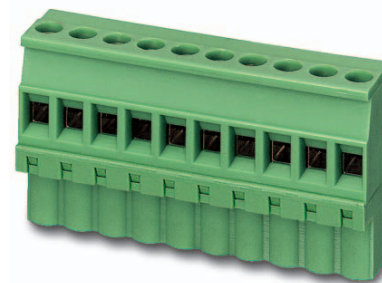


Data sheet

Order No.: 1792524

Type: MVSTBW 2,5/ 2-ST

Plug component, Screw connection with tension sleeve



The figure shows a 10-position version of the product

1 Main features



- | | | | |
|---------------------------|--------------------------------------|------------------------|---------------------|
| • Number of positions | 2 | • Nominal current | 12 A |
| • Conductor cross section | 2.5 mm ² | • Nominal voltage | 320 V |
| • Color | green | • Connection direction | -90 ° |
| • Pitch | 5 mm | • Type of packaging | packed in cardboard |
| • Connection method | Screw connection with tension sleeve | | |

2 Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Allows connection of two conductors
- ✓ Low temperature rise, thanks to maximum contact force



Make sure you always use the latest documentation.
It can be downloaded at: phoenixcontact.net/product/1792524

1792524 MVSTBW 2,5/ 2-ST**3 Table of contents**

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1792524 MVSTBW 2,5/ 2-ST

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



1792524 MVSTBW 2,5/ 2-ST**5 item properties**

Order No.	1792524
Type	MVSTBW 2,5/ 2-ST
Type of contact	Female connector
Range of articles	MVSTBW 2,5/...-ST
Pitch	5 mm
Number of positions	2
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted
Screw thread	M3
Tightening torque	0.5 Nm ... 0.6 Nm
Locking	without

5.1 Connection capacity

Conductor cross section, solid	0.2 mm ² to 2.5 mm ²
Conductor cross section, flexible	0.2 mm ² to 2.5 mm ²
Conductor cross section AWG/kcmil	24 to 12
2 conductors with same cross section, solid	0.2 mm ² to 1 mm ²
2 conductors with same cross section, stranded	0.2 mm ² to 1.5 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² to 2.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve	0.25 mm ² to 2.5 mm ²
2 conductors with same cross section, stranded, with ferrule without plastic sleeve	0.25 mm ² to 1 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules with plastic sleeve	0.5 mm ² to 1.5 mm ²
Cylindrical gauge a x b / diameter	2.8 mm x 2.0 mm / 2.4 mm
Stripping length	7 mm

5.2 Material data

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	Sn 5 µm ... 7 µm
Surface contact area	Sn 5 µm ... 7 µm
Surface characteristics	hot-dip tin-plated
Insulating material data	
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

1792524 MVSTBW 2,5/ 2-ST**6.1 Dimensions for the product**

Length	12.5 mm
Width	10.00 mm
Total height	26 mm
Dimension a	5.00 mm

1792524 MVSTBW 2,5/ 2-ST**7 Series drawing****8 Packaging information**

Type of packaging	packed in cardboard
Pieces per package	100

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)

1792524 MVSTBW 2,5/ 2-ST**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.	8 N
Withdraw strength per pos. approx.	6 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.	36 N

10.1 Termination and connection method

Specification	IEC 60999-1:1999-11
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 ² / solid / > 10 N
Conductor cross section/conductor type/tractive force actual value	0.2 mm ² / stranded / > 10 N
Conductor cross section/conductor type/tractive force actual value	2.5 mm ² / solid / > 50 N
Conductor cross section/conductor type/tractive force actual value	2.5 mm ² / stranded / > 50 N

1792524 MVSTBW 2,5/ 2-ST**11 Electrical tests****11.1 Electrical data**

Rated current / conductor cross section	12 A / 2.5 mm ²
Rated insulation voltage (III/2)	320 V
Rated surge voltage (III/2)	4 kV
Contact resistance	2.8 mΩ
Degree of pollution	2

