

Safety Instructions

Nivotester FailSafe FTL825

ATEX: II (1) G [Ex ia Ga] IIC
II (1) D [Ex ia Da] IIIC
IECEX: [Ex ia Ga] IIC
[Ex ia Da] IIIC



Document: XA00603F-B
Safety instructions for electrical apparatus for explosion-
hazardous areas →  5

IT - Istruzioni di sicurezza per apparecchiature elettriche certificate per l'utilizzo in aree con pericolo di esplosione. Se il presente manuale non risulta comprensibile potete ordinarvene una copia tradotta nella vostra lingua.

Dichiarazione di conformità UE

Con questa dichiarazione e con l'applicazione del marchio CE, il costruttore Endress+Hauser, assicura che il prodotto è conforme alle direttive europee vigenti. Prova della conformità è fornita dall'osservanza delle direttive, delle norme e dei documenti elencati.

LT - Elektros įrenginio saugumo nurodymai, susiję su sprogimo zonomis. Jeigu negalite perskaityti šios instrukcijos, kreipkitės į mus, kad užsisakytumėte į jūsų gimtąją kalbą išverstą instrukciją.

ES atitikties deklaracija

Gamintojas Endress+Hauser šia atitikties deklaracija ir CE ženkliniu patvirtina, kad gaminyje atitinka taikytinas ES direktyvas. Taikomos direktyvos, normos ir dokumentai yra pateikiami atitikties deklaracijoje.

LV - Drošības norādījumi elektrisko darba instrumentu lietošanai apgabalos, kas pakļauti sprādzienbīstamībai. Ja Jums nav iespēju izlasīt šos norādījumus, Jūs varat pasūtīt pie mums tulkojumu Jūsu valsts valodā.

ES atbilstības deklarācija

Ražotājs Endress+Hauser ar šo atbilstības apliecinājumu un CE zīmola lietojumu apstiprina, ka produkts izgatavots saskaņā ar atbilstošajām Eiropas vadlīnijām. Piemērotās vadlīnijas, normas un dokumenti atrunāti atbilstības apliecinājumā.

NL - Veiligheidsinstructies voor elektrisch materieel in explosiegevaarlijke omgeving. Wanneer u deze handleiding niet kunt lezen, kunt u een in uw landstaal vertaalde handleiding bij ons bestellen.

EU-conformiteitsverklaring

De leverancier Endress+Hauser waarborgt met deze verklaring en het aanbrengen van het CE-teken, dat dit product overeenstemt met de geldende Europese richtlijnen. De geldende richtlijnen, normen en documenten zijn aangegeven in de conformiteitsverklaring.

PL - Wskazówki dot. bezpieczeństwa dla urządzeń elektrycznych stosowanych w obszarze zagrożonym wybuchem. Jeśli niniejsza instrukcja napisana jest w języku, którym się nie posługujesz, możesz zamówić u nas przetłumaczony dokument.

Deklaracja zgodności UE

Producent Endress+Hauser w niniejszej deklaracji zgodności wraz z nadaniem znaku CE oświadcza, że produkt ten jest zgodny z obowiązującą Europejską Dyrektywą. Zastosowane wytyczne, normy oraz dokumenty podane są w deklaracji zgodności.

PT - Instruções de segurança para dispositivos eléctricos certificados para utilização em áreas de risco de incêndio. Se não compreender este manual, pode encomendar-nos directamente uma cópia na sua língua.

Declaração UE de conformidade

Com esta declaração de conformidade e a aplicação da marca CE, o fabricante Endress+Hauser, garante que o produto obedece às directivas europeias a aplicar. As directivas, normas e documentos são apresentadas na declaração de conformidade.

RO - Indicații de siguranță pentru mijloacele de producție electrice pentru zonele periclitate de explozie. Dacă nu puteți citi aceste instrucțiuni, atunci puteți comanda la noi instrucțiunile traduse în limba țării dumneavoastră.

Declarația UE de conformitate

Producătorul Endress+Hauser declară prin declarația de conformitate alăturată și prin aplicarea semnului CE că acest produs corespunde directivelor europene aplicabile. Directivele, normele aplicate și documentele sunt menționate în declarația de conformitate.

