Translated from Czech to English - www.onlinedoctranslator.com



## wMM Series - Complete devices

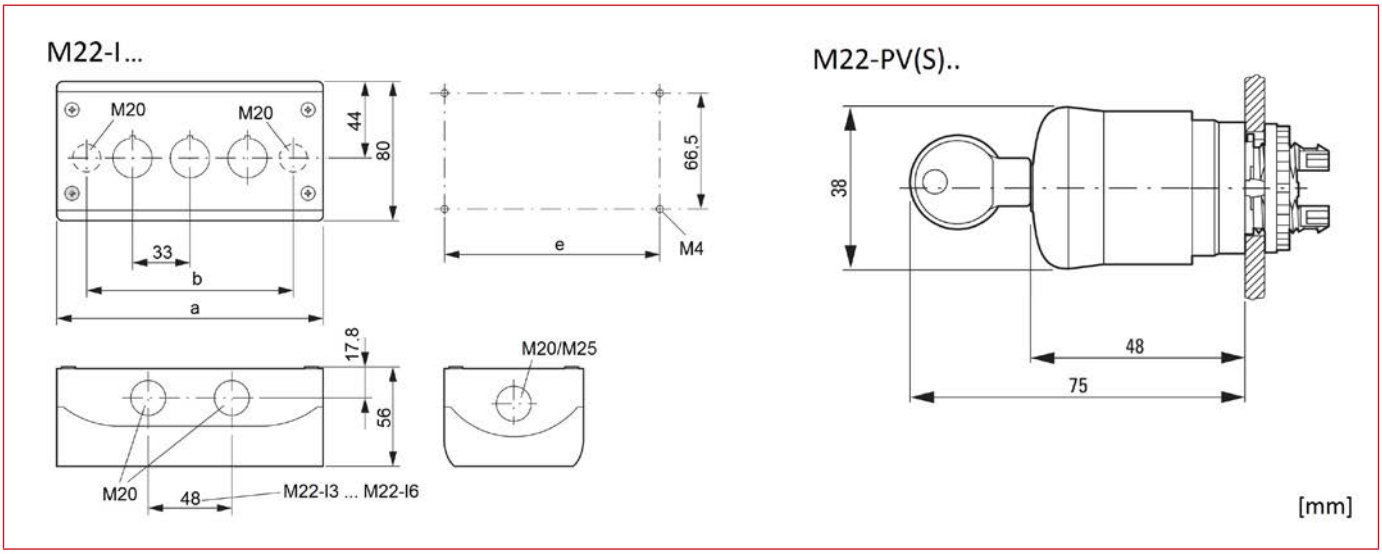
MM900022

MM216529

### wSchrack Info

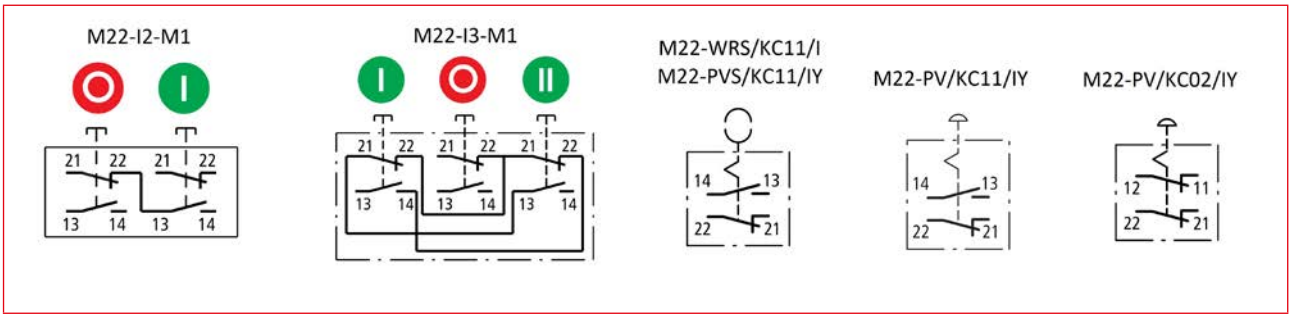
- Emergency stop switch combination NOT-AUS in a black and yellow box
- Other combinations in black and gray cabinet
- Protection level: IP67, IP69K
- The devices are delivered assembled

