



COMPACT EX1

Sicherheits-Lichtvorhang und Mehrstrahl-Sicherheits-Lichtschanke

Ergänzung zur Anschluss- und Betriebsanleitung COMPACT

Safety light curtain and Multiple light beam safety devices

A supplement to the COMPACT Connecting and Operating Instructions

Rideau photoélectrique de sécurité et rampes de sécurité à multifaisceaux

Complément aux instructions de raccordement et de service COMPACT

Cortina óptica y barrera óptica de seguridad multihaz

Complemento para las instrucciones de conexión y uso del COMPACT



About the COMPACT EX1 Connecting and Operating Instructions for zones 1 and 2 (gas) and 21 and 22 (dust)

The general COMPACT Operating Instructions form a part of the standard delivery, and are to be observed in when assembling or putting the equipment into operation, etc. This supplementary description essentially lists the modifications relevant to use in areas where there is a risk of explosion.



Any work of assembly, installation or putting the equipment into operation may be carried out only by suitably qualified professionals. In this connection it is absolutely a requirement that the COMPACT Connecting and Operating Instructions, as well as this Supplement, and particularly too the installation standards **EN 60079-14** for gas and **EN 50281-1-2** for dust should be observed.

When operating the COMPACT EX1 in 'Ex' zones, the stipulations of Directive 1999/92 EC also apply. These have been implemented in the various European countries in national law, e.g. in the Federal Republic of Germany in the Betriebssicherheitsgesetz (BetrSichG) [Operational Safety Act].

Notes regarding safety and warnings are marked by this symbol .

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Leuze lumiflex GmbH + Co. KG
Liebigstraße 4
D-82256 Fürstfeldbruck
Tel. 0 81 41 / 53 50 - 0
Fax 0 81 41 / 53 50 - 1 90
E-Mail: lumiflex@leuze.de
<http://www.leuze.de>

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1 General points




1.1 Use in accordance with the intended purpose

The COMPACT EX1 has been developed to comply with the stipulations of EC Directive 94/9/EG (the 'Ex' Directive). It falls into device group II, category 2, and is intended for use in areas where there is a risk of explosion, either in zones 1 and 2 (gas) or in zones 21 and 22 (dust). The technical specifications below apply, as indicated on the model label.

1.2 Additional EX model label

Ex model label on the housing

The model label shown here is affixed to the lid of the 'Ex' protective tube. It includes specifications for the use of the COMPACT EX1 in 'Ex' zones.

A.T.X.		Ref : 948 00SP	
Noisy le Sec - France			
TYPE	FLd	N°	Serien Nr
			LCIE 97 ATEX 6012
 0081			II 2 G - EEx d II B T6 II D T 85°C
			Ta = -20 °C / + 55 °C
			Ex d II B T6 LCIE N° 386 343
			Wartezeit vor dem Öffnen Time before opening Délai d'attente avant ouverture
			} 50 min
		Classe I IP66/67	 Nicht unter Spannung öffnen! Do not open under tension! Ne pas ouvrir sous tension!

'Ta' refers to the permissible ambient temperature for the protective tube. The Compact can operate in a temperature range between 0 and 55° C.

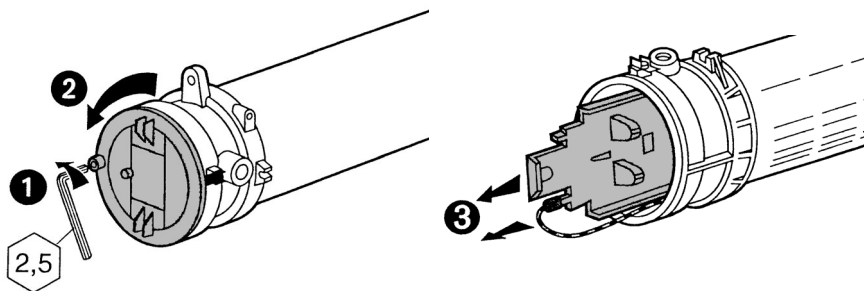
2 Assembly

The assembly and commissioning of the equipment may only be carried out during a process pause. That is to say, the transmitters and receivers must be fully assembled and connected, in accordance with the Operating Instructions, before the process can be restarted.

