Product discontinuation notification

PDN13-16 KSA

C&K components
C&K components SAS – 2 Rue Berthollet B.P. 359 F-39105 Dole Cedex - FRANCE
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Document revision

Revision	Date	Description	Author
A	04-Oct -2013	Creation	Eric GRANGE
B	08-Apr-2014	LTB date extension	Eric GRANGE

Summary

1. Purpose

The purpose of this notification is to announce the end of availability of the KSB and KSFR products and derivates.

2. Discontinuation details

2.1 P/N affected

- Ksb0m110 Lft / Y33A11025FP LFT
- Ksb0m410 Lft / Y33A41025FP LFT
- Ksb0m430 Lft / Y33A43025FP LFT

- Ksfr0m411 Lft / Y33A411R5FP LFT

2.2 Reason for discontinuation

Production volumes levels are not justifying the specific tool maintenance.

3. Replacement

The following replacement is proposed

- Ksb0m110 Lft replaced by KSF0M211 LFT
- Ksb0m410 Lft replaced by KSF0M411 LFT
- Ksb0m430 Lft replaced by KSF0M431 LFT

- Ksfr0m411 Lft : no replacement

The replacement impact is described below. For any further information, please refer to drawings and specification shared in appendix.

- Dimensional: height 2.6mm instead of 2.1 mm
- Electrical and environmental features: no impact
- Mechanical features: refer to the following table

C&K P/N	Force (N)	Return force min (N)	Travel (mm)	Life min (K cycles)
KSF0M211 LFT / KSB0M011 LFT	1.00-2.00/1.20-2.00	0.40/0.40	0.20-0.30/0.17-0.27	100/100
KSF0M411 LFT / KSB0M411 LFT	2.25/3.75/2.25-3.75	0.40/0.40	0.20-0.30/0.2-0.3	100/100
KSF0M431 LFT / KSB0M431 LFT	2.25-3.75/2.25-3.75	0.40/0.40	0.20-0.300.2-0.3	100/100

For any technical question concerning replacement, including sample request, please ask to you sales representative.

4. Application

4.1 Time frame

PDN notification: October 4th 2013*
Customer acknowledgement: November 4th 2013
Last time buy: extended to November 14th 2014
Discontinuation effective December 31st 2014

4.2 Sales conditions

In case of replacement, please check new sales conditions with your C&K sales representative

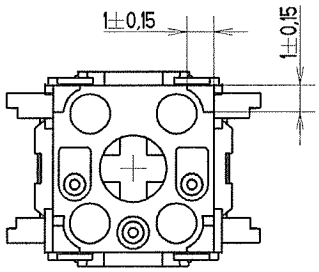
5. Acknowledgement

We kindly asking you to acknowledge this information no later than April 30th 2014

Annex : Technical documentation related to replacement:

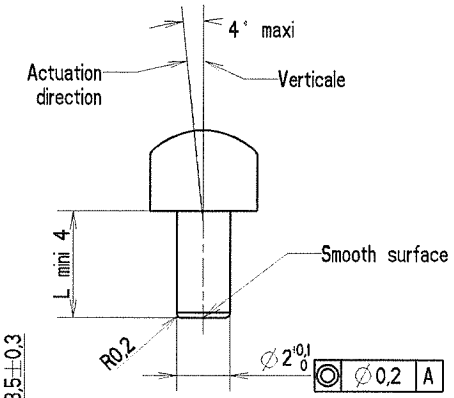
(refer to following pages)

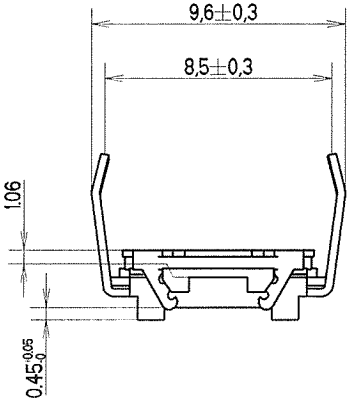
A	ECR-2606	Mise a jour codes	20/08/2008	CD
	ECR-4952	Remplacement PCF , suppression marquage 1 et 2 , suppression de la note , modif tolerance sur cote 8.5 et 9.6±0.2 ▷ 0.3 et 3.5±0.15 ▷ 0.3 , ajout dim critique sur cote 2.6 , ajout schema contact sur CU	22/02/2010	GP

