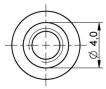
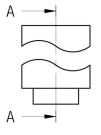
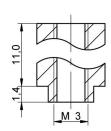
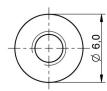
## A Dimensions: [mm]

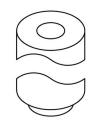


sectional drawing A-A







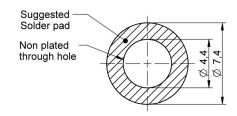


Scale - 3:1

Technical Tolerances according to DIN ISO 2768m

In tape & reel packaging a kapton-film is fixed on the top of the spacer to realize automatic assembly





Scale - 3:1



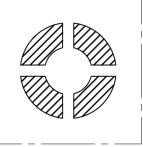
### **D Properties:**

Properties	Value
Surface	Tin plated
Material	11SMnPB30
Thread	M3
Tightening torque	0.5 Nm
Solder Cream Thickness	150 μm
Packaging	Reel

C Stencil suggestion:



Stencil Example:



E General information:

Scale - 3:1

Projection EMC & Inductive Solutions Max-Eyth-Str. 1

Würth Elektronik eiSos GmbH & Co. KG 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com SSt 1.0 2013-12-13 SKI eiSos@we-online.com DATE CHECKED

DESCRIPTION

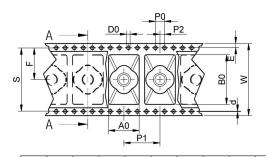
**WA-SMSI SMT Steel Spacer, M3 Thread** Internal

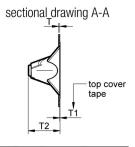
Order.- No.

9774110360R

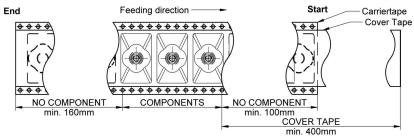


SIZE A4

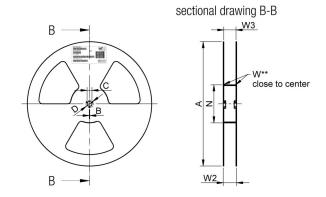




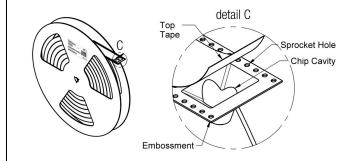
		Α0	В0	w	P1	т	T1	Т2	D0	E1	s	F	P0	P2	Tape	VPE / packaging unit
	tolerance	typ.	typ.	+0,3 -0,1	± 0,1	± 0,1	max.	typ.	+0,3 -0,1	± 0,1	min.	± 0,05	± 0,1	± 0,05		
	9774025260	10,60	10,65	32,00	16,00	0,50	0,10	6,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	650
	9774030360	10,60	10,65	32,00	16,00	0,50	0,10	6,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	650
	9774040360	10,60	10,65	32,00	16,00	0,50	0,10	6,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	650
	9774050360	10,60	10,65	32,00	16,00	0,50	0,10	6,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	650
	9774060360	13,60	15,20	32,00	16,00	0,50	0,10	9,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	450
	9774070360	13,60	15,20	32,00	16,00	0,50	0,10	9,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	450
l o	9774080360	13,60	15,20	32,00	16,00	0,50	0,10	9,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	450
size	9774090360	13,60	15,20	32,00	16,00	0,50	0,10	9,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	300
	9774100360	13,60	22,00	32,00	16,00	0,50	0,10	13,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	300
	9774110360	13,60	22,00	32,00	16,00	0,50	0,10	13,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	300
	9774120360	13,60	22,00	32,00	16,00	0,50	0,10	13,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	300
	9774130360	13,60	22,00	32,00	16,00	0,50	0,10	16,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	250
	9774140360	13,60	22,00	32,00	16,00	0,50	0,10	16,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	250
	9774150360	13,60	22,00	32,00	16,00	0,50	0,10	16,70	1,50	1,75	28,40	14,20	4,00	2,00	Polystyrene	250

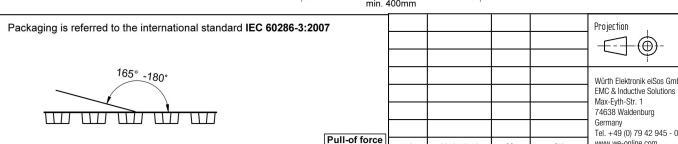






		Α	В	С	D	N	W1	W2	W3	W3
tolerance		± 2,0	min.	± 0,8	min.	± 2,0	+ 1,5	max.	min.	max.
Tape width	32 mm	330,00	1,50	13,00	20,20	100,00	32,40	38,40	31,90	35,40





