



PRODUCT MANUAL

Accessories to temperature sensors Cable outlets Ex d (Ex t) for unarmoured cables, with IP68 protection Type 991

APPLICATION

- To connect the connecting cable in the sensor head and to his seal
- To install unarmoured cables with various external diameters, they are provided with a special clamp against cable pull-out;
- For dangerous premises with explosive atmospheres pursuant to EN 60079-10-1 and EN 60079-10-2
 - o For sensors with fixed closure Ex d and with dust-tight closure Ex tD to zone 1 or zone 2 or to zone 21 or zone 22 (for sensor with converter to zone 1 can not gas group IIC
 - o For sensors in intrinsically safe design Ex ia to zone 0, 1 or 2 and to zone 20, 21 or 22

Outlets are rated products pursuant to the Directive 2014/34 / EU of the European Parliament and the Council and EU Declaration of Conformity **EU-991000** is issued for them

DESCRIPTION

Cable outlets consist of a body, sealing ring and closing nut. With respect to unarmoured cables, the outlet is always used in combination with a clamping module (cable clamp) to secure the cable against pull-out. The outlets are delivered with a metrical thread (ISO) or a conical thread (NPT). The outlet body as well as the closing nut shall be tightened with specified torque.

Cable outlets are delivered in several sizes according to dimensions of the connecting cable.

TECHNICAL DATA

Construction of the outlets complies with EN 60079-0, -1, -11 and -31.

Ingress protection: IP 68, tested 30m/7days
(by outlets with thread M20x1,5 is only guaranteed by correct assembly with thread sealing ring)

Operation position: discretionary; the outlet shall not be situated upwards

Used materials:

outlet materiál:	Nickel-coated brass
cable	silicone
flat sealing	20x24 by TPD 62-014-9121 (copper with a heat-resistant insert) only for outlets with thread M20x1,5
cable clamp	Nickel-coated brass
connecting material of the clamp (screws and washers)	stainless steal

OPERATION CONDITIONS

Ambient temperature: -60...+140°C

DESIGNATION

Data on body of outlet:

- type and dimension of connecting thread

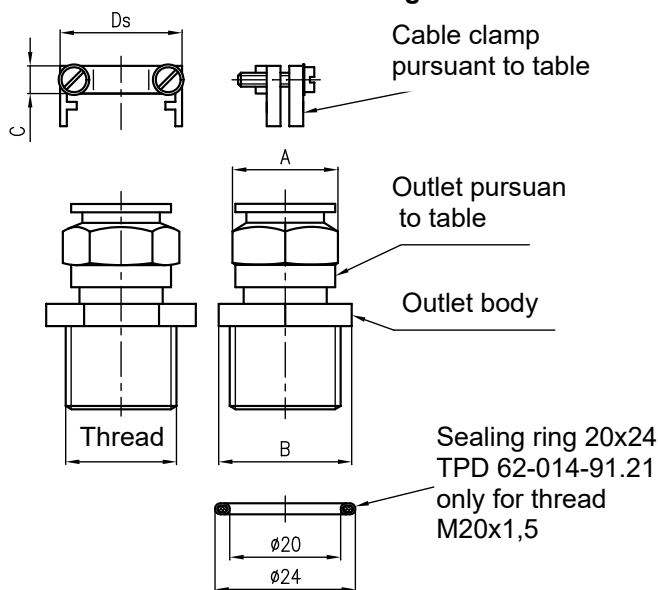
Data on nut of the conclusion outlet:

- manufacturer's name: CCH-CAPRI
- type and size: ADE 1F2
- certificate: INERIS 12ATEX0032X
- designation of non-explosiveness: II 2 G Ex db IIC Gb
- II 2 D Ex tb IIIC Db
- CE 0080

Data on certificate of quality and completeness of the product

- Trademark of the manufacturer
- Product ordering number
- Time code (Serial number).

FIGURE 1- Dimensional drawing



CERTIFICATION

Non-explosiveness II 2 G Ex db IIC Db, II 2 D Ex tb IIIC Db

DELIVERY

Unless agreed otherwise with the customer, every delivery includes:

- Delivery note
- Products pursuant to the purchase order
- Accompanying technical documentation in Czech:
 - o Product quality and completeness certificate, which also serves as the warranty certificate
 - o EU Declaration of Conformity
 - o Instruction sheet
 - o Product manual

If it is established in the purchase contract or agreed otherwise, the following documentation can be also delivered with the product

- Copy of the EU Type Examination Certificate pursuant to 2014/34/EU

PACKING

Cable outlets are delivered welded in the package ensuring resistance to the impact of temperature effects and mechanical effects pursuant to controlled packing regulations. They are packed in a PE bag together with the Quality Certificate.