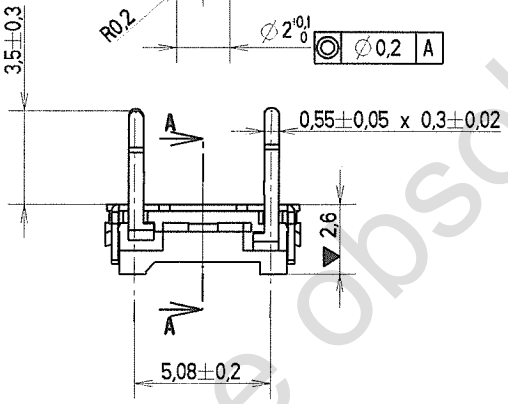


PIED DE LAVAGE

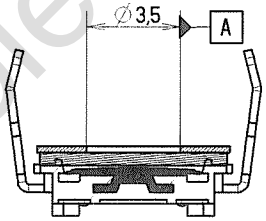
Recommended shape for actuator

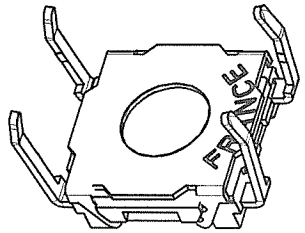






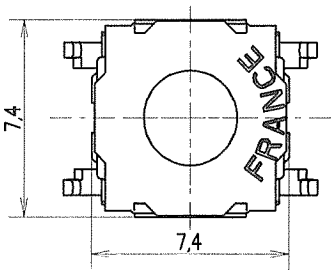
SECTION A-A

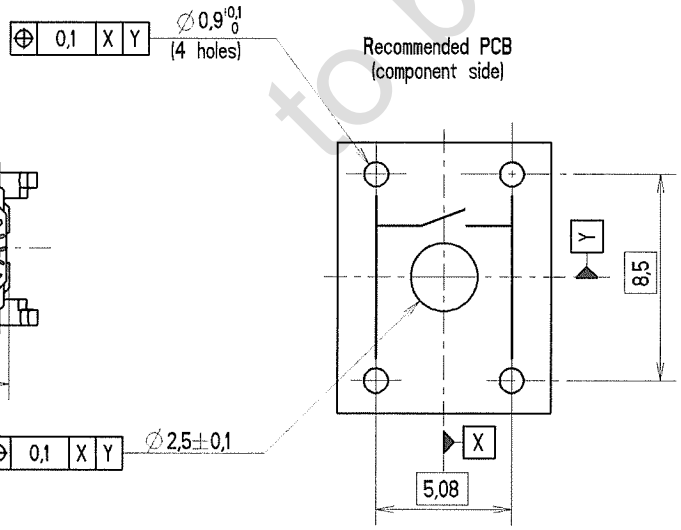




SCALE 5

PRODUCT NUMBER	DESIGNATION
Y33 A41 1R5 FP LFT	KSF R 411 LFT





SYSTEM CONFIDENTIAL

LINEAR TOLERANCE ± 0,1 ANGULAR TOLERANCE ± 1°

CRITICAL DIMENSIONS ▼ 1

SPC DIMENSIONS ▽

CREATE BY	MILLEREAU.S	DATE 05-10-2005	PRO/E 0
CHECKED BY	PAILLE.V	DATE	
APPROVED BY	KUBAT.L	DATE 23/03/2010	

LANGAGE

REMPLACE

C&K Components

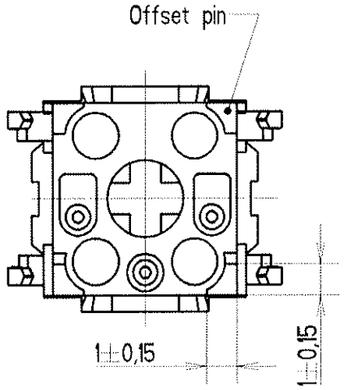
BP 359 - 39105 Dole - FRANCE -

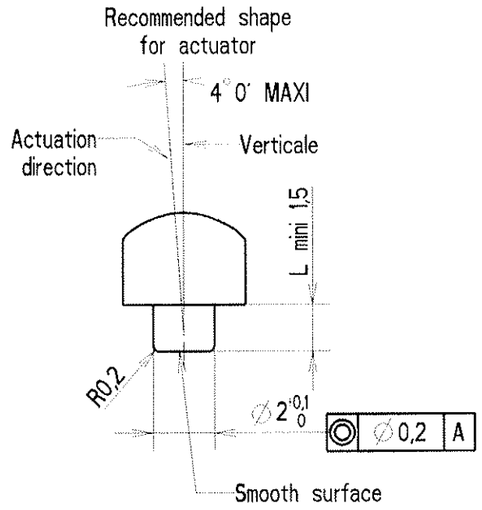
SCALE 5,000

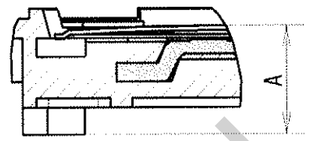
PART DESCRIPTION: KSF R LFT

SIZE	SHEET	PART NUMBER	REV
A3	1 / 1	CU 33 M07 003 FP	A

REV.	N° DCR	NATURE DE LA MODIFICATION	DATE	VISA
A	ECR-2606	Suppression marquage ITT : code 33 A13 025 FP LFT	21/08/2008	C.D
	ECR-4952	Remplacement PCF , suppression de la note , modif tolerances cotes 9 ; 7.62 et 4.2 : 0.2 ▷ 0.3 , ajout schema contact sur CU	19/02/2010	G.P
B	ECR-6604	Updated top view (criping areas)	22/04/2011	L.B