Tape width

32 mm 0,1 N - 1,3 N

1.0

2013-12-13

DATE

**WA-SMSI SMT Steel Spacer, M3 Thread** Internal Order.- No.

9774110360R

DESCRIPTION

Würth Elektronik eiSos GmbH & Co. KG

Tel. +49 (0) 79 42 945 - 0

www.we-online.com

eiSos@we-online.com

COMPLIANT

SIZE A4

SKI

CHECKED

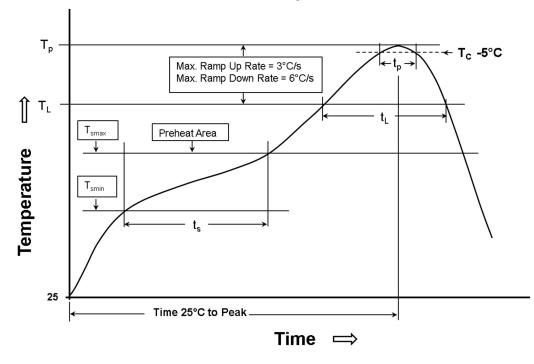
SSt

BY

### **H Soldering Specifications:**



### **H1: Classification Reflow Profile for SMT components:**



### **H2: Classification Reflow Profiles**

Profile Feature	Pb-Free Assembly			
Preheat  - Temperature Min (T <sub>smin</sub> )  - Temperature Max (T <sub>smax</sub> )  - Time (t <sub>s</sub> ) from (T <sub>smin</sub> to T <sub>smax</sub> )	150°C 200°C 60-120 seconds			
Ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	3°C/ second max.			
Liquidous temperature ( $T_L$ ) Time ( $t_L$ ) maintained above $T_L$	217°C 60-150 seconds			
Peak package body temperature (Tp)	See Table H3			
Time within 5°C of actual peak temperature (tp)	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-020D

### **H3: Package Classification Reflow Temperature**

	Package Thickness	Volume mm³ <350	Volume mm³ 350 - 2000	Volume mm³ >2000
PB-Free Assembly	< 1.6 mm	260°C	260°C	260°C
PB-Free Assembly	1.6 - 2.5 mm	260°C	250°C	245°C
PB-Free Assembly	≥ 2.5 mm	250°C	245°C	245°C

refer to IPC/JEDEC J-STD-020D

				Projection ————————————————————————————————————		DESCRIPTION  WA-SMSI SMT S	teel Spacer, M3 Thre	ad			
				Würth Elektronik eiSos GmbH & EMC & Inductive Solutions	& Co. KG	Internal					
				Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0 www.we-online.com eiSos@we-online.com		Order No.	COMPLIANT ROHS&REACH	SIZE			
1.0	2013-12-13	SSt	SKI			9774110360R					
REV	DATE	BY	CHECKED	CIOOSSWC OHIIIIC.COM							

### I Cautions and Warnings:

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

#### General:

All recommendations according to the general technical specifications of the data-sheet have to be complied with.

The responsibility for the applicability of 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 for customer specific products.

#### **Product Specific:**

Follow all instructions in the datasheet, especially:

- •The solder profile has to be complied with according to the technical reflow soldering specification, otherwise no warranty will be sustained. Surface discoloration due to reflow processing is permitted.
- •Wave soldering is not applicable. Reflow soldering is recommended.
- •All products shall be used before the end of the period of 12 months based on the product date-code, if not a 100% solderability can't be warranted.
- •The maximum permissible torques must be complied with to prevent mechanical destruction of the elements and PCB.



				Projection ————————————————————————————————————		DESCRIPTION		_			
				Würth Elektronik eiSos Gmbl- EMC & Inductive Solutions Max-Eyth-Str. 1	H & Co. KG	WA-SMSI SMT Steel Spacer, M3 Thro Internal					
				74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0		Order No.	COMPLIANT ROHS&REACH WÜRTH ELEKTRONIK	SIZE			
1.0	2013-12-13	SSt	SKI	www.we-online.com eiSos@we-online.com		9774110360R	WORTH ELEKTRONIK	A4			
REV	DATE	BY	CHECKED	CIOCOSSIVE GIIIIIE.COIII							



### **J 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.

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.

				Projection -		DESCRIPTION					
				Würth Elektronik eiSos GmbH & EMC & Inductive Solutions	& Co. KG	WA-SMSI SMT Steel Spacer, M3 Thread Internal					
				Max-Eyth-Str. 1 74638 Waldenburg Germany Tel. +49 (0) 79 42 945 - 0		Order No.  COMPLIANT ROHS&REACH WORTH ELEKTRONIK					
1.0	2013-12-13	SSt	SKI	www.we-online.com eiSos@we-online.com		9774110360R					
REV	DATE	BY	CHECKED	GIOOSSWC GIIIIIG.COIII							