

1019560

https://www.phoenixcontact.com/us/products/1019560

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Distribution block, nom. voltage: 690 V, nominal current: 24 A, number of connections: 19, number of positions: 1, connection method: Push-in connection, Load contact, Rated cross section:  $2.5~\text{mm}^2$ , cross section:  $0.14~\text{mm}^2$  -  $4~\text{mm}^2$ , Line contact, Rated cross section:  $6~\text{mm}^2$ , cross section:  $0.5~\text{mm}^2$  -  $10~\text{mm}^2$ , mounting type: NS 35/7,5, NS 35/15, color: red

### Your advantages

- · Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- · Clear wiring, thanks to eleven different color variants
- · Time-saving conductor connection, thanks to tool-free Push-in direct connection technology
- Time savings of up to 80 %, thanks to ready-to-mount blocks without manual bridging
- Space savings of up to 50 % on the DIN rail, thanks to transverse mounting

#### Commercial data

Item number	1019560
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE09
Product key	BEA224
GTIN	4055626505480
Weight per piece (including packing)	40.05 g
Weight per piece (excluding packing)	34.323 g
Customs tariff number	85369010
Country of origin	PL



1019560

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### Technical data

#### Notes

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Note	The maximum load current of a single clamping unit must not be exceeded.
	For power distribution applications, IEC 60364-4-43.2008; modified + corrigendum Okt. 2008 (DIN VDE 0100-430:2010-10) section 433.2 ff must be observed!

### Product properties

Product type	Distributor terminal block
Number of positions	1
Number of connections	19
Number of rows	1
Potentials	1

#### Data management status

Article revision	02

#### Insulation characteristics

Overvoltage category	III
Degree of pollution	3

### Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	0.77 W

#### Connection data

Service Entrance	yes
Number of connections per level	19
Nominal cross section	2.5 mm²

#### Load contact

Stripping length	8 mm 10 mm
Internal cylindrical gage	A3
	B3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm² 4 mm²
Cross section AWG	26 12 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm² 2.5 mm²
Conductor cross section, flexible [AWG]	26 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm² 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm² 2.5 mm²
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm²



1019560

https://www.phoenixcontact.com/us/products/1019560

Nominal current	24 A
Maximum load current	32 A (with 4 mm² conductor cross section)
Maximum total current	57 A (with 10 mm² conductor cross section)
Nominal voltage	690 V
Note	The IEC 60947-7-1 standard applies for the use of mounting accessories.
Nominal cross section	2.5 mm²
ine contact	
Stripping length	10 mm 12 mm
Internal cylindrical gage	A5
mornal symmatical gags	B4
Conductor cross section rigid	0.5 mm² 10 mm²
Cross section AWG	20 8 (converted acc. to IEC)
Conductor cross section flexible	0.5 mm <sup>2</sup> 6 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	20 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm <sup>2</sup> 6 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.5 mm <sup>2</sup> 6 mm <sup>2</sup>
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm <sup>2</sup> 1.5 mm <sup>2</sup>
Nominal current	41 A (with 6 mm² conductor cross section)
Maximum load current	57 A (with 10 mm² conductor cross section)
Maximum total current	The maximum load current of the individual terminal point must not be exceeded.
Nominal cross section	6 mm <sup>2</sup>
Connection in acc. with standard	IEC 60998-2-2
Nominal voltage	450 V (in accordance with IEC 60998-2-2)
oad contact Connection cross sections directly pluggable	
Conductor cross section rigid	0.34 mm² 4 mm²
Conductor cross section, rigid [AWG]	22 18 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm² 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.34 mm² 2.5 mm²
ine contact Connection cross sections directly pluggable	
Conductor cross section rigid	1 mm² 10 mm²
Conductor cross section, rigid [AWG]	
· · ·	18 8 (converted acc. to IEC)  1 mm² 6 mm²
Conductor cross-section flexible (ferrule without plastic sleeve)	
Flexible conductor cross section (ferrule with plastic sleeve)	1 mm² 6 mm²
nensions	
Width	56.9 mm
Widti	
Height	45.7 mm
	45.7 mm 29.2 mm



1019560

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### Material specifications

Color	red (RAL 3001)
Flammability rating according to UL 94	V0
Insulating material group	1
Insulating material	PA
Static insulating material application in cold	-60 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed

#### Electrical tests

#### Surge voltage test

Temperature-rise test  Requirement temperature-rise test  Result  Test passed  Short-time withstand current 6 mm²  Short-time withstand current 10 mm²  1.2 kA  Result  Test passed
Result Test passed  Short-time withstand current 6 mm² 0.72 kA  Short-time withstand current 10 mm² 1.2 kA
Short-time withstand current 6 mm <sup>2</sup> Short-time withstand current 10 mm <sup>2</sup> 1.2 kA
Short-time withstand current 10 mm <sup>2</sup> 1.2 kA
Result Test passed
Power-frequency withstand voltage
Test voltage setpoint 1.89 kV
Result Test passed

#### Mechanical properties

Mechanical	data
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Open side panel	No
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#### Mechanical tests

### Mechanical strength

Result	Test passed
Attachment on the carrier	
DIN rail/fixing support	NS 35
Result	Test passed
Note	When aligning several blocks, it is recommended to either place a DIN rail adapter underneath the connection point or a flange element between the blocks.