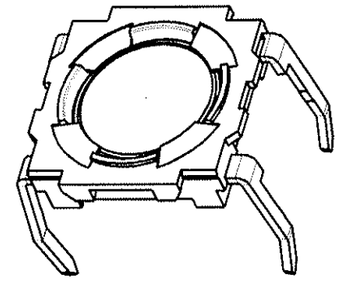




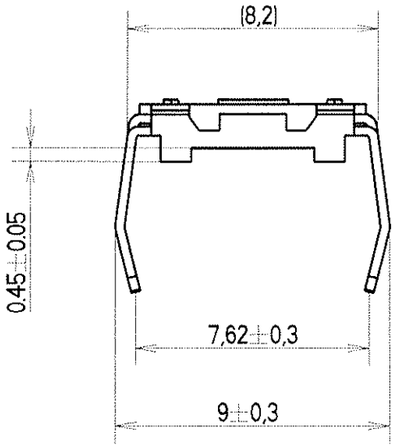


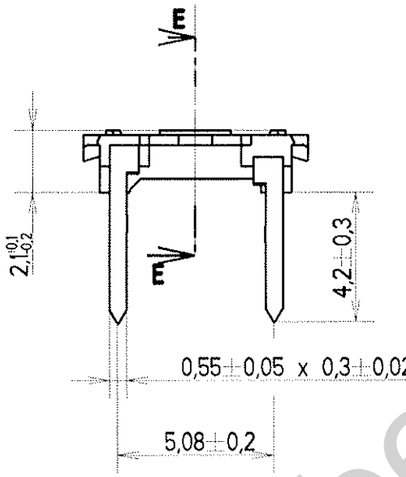
SECTION E-E

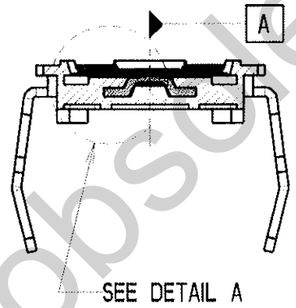
DETAIL A
SCALE 10,000



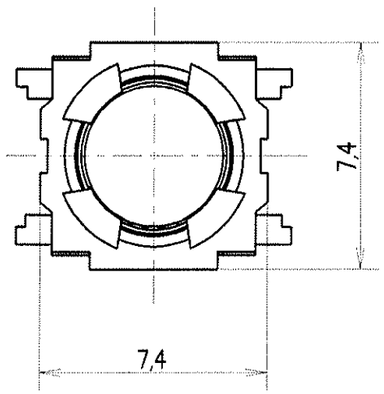
SCALE 5

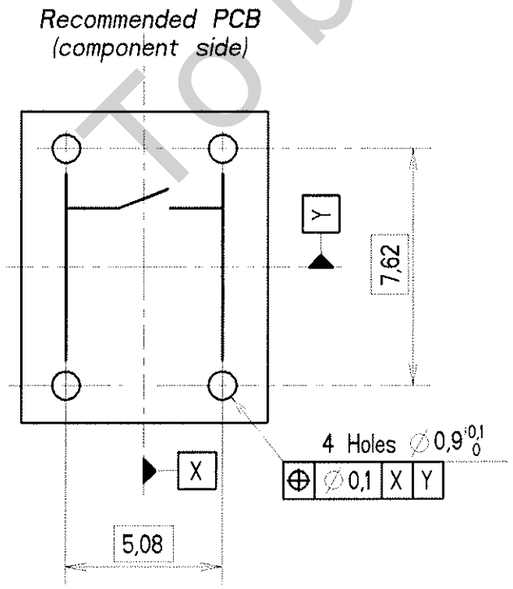






CODE PRODUIT	DESIGNATION	A (mm) ▼
33 A11 025 FP LFT	KSB OM 110 LFT	1,75±0,1
33 A41 025 FP LFT	KSB OM 410 LFT	1,8±0,1
33 A43 025 FP LFT	KSB OM 430 LFT	1,8±0,1





SYSTEM CONFIDENTIAL

MATERIAL / VOLUME	TREATMENT	PROTECTION

UNLESS OTHERWISE :
- DIMENSIONS GIVEN BEFORE PROTECTION
- BURRS AND SHARP EDGES DELETED

ANGULAR TOLERANCE ± 1 °
LINEAR TOLERANCE ± 0,1
SURFACE FINISH Ra . µ

CRITICAL DIMENSIONS ▼ 1
SPC DIMENSIONS ▼ .

CREATE BY MILLEREAU S DATE 08/11/2005

CHECKED BY DATE .

APPROVED BY DATE 22/04/2011

MODIFICATION see revision table on the first sheet
REPLACE .

FILENAME 33.M02.005.CU.LFT.IPN8AA
FOLDER Dossier racine/dole.south.rd/ksa/ksa.produit.fini.lead.free/ksb.modele

C&K Components

BP 359 - 39105 Dole - FRANCE -

SCALE 5,000

SIZE A3 | SHEET 1 / 1

PART DESCRIPTION
KSB OM LFT

PART NUMBER CU 33 M02 005 FP REV B

PRODUCT SPECIFICATION

KSB LFT

Ref. / PS-KSB-176

ISSUE 1 – Rev. A: JUNE 2008

Approvals:

Laurent Kubat Engineering Manager	Date 18/06/08
Jean Profeta Product Quality Manager	
