

FUNCTION	TERMINALS	U _i	I _i	P _i	C _i	L _i	U _o	I _o	P _o	C _o	L _o
		V	mA	mW	µF	mH	V	mA	mW	µF	mH
STANDARD I/O											
LOOP POWER SUPPLY	PWR0+	29	100	670	0,03	0,3	---	---	---	---	---
	PWR0-										
FREQUENCY/PULSE OUTPUT	D0A	29	100	670	0,03	0,3	---	---	---	---	---
	D0B										
SLOT 1, RS485 Option board (01-0020)											
POWER SUPPLY	PWR1+	28	100	670	0,03	0,3	---	---	---	---	---
	PWR1-										
RS485 COMMUNICATION	D1A	4,2	250	250	20	neg	4,12	150	150	---	---
	D1B										
FREQUENCY/PULSE OUTPUT	D2A	15	100	250	0,03	0,02	---	---	---	---	---
	D2B										
FREQUENCY/PULSE OUTPUT	D3A	15	100	250	0,03	0,02	---	---	---	---	---
	D3B										
SLOT 1, RS485 IO 4..20mA option board (01-0202)											
LOOP POWER SUPPLY /4..20mA	PWR1+	29	100	670	0,03	0,3	---	---	---	---	---
	PWR1-										
RS485 COMMUNICATION	D1A	4,2	250	250	20	neg	4,12	150	150	---	---
	D1B										
FREQUENCY/PULSE OUTPUT	D2A	15,5	100	250	0,03	0,02	---	---	---	---	---
	D2B										
FREQUENCY/PULSE OUTPUT	D3A	15,5	100	250	0,03	0,02	---	---	---	---	---
	D3B										
SLOT 1, Dual RS485 IO option board (01-0251)											
LOOP POWER SUPPLY /4..20mA	PWR1+	29	100	670	0,03	0,3	---	---	---	---	---
	PWR1-										
RS485 COMMUNICATION - PORT 1	D1A	4,2	250	250	20	neg	4,12	150	150	---	---
	D1B										
FREQUENCY/PULSE OUTPUT	D2A	15,5	100	250	0,03	0,02	---	---	---	---	---
	D2B										
FREQUENCY/PULSE OUTPUT	D3A	15,5	100	250	0,03	0,02	---	---	---	---	---
	D3B										
RS485 COMMUNICATION - PORT 2	D4A	4,2	250	250	20	neg	4,12	150	150	---	---
	D4B										
PRESSURE / TEMPERATURE	PRESS	REFER TO SAFETY INSTRUCTIONS FOR INTERCONNECTION TO APPROVED EQUIPMENT CABLE LENGTH NOT TO EXCEED 2 meter (6.7ft)									
	TEMP										
SLOT 2, P/T option board (01-0022)											
PRESSURE	PRESS1	REFER TO SAFETY INSTRUCTIONS FOR INTERCONNECTION TO APPROVED EQUIPMENT CABLE LENGTH NOT TO EXCEED 2 meter (6.7ft)									
	PRESS2										
	PRESS3										
	PRESS4										
TEMPERATURE	TEMP1	REFER TO SAFETY INSTRUCTIONS FOR INTERCONNECTION TO APPROVED EQUIPMENT CABLE LENGTH NOT TO EXCEED 2 meter (6.7ft)									
	TEMP2										
	TEMP3										
	TEMP4										
SLOT 2, 4..20mA HART option board (01-0203)											
POWER SUPPLY	LPWR2+	29	100	670	0,03	0,3	---	---	---	---	---
	LPWR2-										

UIM Electronics assembly model number	
UIME-AB-C-DEFGH	
A	x Number of paths (1 to 4)
B	x Application type
C	x Meter size
D - SLOT 1	0 Not installed 1 RS485 Option board (01-0020) 2 RS485 IO 4..20mA option board (01-0202) 3 Dual RS485 IO option board (01-0251)
E - SLOT 2	0 Not installed 1 P/T option board (01-0022) 2 4..20mA HART option board (01-0203) 3 Dual RS485 IO option board (01-0251)
F - LCD	0 Not installed 1 Installed 2 SS316 enclosure with display/keypad
G	1 M20 cable gland entries 2 1/2" NPT cable gland entries
H	x options, not affecting explosion safety

