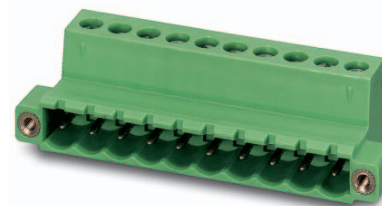


# Data sheet

Order No.: 1825585

Type: IC 2,5/10-STGF-5,08

Plug component, Screw connection with tension sleeve



## 1 Main features



• No. of pos.	10	• Nominal current	12 A
• Conductor cross section	2.5 mm <sup>2</sup>	• Nominal voltage	320 V
• Color	green	• Connection direction	0 °
• Pitch	5.08 mm	• Type of packaging	packed in cardboard
• Connection method	Screw connection with tension sleeve		

## 2 Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Easy PCB replacement thanks to plug-in modules
- ✓ Screwable flange for superior mechanical stability
- ✓ Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- ✓ Can be combined with the MSTB 2',5 range
- ✓ Low temperature rise, thanks to maximum contact force



Make sure you always use the latest documentation.

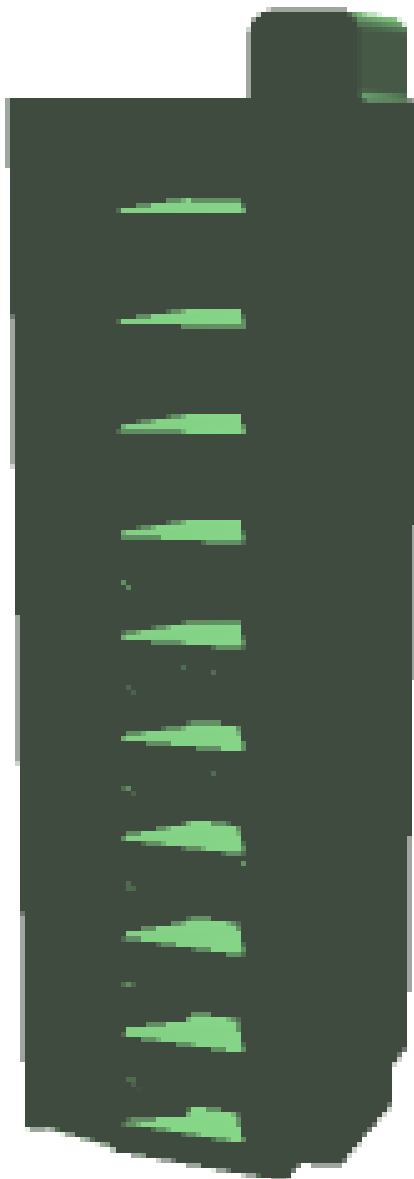
It can be downloaded at: [phoenixcontact.net/product/1825585](http://phoenixcontact.net/product/1825585)

**1825585 IC 2,5/10-STGF-5,08****3 Table of contents**

1	Main features.....	1
2	Your advantages .....	1
3	Table of contents .....	2
4	3D model in PDF can be activated (Acrobat Reader only).....	3
5	item properties.....	4
	5.1 Connection capacity .....	4
	5.2 Material data .....	4
6	Dimensions.....	4
	6.1 Dimensions for the product .....	5
7	Series drawing.....	6
8	Packaging information .....	7
9	Application.....	7
	9.1 Temperature limit values .....	7
10	Mechanical tests.....	8
	10.1 Termination and connection method.....	8
	10.2 Pull-out test .....	8
11	Electrical tests .....	9
	11.1 Electrical data .....	9
	11.2 Air and creepage distances .....	9
12	Current carrying capacity/derating curves .....	10
13	Environmental and durability tests .....	11
	13.1 Vibration test .....	11
14	Classification for connectors.....	11
15	Approvals .....	11
16	Commercial Data.....	13
17	corresponding headers.....	13
18	Accessories.....	13
19	Combination tests.....	14

1825585 IC 2,5/10-STGF-5,08

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



**1825585 IC 2,5/10-STGF-5,08****5 item properties**

Order No.	1825585
Type	IC 2,5/10-STGF-5,08
Type of contact	Male connector
Range of articles	IC 2,5/...-STGF
Pitch	5.08 mm
Number of positions	10
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Locking	Threaded flange

**5.1 Connection capacity**

Conductor cross section, solid	0.2 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
Conductor cross section, flexible	0.2 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil	24 to 12
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> to 1 mm <sup>2</sup>
2 conductors with same cross section, stranded	0.2 mm <sup>2</sup> to 1.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm <sup>2</sup> to 2.5 mm <sup>2</sup>
2 conductors with same cross section, stranded, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> to 1 mm <sup>2</sup>
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm <sup>2</sup> to 1.5 mm <sup>2</sup>
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.0 mm
Stripping length	7 mm