Daniel Pequegnot Laboratory Manager	
Eric Grange Product Manager	
Jérome Brochot Quality Director	

Note

This specification, attached documents and attached drawings cannot be communicated to anybody without written agreement of C&K.

Revision record :

Revision	Date	Comments
Issue 1	March 7th, 2007	Creation
Issue 1 – rev. A	June 3rd , 2008	Update : • Logo C&K *(according to ECR 1399)* • Operating life: Weibull data suppressed. *(according to ECR 1461)* • UL data suppressed *(according to ECR 2324)*

SUMMARY

1 - Description

The KSB LFT (Lead Free Tin) is a miniature tact switch with single pole, single throw and normally open contact of the KSA family designed for automatic or manual insertion.

Main Features

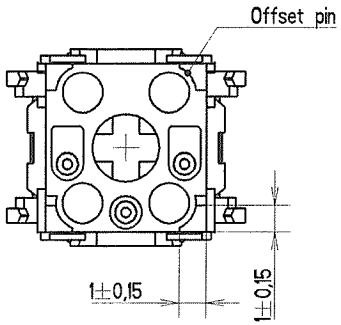
- Without actuator
- Without top sealing
- Terminal plating: LFT (lead free tin)
- ROHS Compliance
- Compatible with lead free process (wave or hand soldering only).
- Insertion:
  - M: manual
  - A : automatic
  - V : vertical
- Available with cambered terminals to ensure self-retention on the printed circuit board in manual insertion (M version), or with straight terminals for use in automatic insertion machines (A version).
- Marking :
  On the packaging box :
  - Manufacturer's symbol
  - Component designation
  - EIA date code