LOCATE THE UIM MODEL NUMBER ON THE NAMEPLATE OF THE ENCLOSURE AND REFER TO TABLE FOR SPECIFIC INTRINSIC SAFETY PARAMETERS

NOTES:

- INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE @NFPA 70, ARTICLE 500 TO 510 AND ANSI / ISA - RP 12.06.01 AND CANADIAN ELECTRICAL CODE (CEC) FOR INSTALLATIONS IN CANADA
- RUN SHIELDED INTERCONNECTION CABLE WITH SHIELD CONNECTED TO APPROVED ASSOCIATED APPARATUS GROUND
- OBSERVE UIM SERIES FLOWMETER AND ASSOCIATED APPARATUS MANUFACTURER'S INSTALLATION INSTRUCTIONS

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH: Ra<0.8
TOLERANCES: ACC. TO ISO/DIN 2768-mK

DEBUR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION DWG D-01

REVISION PRT/ASM



TITLE:
**UIM Series Flowmeter
Control drawing - cQPSus**

NAME	SIGNATURE	DATE	MATERIAL:
DRAWN		3-6-2020	

DWG NO. **06_0010** A3

DATE PRINTED: 1-12-2020

WEIGHT:

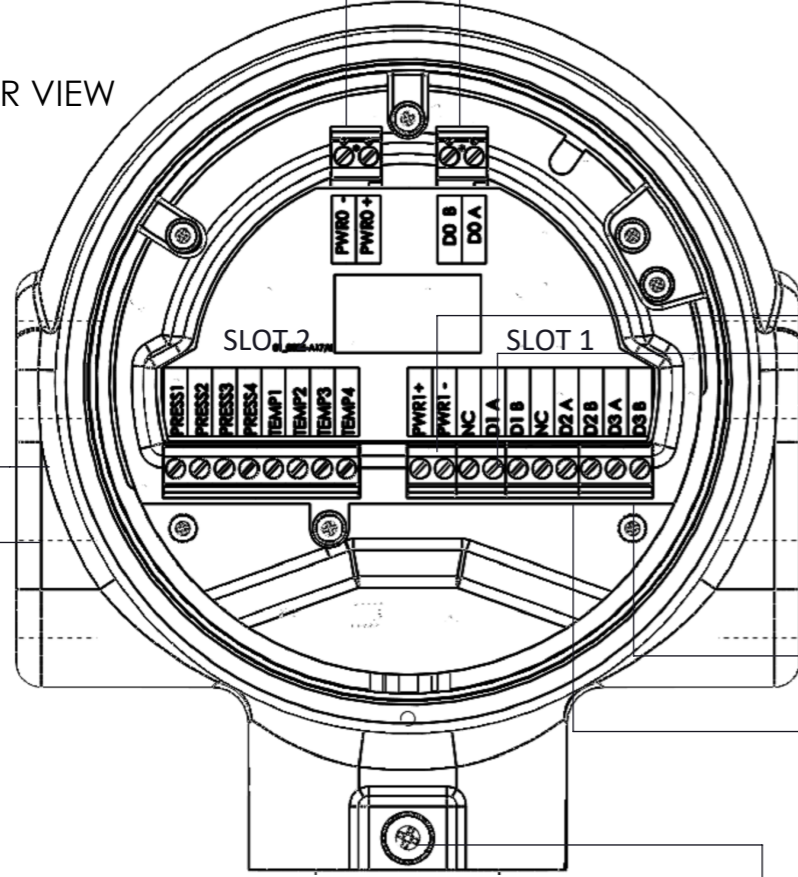
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SHEET 1 OF 4

Class I Division 1 GR ABCD T4
Ex ia IIC T4 Ga
Class I Zone 0, AEx ia IIC T4 Ga

SLOT 1 FITTED WITH RS485 option board (01-0020)
 SLOT 2 FITTED WITH PT option board (01-0022)

