



Level



Pressure



Flow



Temperature



Liquid  
Analysis



Registration



Systems  
Components



Services



Solutions

Safety Instructions

# Nivotester FTL375N

Ex ia IIC, Ex ib IIC  
NEPSI GYJ06429



**XA399F-A**

**en** - Safety instructions for electrical apparatus for explosion-hazardous areas.

**zh** - 爆炸环境中电气仪表的安全指南。



# Nivotester FTL375N

english

**Associated  
Documentation**

This document is an integral part of the following Operating Instructions:  
KA177F/00, KA178F/00, KA179F/00, TI361F/00

The Operating Instructions which are supplied and correspond to the device type apply.

**Designation**

Explanation of the labelling and type of protection can be found in the explosion protection brochure.

**Designation of explosion protection**

[Ex ia] IIC  
[Ex ib] IIC

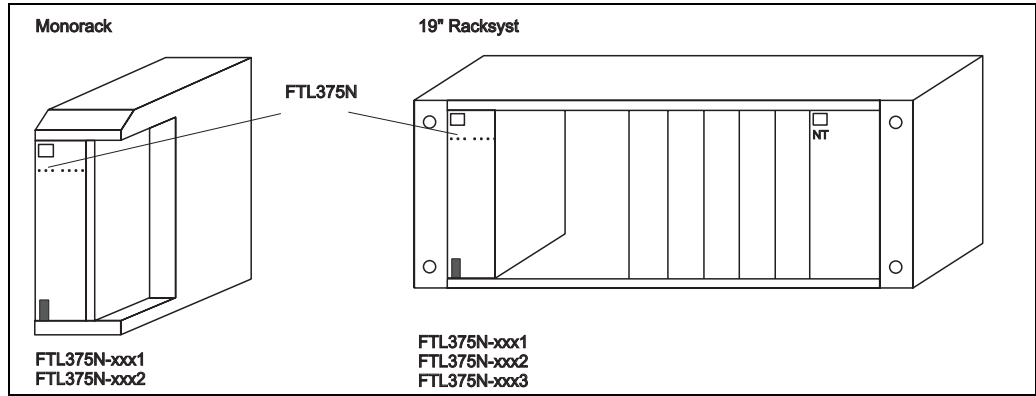


Fig. 1

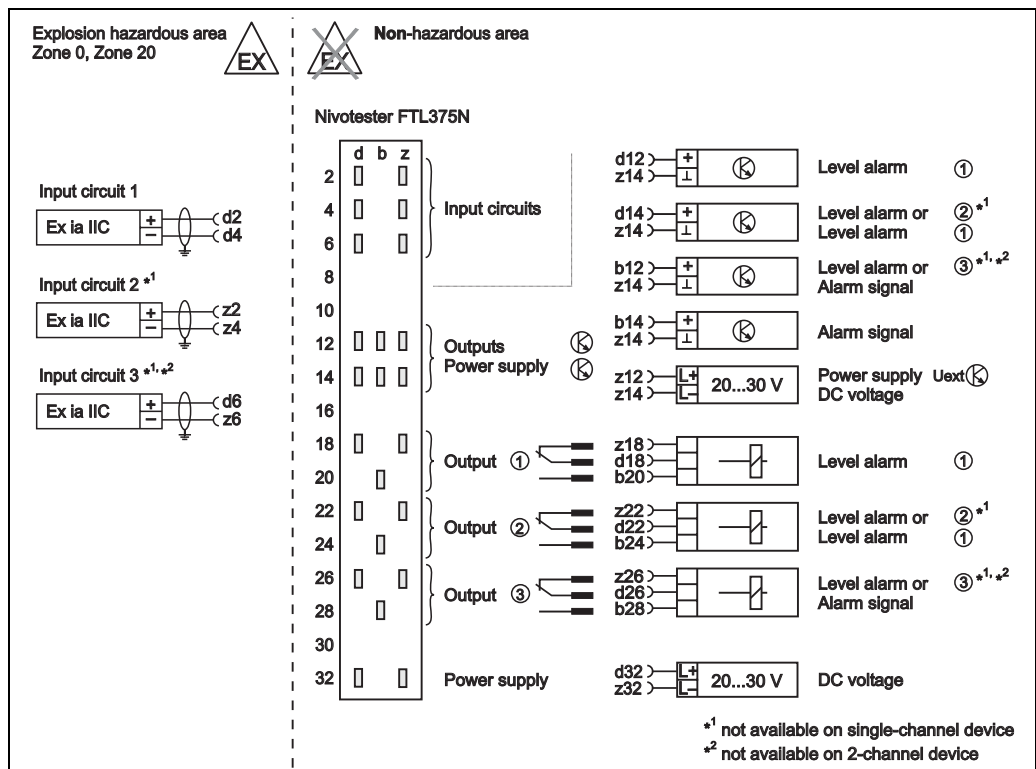


Fig. 2

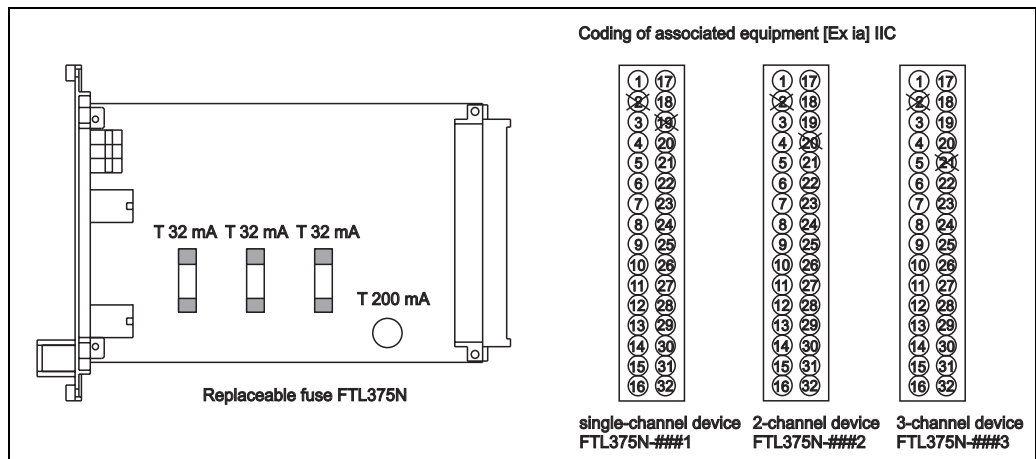


Fig. 3

**Safety instructions:  
Installation**

1. Install the device according to the manufacturer's instructions and any other valid standards and regulations.
2. Comply with the installation and safety instructions in the Operating Instructions.
3. Do not operate the device outside the specified electrical and thermal parameters.
4. The device is an associated apparatus and may only be used outside explosion hazardous areas.
5. Install the device so that an ingress protection of at least IP20 is achieved to EN 60529.
6. There must be a distance (thread measure) of at least 50 mm between intrinsically-safe and non-intrinsically-safe terminals (e.g. using an insulated partition).
7. If the module is to be installed into a conventional 19" rack, the requirements specified in EN 50020/ IEC 60079-11 with respect to the distances to adjacent modules shall be observed.