11.2 Air and creepage distances

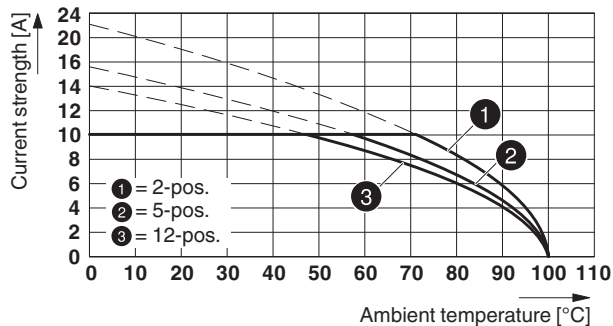
Component	Plug component		
Specification	IEC 60664-1:2007-04		
Mains type	unearthed mains		
Insulating material group	I		
Comparative tracking index (IEC 60112:2003-01)	CTI 600		
Rated insulation voltage	250 V	320 V	630 V
Rated surge voltage	4 kV	4 kV	4 kV
Degree of pollution	3	2	2
Overvoltage category	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	4 mm	3 mm	3.2 mm

1792524 MVSTBW 2,5/ 2-ST

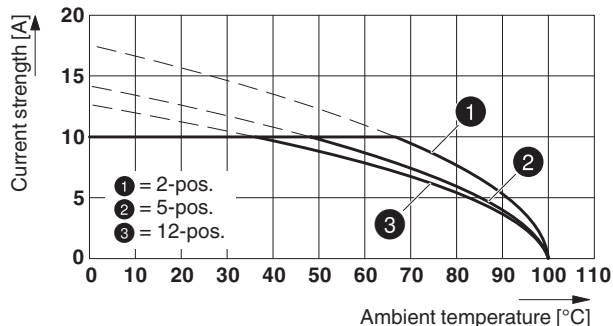
12 Current carrying capacity/derating curves

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 ²

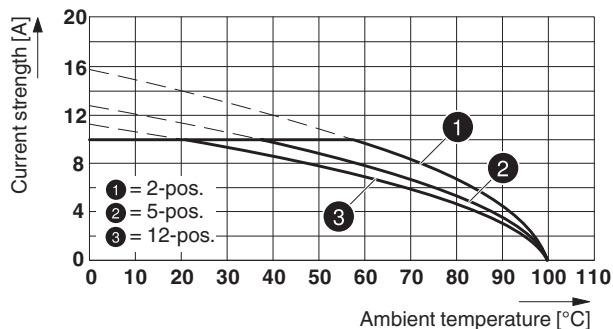
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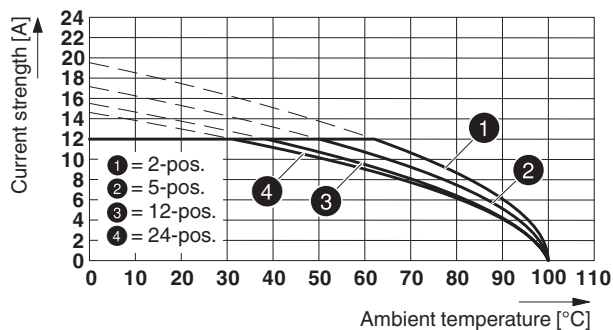


Type: MVSTB(R/W) 2,5/...-ST with MDSTBW 2,5/...-G



Type: MVSTB(R/W) 2,5/...-ST with MDSTBV 2,5/...-G



1792524 MVSTBW 2,5/ 2-ST**Type: MVSTB(R/W) 2,5/...-ST with MSTB 2,5/...-G****Type: MVSTB(R/W) 2,5/...-ST with MSTBO 2,5/...-G1R****Type: MVSTB(R/W) 2,5/...-ST with MSTBO 2,5/...-G1L****Type: MVSTB(R/W) 2,5/...-ST with MSTBW 2,5/...-G****Type: MVSTB(R/W) 2,5/...-ST with SMSTB 2,5/...-G**

