

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Warth Elektronik elSos GmbH & Co KG products are neither designed nor intended for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use, Moreover Warth Elektronik elSos GmbH & Co KG must be informed on every electronic component the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require high asteption released.

Material Properties:

Stainless Steel						
PA46						
UL94 HB						
Black						
LCP						
UL94 V-0						
Black						
Copper Alloy						
Silver						
Copper Alloy						
Silver						

General Information:

Operating Temperature	-40 up to +85 °C
Storage Conditions (in original packaging)	< 40 °C;< 75 % RH
Moisture Sensitivity Level (MSL)	1

Certification:

RoHS Approval	Compliant [2011/65/EU&2015/863]
REACh Approval	Conform or declared [(EC)1907/2006]
Halogen Free	Conform [IEC 61249-2-21]

Electrical Properties:

Properties		Test conditions	Value	Unit	Tol.
Rated Current Switching	I _R		300	mA	
Rated Voltage Switching	V _R		5	V (DC)	
Contact Resistance Initial	R		70	mΩ	max.
Contact Resistance After Life Test	R		500	mΩ	max.
Insulation Resistance	R _{ISO}	500 V (DC)	100	MΩ	min.
Withstanding Voltage		1 min	250	V (AC)	

Mechanical Properties:

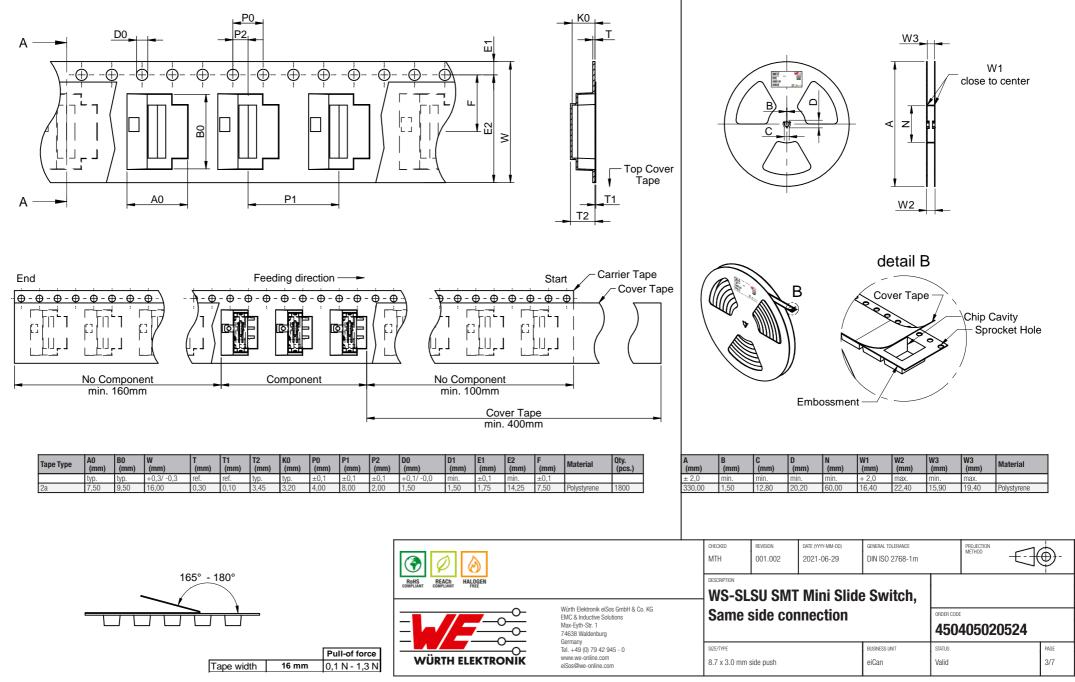
Properties	Test conditions	Value	Unit	Tol.			
Operation Force		225	g	max.			
Electrical Life	300mA / 5 V (DC)	10000	Steps				
Switching Function	On-On	On-On					
Connection Type	Same Side Connection						

		CHECKED MTH	REVISION 001.002	DATE (YYYY-MM-DD) 2021-06-29	general tolerance DIN ISO 2768-1m		PROJECTION METHOD	—
ROHS REACH HALOGEN		WS-SL	SU SMT	Mini Slide	e Switch,			
	Würth Elektronik eiSas GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg	Same	side cor	nection		ORDER CODE	105020524	
	Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com	SIZE/TYPE 8.7 x 3.0 mm	side push		BUSINESS UNIT eiCan	status Valid		PAGE . 2/7

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Wirth Elektronik elSos GmbH & Co KG products are neither designed nor intended for use in areas such as military, aerospace, aviation, nucleac protocil, trainsportation (automotive control, trainsportation signal, disaster prevention, medical, public information network etc... Wurth Elektronik elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in leaftraical inclusions or performance.

