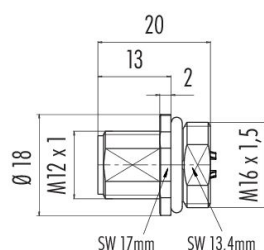


Product description	M12 Male panel mount connector, Contacts: 4, unshielded, solder, IP68, UL 2238, M16x1.5
Area	series 763
Part no.	86 0231 0002 00004

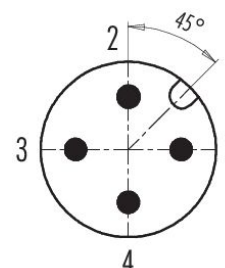
Illustration



Scale drawing



Contact arrangement (Plug-in side)



You can find the assembly instructions on the next page.

Technical data

General features

Part no.	86 0231 0002 00004
Notice	Alternative part no.: 09 3431 578 04 Please note that, due to the change from the old to the new order number, there may be deviations in the technical specifications. For questions about product details, please use the 'Contact Customer Service' form on the right.
Connector design	Male panel mount connector
Type standard	DIN EN 61076-2-101
Version	Connector pin straight
Connector locking system	screw
Termination	solder
Degree of protection	IP68
Connection cross-section	0.34 mm ² / AWG 22
Temperature range from/to	-40 °C / 85 °C
Mechanical operation	> 100 Mating cycles
Weight (g)	8.50
Customs tariff number	85369010
Country of Origin	DE

Electrical parameters

Rated voltage	250 V
Rated impulse voltage	2500 V

Product data sheet

Automation technology - Sensors and actuators



Product description	M12 Male panel mount connector, Contacts: 4, unshielded, solder, IP68, UL 2238, M16x1.5
Area	series 763
Part no.	86 0231 0002 00004

Rated current	4 A (3 A UL)
Insulation resistance	$> 10^8 \Omega$
Pollution degree	3
Overvoltage category	II
Insulating material group	II
EMC compliance	unshielded

Material

Housing material	Zinc die-cast nickel-plated
Contact body material	PA black
Contact material	CuZn (brass)
Contact plating	Au (gold)
REACH SVHC	CAS 7439-92-1 (Lead)
SCIP number	25e20e44-6e50-4c8e-b424-14fe814154ae

Authorization/approvals

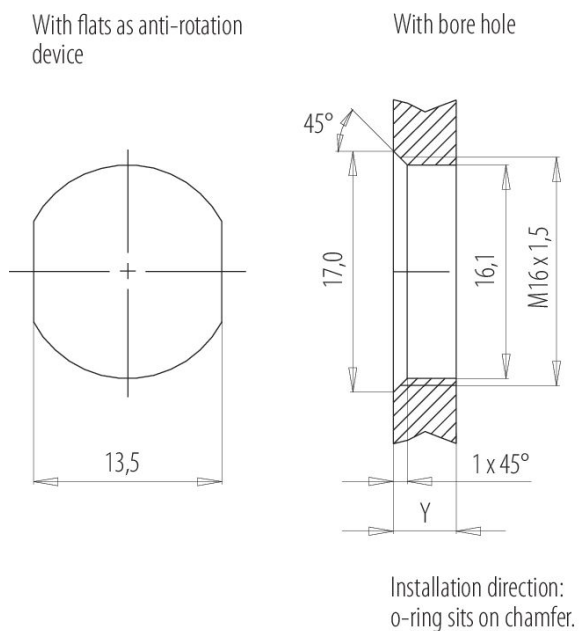
Approvals	UL 2238
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Classifications

ETIM 9.0	EC003569
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Product description **M12 Male panel mount connector, Contacts: 4, unshielded, solder, IP68, UL 2238, M16x1.5**
 Area **series 763**
 Part no. **86 0231 0002 00004**

Assembly instructions / Panel cut-out



Tightening moment

Metall housing/Plastic housing 1,25 Nm

Thickness of wall Y (mm)		
Version	min (mm)	max (mm)
Fastened from rear	2	3,5
Front fastened	2	4,5
positioning possible ¹⁾	2	3,5
Screw clamp	2	3,5
Thread M12 x 1	2	3,0
Thread M14 x 1 ²⁾	³⁾ 1,5/ ⁴⁾ 2	6,5

Notes

- ¹⁾ Do not attach a chamfer
- ²⁾ Wall thickness:
use nut 38 5385 100 001 up to 1,5 mm,
>1,5 mm cut thread
- ³⁾ Nut
- ⁴⁾ Thread in wall of housing

Product description	M12 Male panel mount connector, Contacts: 4, unshielded, solder, IP68, UL 2238, M16x1.5
Area	series 763
Part no.	86 0231 0002 00004

Security notices

The connector must not be plugged or unplugged under load. Non-observance and improper use can result in personal injury.

