SM-7EP1N8AC003 - Rear panel feed-through

1605831

https://www.phoenixcontact.com/us/products/1605831

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Rear panel feed-through, straight short, Screw locking mechanism, M40, number of positions: 4+3+PE, contact connection type: Pin, Axial O-ring, shielded: yes, cable diameter range: 12.5 mm ... 17 mm, number of positions: 8, connection method: Crimp connection, series: SM, this item is expected to be lead-free from Q1 2027 in accordance with RoHS II without exception 6c (Pb < 0.1%), a lead-free alternative is possible on request in advance

Commercial data

Item number	1605831
Packing unit	6 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB32
Product key	ABRBGJ
GTIN	4046356255158
Weight per piece (including packing)	550 g
Weight per piece (excluding packing)	518.956 g
Customs tariff number	85366990
Country of origin	DE

Technical data

Notes

Order information:	Order crimp contacts 4 x Ø 2 mm, 4 x Ø 3.6 mm separately

Safety note

Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	• WARNING: 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.
	• The products are suitable for applications in plant, controller, and electrical device engineering.
	• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	• Assembled products may not be manipulated or improperly opened.
	• 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 phoenixcontact.com/products).
	• When using the product in direct connection with third-party manufacturers, the user is responsible.
	• For operating voltages > 50 V AC, conductive connector housings must be grounded
	• Ensure that the protective or functional ground has been properly connected.
	• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
	• Only use tools recommended by Phoenix Contact
	• The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product.
	• Operate the connector only when it is fully plugged in and interlocked.
	• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
	• Observe the minimum bending radius of the cable. Lay the cable without twisting it.
	• 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).

Mounting

Mounting type	Rear mounting/square flange (4 x M4)

Product properties

Product type	Circular connectors (device side)
Series	SM
Application	Power
Number of positions	8
Connection profile	4+3+PE
Shielded	yes
Coding	N
Thread type	M40

Material specifications

Material Housing	GD-Zn
Material Rotating parts	CuZn
Material Housing surface	Ni
Material Insulating body	PA 6.6
Material Seal	FPM (O-ring)

Electrical properties

Contact: Contact group 1

Contact diameter	3.6 mm
Nominal current I_N	70 A
Nominal voltage U_N	630 V
Overvoltage category	III
Degree of pollution	3
Rated surge voltage	6 kV

Contact: Contact group 2

Contact diameter	2 mm
Nominal current I_N	30 A
Nominal voltage U_N	250 V
Overvoltage category	III
Degree of pollution	3
Rated surge voltage	4 kV

Connection data

Conductor connection

Connection method	Crimp connection
Contact connection type	Pin

Connector

Type	straight short

Cable/line

External cable diameter	12.5 mm ... 17 mm

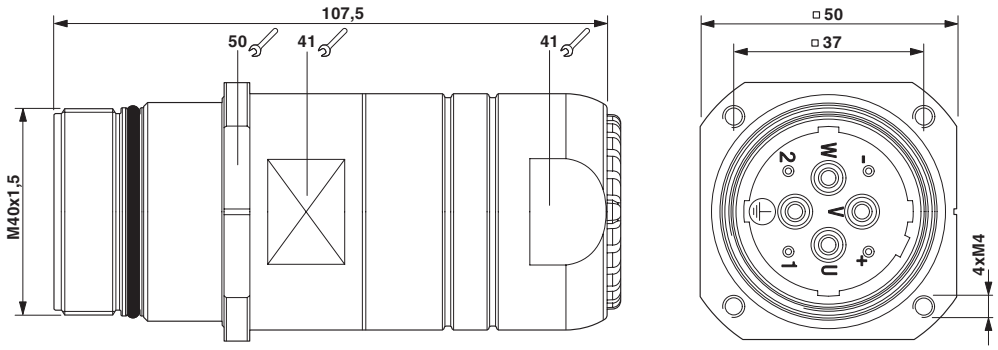
Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
Ambient temperature (operation)	-40 °C ... 125 °C
Altitude	3000 m