Packaging Specification - Tape and Reel: [mm]

Packaging Specification - Reel: [mm]



This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Wirth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information network etc... Worth Elektronik elSos GmbH & Co KG must be information netw

Classification Reflow Profile for SMT components:



Classification Reflow Soldering Profile:

Profile Feature		Value	
Preheat Temperature Min	T _{s min}	150 °C	
Preheat Temperature Max	T _{s max}	200 °C	
Preheat Time $\rm t_s$ from $\rm T_{s\ min}$ to $\rm T_{s\ max}$	t _s	60 - 120 seconds	
Ramp-up Rate (T _L to T _P)		3 °C/ second max.	
Liquidous Temperature	TL	217 °C	
Time t_L maintained above T_L	tL	60 - 150 seconds	
Peak package body temperature	Т _р	$T_p \le T_c$, see Table below	
Time within 5°C of actual peak temperature	t _p	20 - 30 seconds	
Ramp-down Rate (T _P to T _L)		6 °C/ second max.	
Time 25°C to peak temperature		8 minutes max.	
		•	

refer to IPC/ JEDEC J-STD-020E

Package Classification Reflow Temperature (T_c):

Properties	Volume mm ³ <350	Volume mm ³ 350-2000	Volume mm ³ >2000				
PB-Free Assembly Package Thickness < 1.6 mm	260 °C	260 °C	260 °C				
PB-Free Assembly Package Thickness 1.6 mm - 2.5 mm	260 °C	250 °C	245 °C				
PB-Free Assembly Package Thickness > 2.5 mm	250 °C	245 °C	245 °C				
Applied cycles	Only 2 times reflow possible.						

refer to IPC/ JEDEC J-STD-020E

ROHS COMPLIANT COMPLIANT HALOGEN		CHECKED	REVISION 001.002	DATE (YYYY-MM-DD) 2021-06-29	GENERAL TOLERANCE DIN ISO 2768-1m	_	PROJECTION METHOD -E	30-
				Mini Slide	e Switch,			
	Würft Elektronik elSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany	Same	side cor	nection		ORDER CODE	405020524	ŀ.
	Tel. +49 (0) 79 42 945 - 0	size/type 8.7 x 3.0 mm	size/type 8.7 x 3.0 mm side push		BUSINESS UNIT eiCan	status Valid		PAGE 4/7

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability valuation checks for safety must be produced on expected on cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability valuation checks for safety must be produced on expected controlic component which is used in the relatival or cause. All the relatival or cause exerce personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability transportation signal, disaster prevention, medical, public information network etc.. Würth Elektronik elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability transportation signal, disaster prevention, medical, public information network etc.. Würth Elektronik elsos GmbH & Co KG must be informed about the intent of such usage before the design-in stage.

Cautions and Warnings:

The following conditions apply to all goods within the product series of Slide Switch of Würth Elektronik eiSos GmbH & Co. KG:

General:

- This mechanical component is designed and manufactured for use in general electronic equipment.
- Würth Elektronik must be asked for written approval (following the PPAP procedure) before incorporating the components into any
 equipment in fields such as military, 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 and/or if there is the possibility of direct damage or human injury.
- Mechanical components that will be used in safety-critical or high-reliability applications, should be pre-evaluated by the customer.
- The component is designed and manufactured to be used within the datasheet specified values. If the usage and operation conditions
 specified in the datasheet are not met, the wire insulation may be damaged or dissolved.
- Do not drop or impact the components, the component may be damaged.
- Prevent any damage or scratches on the switch, especially on the actuator.
- Würth Elektronik products are qualified according to international standards, which are listed in each product reliability report. Würth
 Elektronik does not warrant any customer qualified product characteristics beyond Würth Elektronik's specifications, for its validity and
 sustainability over time.
- The responsibility for the applicability of the customer specific products and use in a particular customer design is always within the authority of the customer. All technical specifications for standard products also apply to customer specific products.

Product specific:

Soldering:

- The solder profile must comply with the technical product specifications. All other profiles will void the warranty.
- All other soldering methods are at the customers' own risk.
- Please keep our switch at delivery original position before and during the soldering process.
- Design the right angle part considering the wave soldering process, in order to avoid that the parts will not touch the soldering wave during the soldering process and to protect the switch part with cover fixture. Melting of the switch might cause malfunction.

Cleaning and Washing:

If a series is washable, the general information section in the datasheet will contain the washability guidelines. Should there be no
information regarding washability, the product has not been constructed to withstand a washing process. Washing agents used during
the production to clean the customer application might damage or change the characteristics of the component, body, pins and/or
termination. Washing agents may have a negative effect on the long-term functionality of the product.

