

Welcome to [E-XFL.COM](#)

### What is "[Embedded - Microcontrollers](#)"?

"[Embedded - Microcontrollers](#)" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

### Applications of "[Embedded - Microcontrollers](#)"

#### Details

Product Status	Discontinued at Digi-Key
Core Processor	RX
Core Size	32-Bit Single-Core
Speed	50MHz
Connectivity	EBI/EMI, I <sup>2</sup> C, SCI, SPI
Peripherals	DMA, LVD, POR, PWM, WDT
Number of I/O	84
Program Memory Size	128KB (128K x 8)
Program Memory Type	FLASH
EEPROM Size	8K x 8
RAM Size	20K x 8
Voltage - Supply (Vcc/Vdd)	1.62V ~ 5.5V
Data Converters	A/D 16x12b; D/A 2x10b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	100-LQFP
Supplier Device Package	100-LFQFP (14x14)
Purchase URL	<a href="https://www.e-xfl.com/product-detail/renesas-electronics-america/r5f52105bdfp-30">https://www.e-xfl.com/product-detail/renesas-electronics-america/r5f52105bdfp-30</a>

## MPT 0,5/ 3-2,54

Order No.: 1725669

The figure shows a 10-position version of the product

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1725669>

PC terminal block, Nominal current: 6 A, Nom. voltage: 63 V,  
Pitch: 2.54 mm, Number of positions: 3, Type of connection: Screw  
connection, Assembly: Soldering, Conductor/PCB connection  
direction: 0 °, Color: green

### Commercial data

EAN	4017918116262
Pack	50 pcs.
Customs tariff	85369010
Weight/Piece	0.000994 KG
Catalog page information	Page 51 (CC-2009)

### Product notes

WEEE/RoHS-compliant since:  
01/01/2003



[http://  
www.download.phoenixcontact.com](http://www.download.phoenixcontact.com)  
Please note that the data given  
here has been taken from the  
online catalog. For comprehensive  
information and data, please refer  
to the user documentation. The  
General Terms and Conditions of  
Use apply to Internet downloads.

### Technical data

#### Dimensions / positions

Length	6.2 mm
Pitch	2.54 mm
Dimension a	5.08 mm

Number of positions	3
Pin dimensions	0,5 x 0,9 mm
Hole diameter	1.1 mm
Screw thread	M1,6
Tightening torque, min	0.12 Nm
Tightening torque max	0.15 Nm

#### Technical data

Insulating material group	I
Rated surge voltage (III/3)	1.5 kV
Rated surge voltage (III/2)	1.5 kV
Rated surge voltage (II/2)	2.5 kV
Rated voltage (III/2)	160 V
Rated voltage (II/2)	320 V
Connection in acc. with standard	EN-VDE
Nominal current $I_N$	6 A
Nominal voltage $U_N$	63 V
Nominal cross section	0.5 mm <sup>2</sup>
Maximum load current	6 A
Insulating material	PA
Inflammability class acc. to UL 94	V0
Stripping length	4.5 mm

#### Connection data

Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	0.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	0.5 mm <sup>2</sup>
Conductor cross section stranded, with ferrule without plastic sleeve min.	0.25 mm <sup>2</sup>
Conductor cross section stranded, with ferrule without plastic sleeve max.	0.34 mm <sup>2</sup>
Conductor cross section stranded, with ferrule with plastic sleeve min.	0.25 mm <sup>2</sup>
Conductor cross section stranded, with ferrule with plastic sleeve max.	0.34 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	20

2 conductors with same cross section, solid min.	0.14 mm <sup>2</sup>
2 conductors with same cross section, solid max.	0.34 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	0.14 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	0.34 mm <sup>2</sup>

#### Certificates / Approvals



Certification CSA, CUL, UL

##### CSA

Nominal voltage U <sub>N</sub>	125 V
Nominal current I <sub>N</sub>	6 A
AWG/kcmil	28-20

##### CUL

Nominal voltage U <sub>N</sub>	125 V
Nominal current I <sub>N</sub>	6 A
AWG/kcmil	30-20

##### UL

Nominal voltage U <sub>N</sub>	125 V
Nominal current I <sub>N</sub>	6 A
AWG/kcmil	30-20

#### Accessories

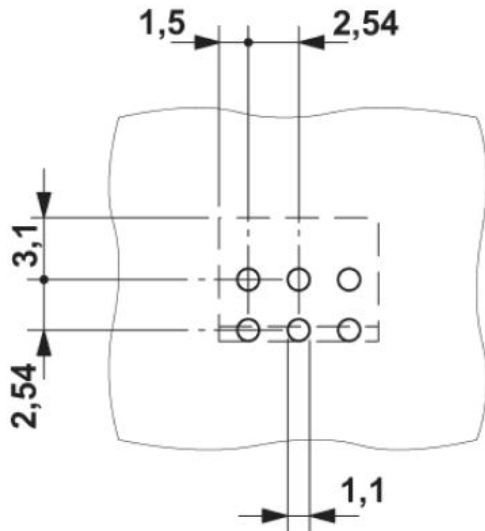
Item	Designation	Description
<b>Marking</b>		
0804853	SK 2,54/2,8:FORTL.ZAHLEN	Marker card, printed horizontally, self-adhesive, 10-section marker strip, 14 identical decades marked 1-10, 11-20 etc. up to 91-100, sufficient for 140 terminal blocks

##### Tools

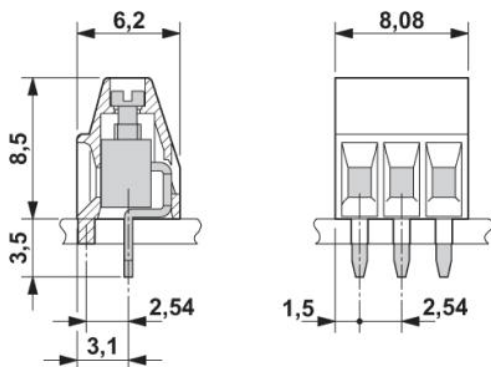
1205202	SZS 0,4X2,0	Screwdriver, bladed, matches all screw terminal blocks up to 1.5 mm <sup>2</sup> connection cross section, blade width: 2.5 mm, without approvals
---------	-------------	---

## Diagrams/Drawings

Drilling plan/solder pad geometry



Dimensioned drawing



**Address**

PHOENIX CONTACT Deutschland GmbH  
Flachsmarktstr. 8  
32825 Blomberg, Germany  
Phone +49 5235 3 12000  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.de>



© 2010 Phoenix Contact  
Technical modifications reserved;