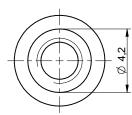
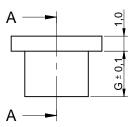
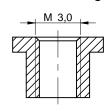
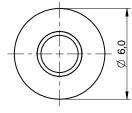
# **Dimensions: [mm]**



### sectional drawing A-A





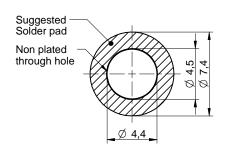




### **Article Properties:**

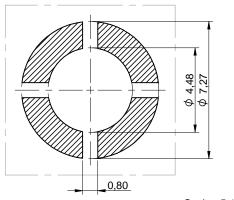
Properties		Value	Unit
Pin length	G	7.6	mm

# **Recommended Land Pattern: [mm]**



Scale - 3:1

### **Stencil Suggestion:**



Scale - 5:1

CHECKED

REVISION

DATE (YYYY-MM-DD)

# **Properties:**

Properties		Value	Unit	Tol.
Material		Steel		
Surface		Tin		
Solder Paste Thickness		150	μm	min.
Tightening Torque		0.5	N*m	max.
Thread		M3		
Inner Diameter	Ø ID	4.2	mm	
Outer Diameter	Ø OD	6	mm	

### **Certification:**

RoHS Approval	Compliant [2011/65/EU&2015/863]
REACh Approval	Conform or declared [(EC)1907/2006]
Halogen Free	Conform [IEC 61249-2-21]
Halogen Free	Conform [JEDEC JS709B]

### **General Information:**

l	Operating Temperature	-55 up to +150 °C
	Storage Conditions (in original packaging)	< 40 °C; < 75 % RH
	Moisture Sensitivity Level (MSL)	1
1	In Tono & Dool poolsoging a Dolsimida	Fano in fixed on the tan of the angeer for outernatio accombly

In Tape & Reel packaging a Polyimide Tape is fixed on the top of the spacer for automatic assembly.

During the programming of the Pick and Place machine and the AOI, please consider the flap of the Polyimide Tape.

Please ensure that the z-axis of the Pick and Place machine is adjusted for the negative area.

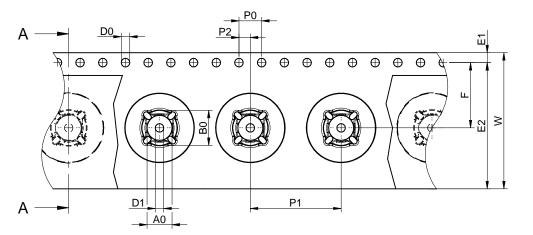
ROAS REACH HALOGEN FREE	
WÜRTH ELEKTRONIK MORE THAN YOU EXPECT	Würth Elektronik eiSos GmbH & Co, KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com

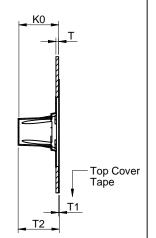
eiSos@we-online.com

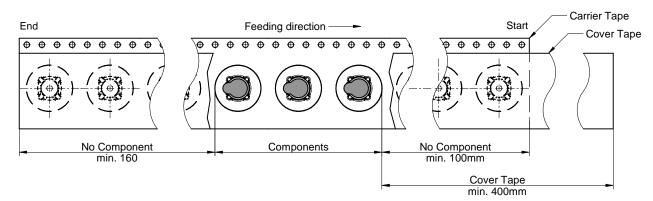
JuSa 001.004 2020-07-09 DIN ISO 2768-1m **WA-SMSR SMT Steel Spacer Reverse with internal Thread** ORDER CODE 9775076360R SIZE/TYPE STATUS BUSINESS UNIT PAGE М3 eiCan Valid 1/5

GENERAL TOLERANCE

# Packaging Specification - Tape: [mm]



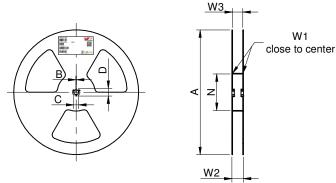


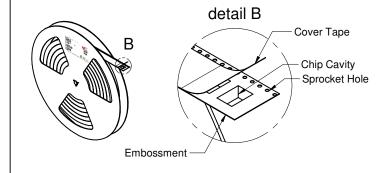


#### Packaging is referred to the international standard IEC 60286-3:2019

		A0	B0	W	T	T1	T2	K0	P0	P1	P2	D0	D1	E1	E2	F	Tape Type	VPE / packaging unit
tolerance		+0,2	+0,2	±0,3	typ.	max.	typ.	typ.	typ.	±0,1	typ.	+0,1	typ.	typ.	min.	typ.		pcs.
ciza	9775076360B	4.40	6.20	24.00	0.30	0.10	0.30	a nn	4.00	16.00	2 00	1.50	1.50	1 75	22 25	11.50	Polyetyrona	350

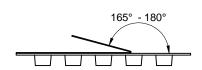
### Packaging Specification - Reel: [mm]





		Α	В	С	D	N	W1	W2	W3	W3
tolerance		± 2,0	min.	min.	min.	± 2,0	+ 2	max.	min.	max.
Tape width	24mm	330,00	1,50	12,80	20,20	60,00	24,40	30,40	23,90	27,40

