2020-04-24
Product version 03
Document revision 01

Data sheet

Order No.: 1791855

Type: FFKDSA1/V-5,08

PCB terminal block, Push-in spring connection

1 Main features

- No. of pos. 1
- Conductor cross section 0.5 mm²
- Color green (6021)
- Pitch 5.08 mm
- Connection method Push-in spring connection
- Nominal current 6 A
- Nominal voltage 160 V
- Connection direction 90 °
- Type of packaging packed in cardboard

2 Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Intuitive use through colour coded actuation lever
- Operation and conductor connection from one direction enable integration into front of device
- Two solder pins reduce the mechanical strain on the soldering spots
- The latching on the side enables various numbers of positions to be combined
- Vertical connection enables multi-row arrangement on the PCB

Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1791855

3 Table of contents

4 3D model in PDF can be activated (Acrobat Reader only)

5 General Technical Data

5.1 item properties

Order No.	1791855
Type	FFKDSA1/V-5,08
Product type	PCB terminal block
Range of articles	FFKDS(A) 0,5/..-V
Pitch	2.54 mm
Range of positions	1...20
Number of positions	1
Number of levels	1
Number of connections	1
Number of potentials	1
Connection method	Push-in spring connection
Mounting type	Wave soldering
Connection direction of the conductor to the PCB	90 °
Pin layout	linear double pinning
Solder pins per potential	2
Product note	End terminal block for terminating custom-grouped blocks.
Type	PC terminal block can be aligned

5.2 Connection capacity

Conductor cross section, solid	0.14 mm² ... 0.5 mm²
Conductor cross section, flexible	0.14 mm² ... 0.5 mm²
Stripping length	11 mm

5.3 Connection capacity AWG

Conductor cross section AWG	26 ... 20

6 Material properties

6.1 Material of metal parts

Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Terminal point surface	Nickel (2 - 3 µm Ni) , Tin (5 - 7 µm Sn)
Soldering area surface	Nickel (2 - 3 µm Ni) , Tin (5 - 7 µm Sn)
Surface characteristics	Tin-plated

6.2 Material of plastic parts

	Housing	Actuation element
Color	green (6021)	
Insulating material	PA	PA
Insulating material group	I	I
CTI according to IEC 60112	600	600

1791855 FFKDSA1/V-5,08

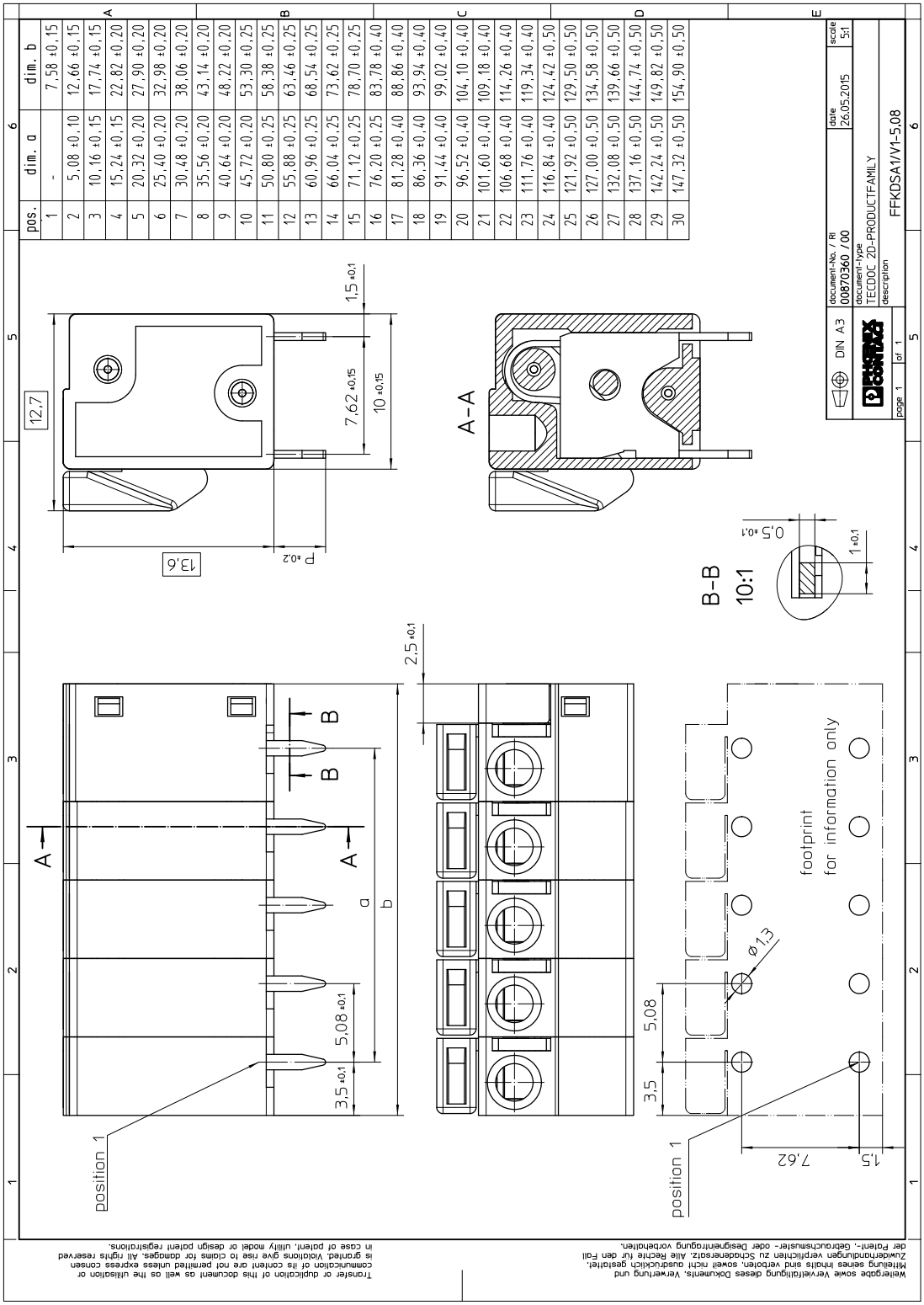
	Housing	Actuation element
Flammability rating according to UL 94	V0	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850	
Glow wire ignition temperature GWIT according to EN 60695-2-13	775	
Temperature for the ball pressure test according to EN 60695-10-2	125 °C	

