




**Emergency stop/emergency switching off pushbutton, RMQ-Titan, Mushroom-shaped, 38 mm, Illuminated with LED element, Pull-to-release function, Red, yellow, RAL 3000**

**Part no.** M22-PVL  
**Catalog No.** 216878  
**Alternate Catalog No.** M22-PVLQ  
**EL-Nummer (Norway)** 4355322

## Delivery program

|                            |   |    |  |
|----------------------------|---|----|--|
| Product range              |   |    | RMQ-Titan  |
| Basic function             |   |    | Controlled stop pushbuttons/emergency-stop buttons   |
| Mounting hole diameter     | Ø | mm | 22.5   |
| Single unit/Complete unit  |   |    | Single unit  |
| Design                     |   |    | Mushroom-shaped  |
| Diameter                   | Ø | mm | 38   |
| Illumination               |   |    | Illuminated with LED element   |
|                            |   |    | Pull-to-release function   |
| Description                |   |    | Tamper-proof according to ISO 13850/EN 418   |
| <b>Colour</b>              |   |    |  |
| Mushroom head              |   |    | Red  |
|                            |   |    |   |
| Base                       |   |    | yellow   |
| RAL Value                  |   |    | RAL 3000   |
| Degree of Protection       |   |    | IP66, IP69   |
| Connection to SmartWire-DT |   |    | no   |
| <b>Instructions</b>        |   |    | Max. Configuration: 4 x M22-(C)K01, ...10 or 2 x M22-(C)K02, ...20, ...11 and 1 x M22-(F)LED...<br>When using M22-PVL... with 1 x M22-K01SMC10 (single channel), article M22-XSMC (order no.: 173030) is required. Order this item separately. |

## Technical data

|                             |              |                   |  |
|-----------------------------|--------------|-------------------|--|
| <b>General</b>              |              |                   |  |
| Standards                   |              |                   | IEC/EN 60947<br>VDE 0660   |
| Lifespan, mechanical        | Operations   | x 10 <sup>6</sup> | > 0.1  |
| Operating frequency         | Operations/h |                   | ≤ 600  |
| Actuating force             |              | n                 | ≤ 50   |
| Climatic proofing           |              |                   | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| Degree of Protection        |              |                   | IP66, IP69   |
| Ambient temperature         |              |                   |  |
| Open                        |              | °C                | -25 - +70  |
| Mounting position           |              |                   | As required  |
| Mechanical shock resistance |              | g                 | 50<br>Shock duration 11 ms<br>Sinusoidal<br>according to IEC 60068-2-27        |
| shipping classification     |              |                   | DNV<br>GL<br>LR  |



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## Design verification as per IEC/EN 61439

|  |            |    |  |
|--|------------|----|--|
| Technical data for design verification   |            |    |  |
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 0  |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 0  |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 0  |
| Static heat dissipation, non-current-dependent   | $P_{vs}$   | W  | 0  |
| Heat dissipation capacity  | $P_{diss}$ | W  | 0  |
| Operating ambient temperature min.   |            | °C | -25  |
| Operating ambient temperature max.   |            | °C | 70   |
| IEC/EN 61439 design verification   |            |    |  |
| 10.2 Strength of materials and parts   |            |    |  |
| 10.2.2 Corrosion resistance  |            |    | Meets the product standard's requirements.   |
| 10.2.3.1 Verification of thermal stability of enclosures   |            |    | Meets the product standard's requirements.   |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat   |            |    | Meets the product standard's requirements.   |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |            |    | Meets the product standard's requirements.   |
| 10.2.4 Resistance to ultra-violet (UV) radiation   |            |    | Please enquire   |
| 10.2.5 Lifting   |            |    | Does not apply, since the entire switchgear needs to be evaluated.                                       |
| 10.2.6 Mechanical impact   |            |    | Does not apply, since the entire switchgear needs to be evaluated.                                       |
| 10.2.7 Inscriptions  |            |    | Meets the product standard's requirements.   |
| 10.3 Degree of protection of ASSEMBLIES  |            |    | Does not apply, since the entire switchgear needs to be evaluated.                                       |
| 10.4 Clearances and creepage distances   |            |    | Meets the product standard's requirements.   |
| 10.5 Protection against electric shock   |            |    | Does not apply, since the entire switchgear needs to be evaluated.                                       |
| 10.6 Incorporation of switching devices and components   |            |    | Does not apply, since the entire switchgear needs to be evaluated.                                       |
| 10.7 Internal electrical circuits and connections  |            |    | Is the panel builder's responsibility.   |
| 10.8 Connections for external conductors   |            |    | Is the panel builder's responsibility.   |
| 10.9 Insulation properties   |            |    |  |
| 10.9.2 Power-frequency electric strength   |            |    | Is the panel builder's responsibility.   |
| 10.9.3 Impulse withstand voltage   |            |    | Is the panel builder's responsibility.   |
| 10.9.4 Testing of enclosures made of insulating material   |            |    | Is the panel builder's responsibility.   |
| 10.10 Temperature rise   |            |    | Not applicable.  |
| 10.11 Short-circuit rating   |            |    | Is the panel builder's responsibility. The specifications for the switchgear must be observed.           |
| 10.12 Electromagnetic compatibility  |            |    | Is the panel builder's responsibility. The specifications for the switchgear must be observed.           |
| 10.13 Mechanical function  |            |    | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed. |