8. If the module is installed on the certified Racksyst (Endress+Hauser) rack, the following safety instructions met: No. 5 and No. 7
9. Only the single-channel device (FTL375N-###1) or the 2-channel device (FTL375N-###2) may be used in the Monorack.
10. The intrinsically-safe input circuits are galvanically isolated from other circuits up to a peak value of the nominal voltage of 375 V.
11. Fuses shall only be replaced by those of the same style and same rating.
12. For installation, use and maintenance of the device, users must also observe the requirements stated in the Operating Instructions and the standards GB50257-1996, GB3836.13-1997 and GB3836.15-2000.

Operating temperature range:		$-20\text{ °C} \leq T_{\text{amb}} \leq +70\text{ °C}$	
Power supply:	Contacts z32, d32	U = 20...30 V DC, P approx. 3.8 W U <sub>m</sub> = 253 V AC	
Contact power circuits:	Contacts z18, d18, b20 z22, d22, b24 z26, d26, b28	Alternating current U ≤ 253 V I ≤ 2.5 A P ≤ 300 VA at cos φ ≥ 0.7	Direct current U ≤ 100 V I ≤ 2.5 A P ≤ 100 W
Switching outputs:	Contacts d12, z14 d14, z14 b12, z14 b14, z14	I ≤ 500 mA	
Power supply Uext:	Contacts z12, z14	20...30 V DC	

Input circuit 1:	Contacts d2, d4	<b>Connection data</b>	
Input circuit 2:	Contacts z2, z4	U <sub>o</sub> ≤ 13.9 V	C <sub>i</sub> = 0
Input circuit 3:	Contacts d6, z6	I <sub>o</sub> ≤ 33 mA	L <sub>i</sub> = 0
		P <sub>o</sub> ≤ 113 mW	
		<b>Ex ia IIC</b>	
		<b>L<sub>o</sub></b>	<b>C<sub>o</sub></b>
	max. external capacitance at max. external inductance	0.5 mH	0.5 μF
		1.0 mH	0.45 μF
	max. external capacitance or max. external inductance	32 mH	0.74 μF
		<b>Ex ib IIC</b>	
		<b>L<sub>o</sub></b>	<b>C<sub>o</sub></b>
	max. external capacitance or max. external inductance	32 mH	0.74 μF



