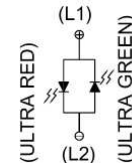
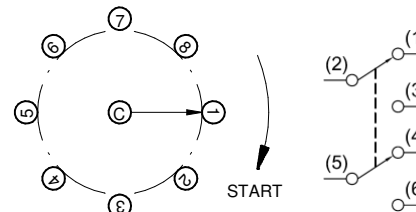


RECOMMENDED LAYOUT



LED SCHEMATIC



CIRCUIT DIAGRAM

Scale - 1,5:1

TECHNICAL CHARACTERISTICS

Specification

Rotary switch/Push button switch

>Rating :100mA, 30VDC

>Contact Resistance :

Initial Rotary : 200mOhm max.

Initial Push button : 50mOhm max.

After Life Test Rotary : 1OHm max.

After Life Test Push button : 200mOhm max.

>Insulation Resistance : min. 100MΩ at 500VDC for 1 minute

>Dielectric Strength : 500VAC for 1 minute

Switch function

Rotary switch

switching degree : 45+/-2°

Switch schematic : 1P8T

Push button

Function : momentary

Pre- Travel : 0.7±0.3mm

Total-Travel : 1.8±0.3mm

Material

>Cover : Stainless steel

>LED cover/Diffuser plate : PC UL HB

>Knob : PA66 UL HB

>Frame : PA66 UL HB

>Base : PA66 UL HB

>Stationary Board : PA66 UL HB

>Stationary Contact : Brass with Silver

>Moving Contact Push button : Bronze with Silver

>Moving Contact Rotary : Copper alloy with Silver

>Terminal : Brass with Silver

>Spring/Roller ball : Stainless Steel

Soldering Information

>Terminal in THT version

> Wave soldering 260°C 10sec. max

>Hand soldering under 350°C for 3sec. max

Environmental

Storage condition : -40°C ~ +85°C ,60% RH max.

Operation condition : -40°C ~ +85°C

Compliance : ROHS ,Reach

Handling advise

> ESD prevention methods need to be applicant for manual handling

and processing by machinery

> Resistors for protection are mandatory

Packaging information


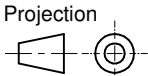

>ESD tray

| Part number | Force | Color of LED | Life cycle Rotary | Life cycle Push button |
|------------------|---------------|------------------|-------------------|------------------------|
| 481 RV 121 72100 | 250gf ± 100gf | Red/Bright green | 20.000 | 50.000 |

This electronic component is designed and developed with the intention for use in general electronics equipments.

Before incorporating the components into any equipments in the field such as aerospace, aviation, nuclear control, submarine, transportation, (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc. where higher safety and reliability are especially required or if there is possibility of direct damage or injury to human body, Würth Elektronik must be asked for a written approval.

In addition, even electronic component in general electronic equipments, when used in electrical circuits that require high safety, reliability functions or performance, the sufficient reliability evaluation-check for the safety must be performed before by the user before usage.

| | | | | | | | | | | | |
|---|------|--|----|--|------------------|--|-------|----------|--|------|----|
|  | |  | | GENERAL TOLERANCE .X = +/- 0,2 .XX = +/- 0,15 | | Basic material | | | | | |
| | | | | Date | Name | DESCRIPTION SwRPTL WS-RPTL 20x20 Rotary/Push button switch with Integrated LED, THT Type | | | | | |
| | | | | Drawn | 13-10-02 Fandrey | | | | | | |
| | | | | Checked | 13-10-02 Hsu | | | | | | |
| | | | | | | | | | | | |
| | | | |  Würth Elektronik eiCan | | Scale | 1,5:1 | Position | | SIZE | |
| | | | | | | Drawing.- No. 481 RV121 72100 | | | | | A4 |
| | | | | | | | | | | | |
| REV | FILE | DATE | BY | | | System :Solid Edge ST4 | | | | | |

| item | Emitting color | | Red | bright green |
|------|--------------------------------------|------------|-------------|--------------|
| | Order code | | RS | VS |
| 1 | Peak wavelength typ. | unit nm | 650 | 574 |
| 2 | Dominant Wave length @IF=20mA | typ.nm | 630 | 567 |
| | | | | |
| 3 | spectral Line Half-width @IF=20mA | typ.nm | 28 | 20 |
| 4 | Capacitance VF=0V;f=1MHZ | typ.pF | 35 | 15 |
| 5 | Forward voltage @IF=20mA | typ. V | 1,95 | 2,1 |
| | | max. V | 2,5 | 2,5 |
| 6 | Reverse current @VR=5V | uA | 10 | 10 |
| | | | | |
| 7 | ESD | V | 2000 | 2000 |
| 8 | Viewing Angle @20mA 2θ 50% typ | ° | 145 | 145 |
| 9 | Luminous intensity @IF=20mA | min. mcd | 120 | 20 |
| | | typ. mcd | 220 | 50 |
| 10 | Material | | AlGaInP | AlGaInP |
| 11 | lens type | | water clear | water clear |

Absolute Maximun Ratings (Ambient Temperature 25C)

| Properties | Red | bright green | Unit |
|----------------------------|------|--------------|------|
| Power Dissipation | 75 | 75 | mW |
| Peak Forward current | 185 | 150 | mA |
| continuous Forward current | 30 | 30 | mA |
| Reverse voltage | 5 | 5 | V |
| ESD Threshold / HBM | 2000 | 2000 | V |

HANDLING ADVISE

1) The solder profile has to be complied with according to the technical reflow /or wave soldering specification, otherwise no warranty will be sustained

2) All products are supposed to be used before the end of the period of 12 months based on the product date-code, if not 100% solderability can't be warranted

3) Violation of the technical product specifications such as exceeding the absolute maximum ratings will be result in the loss of warranty

4) It's also recommended to return the products into the original packaging

5) ESD prevention methods need to be applicated for manual handling and processing by machinery


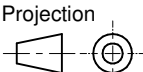

6) Resistors for protection are obligatory

7) The standard deliveries include values in the range and limitation as defined in the Electrical & Optical Properties specified in the datasheet. On each reel, only one bin is sorted and taped. The bin is defined on intensity, chromaticity coordinate or wavelength and forward voltage. In order to ensure highest availability, the reel binning of standard deliveries can vary. A single bin cannot be ordered. Please contact us in advance, if you need a particular bin sorting before placing your order to clarify the lead time, MOQ and pricing.

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| | | | | | | | | | | | | |
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| | | | | | | | Scale | | 1,5:1 | Position | | SIZE |
| | | | | | | | Drawing.- No. 481 RV121 72100 | | | | A4 | |
| REV | FILE | DATE | BY |  Würth Elektronik eiCan | | | System :Solid Edge ST4 | | | | | |