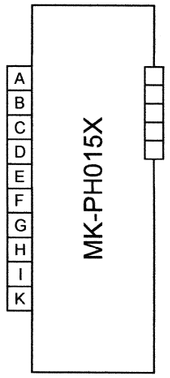
Measuring Module Type MK-PH015X for:

Stratos Pro Type A2..X...
IECEx, ATEX Control drawing 212.002-100 page 1
cFMus Control drawing 212.002-300

Stratos Multi Type E401X...
IECEx, ATEX Control drawing 212.502-100 page 1
cFMus Control drawing 212.502-100 page 2

MK interface	In type of protection intrinsic safety, only for connection to Stratos® A2..X..., E401X...									
				Ex ia IIC, IIIC Cl I, Zone 0, Grp IIC Cl I, Div 1, Grp A & B		Ex ia IIB, IIIB Cl I, Zone 0, Grp IIB Cl I, Div 1, Grp C & E		Ex ia IIA, IIIA Cl I, Zone 0, Grp IIA Cl I, Div 1, Grp D, F & G		
	Uo, Voc (V)	Io, Isc (mA)	Po (mW)	Co, Ca (nF)	Lo, La (mH)	Co, Ca (µF)	Lo, La (mH)	Co, Ca (µF)	Lo, La (mH)	
pH Measuring Loop (Terminals A, B, C, K)	15	19.9	49.8	553	90	3.52	320	13.9	610	Linear characteristic
Temperature Measuring Loop (Terminals H, I)	10	18.3	45.7	2.87 µF	95	19.8	350	99	630	Linear characteristic
pH/Temperature Measuring Loop (Terminals A, B, C, H, I, K)	15	38.2	95.5	432	23	3.4	90	13.8	180	Linear characteristic
ISM Measuring Loop (Terminals F, G)	15	10.6	26.6	580	300	3.55	1000	14	1000	Linear characteristic
pH/Temperature/Supply Measuring Loop (Terminals A, B, C, D, E, H, I, K)	15	93.8	200	379	4	3.35	19	13.8	40	Linear characteristic
pH/ISM/Temperature/Supply Measuring Loop (Terminals A, B, C, D, E, F, G, H, I, K)				Ex ic IIC, IIIC		Ex ic IIB, IIIB		Ex ic IIA, IIIA		
				Cl I, Div 2, Grp A, B, C & D Cl II, III, Div 2, Grp F & G Cl I, Zone 2, Grp IIC						
	3	6	18	1000 µF	1000	1000	1000	1000	1000	Linear characteristic

The measuring circuits are galvanically connected
Do not mix different Types of Protection



MK Interface
ST 1

Only for connection to
Stratos Pro A2..X ...
or Stratos Multi E4*1X...

WARNING - SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY
WARNING - SUBSTITUTION OF COMPONENTS MAY IMPAIR THE SUITABILITY FOR DIV 2 / ZONE 2
WARNING - DO NOT SEPARATE MODULE WHEN ENERGIZED

Notes:

IECEx, ATEX, cFMus

1. When installed in Stratos the Intrinsically Safe Equipment connecting to A, B, C, D, E, F, G, H, I, K must be IECEx or ATEX or NRTL Approved or be a simple Apparatus.
2. Simple Apparatus is defined as a device that does not generates more than 1.5 V, 0.1 A, or 25 mW.

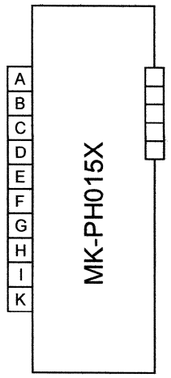
cFMus

3. The Intrinsic Safety Entity concept allows the interconnection of FM Approved intrinsically safe devices with entity parameters not specifically examined in combination as a systems when:
   U_o or V_{oc} or $V_t \le V_{max}$, I_o or I_{sc} or $I_t \le I_{max}$, $P_o \le P_i$, C_a or $C_o \ge \sum C_i + \sum C_{cable}$
   For inductance use either L_a or $L_o \ge \sum L_i + \sum L_{cable}$ or $L_e/R_e \le (L_a/R_a$ or $L_o/R_o)$ and $L_i/R_i \le (L_a/R_a$ or $L_o/R_o)$
4. Installation should be in accordance with ANSI/ISA RP12.06.01, "Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations" and the National Electrical Code® (ANSI/NFPA 70), or with the Canadian Electrical Code for Hazardous Location as applicable.
5. No revisions to drawing without prior FM Approvals authorisation.

