

Physikalisch-Technische Bundesanstalt

(1) **Conformity Certificate**

(2) **PTB Nr. Ex-86.B.2126**

(3) This certificate concerns the electrical operation equipment
Indicator type DM-110.X

(4) of the company
Gönnheimer Elektronik GmbH
D-6734 Lambrecht/Pfalz

(5) The make of this electrical operation equipment as well as the different allowable executions are defined in the Annex to this Conformity Certificate.

(6) The Physical-Technical Federal Institution as the Inspecting authority certifies according to Article 14 of the Directive of the Council of the European Communities, dated December 18, 1975 (76/117/EEG) the conformity of this electrical operation equipment with the harmonised European Norms:

Electrical operation equipment for explosion-endangered areas

EN 50 014:1977 + A1 ...A4 (VDE 0170/0171 Part 1/5.84) General directives
EN 50 020:1977 + A1 (VDE 0170/0171 Part 7/9.80) Intrinsic Safety 'i'

after the equipment of a certain make has been inspected with success. The results of the inspection are defined in a confidential inspection protocol.

(7) The operation equipment is to be marked with the following mark:

EEx ib IIC T5 respectively T6

(8) The manufacturer is responsible to mark each equipment of this make according to this certificate's Annex of the inspection documents and that the required piece inspections have passed the testing successfully.

(9) The electrical equipment may be marked with the here printed mutual distinctive mark according to Annex II of the directive of the council, dated February 6 1979 (79/196/EEG).

In behalf

Braunschweig, February 13 1995

Stamp

Dr.-Ing. Schebsdat
Regierungsdirektor

Annex to the Conformity Certificate PTB Nr. Ex-86.B.2126

The indicator type DM-110.X serves as a digital revolution indicator or Event counter respectively in explosive endangered areas. The temperature class depends on the maximum ambient temperature, as follows:

50 °C = T6

65 °C = T5

Electrical details

Supply current circuit in ignition protection class EEx ib IIC.

(Terminal 1 to 5)

Exclusive connection to a certificated intrinsic safe current circuit with the following highest values:

U = 65 V

I = 160 mA

The internal inductivity and capacity are negligibly small.

Inspection Documents:

1. Description	(12 pages)	signed on 10.04.1986
2. Drawing No.	DM 110.100.3	)
	DM 110.300.3	)
	DM 110.301.3	)
	DM 110.302.3	)
	DM 110.303.3	)
	DM 110.304.4	)
	DM 110.400.4	)
	DM 110.402.4	)
	DM 110.403.4	)
	DM 110.404.4	)
	DM 110.405.4	)
	DM 110.500.4	)
	DM 110.501.4	) signed on 20.04.1986
	DM 110.502.4	)
	DM 110.503.4	)
	DM 110.504.4	)
	DM 110.505.4	)
	DM 110.506.4	)
	DM 110.507.4	)
	DM 110.600.4	)
	DM 110.601.4	)
	DM 110.602.4	)
3. Part list No.	DM 110.300.4 ST (3 pages)	)
	DM 110.600.4 ST	)
	DM 110.601.4 ST	)
	DM 110.602.4 ST	)

in behalf

Stamp

Braunschweig, 28.08.1986

Dr.-Ing. Schebsdat
Regierungsdirektor

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1. Amendment to the Conformity Certificate PTB Nr. Ex-86.B.2126

of the company Gönzheimer Elektronik GmbH
D-6734 Lambrecht/Pfalz

The indicator type DM-110.X will be extended to the type DM-110.X VM and can from now on be manufactured in accordance to the inspection documents below. The ignition protection class of the type DM-110.X VM is from now on:

EEx q [ib] IIC T6

The changes refer to the inside built and the electrical details.

Electrical details

Supply current circuit	U = 24 V ... 220V, 40 ..500 Hz, ca. 1.2 VA U = 24 V, ca. 0.6 W
Sensor current circuit (terminals 2, 4 and 5)	in ignition protection class EEx ib IIC Highest values: U = 8.6 V I = 19.2 mA P = 42 mW maximum external inductivity 90 mH, maximum external capacity 7 µF

All further details remain unchanged.

Inspection Documents:

1. Drawing No.	DM 110.901.4 (3 pages))
	DM 110.101.4)
	DM 110.210.4)
	DM 110.310.4)
	DM 110.310.4 ST)
	DM 110.410.4)
	DM 110.505.4)
	DM 110.603.4)
	DM 110.603.4 ST)
	DM 110.604.4)
	DM 110.604.4 ST)
	DM 110.610.4)
	DM 110.610.4 ST) signed on 07.08.1987
	DM 110.910.4)
	DM 110.902.4)
	DM 110.100.3)
	DM 110.308.4)
	DM 110.309.4)
	DM 110.310.4 ST)

in behalf

Braunschweig, 07.01.88

Stamp

Dr.-Ing. Schebsdat
Regierungsdirektor

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