### wDimensions

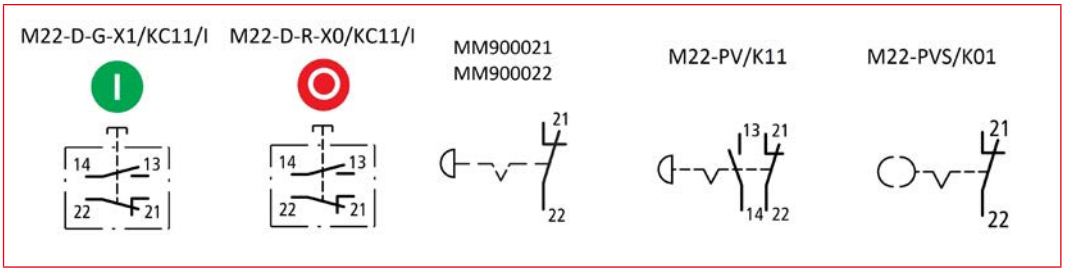



| Type | Number of inputs | and | b | E | Wire entries | | |
|---|---|---|---|---|---|---|---|
| M22-I2 | 2 | 120 | 85.6 | 106.5 | 2 x M20 | 3xM20 | 2 x M25 |
| M22-I3 | 3 | 153 | 118.6 | 139.5 | 2 x M20 | 2 x M25 | 4 x M20 |

### wWiring diagram




### wWiring diagram

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## wMM Series - Complete devices

| DESCRIPTION | TYPE NUMBER | AVAILABILITY | STORE | ORDER NUMBER |
|---|---|---|---|---|
| Complete box, with 2 buttons, "0-1" | M22-I2-M1 | | | **MM216529** |
| Complete cabinet, with 3 buttons, "1-0-2" | M22-I3-M1 | | | MM216532 |
| Complete box, with key, 1NO/1NC | M22-WRS/KC11/I | | | MM216526 |
| Complete box, EMERGENCY STOP, 1NO/1NC | M22-PV/KC11/IY | | | **MM216525** |
| Complete box, EMERGENCY STOP, 2R | M22-PV/KC02/IY | | | **MM216524** |
| Complete box, EMERGENCY STOP, 1NO/1NC | M22-PVS/KC11/IY | | | MM216523 |
| Cabinet complete, green button, "1" | M22-DG-X1/KC11/I | | | MM216522 |
| Complete cabinet, red button, "0" | M22-DR-X0/KC11/I | | | MM216521 |
| Impulse relay with sealable cover | M22-SET | | | MM900021 |
| Impulse relay with key MS1 | M22-SET | | | MM900022 |
| Emergency stop control head, 1R | M22-PV/K01 | | | **MM216515** |
| Emergency stop control head, 1NO/1NC | M22-PV/K11 | | | **MM216516** |
| Emergency stop control head, with lock, 1NO/1NC | M22-PVS/K01 | | | MM216514 |