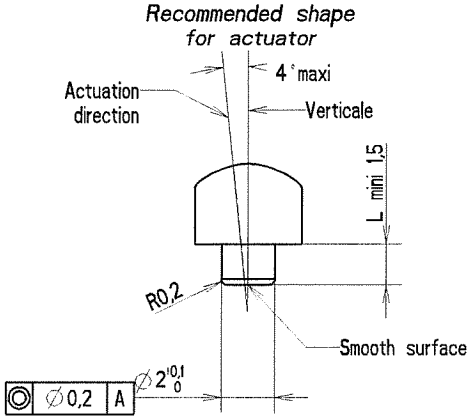
2 - Construction	
Function	Momentary action
Contact type	SPST, Normally Open
Terminals	Through hole
3 - Electrical data	
	Contact plating : Ag or Au
Maximum power	▪ KSB Ag : 1.0 VA ▪ KSB Au : 0.2 VA
Min/max voltage	20 mVdc – 32 Vdc
Min/max current	▪ KSB Ag : 1.0 mA – 50 mA ▪ KSB Au : 1.0 mA – 10 mA
Dielectric strength	≥ 250 Vrms
Contact resistance	≤ 100 mΩ
Insulation resistance	Initial measurement : ≥ 1 GΩ After damp heat : ≥ 10 MΩ
Bounce time	≤ 1 ms
4 - Mechanical data *(note: ▼ critical product characteristics)*	
Mechanical data of the product before soldering process. Variations of these characteristics can be observed after soldering process.	
Switching force (Fa) ▼	See table page 6
Tactile feeling (Δ%)▼	See table page 6
Return force (Frr) ▼	See table page 6
Electrical travel (Te)	See table page 6
Simultaneity	≤ 0.05 mm
5 – Physical data	
Dimensions & layout	According to drawing *(drawing N° on the table page 6)*
Mass	0.25 g ± 0.1
6 - Operating environment	
Operating temperatures	- 40°C / + 85°C
Relative humidity	90 to 96 % According to NF EN 60068-2-30
Operating life	100 Kcycles min for all versions. Some versions existing with extended life time.
Vibrations	10-500 Hz / 10 g / 3 axis No discontinuity > 1µs According to NF EN 60068-2-6
Mechanical shocks	½ sinusoidal / 50 g / 11 ms 3 shocks in each direction of the 3 axis No discontinuity > 1µs According to NF EN 60068-2-27
Overload	40 N max

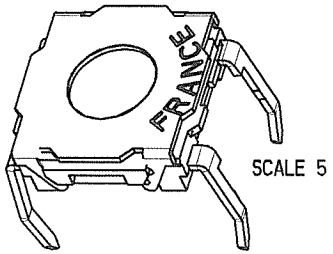
Flowing mixed gas corrosion test *- only for gold versions -*	Gas composition : - H_2S : 0.01 ± 0.005 ppm - NO_2 : 0.2 ± 0.02 ppm - Cl_2 : 0.01 ± 0.005 ppm - SO_2 : 0.2 ± 0.02 ppm Temperature: 25°C / HR: 75% / Duration: 10 days. According to NF EN 60068-2-60 method 4
7 - Additional data : storage and handling environment	
Packaging conditions	Delivered in packaging tubes of 65 pieces for automatic insertion, or in boxes of 500 pieces for manual insertion.
Transport conditions	According to specification NF H00-060
Storage temperatures	- 40°C (10 days) / + 85°C (4 days)
8 - Additional data : process environment	
Soldering process	Single or double wave soldering process According to lead free process (C&K Procedure : PS-LF-002)
Washing process	Not compatible
IP	IP 40
Shear test (switch/PCB)	10 N
9 – Applicable norms	
Testing procedure (C&K spec)	Proc-essai 16 ***Except requirements included in this spec.***
Legal norm (EHS)	C&K procedure

