

# SM-7ES1N8AYW00 - Device connector front mounting with knurled nut



1607543

<https://www.phoenixcontact.com/us/products/1607543>

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Device connector front mounting with knurled nut, angled fixed, Screw locking mechanism, M40, number of positions: 4+3+PE, contact connection type: Socket, Axial O-ring, 4x Ø4,2, shielded: yes, flange dimensions: 40 mm x 40 mm, degree of protection: IP67, number of positions: 8, connection method: Crimp connection, series: SM

## Commercial data

Item number	1607543
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB32
Product key	ABRBGO
Catalog page	Page 167 (C-2-2019)
GTIN	4046356271578
Weight per piece (including packing)	547.5 g
Weight per piece (excluding packing)	547.5 g
Customs tariff number	85366990
Country of origin	DE

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## Technical data

### Notes

General	Order crimp contacts 4 x Ø 2 mm, 4 x Ø 3.6 mm separately
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### Safety note

Safety note	<p>WARNING: 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>• 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.</li></ul>
	<ul style="list-style-type: none"><li>• 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.</li></ul>
	<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>• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</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>• 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</li></ul>
	<ul style="list-style-type: none"><li>• Only use tools recommended by Phoenix Contact</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>• 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 standards.</li></ul>	
<ul style="list-style-type: none"><li>• Observe the minimum bending radius of the cable. Lay the cable without twisting it.</li></ul>	
<ul style="list-style-type: none"><li>• The connector warms up in normal operation. Depending on the</li></ul>	

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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	4x Ø4,2
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## Product properties

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

## Dimensions

### Housing

Flange dimensions	40 mm x 40 mm
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## Material specifications

Seal material	FPM
Housing material	Turned parts: copper zinc alloy (CuZn), die-cast parts: zinc (GD-Zn)
Insulator material	PA 6.6
Gasket and O-ring material	FPM

## Electrical properties

### Contact

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

### Contact

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

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## Connection data

### Conductor connection

Connection method	Crimp connection
Contact connection type	Socket

## Connector

Type	angled fixed
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### Connection 1

Head design	Socket
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## Environmental and real-life conditions

### Ambient conditions

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

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## Classifications

### ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

### ETIM

ETIM 9.0	EC002635
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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