



232236

M22S-R470K

Overview

Specifications

Resources



Delivery program

Technical data

Design verification as per IEC/EN 61439

Technical data ETIM7.0

Approvals

Dimensions

## DELIVERY PROGRAM

RMQ design

Classical

Part group reference (e.g. DIL)  
M22

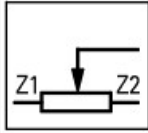
Mounting hole diameter [□]  
22.5 mm

Basic function  
Potentiometer

Single unit/Complete unit  
Single unit

Description  
3 individual screw terminals  
Accuracy of resistance value: ± 10% (linear)  
mechanical angle of rotation: 285° (+0/-5°)

Contact sequence



Impedance [R]  
470 k $\Omega$

Rated power [P]  
0.5 W

Degree of Protection  
IP66

Front ring  
Bezel: black

Connection to SmartWire-DT  
no

## TECHNICAL DATA

### General

Standards  
IEC/EN 60947  
VDE 0660

Lifespan, mechanical [Operations]  
25000

Climatic proofing  
Damp heat, constant, to IEC 60068-2-78  
Damp heat, cyclic, to IEC 60068-2-30

Degree of Protection  
IP66

Ambient temperature  
Open  
-25 - +70 °C

Mounting position  
As required

Mechanical shock resistance  
30  
Shock duration 11 ms  
Sinusoidal  
according to IEC 60068-2-27 g

Terminal capacities  
Solid  
0.5 - 1.5 mm<sup>2</sup>

Terminal capacities  
Stranded  
0.5 - 1.5 mm<sup>2</sup>

Tightening torque for terminal screw  
0.5 Nm

shipping classification  
DNV  
GL  
LR



## Contacts

Rated impulse withstand voltage [ $U_{imp}$ ]  
4000 V AC

Rated insulation voltage [ $U_i$ ]  
250 V

Overvoltage category/pollution degree  
III/3

**DESIGN VERIFICATION AS PER IEC/EN 61439**

## Technical data for design verification

Rated operational current for specified heat dissipation [ $I_r$ ]  
0 A

Heat dissipation per pole, current-dependent [ $P_{vid}$ ]  
0 W

Equipment heat dissipation, current-dependent [ $P_{vid}$ ]  
0 W

Static heat dissipation, non-current-dependent [ $P_{vs}$ ]  
0.5 W

Heat dissipation capacity [ $P_{diss}$ ]  
0 W

Operating ambient temperature min.  
-25 °C

Operating ambient temperature max.  
+70 °C

## 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 Strength of materials and parts  
10.2.3.1 Verification of thermal stability of enclosures  
Meets the product standard's requirements.

10.2 Strength of materials and parts  
10.2.3.2 Verification of resistance of insulating materials to normal heat  
Meets the product standard's requirements.

10.2 Strength of materials and parts  
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 Strength of materials and parts  
10.2.4 Resistance to ultra-violet (UV) radiation  
Please enquire

10.2 Strength of materials and parts  
10.2.5 Lifting  
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts  
10.2.6 Mechanical impact  
Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts  
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 Insulation properties  
10.9.3 Impulse withstand voltage  
Is the panel builder's responsibility.

10.9 Insulation properties  
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 switchgear must be observed.

10.12 Electromagnetic compatibility  
Is the panel builder's responsibility. The specifications for the switchgear must be observed.

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) / Potentiometer for control circuit devices (EC001027)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Command and alarm device / Potentiometer for command devices (ecl@ss10.0.1-27-37-12-27 [AKF045014])

Resistance  
470000 Ohm

Power consumption  
0.5 W

Hole diameter  
22.5 mm

Number of revolutions

Type of electric connection  
Screw connection

Degree of protection (IP)  
IP66

Degree of protection (NEMA)  
4X

## APPROVALS

Product Standards  
IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05;  
CSA-C22.2 No. 94-91; CE marking

UL File No.  
E29184

UL Category Control No.  
NKCR

CSA File No.  
012528

CSA Class No.  
3211-03

North America Certification  
UL listed, CSA certified

Degree of Protection  
UL/CSA Type 3R, 4X, 12, 13

## DIMENSIONS