REAR VIEW



UIM FLOWMETER

STANDARD IO

$U_i = 29V$ $I_i = 100mA$ $P_i = 670mW$ $L_i = 0.3mH$ $C_i = 0.03\mu F$	LOOP SUPPLY PWR0+ PWR0- isolated
$U_i = 29V$ $I_i = 100mA$ $P_i = 670mW$ $L_i = 0.15mH$ $C_i = 0.03\mu F$	FREQ/PULSE DO A(+) DO B(-) non-isolated open drain

RS485 Option board (01-0020)	
$U_i = 28V$ $I_i = 100mA$ $P_i = 670mW$ $L_i = 0.3mH$ $C_i = 0.03\mu F$	OPTION SUPPLY PWR1+ PWR1- isolated
$U_o = 4.12V$ $I_o = 150mA$ $P_o = 150mW$ $L_i = negligible$ $C_i = 20\mu F$ $U_i = 4.2V$ $I_i = 250mA$ $P_i = 250mW$	RS485 D1 A D1 B optically isolated
$U_i = 15V$ $I_i = 100mA$ $P_i = 250mW$ $L_i = 0.02mH$ $C_i = 0.03\mu F$	FREQ/PULSE D2 A(+) D2 B(-) optically isolated open collector
$U_i = 15V$ $I_i = 100mA$ $P_i = 250mW$ $L_i = 0.02mH$ $C_i = 0.03\mu F$	FREQ/PULSE D3 A(+) D3 B(-) optically isolated open collector

HAZARDOUS AREA

NON-HAZARDOUS AREA

ASSOCIATED EQUIPMENT

$U_o/V_o \leq 29V$ $I_o/I_{max} \leq 100mA$ $P_o \leq 670mW$ $L_o \geq 0.3mH + L(cable)$ $C_o \geq 0.03\mu F + C(cable)$
$U_o/V_o \leq 29V$ $I_o/I_{max} \leq 100mA$ $P_o \leq 670mW$ $L_o \geq 0.15mH + L(cable)$ $C_o \geq 0.03\mu F + C(cable)$
$U_o/V_o \leq 28V$ $I_o/I_{max} \leq 100mA$ $P_o \leq 670mW$ $L_o \geq 0.3mH + L(cable)$ $C_o \geq 0.03\mu F + C(cable)$
$U_i \geq 4.12V$ $I_i \geq 150mA$ $P_i \geq 150mW$ $L_o \geq L(cable)$ $C_o \geq 20\mu F + C(cable)$ $U_o \leq 4.2V$ $I_o \leq 250mA$ $P_o \leq 250mW$
$U_o/V_o \leq 15V$ $I_o \leq 100mA$ $P_o \leq 250mW$ $L_o \geq 0.02mH + L(cable)$ $C_i \geq 0.03\mu F + C(cable)$
$U_o/V_o \leq 15V$ $I_o \leq 100mA$ $P_o \leq 250mW$ $L_o \geq 0.02mH + L(cable)$ $C_i \geq 0.03\mu F + C(cable)$

Ultrasonic transducers
 Up to 4 pairs

FLOWBODY

Optional Ex ia
 Pressure sensor

Optional Ex ia
 temperature sensor

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN MILLIMETERS
 SURFACE FINISH: Ra<0.8
 TOLERANCES: ACC. TO ISO/DIN 2768-mK

DEBUR AND
 BREAK SHARP
 EDGES

DO NOT SCALE DRAWING

REVISION DWG D-01

REVISION PRT/ASM

TITLE:
**UIM Series Flowmeter
 Control drawing - cQPSus**

NAME	SIGNATURE	DATE
DRAWN		3-6-2020

MATERIAL:
 AISI 304

DWG NO.

