

# PV-FT-CM-C-2,5-185-RD-FE 2D - Device connector front mounting



1706899

<https://www.phoenixcontact.com/us/products/1706899>

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Device connector front mounting, Range of articles: SUNCLIX, color: black, number of positions: 1, min. conductor cross-section: 2.5 mm<sup>2</sup>, rated voltage: 1000 V DC, rated current: 27 A, Connection method: Crimp, cable length: 185

## Commercial data

Item number	1706899
Packing unit	50 pc
Minimum order quantity	50 pc
Product key	ABLBA
GTIN	4046356889483
Weight per piece (including packing)	14.675 g
Weight per piece (excluding packing)	14.346 g
Country of origin	DE

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## Technical data

### Notes

#### Safety note

Safety note	<ul style="list-style-type: none"><li>• <b>WARNING:</b> Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li></ul>
	<ul style="list-style-type: none"><li>• <b>WARNING:</b> Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.</li></ul>
	<p><b>WARNING:</b> The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.</p>
	<ul style="list-style-type: none"><li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li></ul>
	<ul style="list-style-type: none"><li>• Assembled products may not be manipulated or improperly opened.</li></ul>
	<ul style="list-style-type: none"><li>• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a>).</li></ul>
	<ul style="list-style-type: none"><li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li></ul>
	<ul style="list-style-type: none"><li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li></ul>
	<ul style="list-style-type: none"><li>• Ensure that the protective or functional ground has been properly connected.</li></ul>
	<ul style="list-style-type: none"><li>• Observe the corresponding technical data. You will find information:<ul style="list-style-type: none"><li>o On the product</li><li>o On the packing label</li><li>o In the supplied documentation</li><li>o Online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> under the product</li></ul></li></ul>
	<ul style="list-style-type: none"><li>• The installation notes/Design In documents online on the download page at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li></ul>
	<ul style="list-style-type: none"><li>• Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a></li></ul>
	<ul style="list-style-type: none"><li>• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).</li></ul>
	<ul style="list-style-type: none"><li>• Operate the connector only when it is fully plugged in and interlocked.</li></ul>
<ul style="list-style-type: none"><li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the</li></ul>	

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	standards.
	• Observe the minimum bending radius of the cable. Lay the cable without twisting it.

## Product properties

Product type	Panel feed-through
Product family	SUNCLIX
Number of positions	1

## Insulation characteristics

Protection class	II
Degree of pollution	2

## Connection data

### Conductor connection

Tightening torque	1.8 Nm $\pm$ 0.1 Nm
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## Dimensions

Dimensional drawing	
Width	26.3 mm
Height	26.3 mm
Length	41.5 mm

## Electrical properties

Rated voltage (III/2)	1000 V
Rated voltage	1000 V DC in accordance with IEC 62852:2014/AMD1:2020
Rated surge voltage (III/2)	12 kV
Rated current (2.5 mm <sup>2</sup> )	27 A
Contact resistance	0.45 m $\Omega$
Contact resistance	$\leq$ 0.45 m $\Omega$ (when plugged in (without cable))

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	100
Insertion force	45 N $\pm$ 10 N
Withdrawal force	250 N $\pm$ 50 N (when locked)

## Material specifications

Color	black
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Color of the housing part	black
Material Housing	PPE
Material Contact carrier	PPE
Material Contact	Cu alloy (silver-plated)
Material Seal	EPDM
Material Contact surface	Ag
Flammability rating according to UL 94	V0
Insulating material group	III
Insulating material	mPPE
Contact surface	Silver Ag
Cable seal material	Elastosil LR 3065/50
Outer sheath, material	PE-X

## Cable/line

Cable length	185 mm
Cable type	S01
Structure of individual litz in acc. with VDE 0295 / smallest wire diameter	50x0.25
Cable type	Hose line
Cable structure	50 x 0.25 mm Ø litz wires, tin-plated, 1x bunched
External cable diameter	4.25 mm ±0.15 mm
Outer sheath, material	PE-X
External sheath, color	red, similar to RAL 3000
Single wire, material	Cu
Single wire, cross section	2.5 mm <sup>2</sup>
Cable cross section	2.5 mm <sup>2</sup>
Nominal voltage, cable	1.8 kV DC (max U (conductor / conductor, ungrounded system))
Test voltage, cable	≥ 8 kV AC (Spark test online (standard designation))
Smallest bending radius, fixed installation	21.25 mm (5x Ø)
Smallest bending radius, movable installation	40.25 mm (10x Ø)
Cable pull-out force	> 80 N
Halogen-free	yes
Resistance to oil	no
Flame resistance	no

## Environmental and real-life conditions

### Ambient conditions

Degree of protection (when plugged in)	IP66/IP68 (2 m / 24 h)
Degree of protection (not plugged in)	IP20
Ambient temperature (operation) (male connector/female connector)	-40 °C ... 85 °C
Ambient temperature (assembly)	-25 °C ... 50 °C
Resistance to oil	no

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## Standards and regulations

Flame resistance	no
Resistance to oil	no
Standards/specifications	IEC 62852:2014/AMD1:2020