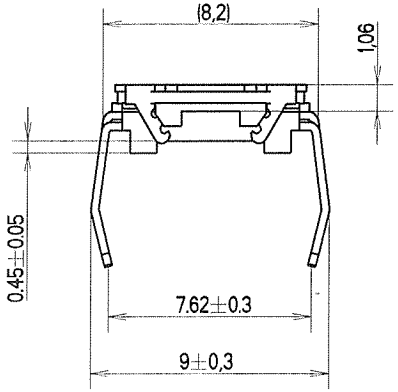
Designation		Product N°	Drawing N°	Switching force Fa (N)	Tactile feeling (N)	Return force Frr (N)	Electrical travel Te (mm)	Contact plating
KSB 0M LFT	KSB 0M 110 LFT	Y 33 A11 025 FP LFT	CU 33 M02 005 FP	1.20 N ≤ Fa ≤ 2.00 N	≥ 0.35	≥ 0.40	0.22 ± 0.05	Silver
	KSB 0M 130 LFT	Y 33 A13 025 FP LFT		1.20 N ≤ Fa ≤ 2.00 N	≥ 0.35	≥ 0.40	0.22 ± 0.05	Gold
	KSB 0M 410 LFT	Y 33 A41 025 FP LFT		2.25 N ≤ Fa ≤ 3.75 N	≥ 1.00	≥ 0.40	0.25 ± 0.05	Silver
	KSB 0M 430 LFT	Y 33 A43 025 FP LFT		2.25 N ≤ Fa ≤ 3.75 N	≥ 1.00	≥ 0.40	0.25 ± 0.05	Gold
KSB 0A LFT	KSB 0A 130 LFT	Y 33 A13 021 FP LFT	CU 33 M02 103 FP	1.20 N ≤ Fa ≤ 2.00 N	≥ 0.35	≥ 0.40	0.22 ± 0.05	Gold
	KSB 0A 410 LFT	Y 33 A41 021 FP LFT		2.25 N ≤ Fa ≤ 3.75 N	≥ 1.00	≥ 0.40	0.25 ± 0.05	Silver
KSB 0V LFT	KSB 0V 110 LFT	Y 33 A11 026 FP LFT	CU 33 M02 203 FP	1.20 N ≤ Fa ≤ 2.00 N	≥ 0.35	≥ 0.40	0.22 ± 0.05	Silver
	KSB 0V 410 LFT	Y 33 A41 026 FP LFT		2.25 N ≤ Fa ≤ 3.75 N	≥ 1.00	≥ 0.40	0.25 ± 0.05	Silver

A	ECR-2606	Annulation codes 33 A91 155 FP et 33 A93 155 FP	22/08/2008	CD
	ECR-4952	Remplacement PCF , ajout schema contact sur CU , suppression des marquages 1 et 2 , suppression de la note , ajout code Y33 A91 155 FP	19/02/2010	GP

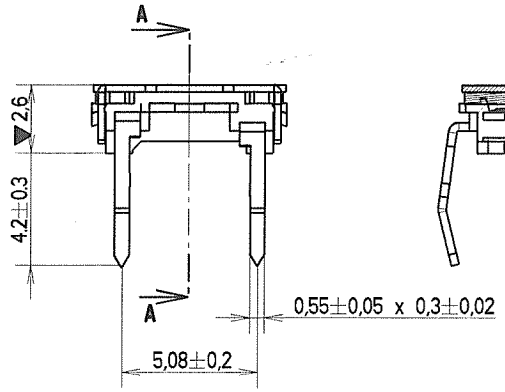


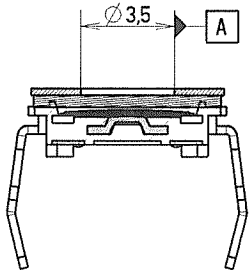






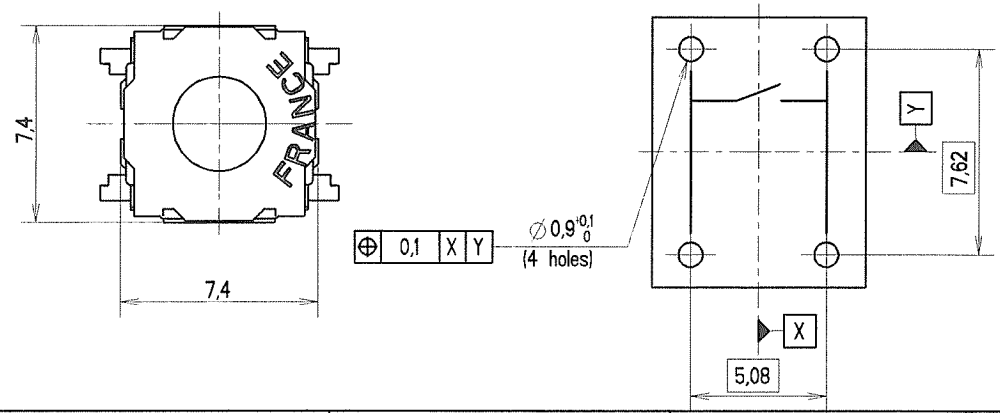
SECTION A-A





CODE PRODUIT	DESIGNATION
Y33 A21 155 FP LFT	KSF OM 211 LFT
Y33 A31 155 FP LFT	KSF OM 311 LFT
Y33 A33 155 FP LFT	KSF OM 331 LFT
Y33 A41 155 FP LFT	KSF OM 411 LFT
Y33 A43 155 FP LFT	KSF OM 431 LFT
Y33 A51 155 FP LFT	KSF OM 511 LFT
Y33 A53 155 FP LFT	KSF OM 531 LFT
Y33 A91 155 FP LFT	KSF OM 911 LFT

Recommended PCB
(component side)



SYSTEM CONFIDENTIAL

LINEAR TOLERANCE ± 0,1 ANGULAR TOLERANCE ± 1 °

CRITICAL DIMENSIONS ▼ 1

SPC DIMENSIONS ▽ .