Please note that the glass tube is vulnerable to damage by vehicles, robot arms etc. In such cases, when operating the equipment in areas where there risk of explosion, adequate mechanical protection measures are indispensable.

The cable glands are designed for cables with an external diameter between 5 mm and 15 mm; other cables are not to be used. The cables must be laid in such a way that they cannot be accidentally damaged.

When installing, please have regard also to the correct earthing procedure and select your cable in accordance with the installation standards EN 50281-1-2 (dust) and EN 60079-14 (gas).

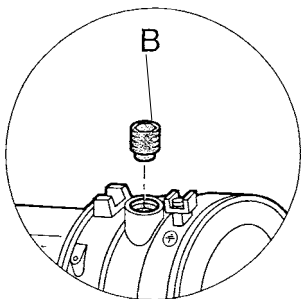


- The prescribed tightening torque is 0.85Nm (+-15%)
 1. Loosen hexagonal screw
 2. Unscrew lid
 3. Remove reflector plate and separate earth on cable lug from plug contact
 4. Disconnect plug connector



Important!! When reassembling, the earth lead must be reconnected to the inner deflection plate.

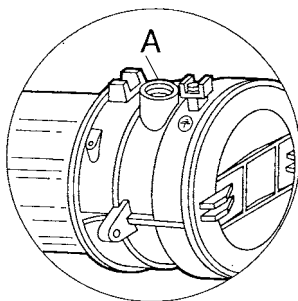
The Compact light curtain is connected in accordance with the COMPACT Connecting and Operating Instructions. The connecting cables must be inserted into the inlets of the glass tube with suitable rubber insulating materials (provided for cables of 5 mm diameter). Inlets that are not used should be closed off with filler plugs.



B: Filler plugs

After assembly and before putting the equipment into operation, you should check to see that all the fastening screws on the lid and all the cable glands are sufficiently tightened.

Before putting the equipment into operation, the external earth lead must be connected.



A: Earth lead



Warning: opening the transmitter or receiver when voltage is present can result in **sparks**, which in 'Ex' zones can cause gas or dust to explode! The equipment may therefore only be opened when the power supply has been cut off outside the 'Ex' zone and measures have been taken to ensure that it cannot be restored. A waiting period of at least 50 minutes after switching off should be observed.

3 Maintenance

COMPACT EX1 safety light curtains do not require maintenance. The front plate should be cleaned if necessary, but only with a damp cloth. Otherwise the range may be reduced, and unwanted accretions of dust may arise.

Safety label:



Frontscheibe nur mit feuchtem Tuch reinigen!

Clean screen with moist cloth only!

Ne nettoyez la vitre qu' avec un chiffon humide!

Warning: it is important that the cloth should be moist in order to avoid supplying an **electric charge** to the front plate! An electric charge may cause gas or dust to ignite!

When the equipment is assembled, the warning labels reading "Clean screen with moist cloth only!" must be clearly legible on the transmitter and the receiver.

The protective tube is supplied with the terminal faces already greased. After installation, these must be maintained in proper condition by subsequent greasing. A hardening anti-corrosion grease should be used for this purpose.

4 Testing

You should carry out regular visual inspections of the connections and the cables, but without touching them.