**5.2 Material data**

<b>Material of metal parts</b>	
Note	WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Terminal point surface	Ni 2 µm ... 3 µm Sn 5 µm ... 7 µm
Surface contact area	Ni 2 µm ... 3 µm , Sn 5 µm ... 7 µm
Surface characteristics	Tin-plated
<b>Insulating material data</b>	
Insulating material	PA
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Color	green (6021)
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

**6 Dimensions**

**1825585 IC 2,5/10-STGF-5,08**

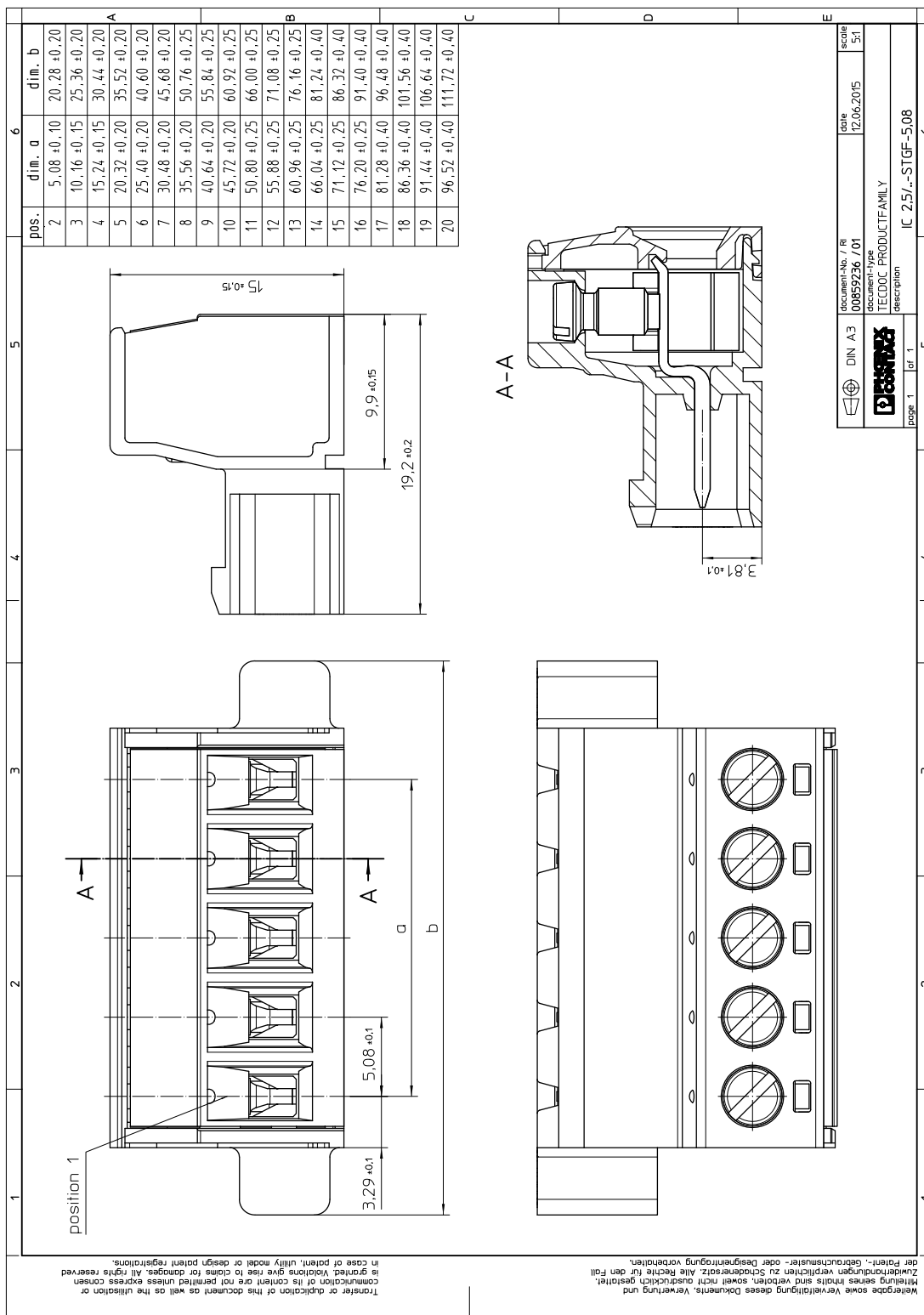
---

**6.1 Dimensions for the product**

Length	19.2 mm
Width	60.92 mm
Total height	15 mm
Dimension a	45.72 mm

1825585 IC 2,5/10-STGF-5,08

7 Series drawing



**1825585 IC 2,5/10-STGF-5,08****8 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	50

**9 Application****9.1 Temperature limit values**

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

**1825585 IC 2,5/10-STGF-5,08****10 Mechanical tests**

Mechanical test group A	
Specification	IEC 61984:2008-10
Visual test	Test passed
Specification	IEC 60512-1-1:2002-02
Dimensional test	Test passed
Specification	IEC 60512-1-2:2002-02
Resistance of marking	Test passed
Specification	IEC 60068-2-70:1995-12
Insertion and withdrawal force	Test passed
Specification	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	7 N
Polarization and coding	Test passed
Specification	IEC 60512-13-5:2006-02
Test force	20 N
Contact retention in insert	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	26 N