SK - Bezpečnostné pokyny pre elektrické zariadenie prevádzkované v priestoroch s nebezpečenstvom výbuchu. Ak nemáte možnosť 'prečítať' si tento návod, môžete si u nás objednať návod preložený do svojho jazyka.

EÚ vyhlásenie o zhode

Spoločnosť Endress+Hauser vyhlasuje prostredníctvom tohto vyhlásenia o konformite a použitím značky CE, že tento výrobok vyhovuje príslušným európskym smerniciam. Zmieňované smernice, normy a dokumenty sú uvedené vo Vyhlásení o konformite.

SL - Varnostni napotki glede električne opreme, namenjene za uporabo veksplzivnih območjih. Če teh navodil ne morete razumeti, lahko pri nas naročite prevod v vaš jezik.

Izjava EU o skladnosti

Proizvajalec Endress+Hauser s to izjavo o skladnosti in navedbo oznake CE izjavlja, da je ta izdelek skladen s predpisanimi evropskimi smernicami. Upoštewane smernice, standardi in dokumenti so navedeni v izjavi o skladnosti.

SV - Säkerhetsföreskrifter för elektrisk utrustning certifierad för användning i explosionsfarliga områden. Om du inte förstår denna manual, kan en översatt kopia på ditt eget språk beställas från oss.

EU-försäkran om överensstämmelse

Endress+Hauser försäkrar med vidstående försäkran om överensstämmelse och med CE-märkningen att denna produkt överensstämmer med de tillämpbara europeiska riktlinjerna. De tillämpade riktlinjerna, normerna och dokumenten anges i försäkran om överensstämmelse.

BG - Правила за техниката на безопасност за електрически средства за производство във взривоопасни зони. Ако не разбирате езика на това ръководство има възможност да спорячате при нас едно ръководство, преведено на езика на Вашата страна.

ЕС декларация за съответствие

Производителят Endress+Hauser декларира с това заявление за съответствие и с предявяването на сертификата CE, че този продукт отговаря на изискванията на съответните европейски директиви. Прилаганите директиви, норми и документи са указани в заявлението за съответствие.

CS - Bezpečnostní pokyny pro elektrické přístroje v místech s nebezpečím výbuchu. Pokud nemáte možnost přečíst si tento návod, můžete si u nás objednat návod přeložený do svého jazyka.

EU prohlášení o shodě

Společnost Endress+Hauser prohlašuje prostřednictvím tohoto prohlášení a použitím značky CE, že tento výrobek vyhovuje příslušným evropským směrnicím. Zmíněné směrnice, normy a dokumenty jsou uvedeny v Prohlášení o shodě.

DA - Sikkerhedsforskrifter for elektriske apparater certificeret til brug i eksplosionsfarlige områder. Hvis du ikke forstår denne manual, kan en oversat kopi af den på dit eget sprog bestilles fra os.

EU-overensstemmelseserklæring

Med denne overensstemmelseserklæring og tilføjelsen af CE-mærket sikrer producenten Endress+Hauser, at produktet er i overensstemmelse med relevante europæiske direktiver. Dokumentation for overensstemmelsen gives i de anførte direktiver, standarder og dokumenter.

EL - Οδηγίες ασφαλείας ηλεκτρικών συσκευών για επικίνδυνες για έκρηξη περιοχές. Σε περίπτωση που δεν μπορείτε να διαβάσετε αυτές τις οδηγίες, τότε μπορείτε να παραγγείλετε ένα αντίτυπο μεταφρασμένο στη γλώσσα σας.

Δήλωση συμμόρφωσης ΕΕ

Με αυτή τη δήλωση πιστότητας και την τοποθέτηση του σήματος CE ο κατασκευαστής Endress+Hauser δηλώνει, ότι αυτό το προϊόν συμμορφώνεται με τις ευρωπαϊκές οδηγίες που πρέπει να εφαρμόστούν. Οι οδηγίες, τα πορότυπα και τα έγγραφα που εφαρμόστηκαν αναφέρονται στη δήλωση πιστότητας.

ES - Instrucciones de seguridad de aparatos eléctricos homologados para su utilización en áreas expuestas a riesgos de deflagración. Si no entiende este manual, puede pedir un ejemplar en su idioma.