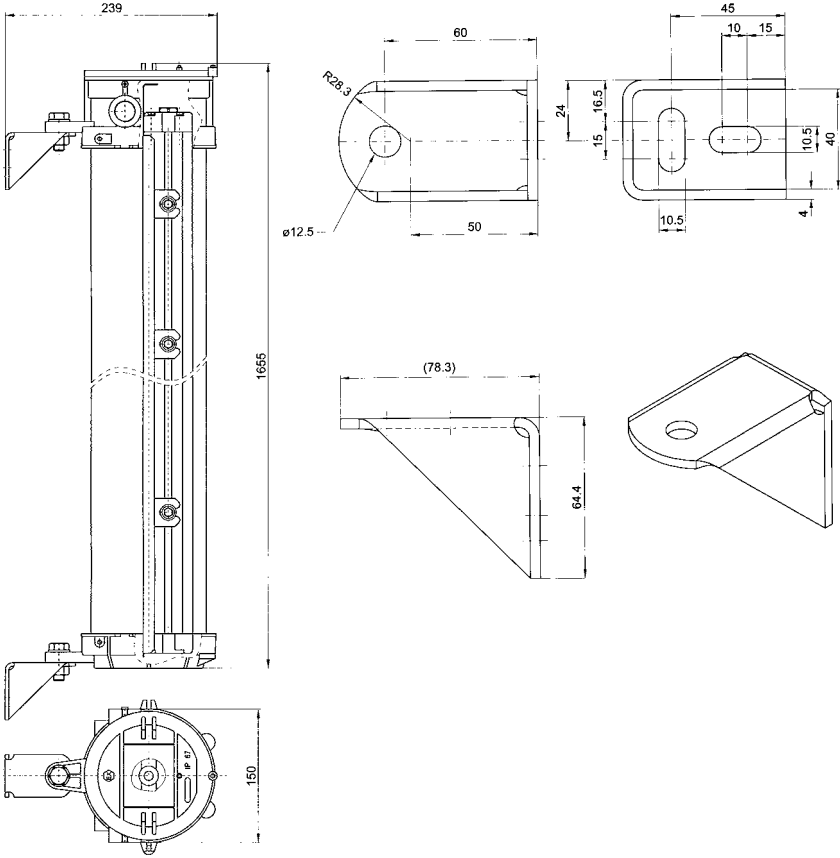


If visual inspection reveals damage to the equipment or the cables, the damaged components should not be touched! Instead, all persons present should leave the 'Ex' zone immediately and the power supply should be switched off, outside the 'Ex' zone, and measures taken to ensure that it cannot be restored. Before the equipment can be disassembled and investigated a process pause must be observed, so as to avoid the risk of explosion.

In case of need you can contact our hotline.

5 Scale drawing

Mounting bracket



ENGLISH

6 Ordering specifications

Type		Order ref.
CT14-750EX1	Receiver	569140
CR14-750EX1	Transmitter	569141
CT14-1050EX1	Receiver	569142
CR14-1050EX1	Transmitter	569143
CT14-1500EX1	Transmitter	569070
CR14-1500EX1	Receiver	569071
CT30-1500EX1	Transmitter	569072
CR30-1500EX1	Receiver	569073

7 Declaration of conformity



MATERIEL ELECTRIQUE POUR
ATMOSPHERES EXPLOSIBLES

ELECTRICAL EQUIPMENT
FOR HAZARDOUS AREAS

LABORATOIRE / LABORATORY
Z.I. rue André Durouchez
80084 AMIENS CEDEX 2- France
tél : (33) 03.22.54.27.54
fax : (33) 03.22.54.28.36

The 09th July 2003

ATTESTATION DE CONFORMITE N° 2003-12
CERTIFICATE OF CONFORMITY

PRODUIT : Cylindrical fluorescent luminaires
PRODUCT

IDENTIFICATION COMPLETE DU PRODUIT
FULL IDENTIFICATION OF THE PRODUCT

MARQUE COMMERCIALE : ATX
TRADE MARK

MODELE / TYPE REF. : Toutes réf./ All cat N°
MODEL / TYPE REF.

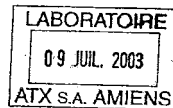
Type : FLd

OBJET: Rampes photoélectriques C14, C30, C50, C90

Nous vous confirmons que les caractéristiques électriques des rampes photoélectriques citées en objet ne remettent pas en cause les résultats d'essais obtenus sur notre appareil type FLd certifié LCIE 97 ATEX 6012.

La classe de température T6 est conservée pour les différents modèles de rampes.