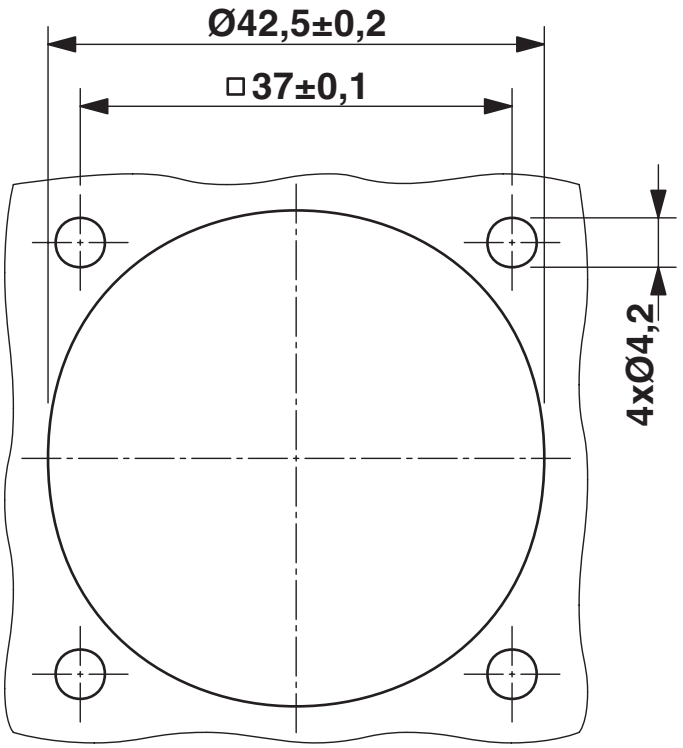
Drawings

Dimensional drawing



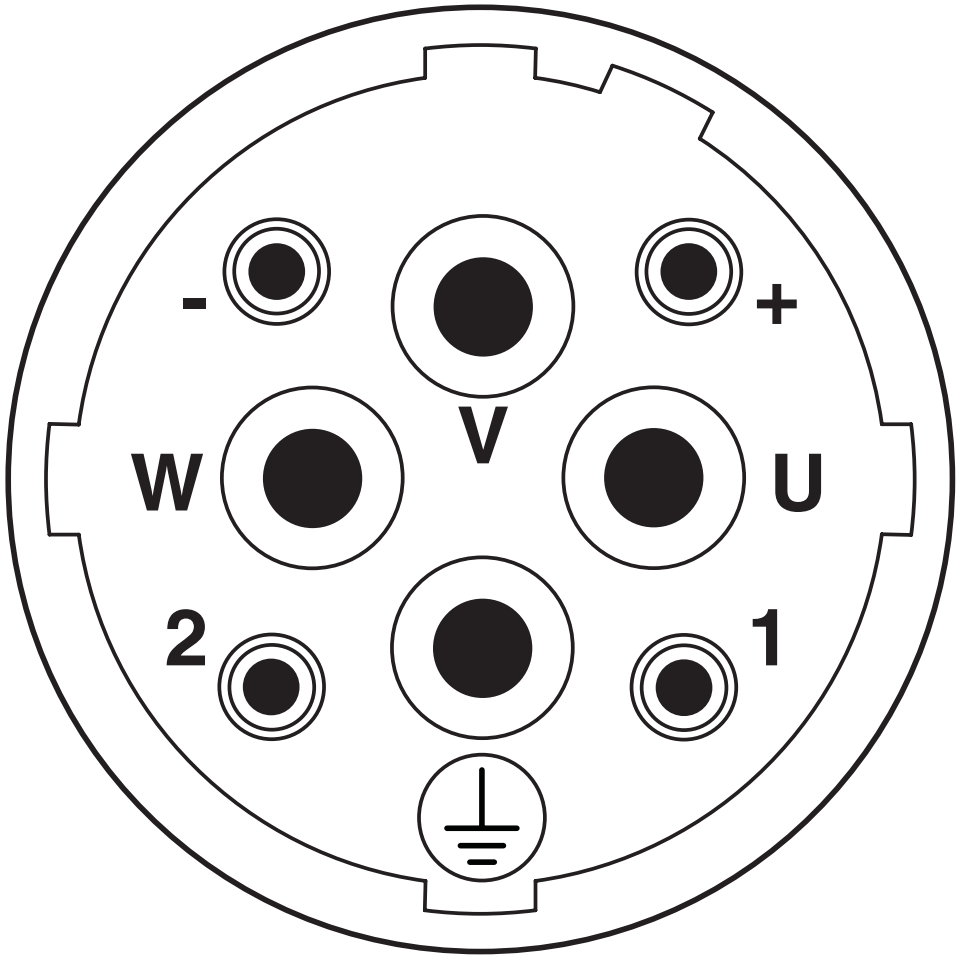
Dimensional drawing

Dimensional drawing



Installation dimensions

Schematic diagram



Connector pin assignment

Diagram

I = current strength, T = ambient temperature

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1605831

cUL Recognized
Approval ID: E153698-20150903

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Power	600 V	40 A	-	-
Signal	600 V	20 A	-	-

UL Recognized
Approval ID: E153698-20150903

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Power	600 V	65 A	-	-
Signal	600 V	30 A	-	-

Classifications

ECLASS

ECLASS-13.0	27440109
ECLASS-15.0	27440109

ETIM

ETIM 9.0	EC003569

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	b912ade8-c86d-43ff-8a9b-14f6983f5b9d

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com