06_0010

A3

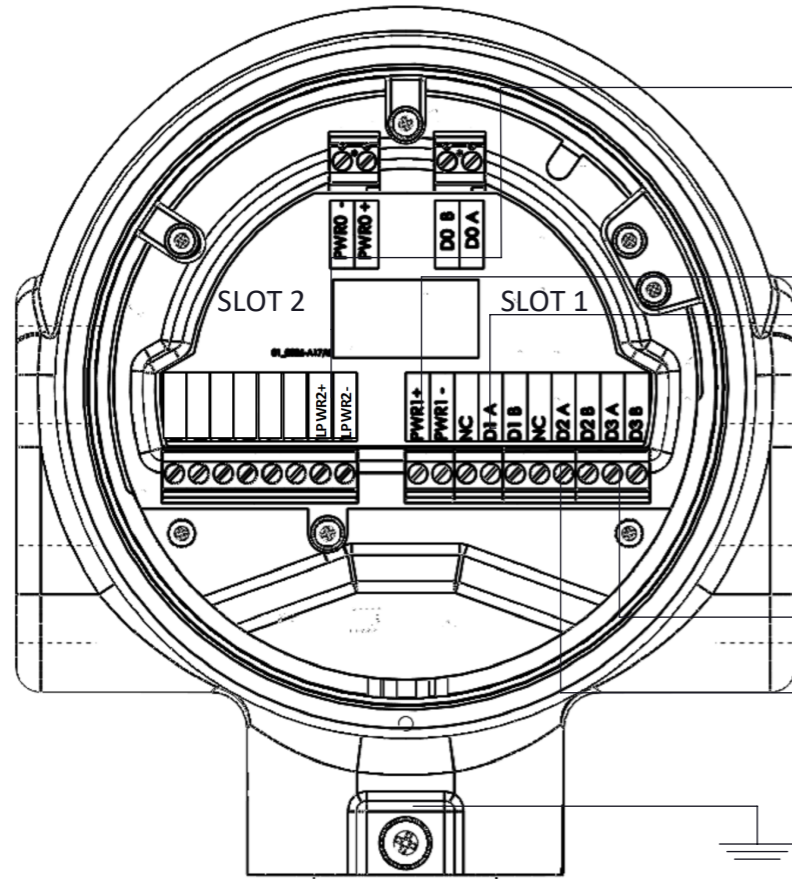
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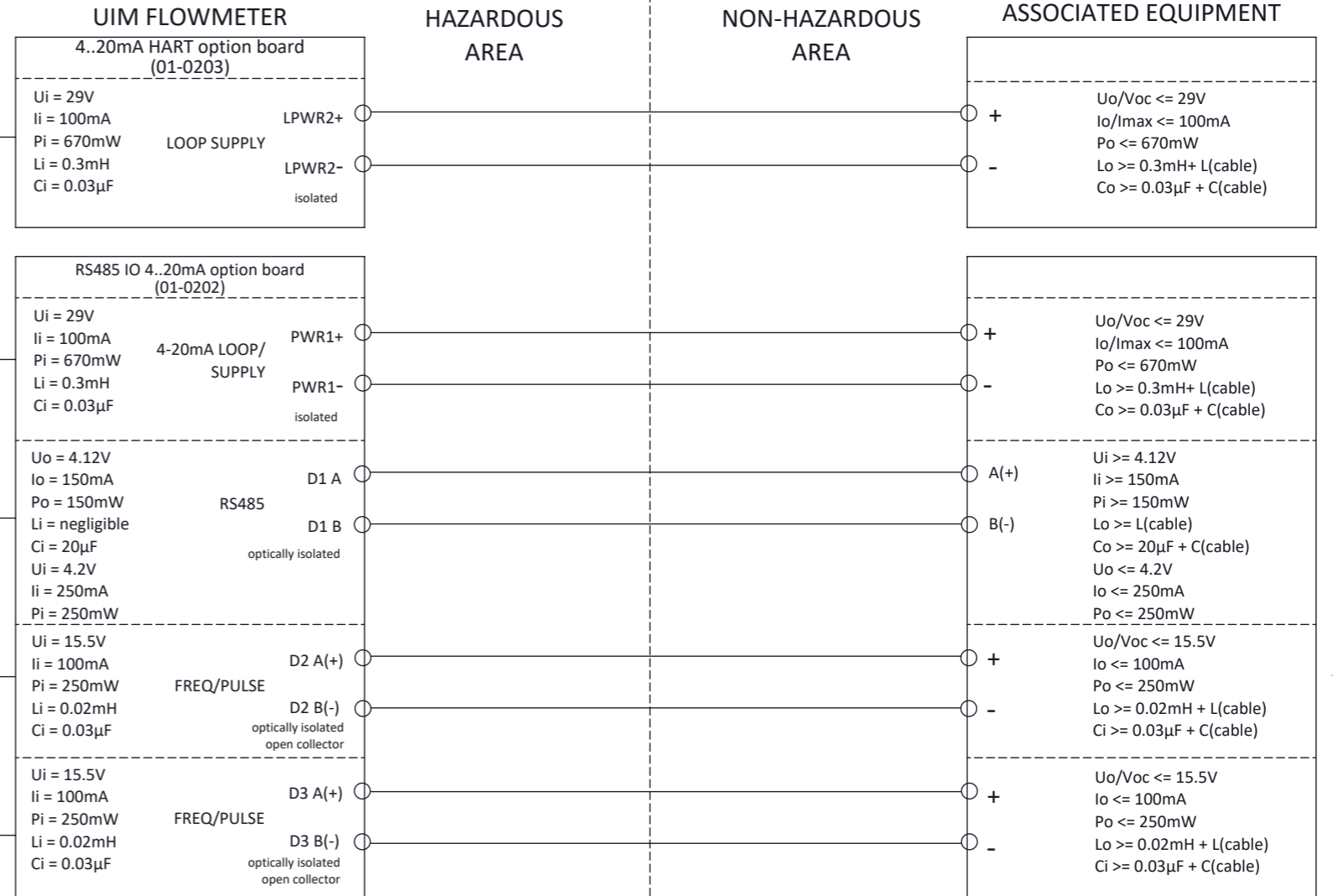
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SHEET 2 OF 4