# Nivotester FTL375N

中文

## 相关资料

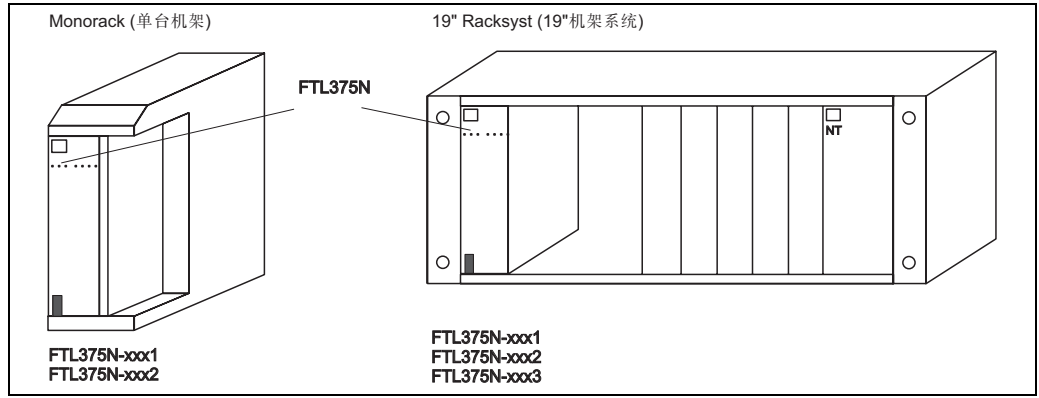
本文档是下列操作手册的组成部分：  
KA177F/00、KA178F/00、KA179F/00、TI361F/00  
根据用户订购仪表的具体型号所提供的相应操作手册。