Declaración UE de conformidad

Por la presente declaración y la inclusión de la marca CE, el fabricante Endress+Hauser, declara que el producto cumple con las directivas europeas pertinentes. Las directivas, normas y documentos de aplicación se indican en la declaración de conformidad.

ET - Ohutusjuhised plahvatusohtlikus keskkonnas kasutatavate elektriseadmete kohta. Kui Te ei saa käesolevast juhendist aru, võite meilt tellida Teie riigikeelde tõlgitud juhendi.

EL i vastavusdeklaratsioon

Tootja Endress+Hauser kiinnitab juurdelisatud vastavusdeklaratsiooni esitamisega ja CE-märgise kandmisega tootele, et käesolev toode vastab kohaldatavate Euroopa Liidu direktiivide nõuetele. Kohaldatavad direktiivid, standardid ja dokumendid on ära toodud vastavusdeklaratsioonis.

FI - Turvallisuusohjeita sähkölaitteille, jotka on vahvistettu käytettäväksi räjähdysvaarallisilla alueilla. Jos et ymmärrä tätä käsikirjaa, voit tilata meiltä käännöksen omalla kansallisella kielelläsi.

EU-vaatimustenmukaisuusvakuutus

Valmistaja Endress+Hauser vakuuttaa tällä vaatimustenmukaisuusodistuksella ja CE-merkin kiinnittämisellä, että tämä tuote täyttää sovellettavien EU-direktiivien määräykset. Sovellettavat direktiivit, normit ja dokumentit on merkitty vaatimustenmukaisuusodistukseen.

HR - Sigurnosni naputci za elektromaterijal u sredini u kojoj prijeti opasnost od eksplozije. Ako Vam nije moguće čitati ovaj naputak, onda imate mogućnost da kod nas naručite naputak sastavljen na Vašem materinskom jeziku.

EU izjava o sukladnosti

Dobavljač Endress+Hauser jamči ovom izjavom i stavljanjem oznake CE da ovaj proizvod udovoljava zahtjevima europskih direktiva koje su na snazi. U izjavi o usuglašenosti se navode direktive, norme i dokumenti koji su na snazi.

HU - Biztonsági információk robbanásveszélyes területre való elektromos eszközökhöz. Amennyiben nem tudja elolvasni ezt az útmutatót, akkor megrendelheti az Ön anyanyelvére lefordítva is.

EU-megfelelőségi nyilatkozat

Az Endress+Hauser mint gyártó jelen megfeleléségi nyilatkozattal és a CE-jelzés felhelyezésével kijelenti, hogy ez a termék megfelel az alkalmazandó európai irányelveknek. Az alkalmazott irányelvek, szabványok és dokumentumok a megfeleléségi nyilatkozatban fel vannak tüntetve.

EU-Konformitätserklärung
EU-Declaration of Conformity
Déclaration UE de Conformité

Endress+Hauser 
People for Process Automation



Company	Endress+Hauser SE+Co. KG, Hauptstraße 1, 79689 Maulburg erklärt als Hersteller in alleiniger Verantwortung, dass das Produkt declares as manufacturer under sole responsibility, that the product déclare sous sa seule responsabilité en qualité de fabricant que le produit		
Product	NIVOTESTER FailSafe FTL825		
Regulations	den folgenden Europäischen Richtlinien entspricht: conforms to following European Directives: est conforme aux prescriptions des Directives Européennes suivantes : ATEX 2014/34/EU (L96/309) EMC 2014/30/EU (L96/79) LVD 2014/35/EU (L96/357) RoHS 2011/65/EU (L174/88)		
Standards	angewandte harmonisierte Normen oder normative Dokumente: applied harmonized standards or normative documents: normes harmonisées ou documents normatifs appliqués : EN 50581 (2012) EN 60079-11 (2012) EN 61010-1 (2010) EN IEC 60079-0 (2018) EN 61326-1 (2013) EN 61326-2-3 (2013)		
Certification	EG-Baumusterprüfbescheinigung Nr. EC-Type Examination Certificate No. Numéro de l'attestation d'examen CE de typ Ausgestellt von/issued by/délivré par Qualitätssicherung Quality assurance Système d'assurance qualité	FM12ATEX0037X FM Approvals Europe Ltd. (2809) TÜV Nord CERT (GmbH) (0044)	

