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ISO 9001 Certified Quality System

# Cod. FMV3R12230

# 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

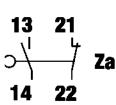


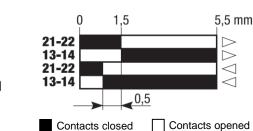
### **Characteristics**

- · 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

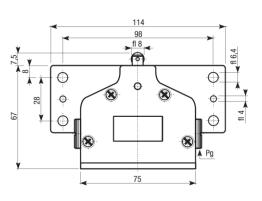




Dimension

N° of actuators

3



Ρ

12

С

30

L

66

Pg

13,5

| ¢<br>9<br>f |     |  |
|-------------|-----|--|
| Pg          |     |  |
|             | A L |  |

| <b>V</b> >> |            | φ<br>γ | ~ | - |
|-------------|------------|--------|---|---|
|             | <b>(</b> ) | 8      | ¢ |   |

Drive cam operating parameters

| Drive cam operating parameters |     |  |  |  |
|--------------------------------|-----|--|--|--|
| φ V max (m/s)                  |     |  |  |  |
| 30°                            | 1   |  |  |  |
| 20°                            | 1,5 |  |  |  |
|                                |     |  |  |  |
| Drive forces                   |     |  |  |  |

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

- 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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A

35

¢



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#### **Technical data**

|                                   |               |     |                              |                        | TYPE         | FMV                          |
|-----------------------------------|---------------|-----|------------------------------|------------------------|--------------|------------------------------|
| Maximum operating frequency       |               |     |                              | op                     | erat./hour 1 | 1800                         |
| Insulation resistance             |               |     |                              | 500 V DC               | MΩ           | 100                          |
| Dielectric strenght               |               |     | 5                            | 0/60 Hz for 1 <b>'</b> | V AC         | 2000 <sup>2</sup>            |
| Rated insulation voltage          |               | Ui  | EC947-5-1                    |                        | V AC         | 500                          |
| Rated thermal current             |               | the | EC947-5-1                    |                        | А            | 10                           |
| Rated operating current           | Category AC15 | e   | EC947-5-1/EN60947-5-1        | 24V                    | А            | 10                           |
|                                   | A300          |     |                              | 125V                   | А            | 10                           |
|                                   |               |     |                              | 230 V                  | А            | 6                            |
|                                   |               |     |                              | 400 V                  | А            | 4                            |
| Contact resistance                |               |     | EC255-7 cat.3                | initial value          | mΩ           | 25                           |
| Short circuit protective devices  |               |     | EC269 (EC947-5-1)            |                        |              |                              |
|                                   |               |     | fuse type gL or gG           |                        | А            | 10                           |
| Pollution degree                  |               |     | EC947-5-1                    |                        | А            | 3                            |
| Protection degree                 |               |     | EN 60529                     |                        |              | IP64                         |
| Protection against electric shock |               |     |                              | meta                   | class        | I                            |
| Vibration resistance              |               |     | EC68-2-6                     |                        | mm           | 0,35 ± 15%                   |
|                                   |               |     |                              |                        |              | (10 ÷ 55 Hz ± 1 Hz)          |
| Shock resistance                  |               |     | EC68-2-27                    | 11ms                   | g            | 30                           |
| Mechanical life                   |               |     |                              |                        | cycles       | 30.000.000                   |
| Electric life                     |               |     | at 250V AC 6A with resistan  | се                     |              |                              |
|                                   |               |     | oad cosq=1                   |                        | cycles       | 500.000                      |
|                                   |               |     | at 250V AC 6A with inductive | е                      |              |                              |
|                                   |               |     | oad coq=0,4                  |                        | cycles       | 500.000                      |
| Terminals                         |               |     | Туре                         |                        |              | Screw with combined notch    |
|                                   |               |     |                              |                        |              | and retractable plate        |
|                                   |               |     |                              |                        |              | (notch Ph. Size 1)           |
|                                   |               |     | Screw                        |                        |              | M3,5                         |
|                                   |               |     | Materia                      |                        |              | Steel class 8,8 / Galvanized |
|                                   |               |     | Max. screw tightening torque | e N                    | cm (Kg cm)   | 120 (12,24)                  |
|                                   |               |     | Max connecting capacity      | rigid cable            | mm²          | 2x1,5                        |
|                                   |               |     | _                            | flexible cable         | mm²          | 2x1,5                        |
|                                   |               |     | with prod terminal           |                        | 1x1,5        |                              |
| Terminal numbering                |               |     |                              |                        |              | In accordance with EN50013   |
| Air ambient temperature           |               |     |                              | operational            | °C           | -10 ÷ +70                    |
|                                   |               |     |                              |                        |              | (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