1019560

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	Fig. 1911 - 191 -
	For versions with 6 or 7 connections, it is enough to place one DIN rail adapter centrally per block and place flange elements after every other block.
	Depending on the application case and mechanical load, other arrangements of the mounting accessory can also be chosen.
	When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.
est for conductor damage and slackening	
Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.5 mm² / 0.3 kg
	6 mm² / 1.4 kg
	10 mm² / 2 kg
Result	Test passed
ging	400
Temperature cycles	192
Result	Test passed
eedle-flame test	
Time of exposure	30 s
Result	Test passed
scillation/broadband noise	
Specification	DIN EN 50155 (VDE 0115-200):2018-05
Specification Spectrum	DIN EN 50155 (VDE 0115-200):2018-05 Service life test category 2, bogie-mounted
Spectrum	Service life test category 2, bogie-mounted
Spectrum Frequency	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$
Spectrum Frequency ASD level	Service life test category 2, bogie-mounted $f_1 = 5$ Hz to $f_2 = 250$ Hz $6.12 \text{ (m/s}^2)^2\text{/Hz}$
Spectrum Frequency ASD level Acceleration	Service life test category 2, bogie-mounted $f_1 = 5$ Hz to $f_2 = 250$ Hz $6.12 \text{ (m/s}^2)^2\text{/Hz}$ $3.12g$
Spectrum Frequency ASD level Acceleration Test duration per axis	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z\text{-axis}$
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z\text{-axis}$
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z-\text{axis}$ $\text{Test passed}$
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result nocks Specification Pulse shape	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z\text{-axis}$ $\text{Test passed}$ $\text{DIN EN 50155 (VDE 0115-200):2018-05}$
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result nocks Specification	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z-\text{axis}$ $\text{Test passed}$ DIN EN 50155 (VDE 0115-200):2018-05 Half-sine
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result Test directions Acceleration Acceleration Acceleration	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z\text{-axis}$ $Test \text{ passed}$ DIN EN 50155 (VDE 0115-200):2018-05 Half-sine $30g$
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result nocks Specification Pulse shape Acceleration Shock duration	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z-\text{axis}$ $\text{Test passed}$ $DIN \text{ EN } 50155 \text{ (VDE } 0115-200):2018-05$ $\text{Half-sine}$ $30g$ $18 \text{ ms}$
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result Cocks Specification Pulse shape Acceleration Shock duration Number of shocks per direction	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z\text{-axis}$ $Test \text{ passed}$ $DIN \text{ EN } 50155 \text{ (VDE } 0115\text{-}200)\text{:}2018\text{-}05$ $Half\text{-sine}$ $30g$ $18 \text{ ms}$ $3$
Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result nocks Specification Pulse shape Acceleration Shock duration Number of shocks per direction Test directions	Service life test category 2, bogie-mounted $f_1 = 5 \text{ Hz to } f_2 = 250 \text{ Hz}$ $6.12 \text{ (m/s}^2)^2/\text{Hz}$ $3.12g$ $5 \text{ h}$ $X-, Y- \text{ and } Z-\text{axis}$ $\text{Test passed}$ $DIN \text{ EN } 50155 \text{ (VDE } 0115-200):2018-05$ $\text{Half-sine}$ $30g$ $18 \text{ ms}$ $3$ $X-, Y- \text{ and } Z-\text{axis (pos. and neg.)}$



1019560

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Ambient temperature (storage/transport)	-25 °C 60 °C (for a short time, no longer than 24 h, -60°C to +70°C)
Ambient temperature (assembly)	-5 °C 70 °C
Ambient temperature (actuation)	-5 °C 70 °C
Permissible humidity (operation)	20 % 90 %
Permissible humidity (storage/transport)	30 % 70 %
tandards and regulations	
Connection in acc. with standard	IEC 60947-7-1
	IEC 60998-2-2
lounting	
Mounting type	NS 35/7,5
	NS 35/15

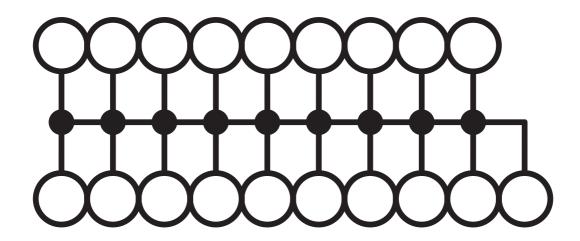


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### Drawings

Circuit diagram





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### **Approvals**

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CSA

Approval ID: 13631



cULus Recognized

Approval ID: E60425

DNV

Approval ID: TAE00004R4



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### Classifications

#### **ECLASS**

	ECLASS-11.0	27141120
	ECLASS-13.0	27250118
ETIM		
LTIW		
	ETIM 9.0	EC000897
UNSPSC		
	UNSPSC 21.0	39121400



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### Environmental product compliance

#### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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