

|                                                        |  |  |  |                                      |
|--------------------------------------------------------|--|--|--|--------------------------------------|
| Product designation                                    |  |  |  | Rotary cam switches                  |
| Product type designation                               |  |  |  | 7GN12                                |
| General characteristics                                |  |  |  |                                      |
| Switching diagram                                      |  |  |  | 83 - Multi-step 1-2-3-4 1 pole       |
| N° of elements                                         |  |  |  | 2                                    |
| Mounting form                                          |  |  |  | U - Front mounting with black handle |
| Contact characteristics                                |  |  |  |                                      |
| Rated insulation voltage Ui                            |  |  |  |                                      |
|                                                        |  |  |  | IEC/EN V 690                         |
|                                                        |  |  |  | UL/CSA V 600                         |
| Rated impulse withstand voltage Uimp                   |  |  |  | kV 6                                 |
| Conventional free air thermal current Ith              |  |  |  |                                      |
|                                                        |  |  |  | IEC/EN A 16                          |
|                                                        |  |  |  | UL/CSA A 15                          |
| Rated operational voltage                              |  |  |  | V 480                                |
| Rated operational impulse voltage                      |  |  |  | kV 4                                 |
| Maximum fuse size for short-circuit protection In (gG) |  |  |  |                                      |
|                                                        |  |  |  | 10kA A 16                            |
|                                                        |  |  |  | 15kA A 10                            |
|                                                        |  |  |  | 25kA A 10                            |
| Rated short time current Icw                           |  |  |  |                                      |
|                                                        |  |  |  | 1s kA 200                            |
| Conductivity                                           |  |  |  | 10/5 mA/V                            |
| Operational current Ie IEC/EN                          |  |  |  |                                      |
| AC1/AC21A                                              |  |  |  | A 16                                 |
| AC15                                                   |  |  |  |                                      |
|                                                        |  |  |  | 110V A 10                            |
|                                                        |  |  |  | 220/230V A 8                         |
|                                                        |  |  |  | 380/400V A 4                         |
|                                                        |  |  |  | 660/690V A 1.5                       |
| Rated operational power in AC                          |  |  |  |                                      |
| Three-phase AC-3                                       |  |  |  |                                      |
|                                                        |  |  |  | 220/230V kW 2.5                      |
|                                                        |  |  |  | 380/440V kW 4                        |
|                                                        |  |  |  | 500/690V kW 5.5                      |
| Single-phase AC-3                                      |  |  |  |                                      |
|                                                        |  |  |  | 110V kW 0.8                          |
|                                                        |  |  |  | 220/230V kW 1.5                      |
|                                                        |  |  |  | 380/440V kW 2.2                      |
| Three-phase AC23A                                      |  |  |  |                                      |
|                                                        |  |  |  | 220/230V kW 3                        |
|                                                        |  |  |  | 380/440V kW 5.5                      |
|                                                        |  |  |  | 500/690V kW 7.5                      |
| Single-phase AC23A                                     |  |  |  |                                      |
|                                                        |  |  |  | 110V kW 0.8                          |
|                                                        |  |  |  | 220/230V kW 1.7                      |
|                                                        |  |  |  | 380/440V kW 3                        |
| Rated operational current in DC                        |  |  |  |                                      |

### DC21A

|      |   |      |
|------|---|------|
| 48V  | A | 12   |
| 60V  | A | 12   |
| 110V | A | 4    |
| 220V | A | 0.6  |
| 440V | A | 0.25 |

### DC23A (poles in series)

|      |   |        |
|------|---|--------|
| 24V  | A | 10 (1) |
| 48V  | A | 10 (2) |
| 60V  | A | 10 (3) |
| 110V | A | 5 (3)  |
| 220V | A | 5 (4)  |

### DC13

|      |   |      |
|------|---|------|
| 24V  | A | 12   |
| 48V  | A | 10   |
| 60V  | A | 8    |
| 110V | A | 1    |
| 220V | A | 0.4  |
| 440V | A | 0.15 |

|                   |   |     |
|-------------------|---|-----|
| Power dissipation | W | 0.8 |
|-------------------|---|-----|

### Mechanical features

|                 |    |
|-----------------|----|
| Terminals screw | M3 |
|-----------------|----|

|                                     |    |     |
|-------------------------------------|----|-----|
| Tightening torque for terminals max | Nm | 0.5 |
|-------------------------------------|----|-----|

### Conductor size

#### AWG - Rigid cable

|     |     |    |
|-----|-----|----|
| min | AWG | 20 |
| Max | AWG | 12 |

#### AWG - Flexible cable

|     |     |    |
|-----|-----|----|
| min | AWG | 20 |
| Max | AWG | 14 |

#### Conductor size (IEC) - Flexible cable

|     |                 |     |
|-----|-----------------|-----|
| min | mm <sup>2</sup> | 0.5 |
| Max | mm <sup>2</sup> | 2.5 |

#### Conductor size (IEC) - Rigid cable

|     |                 |     |
|-----|-----------------|-----|
| min | mm <sup>2</sup> | 0.5 |
| Max | mm <sup>2</sup> | 2.5 |

|                 |        |                   |
|-----------------|--------|-------------------|
| Mechanical life | cycles | 3x10 <sup>6</sup> |
|-----------------|--------|-------------------|