7 Dimensions

7.1 Dimensions for the product

Length	12.6 mm
Width	5.04 mm
Height (without solder pin)	13.6 mm
Total height	17 mm
Solder pin [P]	3.4 mm
Dimension a	

8 Series drawing



8.1 Dimensions for PCB design

Hole diameter	1.1 mm
Pin dimensions	0.5 x 0.8 mm

9 Application

10 Packaging information

Type of packaging	packed in cardboard
Pieces per package	250

10.1 Temperature limit values

Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/derating curve)

11 Mechanical tests

11.1 Pull-out test

Specification	IEC 60999-1:1990-05
Result	Test passed
Conductor cross section/conductor type/tractive force actual value	0.14 mm^2 / solid / > 7 N
Conductor cross section/conductor type/tractive force actual value	0.14 mm^2 / flexible / > 7 N
Conductor cross section/conductor type/tractive force actual value	0.5 mm^2 / solid / > 30 N
Conductor cross section/conductor type/tractive force actual value	0.5 mm^2 / flexible / > 30 N

11.2 Check for damage to conductor or loosening

Specification	IEC 60999-1:1990-05
Result	Test passed

11.3 Electrical performance test

Specification	IEC 60999-1:1990-05
Result	Test passed

12 Electrical tests

12.1 Electrical data

Rated current / conductor cross section	6 A / 0.5 mm²
Rated insulation voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV
Contact resistance	
Degree of pollution	2

12.2 Air and creepage distances

Component	PCB terminal block		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	63 V	160 V	320 V
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	1.5 mm	1.5 mm	1.5 mm
Minimum value of the creepage path requirement in acc. with table	1.6 mm	1.5 mm	1.6 mm

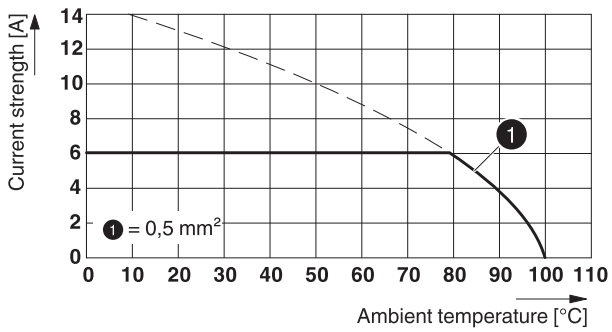
12.3 Temperature rise test

Specification	IEC 60998-1:1990-04
Result	Test passed
Requirement temperature-rise test	Increase in temperature ≤ 45 K
Conductor cross section/test current/temperature rise	0.5 mm² / 6 A / 18 K

13 Current carrying capacity/derating curves

Specification	Following IEC 60512-5-2:2002-02
Reduction factor	1
Number of positions	5
Conductor cross section	0.5 mm²

Type: FFKDS/V-2,54
Tested according to DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 5



13.1 Vibration test

Specification	IEC 60068-2-6:1982 + AMD 2:1985
Result	Test passed
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis
Note	

13.2 Shock protection

Specification	DIN VDE 0106-100:1983-03
Back of the hand protection (Ball ø 50)	guaranteed
Finger protection (movable test finger)	guaranteed
Note	unenclosed basic insulation - protected against finger contact with IP20 test finger in acc. with IEC 60529 when connected, above the PCB

13.3 Testing in a saturated atmosphere in the presence of sulfur dioxide

Specification	DIN 50018:1988-06
Result	Test passed
Corrosive stress	KFW 0.2 S/1 cycle
Conductor cross section	to 0.5 mm²

14 Approvals / Certificates

CSA	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm²]
Usegroup B				
Nur starre Leiter	150 V	6 A	- 20	-

IECEE CB Scheme	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm²]
	63 V	-	-	0.5

EAC				

cULus Recognized	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm²]
Usegroup B				
Nur starre Leiter	150 V	6 A	26 - 20	-

CCA	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm²]
	63 V	-	-	0.5

KEMA-KEUR	Voltage [V]	Current [A]	Cross section [AWG]	Cross section [mm²]
	63 V	-	-	0.5

15 Commercial Data

Order No.	1791855
Type	FFKDSA1/V-5,08
Pieces per package	250
Net weight	0.688 g
GTIN	4017918044466
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

16 Accessories

Description	Order No.	**Type**
	0805205	SK 2,8 WH:REEL
	0803883	SK U/2,8 WH:UNBEDRUCKT
	0804853	SK 2,54/2,8:FORTL.ZAHLEN
	0804879	SK 2,54/2,8:SO
Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm	1051993	B-STIFT
	3241128	AI 0,25-10 YE
	1791813	FFKDS/V-2,54