Laboratory & Certification Manager
LEFRANC Emmanuel



ABF228/E



DECLARATION DE CONFORMITE
DECLARATION OF CONFORMITY

N° 5.0203-08

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29, avenue de Bobigny BP 21
93136 Noisy le Sec - France

Nous déclarons que les appareils destinés à être mis sur le marché afin d'être utilisés en atmosphères explosibles, désignés ci-après :

we declare that the fittings designed to be placed on the market for use in the explosive atmospheres described below :

LUMINAIRE type : FLd
lighting fitting

Pour Gaz / For Gas : CE 0081 Ⓢ II 2 G
EEx d IIB/IIC - T... voir annexe (see annex)

T° ambiante / ambient T° : -20° C ≤ Ta ≤ + 55° C
-40° C ≤ Ta ≤ + 50° C (70W Na - HP)

Pour poussières / For Dusts : CE 0081 Ⓢ II 2 D -
EEx d IIB/IIC - 85° C - 112° C pour/for 70W Na-HP

Indice de protection / Protection Index : IP 66/67

satisfait / satisfy : - aux dispositions de la directive 94/9/CE / the provisions of directive 94/9 EC

- aux normes / standards : EN 50014 (1992)

EN 50018 (1994)

EN 50281-1-1 (1998)

- aux variantes issues du type, et représentatives de la gamme ayant fait l'objet de l'attestation d'examen CE de type N° 97 ATEX 6012 (conformément à annexe III) et notification de l'évaluation du système qualité n° 02 ATEX Q8019 (conformément à annexe IV) délivrés par le LCIE.

variants originating from this type and representative of the range of products that have received the EC examination certification type n° 97 ATEX 6012 (in accordance with Appendix III) and the quality system evaluation notification n° 02 ATEX Q8019 (in accordance with Appendix IV) issued by the LCIE.

- aux dispositions de la directive 89/336, "COMPATIBILITE ELECTROMAGNETIQUE", modifiée par les directives 92/31/CEE 93/68 CEE, par la conformité aux spécifications suivantes :

the provisions of directive 89/336, "ELECTROMAGNETIC COMPATIBILITY", modified by directives 92/31 EEC and 93/68 EEC, in accordance with the following specifications :

EN 55015 (1996) article 4.3.1 EN 61547 (1995-96)

EN 55022 (1994) EN 61000.3.2 (2001)

au chapitre premier, article 2 de la directive 94/9 CE, par la conformité aux spécifications suivantes :

the chapter first, clause 2 in directive 94/9 EC, in accordance with the following specifications :

EN 60598-1 (2001) EN 60598-2-22 (2000)

NFC 71 800 (2000) NFC 71 801 (2000)

NFC 71 820 (1989)

sous réserve d'une utilisation conforme à leur destination et/ou d'une installation conforme aux normes en vigueur et/ou aux recommandations du constructeur.

subject to use for the purpose for which they were designed and/or installed in accordance with standards in force and/or with the manufacturer's recommendations.

Le produit désigné a été conçu, fabriqué et contrôlé dans le cadre d'un système d'assurance qualité certifiée conforme à :
The said product has been designed, manufactured and controlled within the guidelines of a quality insurance system which is certified to be conform with :

EN ISO 9001 (2000)

par l'Association Française pour l'Assurance de la Qualité (A.F.A.Q.) / *by the Association Française pour l'Assurance de la Qualité (A.F.A.Q.)*

Certificat n° / *Certificate n°* 1994/2021c

Date d'obtention / *Date of issue* : 11/07/2002

Site / *Plant* : Noisy / Amiens

Amiens, le 17 avril 2003

JC MARECHAL
Resp. Qualité Sécurité et Environnement
Quality, Security and Environment Manager

Année d'apposition du marquage CE : 1995

Year of affixing CE marking :

L'organisme notifié chargé de la surveillance est : / *The notified body responsible for monitoring is :*
LCIE (N° identification 0081) - B.P. 8 - F 92266 Fontenay-aux-Roses Cedex

Téléphone : (+33) 03 22 54 27 54

Fax : (+33) 03 22 54 27 99

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