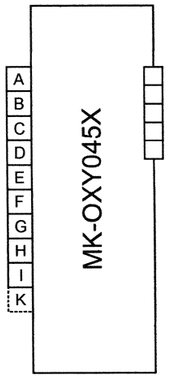
Measuring Module Type MK-OXY045X for:

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)	
OXY Measuring Loop (Terminals A, B, C, D, I)	15	8.2	20.5	580	500	3.55	1000	14	1000	Linear characteristic
Temperature Measuring Loop (Terminals G, H)	10	1.6	4	2.88 µF	1000	19.8	1000	99	1000	Linear characteristic
OXY/Temperature Measuring Loop (Terminals A, B, C, D, G, H, I,)	15	9.7	25	481	300	3.46	1000	13.9	1000	Linear characteristic
ISM Measuring Loop (Terminals E, F)	15	10.6	26.6	580	300	3.55	1000	14	1000	Linear characteristic
OXY/ISM/Temperature Measuring Loop (Terminals A, B, C, D, E, F, G, H, I,)				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 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.

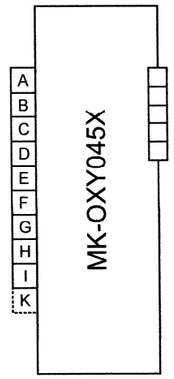
cFMus

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 $C_o \ge \Sigma C_i + \Sigma C_{cable}$
   For inductance use either L_a or $L_o \ge \Sigma L_i + \Sigma L_{cable}$ 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-OXY045X 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 Oxigênio (Terminais A, B, C, D, I)	15	8.2	20.5	580	500	3.55	1000	14	1000	Característica linear
Malha de Medição de Temperatura (Terminais G, H)	10	1.6	4	2.88 µF	1000	19.8	1000	99	1000	Característica linear
Malha de Medição de Oxigênio/Temperatura (Terminais A, B, C, D, G, H, I,)	15	9.7	25	481	300	3.46	1000	13.9	1000	Característica linear
Malha de Medição de ISM (Terminais E, F)	15	10.6	26.6	580	300	3.55	1000	14	1000	Característica linear
Malha de Medição de Oxigênio/ISM/Temperatura (Terminais A, B, C, D, E, F, G, H, I,)				Ex ic IIC, IIIC		Ex ic IIB, IIIB		Ex ic IIA, IIIA		Característica linear
	3	6	18	1000 µF	1000	1000	1000	1000	1000	

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



Interface MK
ST 1

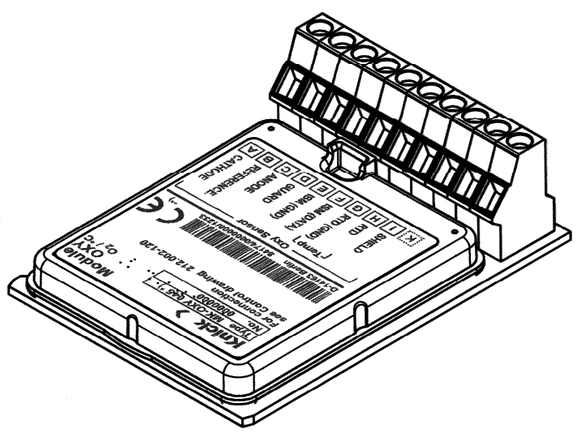
Somente para conexão a
Stratos A2..X...

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 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"	13.01.16	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	17.3.2021	
Freigabe	17.3.21	

Schutzvermerk nach ISO16016 beachten.

Knick Elektronische Messgeräte GmbH & Co. KG

Maßstab

Halbzeug

Benennung MK-OXY045X Control drawing

Zeichnungsnummer 212.002-120

Blatt 1 Bl.