REAR VIEW



SLOT 1 FITTED WITH RS485 4..20mA option board
SLOT 2 FITTED WITH 4..20mA HART option board



UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH: Ra<0.8
TOLERANCES: ACC. TO ISO/DIN 2768-mK

DEBUR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION DWG D-01

REVISION PRT/ASM

TITLE:
**UIM Series Flowmeter
Control drawing - cQPSus**

NAME	SIGNATURE	DATE	MATERIAL:
DRAWN		3-6-2020	AIISI 304

DWG NO. **06_0010** A3

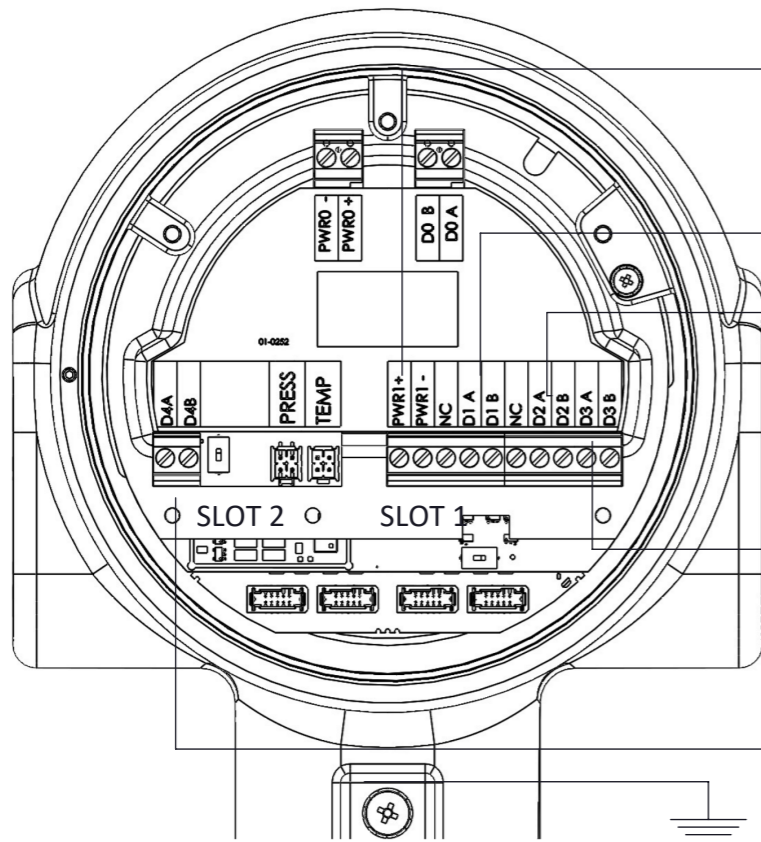
DATE PRINTED: 1-12-2020

WEIGHT:

