

Operating Instructions LDX2

The isolation/supply unit LDX2 is designed as an auxiliary piece of electrical equipment to which the intrinsically safe Höntzsch VA and FA flow sensors may be connected. Operation is only permissible outside the hazardous location. Only authorized intrinsically safe VA and FA flow sensors whose peak value concerning safety specifications correspond to the LDX2 ratings, may be connected.

1. Safety tips

Operating the intrinsically safe isolation/supply unit is only permissible outside the hazardous location. The permissible distribution voltage is to be taken from the type plate.

2. Conformity with standards



The equipment meets the requirements of the European Standards:
 EN 50014: 1997+A1+A2 General Requirements
 EN 50020: 1994 Intrinsic Safety
 EN 50284: 1999 Special Requirements, Category 1G

3. Technical data

Explosion protection: [EEx ia] IIC/IIB

EC type examination certificate:
IBExU 03 ATEX 1149

Marking

  II (1) GD

3.1 Electrical Data

Nominal voltage $U_N = 24 \text{ VDC} \pm 20 \%$
 Rated voltage $U_m = 265 \text{ V}$

Supply circuit:
 $I_0 \leq 38 \text{ mA}$ $U_0 \leq 10,6 \text{ V}$ $P_0 \leq 220 \text{ mW}$
 $R_i = 646 \Omega$ trapezoid characteristic

$C_i = 0$ $L_i = 0$

Marking circuit:
 $I_0 \leq 1,2 \text{ mA}$ $U_0 \leq 10,6 \text{ V}$ $P_0 \leq 3,2 \text{ mW}$
 $R_i = 9 \text{ k}\Omega$ linear characteristic
 $C_i = 0$ $L_i = 0$

Maximum permissible values for the external capacity and inductance:

Category		ia	
explosion-group		IIB	IIC
Supply circuit + marking circuit	C_0	16,2 μF	2,32 μF
	L_0	0 mH	0 mH

Supply circuit + marking circuit	C_0		1,5 μF
	L_0		0,15 mH

Supply circuit + marking circuit	C_0	4 μF	0,5 μF
	L_0	1 mH	1 mH

4. Installation

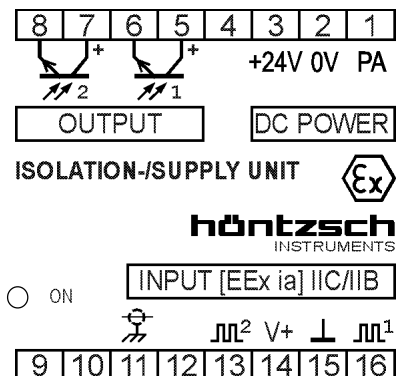
For assembling the measuring apparatus the regulations of the European Specifications for Assembly EN 60079-10: 1996 ff, as well as the general rules of technology, the user data for VA/FA probes and these Operating Instructions are decisive.

Operating the intrinsically safe isolation/supply unit is only permissible outside the hazardous location, ambient temperature max. +60 °C.

The binders provided for the PA/PE connection are to be connected to the localized PA/PE!

Terminal connections:

PA-/PE-Connection	PA	=	1
Power supply	0 V	=	2
	24 V	=	3
Output 1 optoelectr. coupler	+	=	5
	optoelectr. coupler -	=	6
Output 2 optoelectr. coupler	+	=	7
	optoelectr. coupler -	=	8



Sensor screen	---	=	11
Sensor signal 2	---	=	13
Sensor power supply	V+	=	14
Reference potential	\perp	=	15
Sensor signal 1	---	=	16

not assigned, free: 4, 9, 10, 12

5. Maintenance

Any maintenance or repair work to the electrical part of the equipment is to be carried out solely by Höntzsch GmbH.

Höntzsch GmbH

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Release through the Ex-security administrator Sk 01.10.2003, subject to alteration

Konformitätserklärung Declaration of conformity Déclaration de conformité

Wir/We/Nous, **Höntzsch GmbH**
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erklären in alleiniger Verantwortung, dass das Produkt
bearing sole responsibility, hereby declare that the product
déclarons de notre seule responsabilité que le produit

Trenn-/Speisegerät Typ
Isolation-/Supply Unit Type
Isolateur/Appareil d'alimentation
LDX2

mit der EG-Baumusterprüfbescheinigung IBExU 03 ATEX 1149
with EC-Type-Examination certificate
avec attestation d'examen CE de type

auf das sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten übereinstimmt:

referred to by this declaration is in conformity with the following standards or normative documents:
auquel se rapporte la présente déclaration est conforme aux normes ou aux documents normatifs suivants:

Bestimmung der Richtlinie Provisions of the directive Désignation de la directive	Nummer sowie Ausgabedatum der Normen No. and date of issue of the standards No. ainsi que date d'émission de la/des norme(s)
94/9/EG: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen 94/9 EC: Equipment and protective systems for use in potentially explosive atmospheres 94/9 CE: Appareils et système de protection destinés à être utilisé en emplacements dangereux	EN 50014: 1997 EN 50020: 1994 EN 50284: 1999
89/336 EWG: Elektromagnetische Verträglichkeit 89/336 EEC: Electromagnetic compatibility 89/336 CEE: Compatibilité électromagnétique	EN 50081-2: 1994 EN 61000-6-2: 2000
98/37/EG: Maschinen-Richtlinie 98/37/EC: Directive relating to machinery 98/37/CE: Directive relatives aux machines	22.06.1998

Waiblingen 01.10.2003

Ort und Datum
Place and date
Lieu et date



rechtsverbindliche Unterschrift
legally binding signature
Signature obligatoire

Freigabe durch den Ex-Beauftragten Sk 01.10.2003

Ausgabe 10/2003