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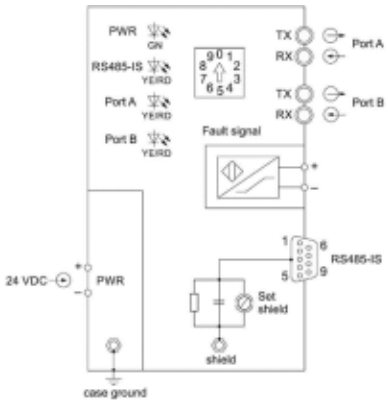
The Media Converters Type 9786 convert electrical RS485 / RS485-IS signals into inherently safe fibre optical signals (Ex op is) and vice versa.

The **9786/12-11** Media Converter is intended for use in Non-hazardous Locations or Class I, Division 2, Group A-D or Class I, Zone 1, Group IIC Hazardous (Classified) Locations according to NEC or CEC.

The RS485-IS and the fault signal circuits are approved for use in Class I, II, III, Division 2, Group A-G or Class I, Zone 1 or Zone 21 Hazardous (Classified) Locations.

The device provides optical intrinsically safe connections for field devices located in Class I, II, III, Division 1, Group A-G or Class I, Zone 0 or Zone 20 Hazardous (Classified) Locations.



Entity parameters for RS485-IS interface (Ex ib)

V_{OC} = 4.2 V V_{max} = 4.2 V
I_{SC} = 131 mA L_i ~ 0
P_O = 124 mW C_i = 35.7 µF

Entity parameters for fault signal interface

V_{max} = 10 V L_i ~ 0
C_i = 0.03 µF

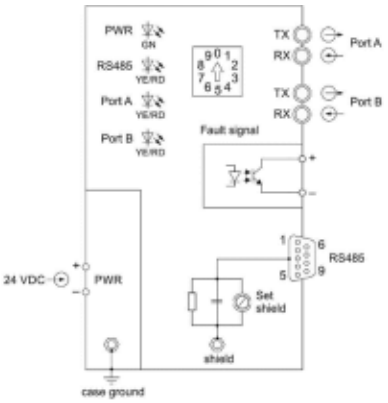
Parameters for PWR interface

U_m = 40 V DC
U_N = 24 V DC

The **9786/15-12** Media Converter is intended for use in Non-hazardous Locations or Class I, Division 2, Group A-D or Class I, Zone 2, Group IIC Hazardous (Classified) Locations according to NEC or CEC.

The RS485 and the signal circuits are approved for use in Class I, II, III, Division 2, Group A-G or Class I, Zone 2 or Zone 22 Hazardous (Classified) Locations.

The device provides optical intrinsically safe connections for field devices located in Class I, II, III, Division 1, Group A-G or Class I, Zone 0, or Zone 20 Hazardous (Classified) Locations.



Parameters for RS485 interface

U_m = 40 V DC
U_N = 5 V

Parameters for fault signal interface

U_m = 40 V DC
U_N = 24 V

Parameters for PWR interface

U_m = 40 V DC
U_N = 24 V DC

Notes:

1. Connection of the device shall be in accordance with the manufacturer's operating instruction.
2. For Entity concept use the appropriate parameters to ensure the following:
   V_t or $V_{OC} \le V_{max}$ $C_o, C_a \ge C_i + C_{leads}$ $P_o \le P_i$ I_t or $I_{SC} \le I_{max}$ $L_o, L_a \ge L_i + L_{leads}$
3. Electrical apparatus connected to an intrinsically safe system should not use or generate voltages > 250 V (U_{max}).
4. Installation should be in accordance with Article 504/505 of the National Electrical Code, ANSI/NFPA 70 and ANSI/ISA RP 12.06.01.
5. Installation in Canada should be in accordance with the Canadian Electrical Code, CSA C22.1, Part 1, Appendix F.
6. Use a general purpose enclosure meeting the requirements of ANSI/ISA 61010-1 or ANSI/UL50 for use in Non-Hazardous or Class I, Division 2, Hazardous (Classified) Locations. In Zone 2, enclosure with IP54 per IEC 60529 or ANSI/IEC 60529 shall be used.
7. Use an approved Dust-ignitionproof enclosure appropriate for environmental protection in Class II, Division 1, Groups E, F, G and Class III or Zone 20 Hazardous (Classified) Locations.
8. The devices are to be mounted on a DIN rail.
9. The optical waveguide must be electrically insulated and used without screening and shall not be armoured.
10. Ambient temperature: -40 °C … +70 °C (any mounting position)

WARNING: Do not disconnect non-I.S. circuits when a flammable or combustable atmosphere is present.
AVERTISSEMENT: Ne pas débrancher les circuits non-intrinsèques en présence d'atmosphère inflammable ou combustible.

Version	Ausgabedatum	Ersteller
01	11.09.2023	Reistle
00	20.07.2023	Reistle

Control drawing

SAP-Dokumentenart	ZCO
Genehmigt am	11.09.2023
Genehmigt von	Bagusch

Tolerancing ISO 8015

Media Converter
Type 9786

9786 6 031 001 1

Rep. f. | Rep. t.

Maßstab / Scale	-
Prüfstelle / Agency	FM
Blattnummer / Sheet number	1 of 1
	A4

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