SCALE:1:1

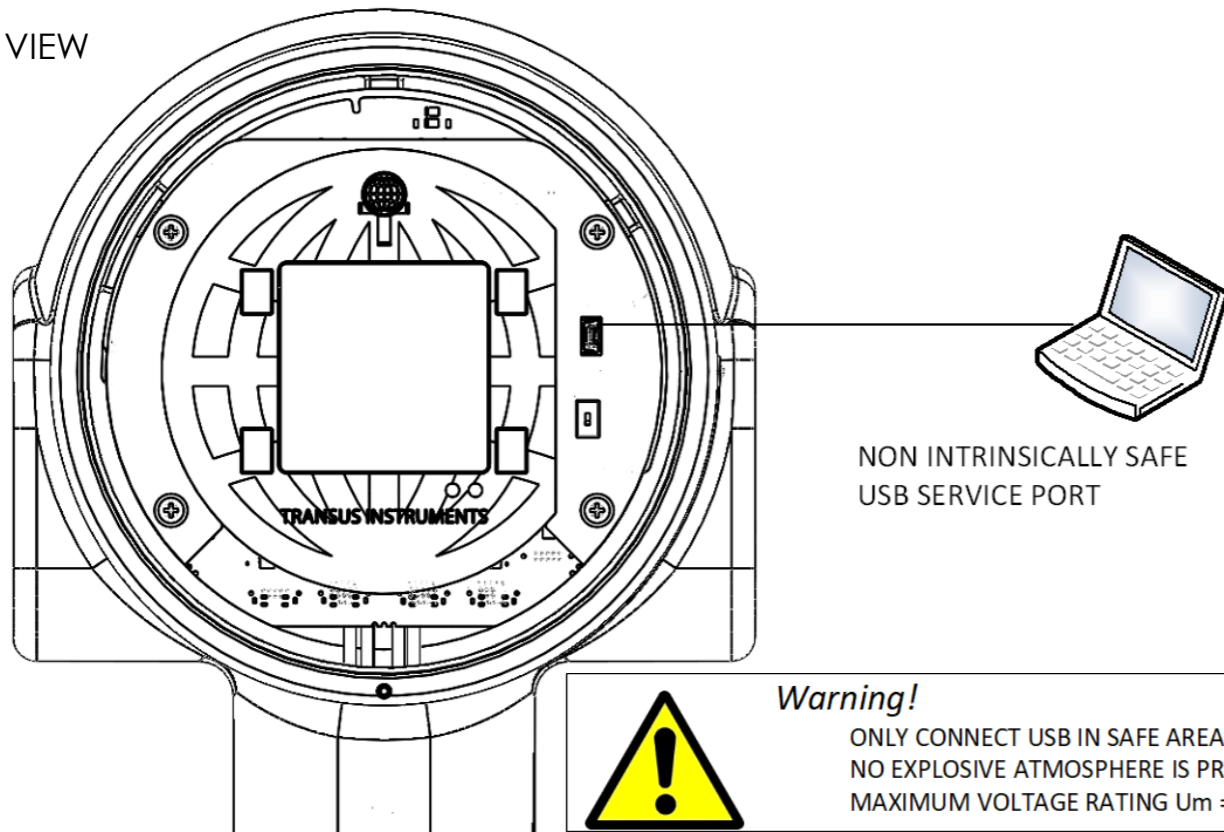
SHEET 3 OF 4

REAR VIEW



SLOT 1 AND SLOT 2 FITTED WITH Dual RS485 option board

FRONT VIEW



NON INTRINSICALLY SAFE
USB SERVICE PORT



Warning!