The connectors have been developed for applications in plant engineering, control and electrical equipment construction. The user is responsible for checking whether the connectors can also be used in other areas of application.

To protect against unintentional opening of the connector, the thread between the housing and the connector head must be secured with a suitable cyanoacrylate adhesive when used in circuits with voltages dangerous to the touch. This does not apply to connectors used in SELV and PELV circuits according to IEC 61140 (EN 61140, VDE 0140-1).

Connectors which are used in circuits with voltages dangerous to the touch may only be installed and used by, or under the supervision of, persons with electrical engineering training, taking into account the applicable regulations and standards.

The user must take suitable safety precautions to ensure that the connector cannot be accidentally disconnected.

Plug connectors with enclosure protection IP67 and IP68 are not suitable for use under water. When used outdoors, the plug connectors must be protected separately against corrosion. For further information on the IP protection classes, please refer to the "Technical Information" download centre.

To lock the cable connector with the device connector, the threaded ring is tightened "hand-tight" (approx. 60 cNm).

The user must take appropriate safety precautions to ensure that the connector cannot be accidentally disconnected. In addition, the user must ensure that the cable is suitably secured.

DECLARATION FROM THE MANUFACTURER

For part no.: 86 0231 0002 00004

14/07/2025

With regard to the

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

With the REACH regulation, the EU has created a uniform system for the Registration, Evaluation, Authorisation and restriction of CHEMicals – or REACH. The purpose of this regulation is to ensure a high level of protection of human health and the environment.

Franz Binder GmbH & Co. Elektrische Bauelemente KG hereby confirms that it acts as a downstream user (producer of products) according to the aforementioned regulation.

We obtain all raw materials and/or preparations, from which the connectors are made, from suppliers who have already registered or pre-registered all substances, including those present in the preparations. The products supplied by the company are not subject to registration.

With regard to Article 33(1) of the REACH regulation, Franz Binder GmbH & Co. Elektrische Bauelemente KG complies with its information obligations:

An up-to-date candidate list (candidate list of substances of very high concern for authorisation, as of 25/06/2025 see: <https://echa.europa.eu/de/candidate-list-table>) in accordance with Article 59 (1, 10) of the regulation (EC) No 1907/2006 (REACH) has been published.

The aforementioned article includes the following substances from the up-to-date candidate list in concentrations of more than 0,1 percent by mass:

- CAS 7439-92-1 (Lead)

Please refer any questions to our Product Compliance Team:

Product-Compliance@binder-connector.de

DECLARATION FROM THE MANUFACTURER

For part no.: 86 0231 0002 00004

14/07/2025

With regard to the

COMMISSION DELEGATED DIRECTIVE (EU) 2015/863 of 31 March 2015

**amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards
the list of restricted substances**

Directive 2011/65/EU stipulates provisions on the restriction of the use of hazardous substances in electrical and electronic equipment (EEE) with a view to contributing to the protection of human health and the environment, including the environmentally sound recovery and disposal of EEE waste.

ANNEX II

Restricted substances referred to in Article 4(1) and maximum concentration values tolerated by weight in homogeneous materials

Lead (0,1%) mercury (0,1%) cadmium (0,01%) hexavalent chromium (0,1%) polybrominated biphenyls (PBB) (0,1%) polybrominated diphenyl ethers (PBDE) (0,1%) bis(2-ethylhexyl) phthalate (DEHP) (0,1%) butyl benzyl phthalate (BBP) (0,1%) dibutyl phthalate (DBP) (0,1%) diisobutyl phthalate (DIBP) (0,1%)

Franz Binder GmbH & Co. Elektrische Bauelemente KG hereby confirms that it complies with all standard articles of the aforementioned Directive. Our products do not contain any of the specified prohibited substances above the maximum permitted concentrations specified therein, taking into account the exemptions in Annex III of Directive 2011/65/EU.

- Complies with RoHS III with exemption 6c

Please refer any questions to our Product Compliance Team:

Product-Compliance@binder-connector.de

MANUFACTURER'S DECLARATION

For part no.: 86 0231 0002 00004

14/07/2025

with regard to

Declaration of compliance with China RoHS – Components

We herewith declare the compliance of this product with the Chinese marking requirements. This product can be recycled and used safely during its environmentally friendly use period of 50 years. These articles will be sold as components only for manufacturing. According to the Electronic Industry Standard SJ/T 11364-2014 it needs not to be marked with Environmentally Friendly Use Period (EFUP) label. This product should be recycled after its environmental protection use period has expired because it may contain substances or elements as shown in the following table:

Part Name	Hazardous Substance					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Connectors	X	0	0	0	0	0

This table is prepared in accordance with the provisions of SJ/T 11364.