wSignal and command elements of the MM series

| | | | Contact elements | Double-contact elements | ICE | Backlit buttons, buttons, mushroom buttons without arrest | Double-buttons |
|---|---|---|---|---|---|---|---|
| **Standards** | | | EN 60947, VDE 0660 | | | | |
| **Lifespan, mechanical** | Number of cycles | x10$^6$ | 5 | – | – | 5 | 0.2 |
| **Maximum control frequency** | Cycles/h | | ≤ 3600 | ≤ 3600 | – | ≤ 3600 | ≤ 3600 |
| **Control force** | | N | 5 | 10 | – | 5 | 5 |
| **Tightening torque (screw terminals)** | | Nm | 0.8 | – | 0.8 | – | – |
| **Degree of protection (ČSN EN 60529)** | | | IP20 | IP20 | IP20 | IP67, IP69K | IP66 |
| **Climate resistance** | | | Damp heat, constant according to IEC 60068-2-78<br>Damp heat, cyclic according to IEC 60068-2-30 | | | | |
| Ambient temperature, open | | °C | - 25 ... +70 | | | | |
| **Mounting position** | | | any | any | any | any | any |
| **Shock resistance according to IEC 60068-2-27** Impulse duration 11ms, half sine | | G | 30 | 30 | 30 | 30 | 30 |
| **Connection cross-sections** | | | | | | | |
| full | | mm$^2$ | 0.75 - 2.5 | 0.5 - 1.5 | 0.75 - 2.5 | – | – |
| roped | | mm$^2$ | 0.5 - 2.5 | 0.5 - 1.5 | 0.5 - 2.5 | – | – |
| roped with a hollow core | | mm$^2$ | | 0.5 - 1.0 | – | – | – |
| **Flow paths** | | | | | | | |
| Rated voltage surge withstand voltage $U_{imp}$ | | VAC | 6000 | 4000 | 6000 | – | – |
| Rated insulation voltage $U_{and}$ | | IN | 500 | 250 | 500 | – | – |
| Overvoltage category/pollution degree | | | III/3 | III/3 | III/3 | – | – |
| **Switching reliability** | | | | | | | |
| at 24VDC/5mA | $H_F$Error rate | | < $10^{-7}$(corresponds to 1 outage in $10^7$ switching) | – | – | – | – |
| at 5VDC/1mA | $H_F$Error rate | | < 5x$10^{-6}$(corresponds to 1 outage per 5x$10^6$switching) | – | – | – | – |
| **Maximum upstream protection** Circuit breaker | | Type | B6/1 | B6/1 | – | – | – |
| Fuse | gG/gL | | 10 | 10 | – | – | – |
| **Switching capacity** | | | | | | | |
| **Rated operating current $I_E$** | | | | | | | |
| AC-15 | 115V | AND | 6 | 6 | – | – | – |
| | 230V | AND | 6 | 6 | – | – | – |
| | 400V | AND | 4 | – | – | – | – |
| | 500V | AND | 2 | – | – | – | – |
| DC-13 | 24V | AND | 3 | 3 | – | – | – |
| | 42V | AND | 1.7 | – | – | – | – |
| | 60V | AND | 1.2 | – | – | – | – |
| | 110V | AND | 0.8 | 0.6 | – | – | – |
| | 220V | AND | 0.3 | 0.3 | – | – | – |
| **Electrical life** | | | | | | | |
| AC-15 | 230V/0.5A | | 1.6 | – | – | – | – |
| | 230V/1.0A | | 1 | – | – | – | – |
| | 230V/3.0A | | 0.7 | – | – | – | – |
| DC-13 | 12V/2.8A | | 1.2 | – | – | – | – |

wSignal and command elements of the MM series

| | | | Buttons, backlit | Key buttons | Indicator lights, Acoustic whistles compact, Indicator lights compact, Potentiometers | Backlit buttons, buttons, mushroom buttons buttons with locking | Stop buttons, Emergency buttons |
|---|---|---|---|---|---|---|---|
| **Standards** | | | **EN 60947, VDE 0660** | | | | |
| **Lifespan, mechanical** | Number of cycles | x10$^6$ | 0.1 | 0.1 | – | 1 | 0.1 |
| **Maximum control frequency** | Cycles/h | | ≤ 2000 | ≤ 100 | – | ≤ 1800 | ≤ 600 |
| **Control force** | | N | – | – | – | 5 | 50 |
| **Tightening torque** | | Nm | 0.3 | 0.5 | – | – | – |
| **Degree of protection (ČSN EN 60529)** | | | IP66 | IP66 | Lighting elements compact: IP65 Acoustic elements compact: IP40 Potentiometers: IP66 | IP67, IP69K | IP67, IP69K |
| **Climate resistance** | | | Damp heat, constant according to ČSN EN 60068-2-78 Damp heat, cyclic according to ČSN EN 60068-2-30 | | | | |
| Ambient temperature, open | | °C | - 25 ... +70 | | | | |
| **Mounting position** | | | any | any | any | any | any |
| **Impact resistance according to ČSN EN 60068-2-27** Impulse duration 11ms, half sine | | G | 30 | 30 | 30 | 30 | 30 |
| **Connection cross-sections** | | | | | | | |
| full | | mm$^2$ | – | – | 0.5 - 1.5 | – | – |
| roped | | mm$^2$ | – | – | 0.5 - 1.5 | – | – |
| roped with a hollow core | | mm$^2$ | – | – | – | – | – |
| **Flow paths** | | | | | | | |
| Rated voltage surge withstand voltage $U_{imp}$ | | VAC | – | – | 4000 | – | – |
| Rated insulation voltage $U_{and}$ | | IN | – | – | 250 | – | – |
| Overvoltage category/pollution degree | | | – | – | III/3 | – | – |