**10.1 Termination and connection method**

Specification	IEC 60999-1:1999-11
Repeated connection and disconnection	Test passed
Check for damage to conductor or loosening	Test passed

**10.2 Pull-out test**

Termination and connection method: pull-out test	
Specification	IEC 60999-1:1999-11
Result	Test passed
Conductor cross section/conductor type/tractive force actual value	0.2 mm <sup>2</sup> / solid / > 10 N
Conductor cross section/conductor type/tractive force actual value	0.2 mm <sup>2</sup> / stranded / > 10 N
Conductor cross section/conductor type/tractive force actual value	2.5 mm <sup>2</sup> / solid / > 50 N
Conductor cross section/conductor type/tractive force actual value	2.5 mm <sup>2</sup> / stranded / > 50 N

**1825585 IC 2,5/10-STGF-5,08****11 Electrical tests****11.1 Electrical data**

Rated current / conductor cross section	12 A / 2.5 mm <sup>2</sup>
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Contact resistance	1.5 mΩ
Degree of pollution	2

**11.2 Air and creepage distances**

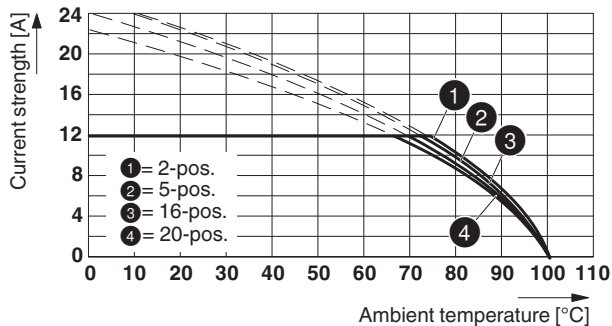
Component	Plug component		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	250 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Degree of pollution	3	2	2
Overvoltage category	III	III	II
Minimum clearance case A (inhomogeneous field)	3 mm	3 mm	3 mm
Minimum value of the creepage path requirement in acc. with table	3.2 mm	3 mm	3.2 mm

1825585 IC 2,5/10-STGF-5,08

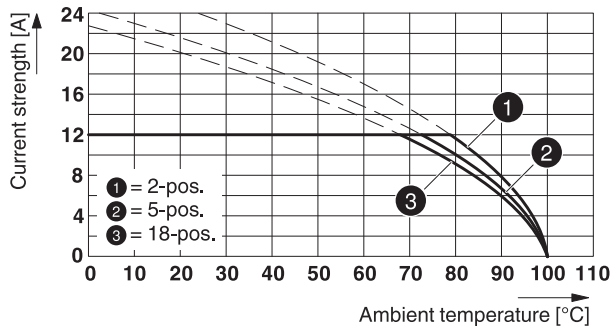
12 Current carrying capacity/derating curves

Specification	IEC 61984:2008-10
Note	Representation based on IEC 60512-5-2:2002-02
Reduction factor	0.8
Number of positions	See diagram
Conductor cross section	2.5 mm <sup>2</sup>

Type: FKC 2,5/...-STF-5,08 with IC 2,5/...-STGF-5,08



Type: MSTBT 2,5/...-STF-5,08 with IC 2,5/...-STGF-5,08




**1825585 IC 2,5/10-STGF-5,08****13 Environmental and durability tests****13.1 Vibration test**


Specification	IEC 60068-2-6:2007-12
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


**14 Classification for connectors**


Specification	IEC 61984:2008-10
Main features	Connectors without switching capacity (COC)
Construction form	Fixed connectors
Strain relief elements	without strain relief
Connection method	Can be reconnected
Protection against electric shock	Not encapsulated - touch-proof when inserted
Protective conductor	without PE
Lock	no
Connection method	Screwless terminal points

**15 Approvals**


CSA 				
Use group	B	D		
mm <sup>2</sup> /AWG/kcmil	28-12	28-12		
Voltage	300 V	300 V		
Current	10 A	10 A		

UL Recognized 				
Use group	B	D		
mm <sup>2</sup> /AWG/kcmil	30-12	30-12		
Voltage	250 V	300 V		
Current	12 A	10 A		

VDE Gutachten mit Fertigungsüberwachung 				
mm <sup>2</sup> /AWG/kcmil	0.2-2.5			
Voltage	250 V			
Current	12 A			

cUL Recognized 				
Use group	B	D		
mm <sup>2</sup> /AWG/kcmil	30-12	30-12		
Voltage	250 V	300 V		
Current	12 A	10 A		

