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Modular Analyzing System
Protos Type 3400X */* and Protos II Type 4400X */*****

Hazardous Location

Enclosure NEMA Type 4X, IP 65
 Tamb = -20 °C to 50 °C

Base 3400X */* or 4400X */***, Front 4400X *-01***

Class I, Zone 1, AEx eb ib mb [ja Ga] Group IIC T4 Gb (US)
 Class I, Zone 1, Ex eb ib mb [ja Ga] Group IIC T4 Gb (CA)
 NI Class I, Division 2, Groups ABCD T4 including nonincendive field wiring

NI Class II,III, Division 2, Groups FG including nonincendive field wiring

or with ZU1042

Class I, Zone 1, AEx ec ib mb [ja Ga] Group IIC T4 Gb (US)
 Class I, Zone 1, Ex ec ib mb [ja Ga] Group IIC T4 Gb (CA)
 NI Class I, Division 2, Groups ABCD T4

NI Class II,III, Division 2, Groups FG

Measuring Modules

PH 3400X-03*, COND 3400X-04*, OXY 3400X-06*, CONDI 3400X-05*, CO2 3400X-130, MS 3400X-16*, PHU 3400X-11*, FIU 3400X-140-2, COM** 3400X-08*, MS 4400X-16*, MSU 4400X-18*

Class I, Zone 1, AEx ib [ja Ga] Group IIC T4 Gb (US)
 Class I, Zone 1, Ex ib [ja Ga] Group IIC T4 Gb (CA)
 IS Class I, Division 1, Groups ABCD associated apparatus / appareillage associé
 NI Class I, Division 2, Groups ABCD T4 nonincendive field wiring

IS Class II,III, Division 1, Groups EFG associated apparatus / appareillage associé
 NI Class II,III, Division 2, Groups FG nonincendive field wiring

Communication Modules

OUT 3400X-071, PID 3400X-121

Class I, Zone 1, AEx ib Group IIC T4 Gb (US)
 Class I, Zone 1, Ex ib Group IIC T4 Gb (CA)
 NI Class I, Division 2, Groups ABCD T4 nonincendive field wiring

NI Class II,III, Division 2, Groups FG nonincendive field wiring

Installation Notes for hazardous Locations

See Attachment to Certificate of Conformity IECEx DEK 11.0054 for entity parameters and Installation Guide for electrical, mechanical and environmental parameters.

- The Intrinsic Safety Entity concept allows the interconnection of NRTL approved intrinsically safe devices with entity parameters not specifically examined in combination as a systems when:
 U_o or V_o or $V_t \leq V_{max}$, I_o or I_{sc} or $I_t \leq I_{max}$, $P_o \leq P_i$, C_a or $C_o \geq \sum C_i + \sum C_{cable}$. For inductance use either L_a or $L_o \geq \sum L_i + \sum L_{cable}$ or $L_e/R_e \leq (L_a/R_a$ or $L_o/R_o)$ and $L_i/R_i \leq (L_a/R_a$ or $L_o/R_o)$
- Nonincendive field wiring methods may be used for connecting apparatus/sensors in division 2. Nonincendive field wiring apparatus shall not be connected in parallel. Rules of the Intrinsic Safety Entity concept apply.
- Dust-tight conduit seals must be used when installed in Class II and Class III environments.
- Only NRTL certified cable glands conforming to UL2225 shall be used. Observe the installation requirements of the manufacturer.

5. Control equipment in division 2 installations connected to the signal terminals with defined U_m must not use or generate more than 60 Vrms or Vdc. The control room equipment connected to the Power Supply terminals shall not generate more than 253 Vrms or Vdc.

WARNING - EXPLOSION HAZARD

Do not disconnect while the circuit is live or unless the area is free of ignitable concentrations.

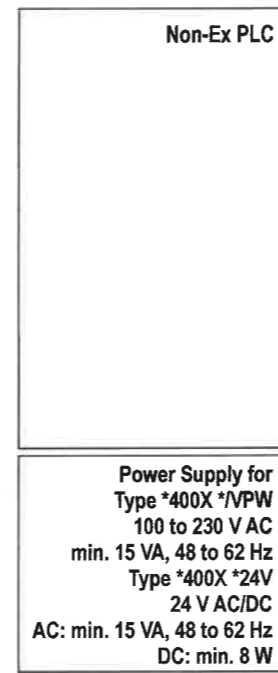
AVERTISSEMENT - RISQUE D'EXPLOSION

Ne pas débrancher pendant que le circuit est sous tension ou à moins que l'emplacement ne soit exempt de concentrations inflammables.