## 名称

防爆标志和防护类型的说明请查询防爆手册。

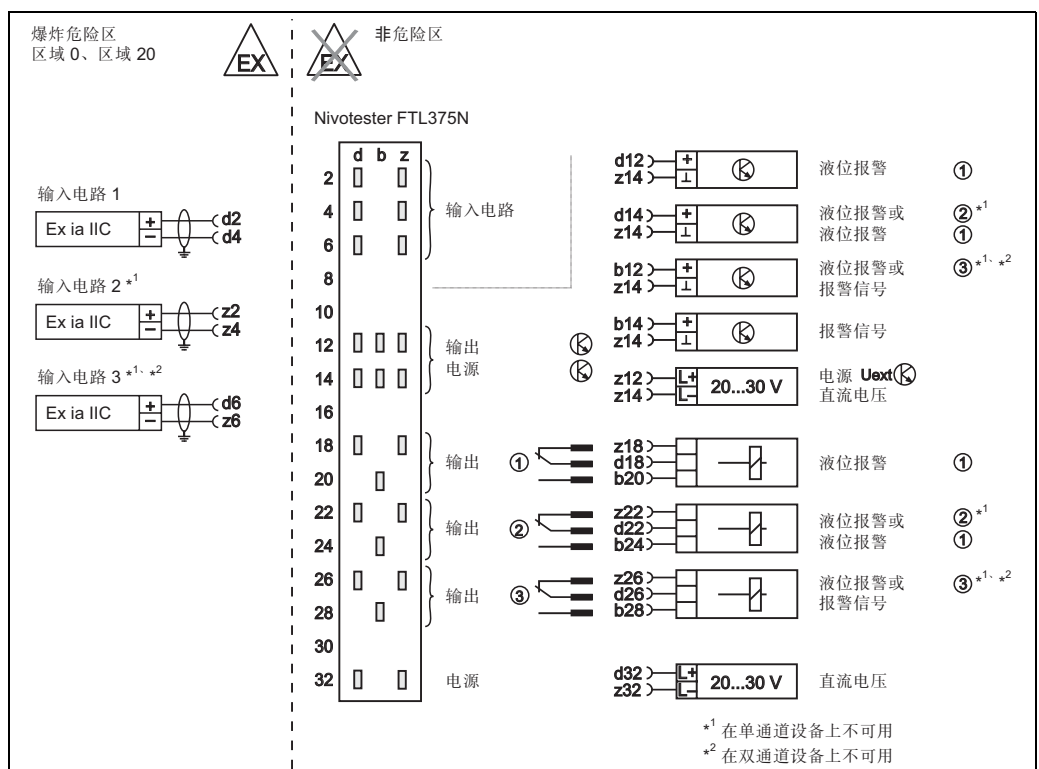
防爆代号

[Ex ia] IIC  
[Ex ib] IIC



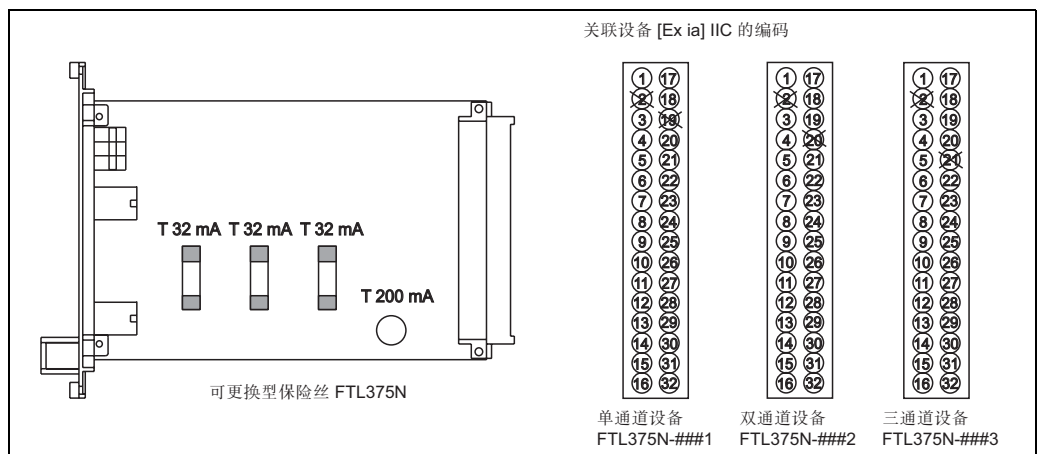
XA399zh01

图 1



XA399zh02

图 2



XA399zh03

图 3



安全指南：  
安装

1. 按照制造商的说明及其他有效标准和规定来安装设备。
2. 遵守操作说明中的安装和安全指南。
3. 使用设备时请勿超出指定的电、热参数。
4. 本设备是一种关联设备，只能在爆炸危险区外使用。
5. 设备的安装方式应使其至少达到 EN 60529 规定的 IP20 入口保护等级。
6. 本安型和非本安型端子之间必须至少有 50 mm 的距离 ( 螺纹测量 ) ( 例如，使用绝缘隔板 )。
7. 如果要将模块安装在常规 19" 机架中，则必须遵守 EN 50020/ IEC 60079-11 中规定的关于相邻模块间距的要求。
8. 如果将模块安装在经认证的 Racksyst (Endress+Hauser) 机架上，须遵守下列安全指南：第 5 号 和第 7 号
9. 只有单通道设备 (FTL375N-###1) 或双通道设备 (FTL375N-###2) 可以在 Monorack ( 机架 ) 中使用。
10. 本安型输入电路应与标称电压最高达 375 V 峰值的其他电路电绝缘。
11. 必须使用相同型号、相同额定值的保险丝来更换原保险丝。
12. 在安装、使用和维护设备时，用户必须遵守操作手册和 GB50257-1996、GB3836.13-1997 及 GB3836.15-2000 标准中规定的要求。

工作温度范围：	$-20\text{ }^{\circ}\text{C} \leq T_{\text{amb}} \leq +70\text{ }^{\circ}\text{C}$			
电源：	触点	z32、d32	U = 20...30 V DC, P 约为 3.8 W U <sub>m</sub> = 253 V AC	
触点电源电路：	触点	z18、d18、b20 z22、d22、b24 z26、d26、b28	交流 U ≤ 253 V I ≤ 2.5 A P ≤ 300 VA 当 cos φ ≥ 0.7 时	直流 U ≤ 100 V I ≤ 2.5 A P ≤ 100 W
切换输出：	触点	d12、z14 d14、z14 b12、z14 b14、z14	I ≤ 500 mA	
电源 U <sub>ext</sub> ：	触点	z12、z14	20...30 V DC	

输入电路 1：	触点	d2、d4	<b>连接数据</b> U <sub>o</sub> ≤ 13.9 V C <sub>i</sub> = 0	
输入电路 2：	触点	z2、z4	I <sub>o</sub> ≤ 33 mA L <sub>i</sub> = 0	
输入电路 3：	触点	d6、z6	P <sub>o</sub> ≤ 113 mW	
			<b>Ex ia IIC</b>	
			<b>L<sub>o</sub></b>	<b>C<sub>o</sub></b>
在最大外部电感时的最大外部电容			0.5 mH	0.5 μF
			1.0 mH	0.45 μF
最大外部电容或最大外部电感			32 mH	0.74 μF
如果使用防爆组 [Ex ib] IIC， 则应用被限制为 <b>II (2) GD</b>			<b>Ex ib IIC</b>	
			<b>L<sub>o</sub></b>	<b>C<sub>o</sub></b>
最大外部电容或最大外部电感			32 mH	0.74 μF





[www.endress.com/worldwide](http://www.endress.com/worldwide)

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