87104_1000_en

Type: MVSTB(R/W) 2,5/...-ST with SMSTBA 2,5/...-G

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Type: MVSTB(R/W) 2,5/...-ST with MSTBV 2,5 2,5/...-G**Type: MVSTB(R/W) 2,5/...-ST with MDSTB 2,5/...-G1****Type: MVSTB(R/W) 2,5/...-ST with MDSTBV 2,5/...-G1**


1792524 MVSTBW 2,5/ 2-ST**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	Screw terminal points

15 Approvals

UL Recognized 				
Use group	B	D		
mm ² /AWG/kcmil	30-12	30-12		
Voltage	300 V	300 V		
Current	15 A	10 A		

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

cUL Recognized 				
Use group	B	D		
mm ² /AWG/kcmil	30-12	30-12		
Voltage	300 V	300 V		
Current	15 A	10 A		

IECEE CB Scheme 				
mm ² /AWG/kcmil	0.2-2.5			
Voltage	250 V			
Current	12 A			


1792524 MVSTBW 2,5/ 2-ST

Document revision 0

CSA 

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

EAC 

cULus Recognized 

1792524 MVSTBW 2,5/ 2-ST**16 Commercial Data**

Order No.	1792524
Type	MVSTBW 2,5/ 2-ST
Pieces per package	100
Net weight	4.122 g
GTIN	4017918044954
	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
1736111	MSTBW 2,5/ 2-G
1753437	MSTBV 2,5/ 2-G
1754436	MSTB 2,5/ 2-G
1755516	MSTBVA 2,5/ 2-G
1757475	MSTBA 2,5/ 2-G
1762046	MDSTB 2,5/ 2-G
1763032	MDSTBV 2,5/ 2-G
1768189	MSTB 2,5/ 2-G-LA
1769230	SMSTB 2,5/ 2-G
1769803	SMSTBA 2,5/ 2-G
1770481	MSTBA 2,5/ 2-G-LA
1802443	MDSTBW 2,5/ 2-G
1845785	MDSTBVA 2,5/ 2-G
1846519	MDSTBA 2,5/ 2-G
1861044	MSTBO 2,5/ 2-G1R
1861057	MSTBO 2,5/ 2-G1L
1877708	MDSTBA 2,5/ 2-GL
1877711	MDSTBA 2,5/ 2-GR
1877724	MDSTBVA 2,5/ 2-GL
1877737	MDSTBVA 2,5/ 2-GR
1899841	EMSTBA 2,5/ 2-G
1914852	EMSTBVA 2,5/ 2-G
1927496	MSTBA 2,5/ 2-G THT
1941003	MSTBVA 2,5/ 2-G THT
1963874	MSTB 2,5/ 2-G THT
1963942	MSTBV 2,5/ 2-G THT
2200251	MSTBO 2,5/ 2-G1L THRR32 BK
2200252	MSTBO 2,5/ 2-G1R THRR32 BK
2854788	MSTBO 2,5/ 2-G1L KMGY
2854791	MSTBO 2,5/ 2-G1R KMGY

18 Accessories

Description	Order No.	Type
	0805409	SK 5/3,8:UNBEDRUCKT
	0804183	SK 5/3,8:FORTL.ZAHLEN

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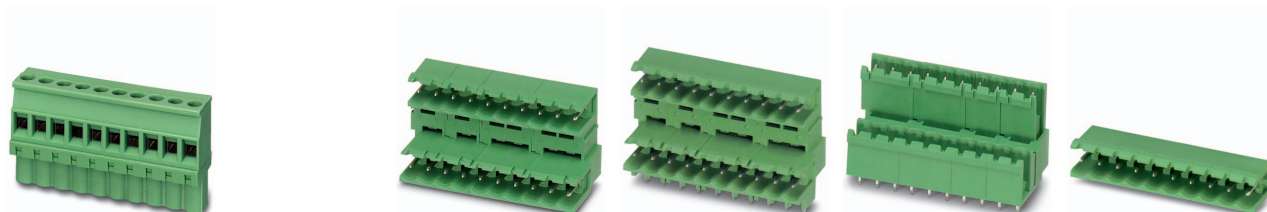
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1792524 MVSTBW 2,5/ 2-ST