Módulo de Medição Tipo MK-PH015X para Stratos Tipo A2..X...
Desenho de controle INMETRO 212.002-100 page 3

Interface MK	Em tipo de proteção: „segurança intrinseca“, somente para conexão a Stratos® A2..X...									
				Ex ia IIC, IIIC		Ex ia IIB, IIIB		Ex ia IIA, IIIA		
	Uo, Voc (V)	Io, Isc (mA)	Po (mW)	Co, Ca (nF)	Lo, La (mH)	Co, Ca (µF)	Lo, La (mH)	Co, Ca (µF)	Lo, La (mH)	
Malha de Medição de pH (Terminais A, B, C, K)	15	19.9	49.8	553	90	3.52	320	13.9	610	Característica linear
Malha de Medição de Temperatura (Terminais H, I)	10	18.3	45.7	2.87 µF	95	19.8	350	99	630	Característica linear
Malha de Medição de pH/Temperatura (Terminais A, B, C, H, I, K)	15	38.2	95.5	432	23	3.4	90	13.8	180	Característica linear
Malha de Medição de ISM (Terminais F, G)	15	10.6	26.6	580	300	3.55	1000	14	1000	Característica linear
Malha de Medição de pH/Temperatura/Alimentação (Terminais A, B, C, D, E, H, I, K)	15	93.8	200	379	4	3.35	19	13.8	40	Característica linear
Malha de Medição de pH/ISM/Temperatura/Alimentação (Terminais A, B, C, D, E, F, G, H, I, K)				Ex ic IIC, IIIC		Ex ix IIB, IIIB		Ex ic IIA, IIIA		
	3	6	18	1000 µF	1000	1000	1000	1000	1000	Característica linear

Os circuitos de medição são conectados galvanicamente
Não misture diferentes tipos de proteção.



Interface MK
ST 1

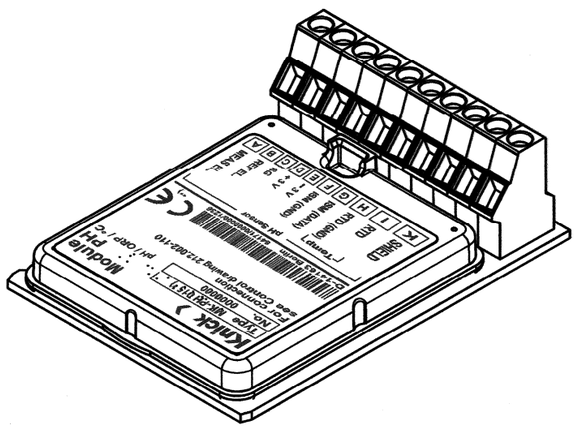
Somente para conexão a
Stratos A2..X...

AVISO A SUBSTITUIÇÃO DE COMPONENTES PODE PREJUDICAR A SEGURANÇA INTRÍNSECA
AVISO A SUBSTITUIÇÃO DE COMPONENTES PODE PREJUDICAR A EFICIÊNCIA EM ZONE 2
AVISO NÃO SEPARAR O MÓDULO QUANDO ENERGIZADO

Notas:

INMETRO

1. Quando instalado em Stratos® Tipo A2..X...: O equipamento intrinsecamente seguro conectado a A, B, C, D, E, F, G, H, I, K precisa ter aprovação IECEx ou ATEX ou FM ou CSA ou INMETRO ou ser um Aparelho simples.
2. Definição de Aparelho Simples: instrumento que não gera mais que 1,5 V, 0,1 A ou 25 mW.



Nr.	Änderungen	Datum	Bearb.	Freigabe
7	Texts	19.03.21	dam	
6	page1 „X“, page2 „B“	08.01.16	dam	
5	Texts	21.09.15	dam	
4	Texts	04.09.12	dam	
3	INMETRO Texte	06.04.11	dam	
2	Texts	25.08.09	dam	
1	FM u. CSA	23.01.09	dam	

Zul. Abweichungen für Maße ohne Toleranzangabe

	Datum	Name
Bearbeitet	28.05.2008	dam
Geprüft	19.3.21	
Freigabe	19.3.21	

Schutzvermerk nach ISO16016 beachten.

Knick Elektronische Messgeräte GmbH & Co. KG

Maßstab

Halbzeug

Benennung: MK-PH015X Control drawing

Zeichnungsnummer: 212.002-110

Blatt 1 Bl.