Maulburg, 24.09.2019
Endress+Hauser SE+Co. KG


i.V. Dr. Arno Götz
Abteilungsleiter Produktsicherheit
Department Manager Product Safety
Responsable de certification

EG 12 002-f

Nivotester FailSafe FTL825

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Associated documentation

This document is an integral part of the following Operating Instructions:
BA01038F/00

Supplementary documentation

Explosion-protection brochure: CP00021Z/11

The Explosion-protection brochure is available:

- In the download area of the Endress+Hauser website:
www.endress.com -> Downloads -> Media Type:
Documentation -> Documentation Type: Brochures and catalogs ->
Text Search: CP00021Z
- On the CD for devices with CD-based documentation

Manufacturer's certificates**EU Declaration of Conformity**

→  4

EU type-examination certificate

Certificate number:

FM 12 ATEX 0037 X

List of applied standards: See EU Declaration of Conformity.

IEC Declaration of Conformity

Certificate number:

IECEx FMG 12.0015X

Affixing the certificate number certifies conformity with the following standards (depending on the device version):

- IEC 60079-0 : 2017
- IEC 60079-11 : 2011

Manufacturer address

Endress+Hauser SE+Co. KG

Hauptstraße 1

79689 Maulburg, Germany

Address of the manufacturing plant: See nameplate.

Other standards

Among other things, the following standards shall be observed in their current version for proper installation:

- IEC/EN 60079-14: "Explosive atmospheres - Part 14: Electrical installations design, selection and erection"
- EN 1127-1: "Explosive atmospheres - Explosion prevention and protection - Part 1: Basic concepts and methodology"

Extended order code

The extended order code is indicated on the nameplate, which is affixed to the device in such a way that it is clearly visible. Additional information about the nameplate is provided in the associated Operating Instructions.

Structure of the extended order code

FTL825	–	*****	+	A*B*C*D*E*F*G*..
<i>(Device type)</i>		<i>(Basic specifications)</i>		<i>(Optional specifications)</i>

* = Placeholder

At this position, an option (number or letter) selected from the specification is displayed instead of the placeholders.

Basic specifications

The features that are absolutely essential for the device (mandatory features) are specified in the basic specifications. The number of positions depends on the number of features available.

The selected option of a feature can consist of several positions.

Optional specifications

The optional specifications describe additional features for the device (optional features). The number of positions depends on the number of features available. The features have a 2-digit structure to aid identification (e.g. JA). The first digit (ID) stands for the feature group and consists of a number or a letter (e.g. J = Test, Certificate). The second digit constitutes the value that stands for the feature within the group (e.g. A = 3.1 material (wetted parts), inspection certificate).

More detailed information about the device is provided in the following tables. These tables describe the individual positions and IDs in the extended order code which are relevant to hazardous locations.

Extended order code: Nivotester FailSafe

-  The following specifications reproduce an extract from the product structure and are used to assign:
- This documentation to the device (using the extended order code on the nameplate).
 - The device options cited in the document.

Device type
FTL825

Basic specifications

Position 1, 2 (Approval)		
Selected option		Description
FTL825	B2	ATEX II (1) G Ex ia Ga IIC ATEX II (1) D Ex ia Da IIIC
	I2	IECEX Ex ia Ga IIC IECEX Ex ia Da IIIC
	8B	ATEX/IECEX Ex ia G/D ATEX II (1) G Ex ia Ga IIC ATEX II (1) D Ex ia Da IIIC IECEX Ex ia Ga IIC IECEX Ex ia Da IIIC

Position 3 (Housing)		
Selected option		Description
FTL825	3	Rail mounting; 45 mm, 1-channel

Position 4 (Power Supply)		
Selected option		Description
FTL825	A	85-253 VAC/DC
	E	20-30 VAC/20-60 VDC

Position 5 (Switch Output)		
Selected option		Description
FTL825	4	2x SPST safety contact level + 1x SPST signal contact + 1x SPDT alarm