TRANSPORT

Cable outlets may be transported on conditions corresponding to the set of conditions of classes IE 21 pursuant to EN 60721-3-2 (i.e. by airplanes and trucks; in areas that are ventilated and protected against atmospheric effects).

STORAGE

Cable outlets may be stored on conditions corresponding to the set of combinations of classes IE 11 pursuant to EN 60721-3-1 (i.e. in places with continuous temperature control between 5 and 40 °C and humidity from 5 to 85%, without a special threat of an attack with biological agents and not situated close to sources of dust and sand.)

PLACING AN ORDER

The purchase order shall include:

- Name
- Product ordering number
- Number of pieces

ORDER EXAMPLE :

Cable outlet
991 VM 458
10 pcs

TABLE 1 - OVERVIEW OF DESIGNS AND ORDERING OF CABLE OUTLETS Ex d (Ex t) BRASS – TYPE 991

SPECIFICATION								Ordering number			
								991	xx	xxx	
Outlet Ex d (Ex t) brass		Cable clamp (clamping module)				Thread	Torque of outlet body	For cable Ø [mm]			
Size	Wrench		Size	Dimension							
	A	B		C	Ds						
No. 4	OK 17	OK 24	No. 4	5	20	M20×1.5	30 - 35 Nm	4,5-8.5	VM	458	
No. 5	OK 19		No. 5	5	22			7-11	VM	711	
No. 6	OK 24		No. 6	6	27.5			10-16	VM	016	
No. 4	OK 17		1/2-14 NPT	No. 4	5	20	25 - 30 Nm	4,5-8.5	VK	458	
No. 5	OK 19			No. 5	5	22		7-11	VK	711	
No. 6	OK 24			No. 6	6	27.5		10-15.5	VK	015	

Application: for temperature sensors, type 233, 234, 235, 243, 244, 252, 333, 334, 335, 343, 344, 352

TABLE 1 - OVERVIEW OF DESIGNS AND ORDERING OF CABLE OUTLETS Ex d (Ex t) BRASS – TYPE 991

These outlets will be delivered until stocks sell out

SPECIFICATION								Ordering number			
								991	xx	xxx	
Outlet Ex d (Ex t) brass		Cable clamp (clamping module)				Thread	Torque of outlet body	For cable Ø [mm]			
Size	Wrench		Size	Dimension							
	A	B		C	Ds						
No. 5	OK 19	OK 24	No. 5	5	22	1/2-14 NPT	25 - 30 Nm	6-12		VM	612

INSTALLATION AND CONNECTION

The outlet in the sensor head shall be tightened as follows.

Torque of outlet body is as follows:

- For outlet with thread 1/2 NPT 20 - 30 Nm
- For outlet with thread M20×1.5 30 - 35 Nm.

Cable installation and sealing in the outlet shall be realized pursuant to the enclosed instruction sheet. Seal the cable in the outlet with prescribed torque of the closing nut and then secure it with the clamping module (clamp) against pull-out. Correct installation of the cable outlet shall secure the specified coverage grade IP 68.

COMMISSIONING

Cable outlets do not require any operation and maintenance.

SPARE PARTS

Cable outlets do not require any delivery of spare parts.

WARRANTY

The warranty period is 24 months from the receiving of the product by the customer, unless established otherwise in the contract.

The rejection of defects shall be enforced in writing at the manufacturer within the warranty period. The rejecting side shall identify product name, ordering and manufacturing numbers, date of issue and number of the delivery note, clear description of the occurring defect and subject of the claim. If the rejecting side is invited to send the device for repair, it shall do so in the original package of the manufacturer and/or in another package ensuring safe transport.

The warranty shall not apply to defects caused by unauthorized intervention into the device, its forced mechanical damage or failure to comply with operation conditions of the product and the product manual.

REPAIRS

Cable outlets do not require any repair.

DISABLING AND LIQUIDATION

The product and its package do not include any parts that could impact the environment.

The products withdrawn from the operation (including their packing) can be disposed of to sorted or unsorted waste pursuant to the type of waste.

The package of the sensor can be recycled completely.

Metal parts of the product shall be recycled, non-recyclable plastic materials shall be disposed of in These outlets will be delivered until stocks sell out.

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