## Technical data ETIM 7.0

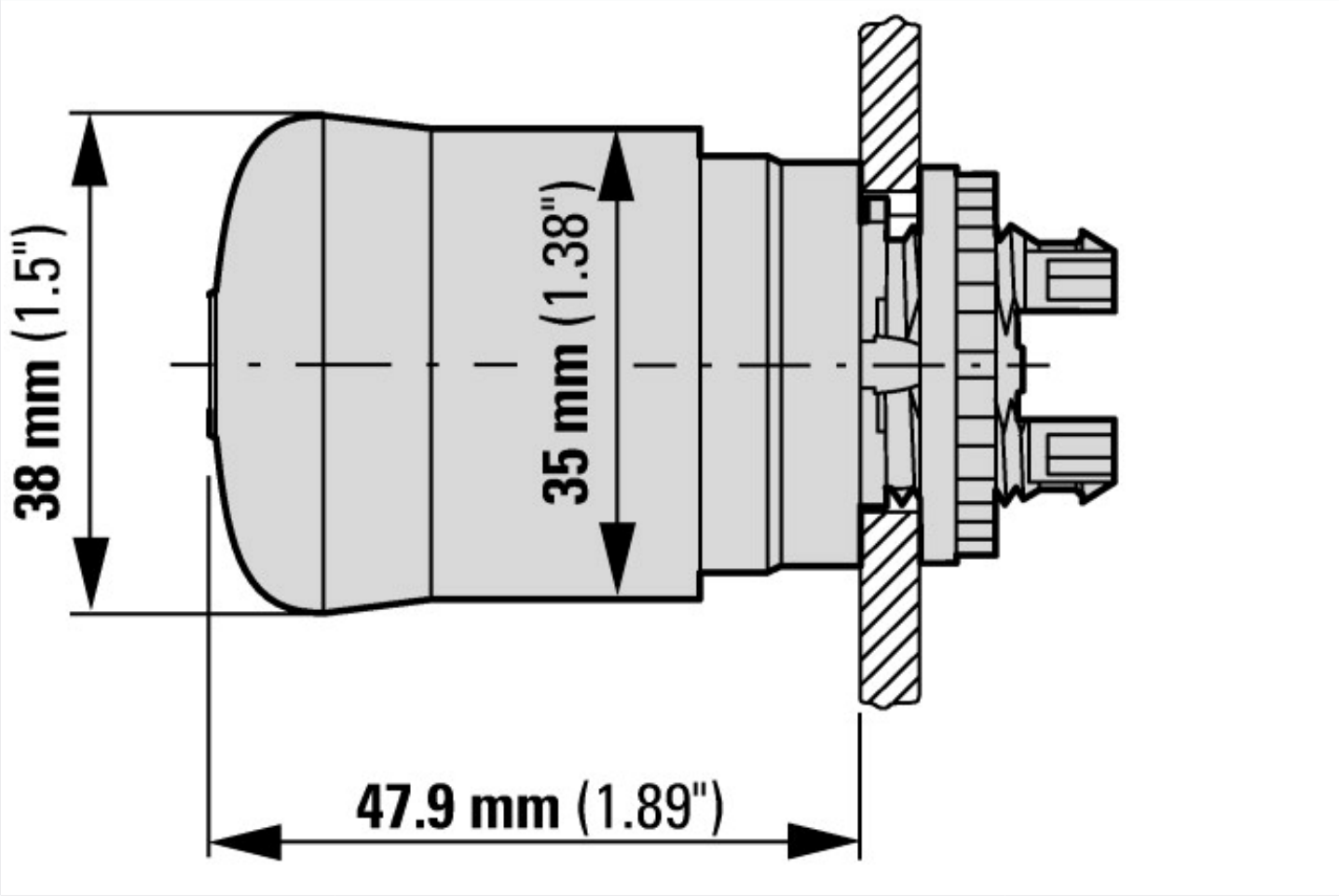
|  |  |    |       |
|--|--|----|-------|
| Low-voltage industrial components (EG000017) / Front element for mushroom push-button (EC001038)   |  |    |       |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Front element for mushroom push-button actuators (ec1@ss10.0.1-27-37-12-12 [AKF030014]) |  |    |       |
| Colour button  |  |    | Red   |
| Construction type lens   |  |    | Round |
| Diameter cap   |  | mm | 38    |
| Hole diameter  |  | mm | 22.5  |
| Width opening  |  | mm | 0     |
| Height opening   |  | mm | 0     |

|                             |  |  |              |
|-----------------------------|--|--|--------------|
| Degree of protection (IP)   |  |  | IP66         |
| Degree of protection (NEMA) |  |  | 4X           |
| Type of button              |  |  | Flat         |
| Suitable for illumination   |  |  | Yes          |
| Switching function latching |  |  | Yes          |
| Spring-return               |  |  | No           |
| With front ring             |  |  | No           |
| Material front ring         |  |  | Plastic      |
| Colour front ring           |  |  | Chrome       |
| Suitable for emergency stop |  |  | Yes          |
| Unlocking method            |  |  | Pull-release |

Approvals

|                             |  |  |  |
|-----------------------------|--|--|--|
| Product Standards           |  |  | IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking |
| UL File No.                 |  |  | E29184   |
| UL Category Control No.     |  |  | NKCR   |
| CSA File No.                |  |  | 012528   |
| CSA Class No.               |  |  | 3211-03  |
| North America Certification |  |  | UL listed, CSA certified   |
| Degree of Protection        |  |  | UL/CSA Type 3R, 4X, 12, 13   |

Dimensions



Additional product information (links)

|                                     |   |
|-------------------------------------|---|
| DGUV Test Mark Customer Information | <a href="http://www.dguv.de/medien/dguv-test-medien/_pdf_zip_doc_ppt/agb-und-pzo/dguv_test_zeichen_infoblatt_kunden.pdf">http://www.dguv.de/medien/dguv-test-medien/_pdf_zip_doc_ppt/agb-und-pzo/dguv_test_zeichen_infoblatt_kunden.pdf</a> |
|-------------------------------------|---|