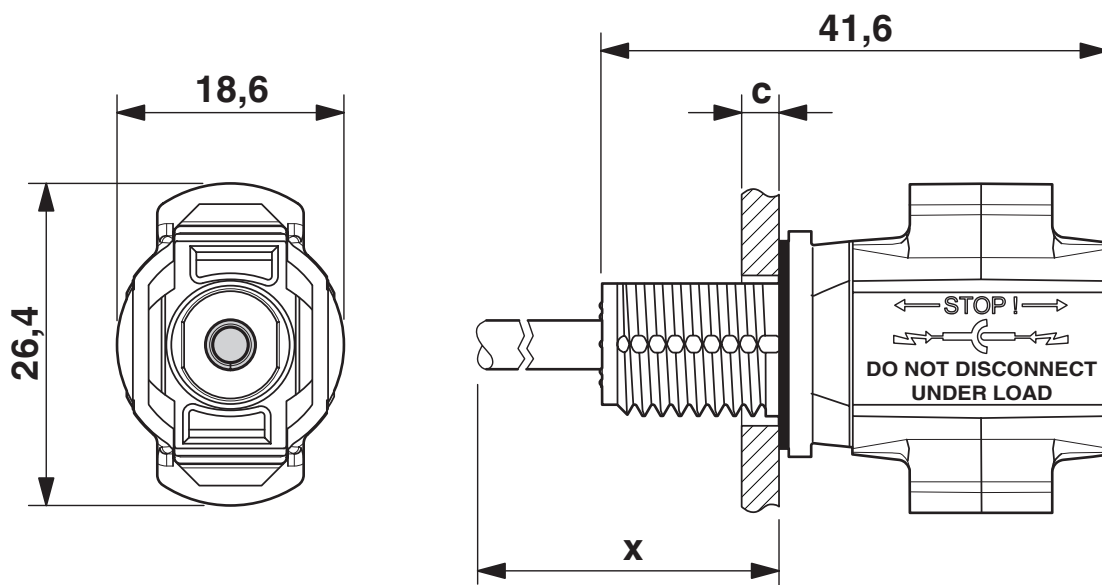
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## Drawings

Dimensional drawing



Dimension x = cable length

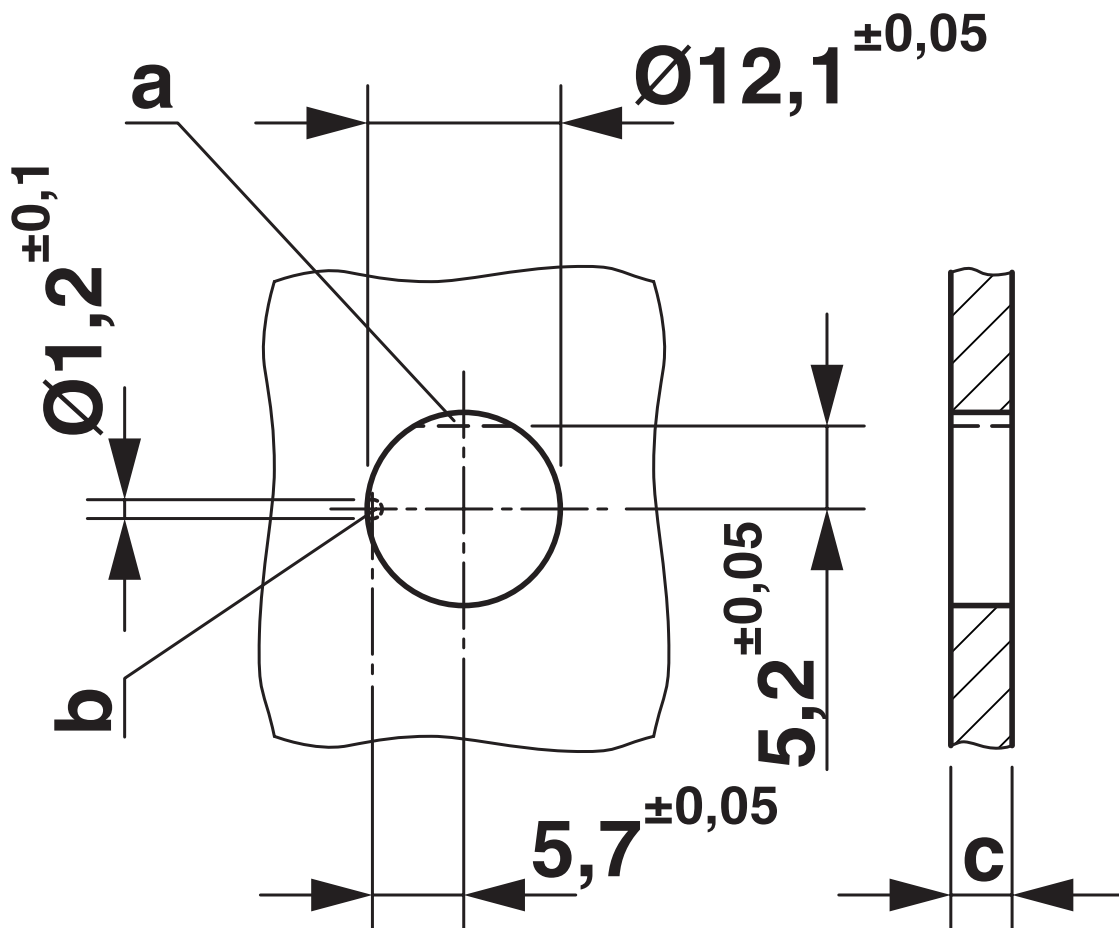
c: panel thickness - plastic: 2 - 6 mm; metal: 2 - 5 mm

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Dimensional drawing



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## Approvals

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**TÜV Rheinland**

Approval ID: R 60165003-0001

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## Classifications

### ECLASS

ECLASS-13.0	27440107
ECLASS-15.0	27440107

### ETIM

ETIM 10.0	EC002635
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	Triphenyl phosphate(CAS: 115-86-6)
SCIP	83126204-3f2d-4497-80ab-178888263150

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