2017-10-11

Product version 03  
Document revision 0**1825585 IC 2,5/10-STGF-5,08**IECEE CB Scheme mm<sup>2</sup>/AWG/kcmil

0.2-2.5

Voltage

250 V

Current

12 A

EAC cULus Recognized 

**1825585 IC 2,5/10-STGF-5,08****16 Commercial Data**

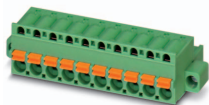
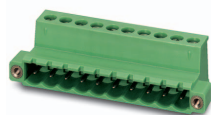
Order No.	1825585
Type	IC 2,5/10-STGF-5,08
Pieces per package	50
Net weight	17.652 g
GTIN	4017918049744
	Information that applies locally, see link on page 1
Country of origin	Information that applies locally, see link on page 1

**17 corresponding headers**

Order No.	Type
1777879	FRONT-MSTB 2,5/10-STF-5,08
1778069	MSTB 2,5/10-STF-5,08
1805372	MSTBT 2,5/10-STF-5,08
1918175	QC 0,75/10-STF-5,08
1902385	FKCT 2,5/10-STF-5,08
1883433	QC 1/10-STF-5,08
1874183	FKCVR 2,5/10-STF-5,08
1873281	FKC 2,5/10-STF-5,08
1853188	TMSTBP 2,5/10-STF-5,08
1835177	MVSTBR 2,5/10-STF-5,08
1834987	MVSTBW 2,5/10-STF-5,08
1809815	MSTBC 2,5/10-STZF-5,08
1873883	FKCVW 2,5/10-STF-5,08

**18 Accessories**

Description	Order No.	Type
Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip	1205053	SZS 0,6X3,5
Coding section, inserted into the recess in the header or the inverted plug, red insulating material	1734401	CR-MSTB
	0804293	SK 5,08/3,8:FORTL.ZAHLEN
Insertion bridge, fully insulated, for connectors with 5.0 or 5.08 mm pitch, no. of positions: 2	1733169	EBP 2-5
Keying cap, for forming sections, plugs onto header pin, green insulating material	1755477	MSTB-BL
	1783740	KGS-MSTB 2,5/10
	1852105	IC-DFR 10

**1825585 IC 2,5/10-STGF-5,08****19 Combination tests****IC 2,5/10-STGF****FKC 2,5/10-STGF****MSTBT 2,5/10-STGF**

Specification

IEC 61984

IEC 61984

**Mechanical tests (A)**

Insertion/withdrawal force per position

approx. 7 N / 7 N

approx. 7 N / 5 N

Polarization when inserted  
Requirement >20 N

Test passed

Test passed

Contact holder in insert  
Requirements >20 N

Test passed

Test passed

**Durability tests (B)**Contact resistance  $R_1$ 1.5 m $\Omega$ 1.8 m $\Omega$ 

Insertion/withdrawal cycles

25

25

Contact resistance  $R_2$ 1.6 m $\Omega$ 2 m $\Omega$ Rated impulse voltage at sea level  
Voltage waveform  $\geq (1.2/50 \mu s)$ 

4.8 kV

4.8 kV

Power-frequency withstand voltage  
Voltage waveform  $\geq (50/60 \text{ Hz})$ 

2.21 kV

2.21 kV

Insulation resistance  
Requirements > 5 M $\Omega$ > 0.6 T $\Omega$ > 8 T $\Omega$ **Thermal tests (C)**

Tested number of positions

20

18

Tested conductor cross section

2.5 mm<sup>2</sup>2.5 mm<sup>2</sup>

Test current

12 A DC

12 A

Upper limiting temperature  
Requirements < 100°C

Test passed

Test passed

**Climatic tests (D)**

Test sequence 1: low temperature storage

-40 °C/2 h

-40 °C/2 h

Test sequence 2: heat storage

100 °C/168 h

100 °C/168 h

Test sequence 3: noxious gas storage  
(ISO 6988)0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycle0.2 dm<sup>3</sup> SO<sub>2</sub> on 300 dm<sup>3</sup>/  
40 °C/1 cycleRated impulse voltage at sea level  
Voltage waveform  $\geq (1.2/50 \mu s)$ 

4.8 kV

4.8 kV

Power-frequency withstand voltage  
Voltage waveform  $\geq (50/60 \text{ Hz})$ 

2.21 kV

2.21 kV

**Environmental and endurance tests (E)**

Specification

IEC 61984:2008-10

IEC 61984:2008-10

Degree of protection

Finger safety with IP20  
test fingerFinger safety with IP20  
test finger



# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product suppliers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

# [www.scatts.co.uk](http://www.scatts.co.uk)