CREATE BY	CERISE.L	DATE	05-10-2005
CHECKED BY	ESTEBAN.B	DATE	
APPROVED BY	KUBAT.L	DATE	23/03/2010

PRO/E 0 LANGAGE .

REMPLACE

PART DESCRIPTION KSF OM LFT

C&K Components

BP 359 - 39105 Dole - FRANCE -

SCALE 5,000

SIZE A3 SHEET 1 / 1

PART NUMBER CU 33 M05 005 FP REV A

Approvals:

Laurent Kubat Engineering Manager	Date

Revision record:

Revision	Date	Comments
-	Sept. 17th, 2006	Creation
Rev. A	Nov. 13th, 2007	Update:. • KSF1M911LFT & KSF1M931LFT versions suppressed. *(according to ECR N°1560)*
Rev. B	August 17th , 2010	Update : • Table page 4 *(according to ECR 2606)* • UL data suppressed *(according to ECR 2324)*

Summary:

1 - Description

The KSF LFT (Lead Free Tin) is a miniature tact switch with single pole, single throw and normally open contact of the KSA family designed for automatic or manual insertion.

Main Features

- Without actuator
- With top sealing
- Good tactile feedback
- Terminal plating: LFT (lead free tin)
- ROHS Compliance
- Compatible with lead free process (wave or hand soldering only).
- Insertion:
  - M: manual
  - A : automatic
- Available with cambered terminals to ensure self-retention on the printed circuit board in manual insertion (M version), or with straight terminals for use in automatic insertion machines (A version).
- Optional : ground terminal
- Marking :
  On the packaging box :
  - Manufacturer's symbol
  - Component designation
  - EIA date code

2 - Construction	
Function	Momentary action
Contact type	SPST, Normally Open
Terminals	Through hole
3 - Electrical data	
	Contact plating : Ag or Au
Maximum power	▪ KSF Ag : 1.0 VA ▪ KSF Au : 0.2 VA
Min/max voltage	20 mVdc – 32 Vdc
Min/max current	▪ KSF Ag : 1.0 mA – 50 mA ▪ KSF Au : 1.0 mA – 10 mA
Dielectric strength	≥ 250 Vrms
Contact resistance	≤ 100 mΩ
Insulation resistance	Initial measurement : ≥ 1 GΩ After damp heat : ≥ 10 MΩ
Bounce time	≤ 1 ms
4 - Mechanical data *(note: ▼ critical product characteristics)*	
Mechanical data of the product before soldering process. Variations of these characteristics can be observed after soldering process.	
Switching force (Fa) ▼	See table page 4
Tactile feeling (Δ)▼	See table page 4
Return force (Frr) ▼	See table page 4
Electrical travel (Te)	See table page 4
Simultaneity	≤ 0.05 mm
5 – Physical data	
Dimensions & layout	According to drawing *(drawing N° on the table page 4)*
Mass	0.25 g ± 0.1
6 - Operating environment	
Operating temperatures	- 40°C / + 85°C
Relative humidity	90 to 96 % According to NF EN 60068-2-30
Operating life	100 Kcycles min for all versions. *Some versions existing with extended life time.*
Vibrations	10-500 Hz / 10 g / 3 axis No discontinuity > 1µs According to NF EN 60068-2-6
Mechanical shocks	½ sinusoidal / 50 g / 11 ms 3 shocks in each direction of the 3 axis No discontinuity > 1µs According to NF EN 60068-2-27
Overload	40 N max