GENERAL TOLERANCE



 Pull-of force

 Tape width
 24 mm
 0,1 N - 1,3 N





Würth Elektronik eiSos GmbH & Co. KG EMC & Inductive Solutions Max-Eyth-Str. 1 74638 Waldenburg Germany

Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com JUSA 001.004 2020-07-09 DIN ISO 2768-1m 

WA-SMSR SMT Steel Spacer

WA-SMSR SMT Steel Spacer Reverse with internal Thread

DATE (YYYY-MM-DD)

CHECKED

SIZE/TYPE

М3

REVISION

9775076360R

| BUSINESS LINIT | STATUS | Valid

ORDER CODE

PAGE

2/5

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 Würth Elektronik eiSos GmbH & Co KG must be informed in reasonably expected to cause severe personal injury or death, unless the parties have executed an agreement specifically expellable information network etc.. Würth Elektronik eiSos 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 high state typical byta state typical byta state typical byta state and 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 eiSos 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 electronic component with the such as a such as a finite partie of the product is reasonably expected to cause severe personal injury or death, unless the parties of the product is reasonably expected to cause severe personal injury or death, unless the parties of the product is reasonably expected to cause severe personal injury or death, unless the parties of the product is reasonable personable and the parties of the product is reasonable personable and the parties of the parties o

# **Classification Reflow Profile for SMT components:**



# **Classification Reflow Soldering Profile:**

Profile Feature		Value			
Preheat Temperature Min T <sub>s m</sub>		150 °C			
Preheat Temperature Max	T <sub>s max</sub>	200 °C			
Preheat Time $t_s$ from $T_{smin}$ to $T_{smax}$	t <sub>s</sub>	60 - 120 seconds			
Ramp-up Rate (T <sub>L</sub> to T <sub>P</sub> )		3 °C/ second max.			
Liquidous Temperature	T <sub>L</sub>	217 °C			
Time $t_L$ maintained above $T_L$	t <sub>L</sub>	60 - 150 seconds			
Peak package body temperature	T <sub>p</sub>	$T_p \le T_c$ , see Table below			
Time within 5°C of actual peak temperature	t p	20 - 30 seconds			
Ramp-down Rate (T <sub>P</sub> to T <sub>L</sub> )		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<sub>c</sub>):

Properties	Volume mm³ <350	Volume mm <sup>3</sup> 350-2000	Volume mm³ >2000
PB-Free Assembly I 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

refer to IPC/ JEDEC J-STD-020E

			JuSa	001.004	DATE (YYYY-MM-DD) 2020-07-09	DIN ISO 2768-1m		PROJECTION METHOD	<b>-</b>
ROHS REACH HALDGEN COMPLIANT HALDGEN WURTH ELEKTRONIK 74	Würth Elektronik elSos GmbH & Co. KG EMC & Inductive Solutions Max-GyH-Str. 1 7.4638 Waldenburg	WA-SMSR SMT Steel Spacer Reverse with internal Thread					ORDER CODE 9775076360R		
./-	MORE THAN YOU EXPECT	Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com elSos@we-online.com	SIZE/TYPE M 3			BUSINESS UNIT eiCan	status Valid		PAGE 3/5

# **Cautions and Warnings:**

# The following conditions apply to all goods within the product series of WA-SMSR of Würth Elektronik eiSos GmbH & Co. KG:

#### General:

- This mechanical component was 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 component surface may be damaged or dissolved.
- Do not drop or impact the components, the component may be damaged.
- Würth Elektronik products are qualified according to international standards. 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 do also apply to customer specific products.

### **Product Specific:**

### Soldering:

- The solder profile must comply with the Würth Elektronik technical soldering specification. All other profiles will void the warranty.
- All other soldering methods are at the customers' own risk.

#### **Cleaning and Washing:**

- Washing agents used during the production to clean the customer application might damage or change the characteristics of the component. Washing agents may have a negative effect on the long-term functionality of the product.
- Using a brush during the cleaning process may damage the component. Therefore, we do not recommend using a brush during the PCB cleaning process.

#### Potting:

If the product is potted in the customer application, the potting material might shrink or expand during and after hardening. Shrinking
could lead to an incomplete seal, allowing contaminants into the components. 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. 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.
- The storage conditions stated in the original packaging apply to the storage time and not to the transportation time of the components.

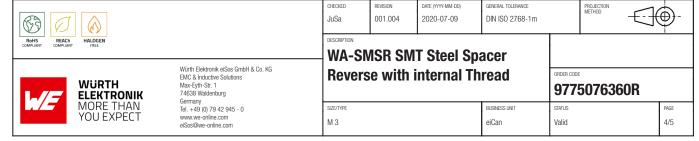
### Packaging:

 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:

- The maximum permissible torques must be observed to prevent mechanical destruction of the component and PCB.
- It may occur that the hole and/or the thread is not completely coated. Stains and/or deposits may arise during rinsing and drying the component. The soldering, storage and holding forces are not affected thereby.
- Violation of the technical product specifications will void the warranty.
- 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.



### **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.