Description	Order No.	Type
Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm	1051993	B-STIFT
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 profile, is inserted into the slot on the plug or inverted header, red insulating material	1734634	CP-MSTB

1792524 MVSTBW 2,5/ 2-ST

19 Combination tests



MVSTBW 2,5/..-ST

MDSTB 2,5/..-G

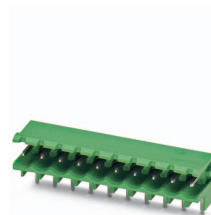
MDSTBW 2,5/..-G

MDSTBV 2,5/..-G

MSTB 2,5/..-G

Specification	IEC 61984	IEC 61984	IEC 61984	IEC 61984
Mechanical tests (A)				
Insertion/withdrawal force per position	approx. 8 N / 6 N	approx. 8 N / 6 N	approx. 8 N / 6 N	approx. 8 N / 6 N
Polarization when inserted Requirement > 20 N	Test passed	Test passed	Test passed	Test passed
Contact holder in insert Requirements > 20 N	Test passed	Test passed	Test passed	Test passed
Endurance tests (B)				
Contact resistance R ₁	2.8 mΩ	2.7 mΩ	3.6 mΩ	2.5 mΩ
Insertion/withdrawal cycles	25	25	25	25
Contact resistance R ₂	2.8 mΩ	2.8 mΩ	3.6 mΩ	2.5 mΩ
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV	4.8 kV	4.8 kV	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV	2.21 kV	2.21 kV	2.21 kV
Insulation resistance Requirements > 5 MΩ	> 0.1 TΩ	> 1 TΩ	> 0.5 TΩ	> 0.3 TΩ
Thermal tests (C)				
Tested number of positions	12	12	12	24
Tested conductor cross section	2.5 mm ²	2.5 mm ²	2.5 mm ²	2.5 mm ²
Test current	10 A	10 A	10 A	12 A
Upper limiting temperature Requirements < 100°C	Test passed	Test passed	Test passed	Test passed
Climatic tests (D)				
Test sequence 1: low temperature storage	-40 °C/2 h	-40 °C/2 h	-40 °C/2 h	-40 °C/2 h
Test sequence 2: heat storage	100 °C/168 h	100 °C/168 h	100 °C/168 h	100 °C/168 h
Test sequence 3: noxious gas storage (ISO 6988)	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV	4.8 kV	4.8 kV	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV	2.21 kV	2.21 kV	2.21 kV
Environmental and endurance tests (E)				
Specification	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10
Degree of protection	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger

1792524 MVSTBW 2,5/ 2-ST



MVSTBW 2,5/...-ST

MSTBO 2,5/...-G1R

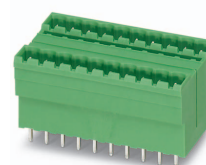
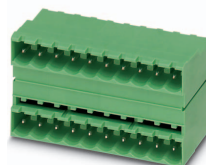
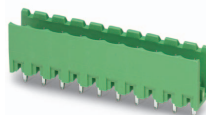
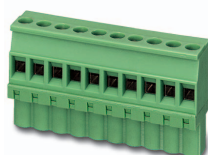
MSTBO 2,5/...-G1L