0: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572

X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572

The table shows where these substances may be found in this Electrical and Electronic Product.

Please refer any questions to our Product Compliance Team:

Product-Compliance@binder-connector.de

CERTIFICATE OF COMPLIANCE

Certificate Number E302391
Report Reference E302391-2015-08-06
Date 2020-October-15

Issued to: Franz Binder GmbH & Co. Elektrische Bauelemente
KG
Roetelstrasse 27
Neckarsulm74172 DE

**This is to certify that
representative samples of**

CABLE ASSEMBLIES AND FITTINGS FOR INDUSTRIAL
CONTROL AND SIGNAL DISTRIBUTION - COMPONENT
See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the
component requirements in the Standard(s) indicated on
this Certificate. UL Recognized components are incomplete
in certain constructional features or restricted in
performance capabilities and are intended for installation in
complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: UL 2238 - Cable Assemblies and Fittings for Industrial
control and Signal Distribution,
CSA C22.2, No. 182.3 - Special Use Attachment Plugs,
Receptacles and Connectors

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark.
Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified
and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC



Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please
contact a local UL Customer Service Representative at <http://ul.com/about/locations/>

CERTIFICATE OF COMPLIANCE

Certificate Number E302391
Report Reference E302391-2015-08-06
Date 2020-October-15

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Product Designation(s):

USR, CNR – Inlet,

Series 713, Cat. No(s). 76 or 86 followed by suffixes: 01 thru 13, 21 thru 29 or 41 thru 48 or 70, followed by 31, followed by 0 thru 3, followed by 0 or 1, followed by 00, 01, 02, 03, 09, 11, 13, 14, 16, 17, 20, 21, 61, 62, 63, or 64, followed by 00 or any two digits, followed by 0 thru 6, followed by 04, 05, 08 or 12 followed by any other 4 digits.

Series 713, Cat. No(s) 09 3431 414 04, 09 3481 414 08 and 09 3481 415 08.

Series 715, Cat. No(s). 76 or 86 followed by suffixes: 01 thru 12, 21 thru 29 or 41 thru 48 or 70, followed by 33, followed by 0 thru 3, followed by 0 or 1, followed by 00, 01, 02, 03, 09, 11, 13, 14, 16, 20, 21, 61, 62, or 63 followed by 00 or any two digits, followed by 0 thru 6, followed by 04 or 05 followed by any other 4 digits.

Series 825, Cat. No(s). 76 or 86 followed by suffixes: 01 thru 12 or 21 thru 29, followed by 35, followed by 0 thru 3, followed by 0 or 1, followed by 00, 01, 02, 09, 11, 13, 14, 16, 20, 21, 61, 62, or 63 followed by 00 or any two digits, followed by 0 thru 6, followed by 04 followed by any other 4 digits.

USR, CNR – Outlet,

Series 713, Cat. No(s). 76 or 86 followed by suffixes: 01 thru 12, 21 thru 29 or 41 thru 48 or 70, followed by 32, followed by 0 thru 3, followed by 0 or 1, followed by 00, 01, 02, 03, 09, 11, 13, 14, 16, 17, 20, 21, 61, 62, 63, or 64 followed by 00 or any two digits, followed by 0 thru 6, followed by 04, 05, 08 or 12 followed by any other 4 digits.

Series 715, Cat. No(s). 76 or 86 followed by suffixes: 01 thru 09, 11, 12, 21 thru 29, 41 thru 45, followed by 34, followed by 0 thru 3, followed by 0 or 1, followed by 00, 01, 02, 09, 11, 13, 14, 16, 20, 21, 61, 62, or 63 followed by 00 or any two digits, followed by 0 thru 6, followed by 04 or 05 followed by any other 4 digits.

Series 825, Cat. No(s). 76 or 86 followed by suffixes: 01 thru 12 or 21 thru 29, followed by 36, followed by 0 thru 3, followed by 0 or 1, followed by 00, 01, 02, 09, 11, 13, 14, 16, 20, 21, 61, 62, or 63 followed by 00 or any two digits, followed by 0 thru 6, followed by 04, followed by any other 4 digits.



Bruce Mahrenholz, Director North American Certification Program

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