Flowing mixed gas corrosion test *- only for gold versions -*	Gas composition : - H_2S : 0.01 ± 0.005 ppm - NO_2 : 0.2 ± 0.02 ppm - Cl_2 : 0.01 ± 0.005 ppm - SO_2 : 0.2 ± 0.02 ppm Temperature: 25°C / HR: 75% / Duration: 10 days. According to NF EN 60068-2-60 method 4
7 - <u>Additional data : storage and handling environment</u>	
Packaging conditions	Delivered in packaging tubes of 65 pieces for automatic insertion, or in boxes of 500 pieces for manual insertion.
Transport conditions	According to specification NF H00-060
Storage temperatures	- 40°C (10 days) / + 85°C (4 days)
8 - <u>Additional data : process environment</u>	
Soldering process	Single or double wave soldering process According to lead free process (C&K Procedure : PS-LF-002)
Washing process	Not compatible
IP	IP 60
Shear test (switch/PCB)	10 N
9 – <u>Applicable norms</u>	
Testing procedure (C&K spec)	Proc-essai 16 ***Except requirements icluded in this spec.***
Legal norm (EHS)	C&K procedure

Designation		Product N°	Drawing N°	Switching force Fa (N)	Tactile feeling (N)	Return force Frr (N)	Electrical travel Te (mm)	Contact plating
KSF OM LFT	KSF OM 211 LFT	Y 33 A21 155 FP LFT	CU 33 M05 005 FP	1.00 N ≤ Fa ≤ 2.00 N	≥ 0.35	≥ 0.4	0.25 ± 0.10	Silver
	KSF OM 311 LFT	Y 33 A31 155 FP LFT		1.40 N ≤ Fa ≤ 2.40 N	≥ 0.35	≥ 0.4	0.25 ± 0.10	Silver
	KSF OM 331 LFT	Y 33 A33 155 FP LFT		1.40 N ≤ Fa ≤ 2.40 N	≥ 0.35	≥ 0.4	0.25 ± 0.10	Gold
	KSF OM 411 LFT	Y 33 A41 155 FP LFT		2.25 N ≤ Fa ≤ 3.75 N	≥ 0.8	≥ 1.0	0.25 ± 0.10	Silver
	KSF OM 431 LFT	Y 33 A43 155 FP LFT		2.25 N ≤ Fa ≤ 3.75 N	≥ 0.8	≥ 1.0	0.25 ± 0.10	Gold
	KSF OM 511 LFT	Y 33 A51 155 FP LFT		4.20 N ≤ Fa ≤ 6.25 N	≥ 1.5	≥ 1.8	0.25 ± 0.10	Silver
	KSF OM 531 LFT	Y 33 A53 155 FP LFT		4.20 N ≤ Fa ≤ 6.25 N	≥ 1.5	≥ 1.8	0.25 ± 0.10	Gold
	KSF OM 911 LFT	Y 33 A91 155 FP LFT		2.30 N ≤ Fa ≤ 3.90 N	≥ 1	≥ 0.8	0.25 ± 0.10	Silver
KSF 1M LFT	KSF 1M 211 LFT	Y 33 A21 156 FP LFT	CU 33 M05 006 FP	1.00 N ≤ Fa ≤ 2.00 N	≥ 0.35	≥ 0.4	0.25 ± 0.10	Silver
KSF 0A LFT	KSF 0A 211 LFT	Y 33 A21 151 FP LFT	CU 33 M05 111 FP	1.00 N ≤ Fa ≤ 2.00 N	≥ 0.35	≥ 0.4	0.25 ± 0.10	Silver
	KSF 0A 431 LFT	Y 33 A43 151 FP LFT		2.45 N ≤ Fa ≤ 4.10 N	≥ 0.8	≥ 1.0	0.25 ± 0.10	Gold
	KSF 0A 511 LFT	Y 33 A51 151 FP LFT		4.20 N ≤ Fa ≤ 6.25 N	≥ 1.5	≥ 1.8	0.25 ± 0.10	Silver
KSF CCM LFT 2 short 90° connexions	KSF 211 CCM LFT	Y 33 A21 157 FP LFT	CU 33 M05 113 FP	1.00 N ≤ Fa ≤ 2.00 N	≥ 0.35	≥ 0.4	0.25 ± 0.10	Silver
	KSF 411 CCM LFT	Y 33 A41 157 FP LFT		2.25 N ≤ Fa ≤ 3.75 N	≥ 0.8	≥ 1.0	0.25 ± 0.10	Silver
	KSF 711 CCM LFT	Y 33 A71 157 FP LFT		2.30 N ≤ Fa ≤ 3.90 N	1.4 ± 0.6	≥ 1.1	0.25 ± 0.10	Silver
KSFR LFT	KSF R 411 LFT	Y 33 A41 1R5 FP LFT	CU 33 M07 003 FP	2.25 N ≤ Fa ≤ 3.75 N	≥ 0.80	≥ 1.0	0.25 ± 0.10	Silver