### **DATASHEET - 025LWK1-RT/WB**



Illuminated selector switch actuator, momentary, 45°, 25 × 25 mm, 2  $\,$ positions, With thumb-grip, red, with VS anti-rotation tab, with filament bulb, 24 V



Q25LWK1-RT/WB Part no. Catalog No. 040378

Alternate Catalog Q25LWK1-RT-WB

No.

## **Delivery program**

| Delivery program           |   |
|----------------------------|---|
| Product range              | RMQ16   |
| Basic function             | Illuminated selector switch actuator                  |
| Single unit/Complete unit  | Single unit   |
| Design                     | With thumb-grip                                       |
|                            | momentary   |
| Function:                  |   |
|                            | ⊅ <sub>45°</sub>                                      |
| Description                | with VS anti-rotation tab<br>with filament bulb, 24 V |
|                            | 2 positions   |
| Colour                     |   |
| Thumb-grip                 | red   |
|                            |   |
| Degree of Protection       | IP65  |
| Front ring                 | without bezel   |
| Connection to SmartWire-DT | no  |
| Front dimensions           | 25 × 25 mm  |

#### **Technical data**

#### General

| delleral                           |              |                   |  |
|------------------------------------|--------------|-------------------|--|
| Standards                          |              |                   | IEC/EN 60947   |
| Lifespan, mechanical               | Operations   | x 10 <sup>6</sup> | >3   |
| Operating frequency                | Operations/h |                   | ≦ 1800   |
| Operating torque                   |              | Nm                | ≦ 0.2  |
| Degree of protection, IEC/EN 60529 |              |                   | IP65   |
| Climatic proofing                  |              |                   | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature                |              |                   |  |
| Open                               |              | °C                | -25 - +60  |
| Enclosed                           |              | °C                | - 25 - 40  |
| Mounting position                  |              |                   | As required  |
| Mechanical shock resistance        |              | g                 | > 40<br>according to IEC 60068-2-27<br>Shock duration 11 ms<br>Sinusoidal      |
| Terminal capacities                |              | $\text{mm}^2$     | 0.5 - 1.0  |
| Blade terminal                     |              |                   | 2.8 x 0.8 mm to DIN 46244  |
| Fast-on connectors                 |              |                   | 2.8 x 0.8 mm to DIN 46247 and IEC 60760  |
| Contacts                           |              |                   |  |
|                                    |              |                   |  |

| Rated impulse withstand voltage | $U_{imp}$ | V AC | 800 |
|---------------------------------|-----------|------|-----|
| Rated insulation voltage        | $U_{i}$   | V    | 250 |

| Overvoltage category/pollution degree |                | III/3  |
|---------------------------------------|----------------|--|
| Rated operational voltage             | U <sub>e</sub> | V AC 24  |
| Control circuit reliability           |                |  |
| at 24 V DC/5 mA                       | H <sub>F</sub> | Fault < 10 <sup>-7</sup> (i.e. 1 failure to 10 <sup>7</sup> operations) probability          |
| at 5 V DC/1 mA                        | H <sub>F</sub> | Fault $< 5 \times 10^{-6}$ (1 failure in $5 \times 10^{6}$ operations) probability           |
| Use of insulated ferrule ISH 2,8      |                | >24 V AC/DC recommended<br>>50 V AC or 120 V DC is mandatory, even on unused blade terminals |

# Design verification as per IEC/EN 61439

| Technical data for design verification   |                   |    |  |
|--|-------------------|----|--|
| Rated operational current for specified heat dissipation   | In                | Α  | 0  |
| Heat dissipation per pole, current-dependent   | P <sub>vid</sub>  | W  | 0  |
| Equipment heat dissipation, current-dependent  | P <sub>vid</sub>  | W  | 0  |
| Static heat dissipation, non-current-dependent   | P <sub>vs</sub>   | W  | 1  |
| Heat dissipation capacity  | P <sub>diss</sub> | W  | 0  |
| Operating ambient temperature min.   |                   | °C | -25  |
| Operating ambient temperature max.   |                   | °C | 60   |
| 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   |                   |    | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating   |                   |    | Is the panel builder's responsibility. The specifications for the switch<br>gear must be observed. $\label{eq:constraint}$       |
| 10.12 Electromagnetic compatibility  |                   |    | Is the panel builder's responsibility. The specifications for the switch<br>gear must be observed. $\label{eq:constraint}$       |
| 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 selector switch (EC000222)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Front element for selector switches (ecl@ss10.0.1-27-37-12-13 [AKF031014])

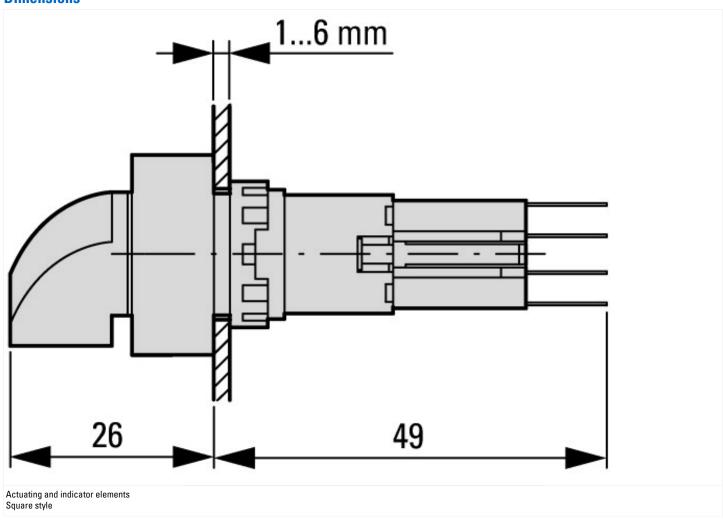
| [AKF031014])               |        |
|----------------------------|--------|
| Number of switch positions | 2      |
| Type of control element    | Toggle |
| Suitable for illumination  | Yes    |
| Colour control element     | Black  |
| Colour indicator light cap | Red    |

| Construction type lens                |    | Square  |
|---------------------------------------|----|---------|
| Hole diameter                         | mm | 16      |
| Width opening                         | mm | 0       |
| Height opening                        | mm | 0       |
| Switching function latching           |    | No      |
| Spring-return                         |    | Yes     |
| With front ring                       |    | Yes     |
| Material front ring                   |    | Plastic |
| Colour front ring                     |    | Black   |
| Degree of protection (IP), front side |    | IP65    |
| Degree of protection (NEMA)           |    | 1       |

# **Approvals**

| Product Standards           | IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CE marking |
|-----------------------------|---|
| UL File No.                 | E29184  |
| UL Category Control No.     | NKCR  |
| CSA File No.                | 46552   |
| CSA Class No.               | 3211-03   |
| North America Certification | UL listed, CSA certified                                |
| Degree of Protection        | UL/CSA Type 1   |

# **Dimensions**



## Assets (links)

**Declaration of CE Conformity** 

00002898

**Instruction Leaflets** 

IL04716016Z2018\_05

## **Additional product information (links)**

IL04716016Z (AWA1160-1429) Mounting of components

IL04716016Z (AWA1160-1429) Mounting of components

 $ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL04716016Z2018\_05.pdf$