Optional specifications

ID Lx (Additional Approval)		
Selected option		Description
FTL825	LC	WHG overfill prevention, Leakage
	LE	GL marine certificate
	LF	ABS marine approval
	LG	LR marine approval
	LH	BV marine approval
	LV	VdTÜV100 liquified gas approval

ID Px, Rx (Accessory Enclosed)		
Selected option		Description
FTL825	PA	Field housing, R4 182x180x165, 5xM20, PC, IP66

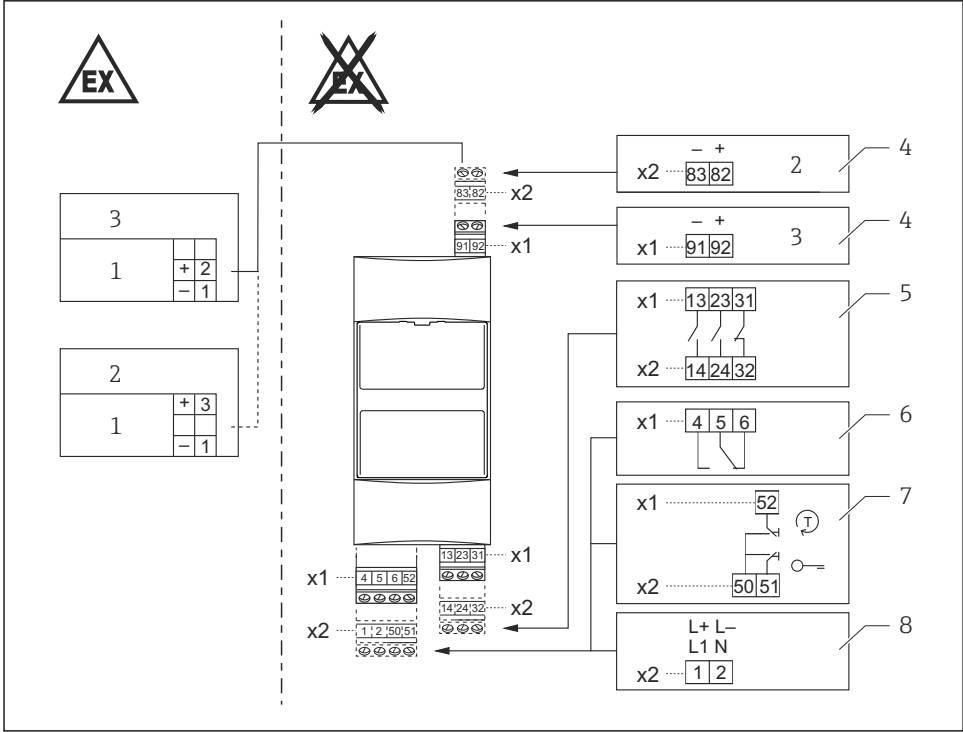
Safety instructions:
General

- Staff must meet the following conditions for mounting, electrical installation, commissioning and maintenance of the device:
 - Be suitably qualified for their role and the tasks they perform
 - Be trained in explosion protection
 - Be familiar with national regulations
- Install the device according to the manufacturer's instructions and national regulations.
- Do not operate the device outside the specified electrical, thermal and mechanical parameters.
- Avoid electrostatic charging:
 - Of plastic surfaces (e.g. housing, sensor element, special varnishing, attached additional plates, ..)
 - Of isolated capacities (e.g. isolated metallic plates)
- Modifications to the device can affect the explosion protection and must be carried out by staff authorized to perform such work by Endress+Hauser.

Safety instructions:
Special conditions

Permitted ambient temperature range at the electronics housing:
 $-20\text{ °C} \leq T_a \leq +60\text{ °C}$
 In case of series installation: Restriction to $-20\text{ °C} \leq T_a \leq +50\text{ °C}$