MSTBW 2,5/...-G

SMSTB 2,5/...-G

Specification	IEC 61984	IEC 61984	IEC 61984	IEC 61984
Mechanical tests (A)				
Insertion/withdrawal force per position	approx. 8 N / 6 N	approx. 8 N / 6 N	approx. 8 N / 6 N	approx. 8 N / 6 N
Polarization when inserted Requirement > 20 N	Test passed	Test passed	Test passed	Test passed
Contact holder in insert Requirements > 20 N	Test passed	Test passed	Test passed	Test passed
Endurance tests (B)				
Contact resistance R ₁	2.6 mΩ	2.6 mΩ	2.5 mΩ	2.4 mΩ
Insertion/withdrawal cycles	25	25	25	25
Contact resistance R ₂	2.6 mΩ	2.6 mΩ	2.6 mΩ	2.5 mΩ
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV	4.8 kV	4.8 kV	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV	2.21 kV	2.21 kV	2.21 kV
Insulation resistance Requirements > 5 MΩ	> 0.3 TΩ	> 0.1 TΩ	> 0.5 TΩ	> 0.2 TΩ
Thermal tests (C)				
Tested number of positions	4	4	21	24
Tested conductor cross section	2.5 mm ²	2.5 mm ²	2.5 mm ²	2.5 mm ²
Test current	12 A	12 A		
Upper limiting temperature Requirements < 100°C	Test passed	Test passed	Test passed	Test passed
Climatic tests (D)				
Test sequence 1: low temperature storage	-40 °C/2 h	-40 °C/2 h	-40 °C/2 h	-40 °C/2 h
Test sequence 2: heat storage	100 °C/168 h	100 °C/168 h	100 °C/168 h	100 °C/168 h
Test sequence 3: noxious gas storage (ISO 6988)	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV	4.8 kV	4.8 kV	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV	2.21 kV	2.21 kV	2.21 kV
Environmental and endurance tests (E)				
Specification	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10
Degree of protection	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger

1792524 MVSTBW 2,5/ 2-ST



MVSTBW 2,5/..-ST

SMSTBA 2,5/..-G

MSTBV 2,5/..-G

MDSTB 2,5/..-G1

MDSTBV 2,5/..-G1

Specification	IEC 61984	IEC 61984	IEC 61984	IEC 61984
Mechanical tests (A)				
Insertion/withdrawal force per position	approx. 8 N / 6 N	approx. 8 N / 6 N	approx. 8 N / 6 N	approx. 8 N / 6 N
Polarization when inserted Requirement > 20 N	Test passed	Test passed	Test passed	Test passed
Contact holder in insert Requirements > 20 N	Test passed	Test passed	Test passed	Test passed
Endurance tests (B)				
Contact resistance R ₁	2.5 mΩ	3.6 mΩ	2.2 mΩ	2.3 mΩ
Insertion/withdrawal cycles	25	25	25	25
Contact resistance R ₂	2.5 mΩ	3.7 mΩ	2.3 mΩ	2.4 mΩ
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV	4.8 kV	4.8 kV	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV	2.21 kV	2.21 kV	2.21 kV
Insulation resistance Requirements > 5 MΩ	> 0.3 TΩ	> 0.3 TΩ	> 0.2 TΩ	> 0.2 TΩ
Thermal tests (C)				
Tested number of positions	24	24	20	20
Tested conductor cross section	2.5 mm ²	2.5 mm ²	2.5 mm ²	2.5 mm ²
Test current			10 A	
Upper limiting temperature Requirements < 100°C	Test passed	Test passed	Test passed	Test passed
Climatic tests (D)				
Test sequence 1: low temperature storage	-40 °C/2 h	-40 °C/2 h	-40 °C/2 h	-40 °C/2 h
Test sequence 2: heat storage	100 °C/168 h	100 °C/168 h	100 °C/168 h	100 °C/168 h
Test sequence 3: noxious gas storage (ISO 6988)	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle	0.2 dm ³ SO ₂ on 300 dm ³ / 40 °C/1 cycle
Rated impulse voltage at sea level Voltage waveform ≥ (1.2/50 μs)	4.8 kV	4.8 kV	4.8 kV	4.8 kV
Power-frequency withstand voltage Voltage waveform ≥ (50/60 Hz)	2.21 kV	2.21 kV	2.21 kV	2.21 kV
Environmental and endurance tests (E)				
Specification	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10	IEC 61984:2008-10
Degree of protection	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger	Finger safety with IP20 test finger



SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

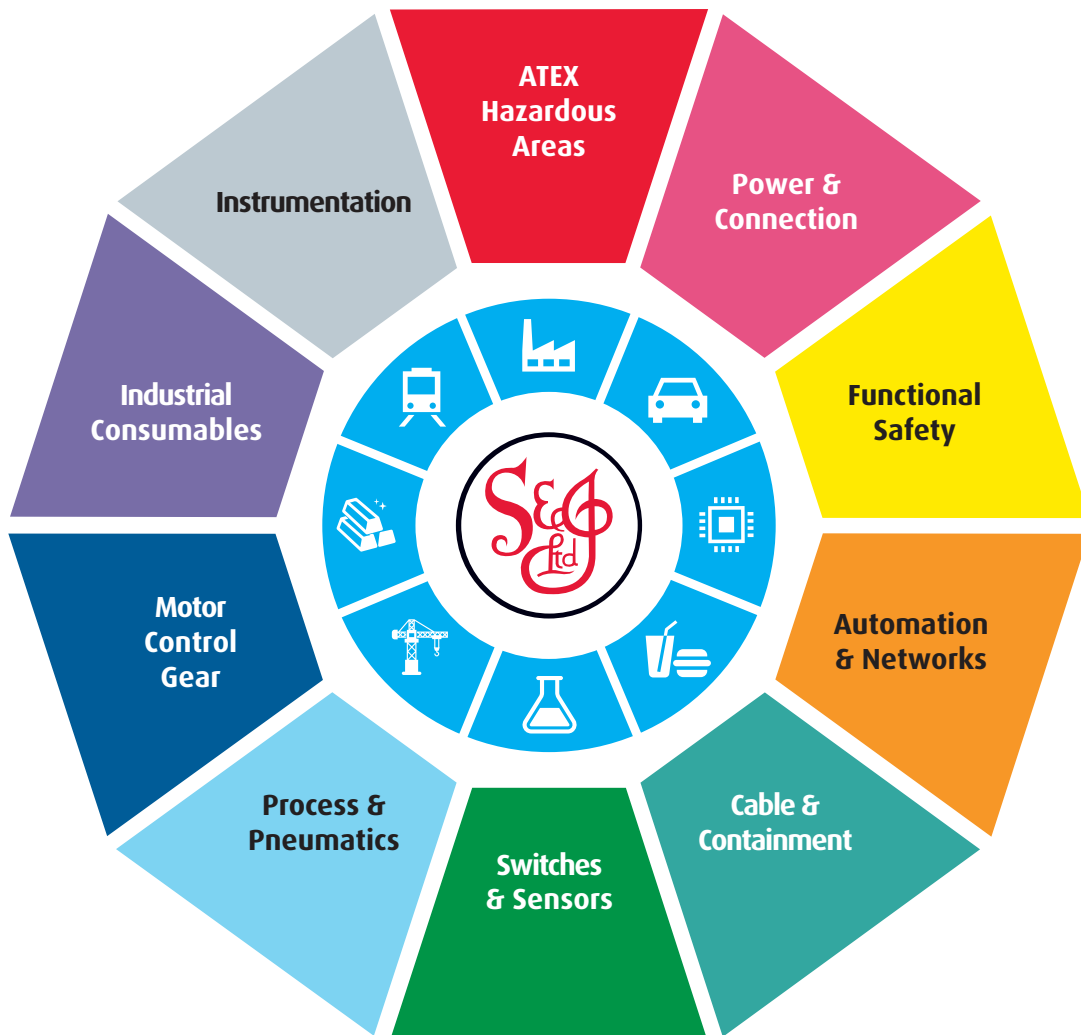
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