### UL technical data

#### Motor power for direct-on-line control

##### for three-phase motor

|      |    |     |
|------|----|-----|
| 120V | HP | 1.5 |
| 240V | HP | 3   |

##### for single-phase motor

|      |    |     |
|------|----|-----|
| 120V | HP | 0.5 |
| 240V | HP | 1   |

### Ambient conditions

#### Temperature

##### Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -25 |
| max | °C | +55 |

##### Storage temperature

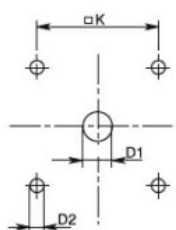
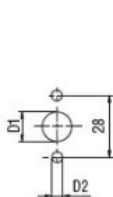
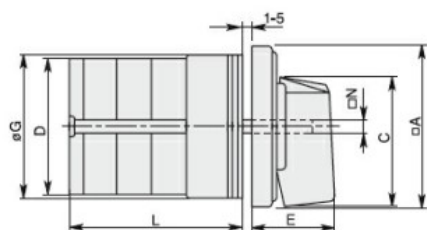
|     |    |     |
|-----|----|-----|
| min | °C | -40 |
| max | °C | +70 |

### Resistance & Protection

Frontal IP degree IP40

Terminals IP degree IP00

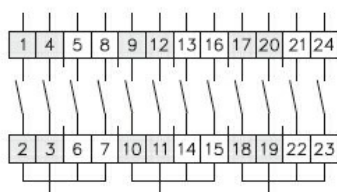
## Dimensions



Standard drillings for 7GN125.  
Drillings on request for 4 screws fixing  
(4V version).

| Series | Dimensions |      |    |     |     |      |      |    |    | L    Number of elements |      |       |       |       |       |       |       |       |       |       |       |
|--------|------------|------|----|-----|-----|------|------|----|----|-------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|        | □A         | C    | ØD | ØD1 | ØD2 | E    | ØG   | □K | □N | 1                       | 2    | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    |
| 7GN12  | 48         | 39.5 | 39 | 12  | 5   | 26.5 | 38   | 36 | 6  | 36.1                    | 45.8 | 55.5  | 65.2  | 74.9  | 84.6  | 94.3  | 104   | 113.7 | 123.4 | 133.1 | 142.8 |
| 7GN20  | 48         | 39.5 | 39 | 12  | 5   | 26.5 | 38   | 36 | 6  | 36.1                    | 45.8 | 55.5  | 65.2  | 74.9  | 84.6  | 94.3  | 104   | 113.7 | 123.4 | 133.1 | 142.8 |
| 7GN25  | 48         | 39.5 | 43 | 12  | 5   | 26.5 | 38   | 36 | 6  | 40.5                    | 54.1 | 67.7  | 81.3  | 94.9  | 108.5 | 122.1 | 135.7 | 147.3 | 162.9 | 176.5 | 190.1 |
| 7GN32  | 65         | 53   | 58 | 14  | 5   | 34.5 | 58.5 | 48 | 7  | 46.5                    | 61.6 | 76.7  | 91.8  | 106.9 | 122   | 137.1 | 152.2 | 167.3 | 182.4 | 197.5 | 212.6 |
| 7GN40  | 65         | 53   | 58 | 14  | 5   | 34.5 | 58.5 | 48 | 7  | 46.5                    | 61.6 | 76.7  | 91.8  | 106.9 | 122   | 137.1 | 152.2 | 167.3 | 182.4 | 197.5 | 212.6 |
| 7GN63  | 65         | 53   | 62 | 14  | 5   | 34.5 | 58.5 | 48 | 7  | 50.3                    | 68.4 | 86.5  | 104.6 | 122.7 | 140.8 | 158.9 | 177   | 195.1 | 213.2 | 231.3 | 249.4 |
| 7GN125 | 90         | 70.5 | 86 | 16  | 6   | 41.5 | 84   | 68 | 9  | 67.3                    | 96.4 | 125.5 | 154.6 | 183.7 | 220.3 | 249.4 | 278.5 | 307.6 | 336.7 | 365.8 | 394.9 |

## Wiring diagrams



|   |   |   |   |   |  |   |   |  |   |   |   |  |   |   |   |  |  |  |  |  |  |  |
|---|---|---|---|---|--|---|---|--|---|---|---|--|---|---|---|--|--|--|--|--|--|--|
| 1 | X |   |   | X |  |   | X |  |   |   |   |  |   |   |   |  |  |  |  |  |  |  |
| 2 |   | X |   |   |  | X |   |  | X |   |   |  | X |   |   |  |  |  |  |  |  |  |
| 3 |   |   | X |   |  |   | X |  |   | X |   |  |   | X |   |  |  |  |  |  |  |  |
| 4 |   | X |   |   |  | X |   |  |   |   | X |  |   |   | X |  |  |  |  |  |  |  |

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## Certifications and compliance

### Compliance

CSA C22.2 n° 14

IEC/EN/BS 60947-1

IEC/EN/BS 60947-3

IEC/EN/BS 60947-5-1

UL60947-4-1

### Certificates

cCSAus

EAC

UL

## ETIM classification

ETIM 8.0

EC001029 -  
Selector switch,  
complete