

Cod. FMV4R12130

### Standard and Approvals

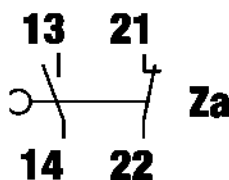
- Switch according to IEC/EN 60947-3
- Certified UL60947-4-1A and CAN/CSA C22.2 No. 60947-4-1-07
- Suitable as Manual Motor Controller



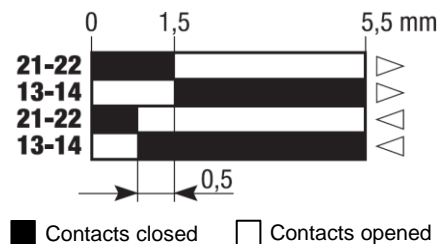
### Characteristics

- Metal body and metal head
- IP64 protection degree
- Steel roller plunger actuator
- 1NO+1NC snap action contact block
- Contact block with positive opening
- 2 cable entries
- Cable entry with Pg thread

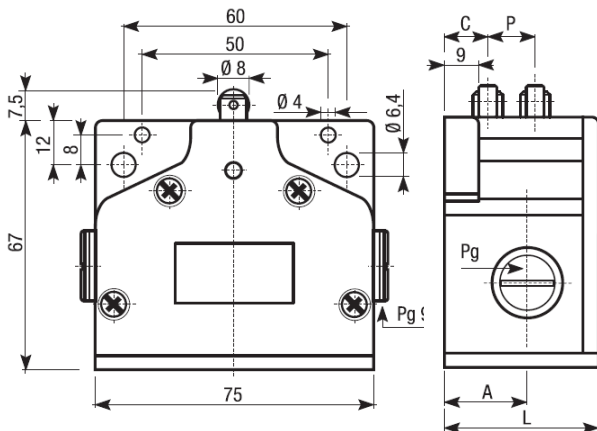
### Contact block



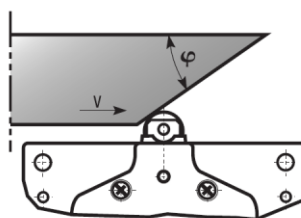
### Contact travel



### Dimension



### Drive cam operating parameters



| Drive cam operating parameters |             |
|--------------------------------|-------------|
| $\varphi$                      | V max (m/s) |
| 30°                            | 1           |
| 20°                            | 1,5         |

| Drive forces                    |      |
|---------------------------------|------|
| Minimum command force           | 10 N |
| Minimum force on lateral travel | 18 N |

| N° of actuators | P  | C  | L  | Pg   | A  |
|-----------------|----|----|----|------|----|
| 4               | 12 | 30 | 78 | 13,5 | 35 |

P = Pitch (distance between two actuators)

C = Distance between bracket and first actuator

L = Overall dimensions

A = Distance between bracket and input/output holes

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### Technical data

|                                   |                              |   | TYPE                      | FMV               |  |
|-----------------------------------|------------------------------|---|---------------------------|-------------------|--|
| Maximum operating frequency       |                              |   | operat./hour <sup>1</sup> | 1800              |  |
| Insulation resistance             |                              | 500 V DC                                      | MΩ                        | 100               |  |
| Dielectric strenght               |                              | 50/60 Hz for 1'                               | V AC                      | 2000 <sup>2</sup> |  |
| Rated insulation voltage          | Ui                           | IEC947-5-1                                    | V AC                      | 500               |  |
| Rated thermal current             | Ithe                         | IEC947-5-1                                    | A                         | 10                |  |
| Rated operating current           | Category AC15<br>A300        | Ie IEC947-5-1/EN60947-5-1                     | 24V                       | A                 | 10   |
|                                   |                              |   | 125V                      | A                 | 10   |
|                                   |                              |   | 230 V                     | A                 | 6  |
|                                   |                              |   | 400 V                     | A                 | 4  |
| Contact resistance                |                              | IEC255-7 cat.3                                | initial value             | mΩ                | 25   |
| Short circuit protective devices  |                              | IEC269 (IEC947-5-1)                           | fuse type gL or gG        | A                 | 10   |
| Pollution degree                  |                              | IEC947-5-1                                    | A                         | A                 | 3  |
| Protection degree                 |                              | EN 60529                                      |                           |                   | IP64   |
| Protection against electric shock |                              |   | metal class               |                   | I  |
| Vibration resistance              |                              | IEC68-2-6                                     | mm                        |                   | 0,35 ± 15%<br>(10 ÷ 55 Hz ± 1 Hz)  |
| Shock resistance                  |                              | IEC68-2-27                                    | 11ms                      | g                 | 30   |
| Mechanical life                   |                              |   |                           | cycles            | 30,000,000   |
| Electric life                     |                              | at 250V AC 6A with resistance<br>load cosφ=1  |                           | cycles            | 500,000  |
|                                   |                              | at 250V AC 6A with inductive<br>load cosφ=0,4 |                           | cycles            | 500,000  |
|                                   |                              |   |                           |                   |  |
| Terminals                         | Type                         |   |                           |                   | Screw with combined notch<br>and retractable plate<br>(notch Ph, Size 1) |
|                                   | Screw                        |   |                           |                   | M3,5   |
|                                   | Material                     |   |                           |                   | Steel class 8,8 / Galvanized   |
|                                   | Max. screw tightening torque |   | Ncm (Kg cm)               |                   | 120 (12,24)  |
|                                   | Max connecting capacity      | rigid cable                                   |                           | mm <sup>2</sup>   |  |
| flexible cable                    |                              |   | mm <sup>2</sup>           |                   | 2x1,5  |
|                                   | with prod terminal           |   |                           |                   | 1x1,5  |
| Terminal numbering                |                              |   |                           |                   | In accordance with EN50013   |
| Air ambient temperature           |                              |   | operational               | °C                | -10 ÷ +70<br>(without formation of ice)                                  |
| Relative umidity                  |                              |   | operational               |                   | 95% max  |

<sup>1</sup> One operation cycle means two movements, one to close and one to open as required by EN 60947-5

<sup>2</sup> Between terminals with different polarity; between live mechanical parts and ground; between live mechanical parts and non-current-carrying metal parts