED 10 mm page 8



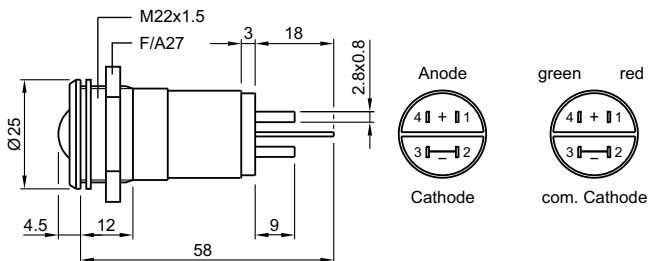
Mounting hole: 14 mm dia. $+0.2/0$ mm
 Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

6 Indicator 8 mm dia., LED 5 mm, flush mounted page 7



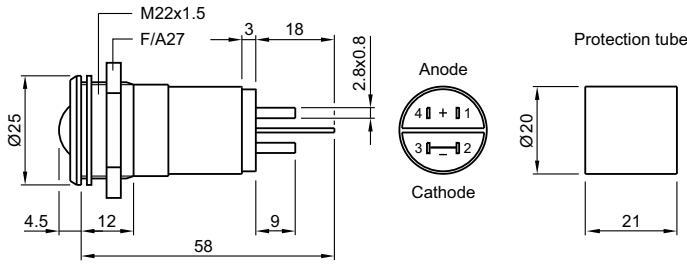
Mounting hole: 5 mm dia. $+0.2/0$ mm
 Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

7 Indicator 22 mm dia., LED 15 mm page 10



Mounting hole: 22 mm dia. $+0.5/0$ mm
 Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

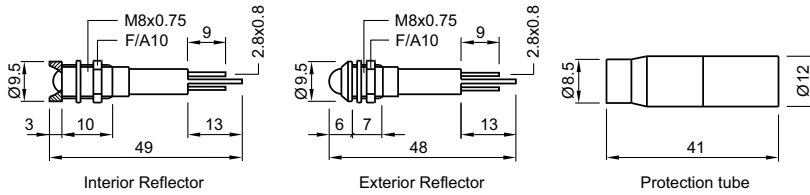
8 Indicator 22 mm dia., LED 15 mm page 10



Mounting hole: 22 mm dia. +0.5/0 mm

Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

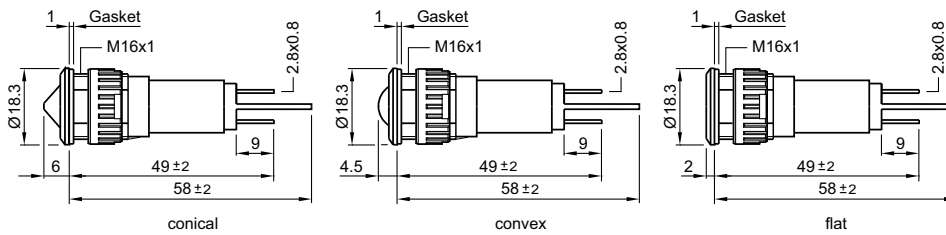
9 Indicator 8 mm dia., LED 5 mm page 6



Mounting hole: 8 mm dia. +0.2/0 mm

Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

10 Indicator 16 mm dia., LED 10 mm page 9

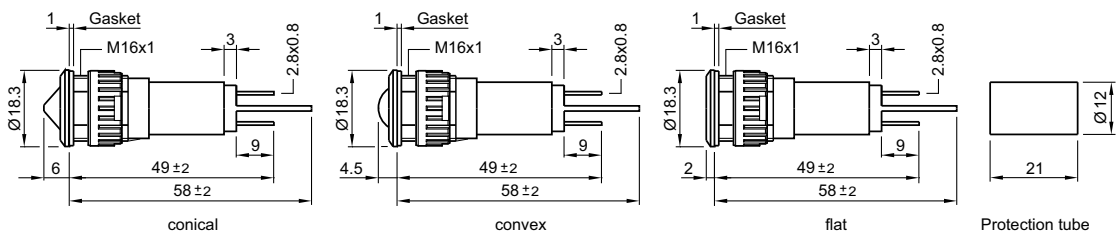


Mounting hole: 16 mm dia. +0.4/0 mm

Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

Maximum panel thickness 6 mm

11 Indicator 16 mm dia., LED 10 mm page 9



Mounting hole: 16 mm dia. +0.4/0 mm

Connectors: Brass terminal = Anode / Brass tinned terminal = Cathode

Maximum panel thickness 6 mm

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