If the parts are washable, hermetic:

- Cleaning agents used to clean the customers' applications, may damage or change the characteristics of the component, body, pins
 and termination.
- · Please do not immerse any washable products into water or cleaning agents or put them in locations exposed to water completely.
- Do not clean washable series immediately after soldering. The cleaning agent may be absorbed into the switch through respiration while the switch cools.
- Please do not press actuator or change status /position during the cleaning and washing process.
- Using a brush during the cleaning process could deform function relevant areas. Therefore, we do not recommend using a brush during the PCB cleaning process.

Potting and Coating:

If the product is potted in the costumer application, the potting material might shrink or expand during and after hardening. Shrinking
could lead to an incomplete seal, allowing contaminants into the core. Expansion could damage the components. We recommend a
manual inspection after potting or coating to avoid these effects.

Storage Conditions:

- A storage of Würth Elektronik products for longer than 12 months is not recommended. Within other effects, the terminals may suffer degradation, resulting in bad solderability. Therefore, all products shall be used within the period of 12 months based on the day of shipment.
- Do not expose the components to direct sunlight.
- The storage conditions in the original packaging are defined according to DIN EN 61760-2.
- If there is a moisture sensitive component, the storage condition in the original packaging is defined according to IPC/JEDEC-J-STD-033. It is also recommended to return the component to the original moisture proof bag and reseal the moisture proof bag again.
- The storage conditions stated in the original packaging apply to the storage time and not to the transportation time of the components.

Packaging:

• The packaging specifications apply only to purchase orders comprising whole packaging units. If the ordered quantity exceeds or is lower than the specified packaging unit, packaging in accordance with the packaging specifications cannot be ensured.

Handling:

- In case a product requires particular handling precautions, in addition to the general recommendations mentioned here below, these will
 appear on the product datasheet.
- Do not repeatedly operate the switch with excessive force. It may damage or deform the switch resulting in malfunction.
- Do not use sharp headed tools to operate the switch. Sharp headed tools may damage the switch surface and might result in malfunction of the switch.

		CHECKED MTH	REVISION 001.002	DATE (YYYY-MM-DD) 2021-06-29	GENERAL TOLERANCE DIN ISO 2768-1m		PROJECTION METHOD	-	⊕ -
RoHS collerLiker Black HALOGEN Wirth Flektronik elSos GmbH & Co. KG				Mini Slide	e Switch,		•		
	Wurm Liektronik elsos Gimbl & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany	Same	side cor	nection		ORDER COD	405020	524	
	elimiany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com	SIZE/TYPE 8.7 x 3.0 mm :	side push		BUSINESS UNIT eiCan	status Valid		1	page 5/7

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Wirth Elektronik elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical incurvite and reliability evaluation checks for safety and reliability for the electraci incurvite and reliability for the reliability for the reliability evaluation checks for safety and reliability for the reliabili

- Use of our slide switch in outdoor environment or environments with high density of chemical material or corrosive gas should be avoided.
- For switch products, we do not recommend to stack PCB's, in order to avoid malfunction of the switch.
- The temperature rise of the component must be taken into consideration. The operating temperature is comprised of ambient temperature and temperature rise of the component. The operating temperature of the component shall not exceed the maximum temperature specified.

These cautions and warnings comply with the state of the scientific and technical knowledge and are believed to be accurate and reliable. However, no responsibility is assumed for inaccuracies or incompleteness.

		CHECKED MTH	REVISION 001.002	DATE (YYYY-MM-DD) 2021-06-29	GENERAL TOLERANCE DIN ISO 2768-1m		METHOD -E		€-
ROHS REACH HALDGEN			SU SMT	Mini Slide	e Switch,				
	Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions	Same s	side con	nection		ORDER CODE			
	Max-Eyth-Str. 1 74638 Waldenburg Germanv					4504	40502052	4	

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is not authorized to use evere personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik elSos GmbH & Co KG products are neither designed nor intended for use in exeas such as military, aerospace, availability, required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Würth Elektronik elSos GmbH & Co KG must be informed about the intent of such usage before the design-in stage. In addition, sufficient reliability evaluation checks for safety must be performed on every electronic component which is used in electrical circuits that require thigh safety and reliability marce.

Important Notes

The following conditions apply to all goods within the product range of Würth Elektronik eiSos GmbH & Co. KG:

1. General Customer Responsibility

Some goods within the product range of Würth Elektronik eiSos GmbH & Co. KG contain statements regarding general suitability for certain application areas. These statements about suitability are based on our knowledge and experience of typical requirements concerning the areas, serve as general guidance and cannot be estimated as binding statements about the suitability for a customer application. The responsibility for the applicability and use in a particular customer design is always solely within the authority of the customer. Due to this fact it is up to the customer to evaluate, where appropriate to investigate and decide whether the device with the specific product characteristics described in the product specification is valid and suitable for the respective customer application or not.