ONLY CONNECT USB IN SAFE AREA OR ENSURE NO EXPLOSIVE ATMOSPHERE IS PRESENT.
MAXIMUM VOLTAGE RATING $U_m = 250 \text{ VAC}$

UIM FLOWMETER

Dual RS485 IO option board (01-0251)	
$U_i = 29\text{V}$ $I_i = 100\text{mA}$ $P_i = 670\text{mW}$ $L_i = 0.3\text{mH}$ $C_i = 0.03\mu\text{F}$	4-20mA LOOP/SUPPLY PWR1+ PWR1- isolated
$U_o = 4.12\text{V}$ $I_o = 150\text{mA}$ $P_o = 150\text{mW}$ $L_i = \text{negligible}$ $C_i = 20\mu\text{F}$ $U_i = 4.2\text{V}$ $I_i = 250\text{mA}$ $P_i = 250\text{mW}$	RS485 PORT 1 D1 A D1 B optically isolated
$U_i = 15.5\text{V}$ $I_i = 100\text{mA}$ $P_i = 250\text{mW}$ $L_i = 0.02\text{mH}$ $C_i = 0.03\mu\text{F}$	FREQ/PULSE D2 A(+) D2 B(-) optically isolated open collector
$U_i = 15.5\text{V}$ $I_i = 100\text{mA}$ $P_i = 250\text{mW}$ $L_i = 0.02\text{mH}$ $C_i = 0.03\mu\text{F}$	FREQ/PULSE D3 A(+) D3 B(-) optically isolated open collector
$U_o = 4.12\text{V}$ $I_o = 150\text{mA}$ $P_o = 150\text{mW}$ $L_i = \text{negligible}$ $C_i = 20\mu\text{F}$ $U_i = 4.2\text{V}$ $I_i = 250\text{mA}$ $P_i = 250\text{mW}$	RS485 PORT 2 D4 A D4 B optically isolated

HAZARDOUS AREA

NON-HAZARDOUS AREA

ASSOCIATED EQUIPMENT

$U_o/V_{oc} \leq 29\text{V}$ $I_o/I_{max} \leq 100\text{mA}$ $P_o \leq 670\text{mW}$ $L_o \geq 0.3\text{mH} + L(\text{cable})$ $C_o \geq 0.03\mu\text{F} + C(\text{cable})$	+ -
$U_i \geq 4.12\text{V}$ $I_i \geq 150\text{mA}$ $P_i \geq 150\text{mW}$ $L_o \geq L(\text{cable})$ $C_o \geq 20\mu\text{F} + C(\text{cable})$ $U_o \leq 4.2\text{V}$ $I_o \leq 250\text{mA}$ $P_o \leq 250\text{mW}$	A(+) B(-)
$U_o/V_{oc} \leq 15.5\text{V}$ $I_o \leq 100\text{mA}$ $P_o \leq 250\text{mW}$ $L_o \geq 0.02\text{mH} + L(\text{cable})$ $C_i \geq 0.03\mu\text{F} + C(\text{cable})$	+ -
$U_o/V_{oc} \leq 15.5\text{V}$ $I_o \leq 100\text{mA}$ $P_o \leq 250\text{mW}$ $L_o \geq 0.02\text{mH} + L(\text{cable})$ $C_i \geq 0.03\mu\text{F} + C(\text{cable})$	+ -
$U_i \geq 4.12\text{V}$ $I_i \geq 150\text{mA}$ $P_i \geq 150\text{mW}$ $L_o \geq L(\text{cable})$ $C_o \geq 20\mu\text{F} + C(\text{cable})$ $U_o \leq 4.2\text{V}$ $I_o \leq 250\text{mA}$ $P_o \leq 250\text{mW}$	A(+) B(-)

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
SURFACE FINISH: $R_a < 0.8$
TOLERANCES: ACC. TO ISO/DIN 2768-mK

DEBUR AND
BREAK SHARP
EDGES

DO NOT SCALE DRAWING

REVISION DWG D-01

REVISION PRT/ASM

TITLE:
**UIM Series Flowmeter
Control drawing - cQPSus**

NAME	SIGNATURE	DATE	MATERIAL:
DRAWN		3-6-2020	AI3030

DWG NO.	06_0010	A3
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DATE PRINTED: 1-12-2020

WEIGHT:

SCALE:1:1

SHEET 4 OF 4