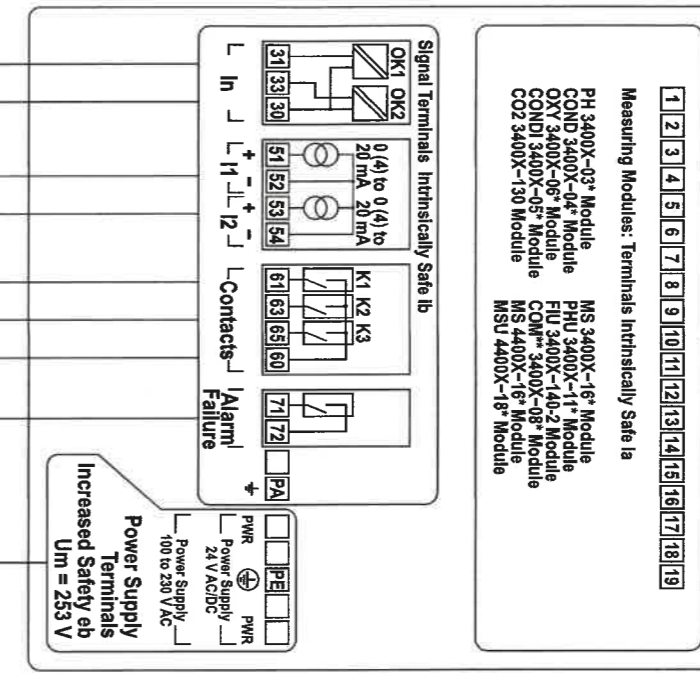
- Installation shall be in accordance with ANSI/ISA RP12.06.01 (except chapter 5 for FISCO Installations). "Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations" or the National or Canadian Electrical Code as applicable. Use only cables with a temperature rating of at least 75°C (167°F).
- Changes to this control drawing must be authorised by FM Approvals.
- The intrinsically safe or the associated apparatus connecting to 30, 31, 33, 51, 52, 53, 54, 60, 61, 63, 65, 71, 72 must be NRTL Approved or be a simple apparatus (a simple circuits with well defined parameters, which is not an energy source generating more than 1.5 V, 0.1 A, 25 mW).
- The intrinsically safe (Division 1) or nonincendive field wiring (Division 2) apparatus/sensors connecting to the measuring/communication modules must be NRTL Approved or be a simple apparatus.

10. The internal PE-terminal shall be used to connect the protective grounding wire, if any, of the power supply cable. The supplementary external grounding terminal shall be used for equipotential bonding and grounding where local codes or authorities permit or require such connection.

Non-Ex

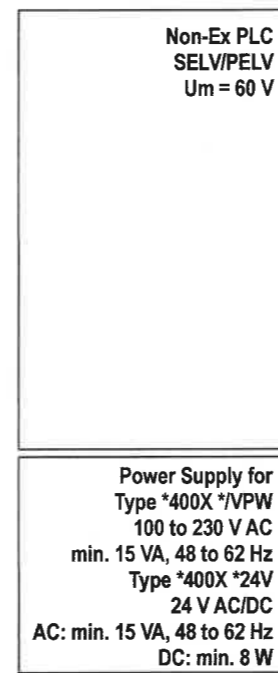


Zone 1/21 or Zone 2/22 or Div 2

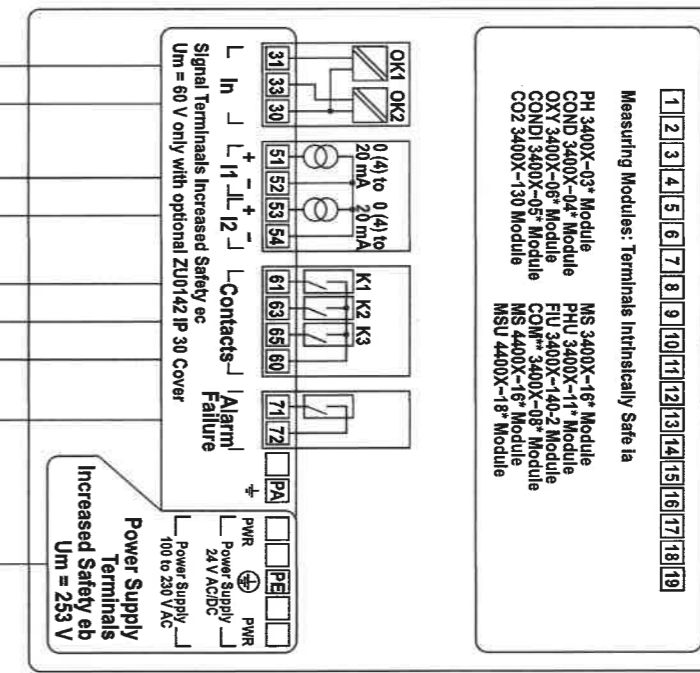


Zone 0/20 or Div 1

Non-Ex



Non-Ex or Zone 2/22 or Div 2



Zone 0/20 or Div 1

Zul. Abweichungen für Maße ohne Toleranzangabe				Maßstab	
				Zulassung cFMus FM19US0234X cFMus FM19CA0127X	
Bearbeitet 28.08.2003 dam				Benennung Control Drawing Protos Type 3400X */*** Protos II Type 4400X */***	
Geprüft 5.1.23				Zeichnungsnummer 201.003-170	
Freigabe 6.1.23 RB				Blatt 1	
4 MSU 4400X-18 08.12.22 kmn Schutzvermerk nach ISO16016 beachten.				Bl. 1	
3 cFMus Control Drawing 19.08.19 dam					
2 Protos II 25.09.18 dam					
- neu Inventor - - -					
Nr. Änderungen Datum Bearb. Freigabe				Elektronische Messgeräte GmbH & Co. KG	

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