2. Customer Responsibility related to Specific, in particular Safety-Relevant Applications

It has to be clearly pointed out that the possibility of a malfunction of electronic components or failure before the end of the usual lifetime cannot be completely eliminated in the current state of the art, even if the products are operated within the range of the specifications. In certain customer applications requiring a very high level of safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health it must be ensured by most advanced technological aid of suitable design of the customer application that no injury or damage is caused to third parties in the event of malfunction or failure of an electronic component. Therefore, customer is cautioned to verify that data sheets are current before placing orders. The current data sheets can be downloaded at www.we-online.com.

3. Best Care and Attention

Any product-specific notes, cautions and warnings must be strictly observed. Any disregard will result in the loss of warranty.

4. Customer Support for Product Specifications

Some products within the product range may contain substances which are subject to restrictions in certain jurisdictions in order to serve specific technical requirements. Necessary information is available on request. In this case the field sales engineer or the internal sales person in charge should be contacted who will be happy to support in this matter.

5. Product R&D

Due to constant product improvement product specifications may change from time to time. As a standard reporting procedure of the Product Change Notification (PCN) according to the JEDEC-Standard inform about minor and major changes. In case of further queries regarding the PCN, the field sales engineer or the internal sales person in charge should be contacted. The basic responsibility of the customer as per Section 1 and 2 remains unaffected.

6. Product Life Cycle

Due to technical progress and economical evaluation we also reserve the right to discontinue production and delivery of products. As a standard reporting procedure of the Product Termination Notification (PTN) according to the JEDEC-Standard we will inform at an early stage about inevitable product discontinuance. According to this we cannot guarantee that all products within our product range will always be available. Therefore it needs to be verified with the field sales engineer or the internal sales person in charge about the current product availability expectancy before or when the product for application design-in disposal is considered. The approach named above does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.

7. Property Rights

All the rights for contractual products produced by Würth Elektronik eiSos GmbH & Co. KG on the basis of ideas, development contracts as well as models or templates that are subject to copyright, patent or commercial protection supplied to the customer will remain with Würth Elektronik eiSos GmbH & Co. KG does not warrant or represent that any license, either expressed or implied, is granted under any patent right, copyright, mask work right, or other intellectual property right relating to any combination, application, or process in which Würth Elektronik eiSos GmbH & Co. KG components or services are used.

8. General Terms and Conditions

Unless otherwise agreed in individual contracts, all orders are subject to the current version of the "General Terms and Conditions of Würth Elektronik eiSos Group", last version available at www.we-online.com.

		CHECKED MTH	REVISION 001.002	DATE (YYYY-MM-DD) 2021-06-29	GENERAL TOLERANCE DIN ISO 2768-1m	_	PROJECTION METHOD		€-
ROHS COMPLIANT COMPLIANT HALOGEN			SU SMT	Mini Slide	e Switch,		5		
Wirth Elektronik eiSos GmbH & Co. KG ENC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg			side cor	nnection		ORDER CODE	405020	524	
	Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com	size/type 8.7 x 3.0 mm	side push		BUSINESS UNIT eiCan	status Valid		1	page 7/7

This electronic component has been designed and developed for usage in general electronic equipment only. This product is not authorized for use in equipment where a higher safety standard and reliability standard is especially required or where a failure of the product is reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically governing such use. Moreover Wirth Elektronik elSos GmbH & Co KG products are neither designed on rinended for use in equipment which is used in effective (a transportation (automotive control, train control, ship control, train control, ship control, train control, trai

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Slide Switches category:

Click to view products by Wurth manufacturer:

Other Similar products are found below :

6-1437581-1 M43R MHS123K15D MHS133K MHSS1104A MMD GH49S010001 MSS12A EPS1PC1 1825074-1 1825160-3 1825167-2 1825289-7 25139NLDB 25449NAH SLB1240R45 1825078-1 1825080-4 1825269-1 1825270-2 STS141RA04 T2215BEN506 GH46P000001 GH46W000001 GH49P010001 25339NA M42A TG36P000000 TG36P000050 AYZ0202AG 47227LFE 49331L 50208L L203091MS02Q 4-1437581-7 X2225CR-437W 49329L 1101M1S3ZB8E2 1-1437581-1 MSS2225G04 TG39W000000 1825075-1 MSS42G TG36WS80065 T105S1CWZBE SLB124145 SLB1280R5 SLB1340R45 25136NLDB TG39W000050