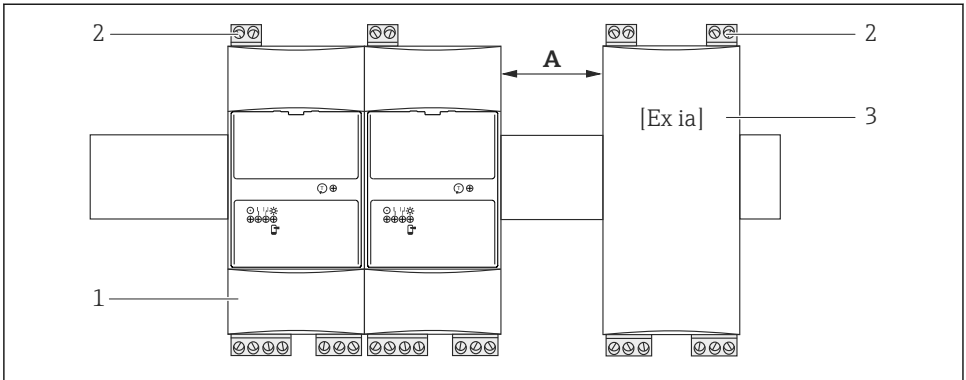
**Safety
instructions:
Installation**



A0025641



- 1 Liquiphant FailSafe FTL8x, Ex ia IIC with electronics FEL85
- 2 Min. level safety
- 3 Max. level safety
- 4 Sensor
- 5 Level relay
- 6 Fault signal relay
- 7 Remote operation: test and unlocking
- 8 Power supply



A0025642

 2

A Min. 6 mm

1 Nivotester FTL825

2 Intrinsically safe contacts

3 Other type, other product

- To achieve an ingress protection of at least IP55: Protect the device from dust and humidity, e.g. in control rooms, or located in a suitable protective housing.
- The device is an associated apparatus: Only use the device outside explosion hazardous areas.
- If an intrinsically safe circuit is connected to the device passes through dust explosion-hazardous areas of Zones 20 or Zone 21, make sure that the devices connected to this circuit meet the requirements of categories 1 D or 2 D and are certified accordingly.
- There must be a distance (thread measure) of at least 50 mm between intrinsically safe and nonintrinsically safe terminals.
- When combining the device with other types and products on the same top-hat rail: Keep the distances comply to the relevant standards and rules.

Intrinsic safety

The intrinsically-safe input circuits are galvanically isolated from other circuits up to a peak value of the nominal voltage of 375 V.

Temperature tables

Ambient temperature range

Individual installation
-20 to +60 °C
Series installation
-20 to +50 °C

Connection data

Power supply circuit

Basic specification, Position 4 (Power Supply) = A

Terminal 1, 2
Power supply U = 85 to 253 V _{AC} , 50/60 Hz P ≤ 3.8 VA U = 85 to 253 V _{DC} P ≤ 2 W

Basic specification, Position 4 (Power Supply) = E

Terminal 1, 2
Power supply U = 20 to 30 V _{AC} , 50/60 Hz P ≤ 3.6 VA U = 20 to 60 V _{DC} P = 2.5 W

Contact circuit

Fault signal relay:	Terminal 4, 5, 6
Level relay:	Terminal 13, 14 Terminal 23, 24 Terminal 31, 32
Power supply U ≤ 253 V _{AC} I ≤ 2 A P ≤ 500 VA at cos φ >0.7 U ≤ 40 V _{DC} I ≤ 2 A P ≤ 80 W	

Sensor circuit



Only connect the device to terminals 82 and 83 or terminals 91 and 92, respectively.

Min. level safety:	Terminal 82 (+) Terminal 83 (-)			
Max. level safety:	Terminal 91 (-) Terminal 92 (+)			
Connection data:	U _o = 22 V I _o = 166 mA P _o = 970 mW			
Max. external capacitance at max. external inductance	[Ex ia Ga] IIC		[Ex ia Ga] IIB	
	L _o	C _o	L _o	C _o
	0.15 mH	100 nF	0.15 mH	700 nF
	0.50 mH	40 nF	0.50 mH	500 nF
	1.00 mH	20 nF	1.00 mH	500 nF
	-	-	2.00 mH	500 nF

	[Ex ia Ga] IIC		[Ex ia Ga] IIB		[Ex ia Ga] IIA	
	L _o	C _o	L _o	C _o	L _o	C _o
Max. external capacitance or max. external inductance	2.8 mH	165 nF	12.0 mH	1.14 µF	30 mH	4.2 µF



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