

MEA-2x00 Power Information

Description

The AFP electronic department created this specific technical note for OEMs who want to build their own power supply for the MEA-2000 or MEA-2100. A good way to evaluate the system requirements is to take a look at the AFP “CE approved” power supply.



General Information

- For the two position MEA-2000 and the multi position MEA-2100 the specification is 24 Volts at 1.5 Amps. That specification contains a security factor.
- Practical result describe the power consumption for the tree working operations of the MEA-2000: Initialization process, regular actuation and standby/idle mode.
- The documentation indicates which power supply AFP selected for its CE certification. The power supply 24 Volts at 2.7 Amps. is stronger for the future stream selection valve.
- This document provides information about the MEA-2000 and MEA-2100 power connector.
- Power consumption for the regular actuation and standby/idle mode are the same for the MEA-2100
- Changing the Torque/Speed configuration of the both actuator (MEA-2000 and MEA-2100) does not change the power consumption.

MEA-2000: Tow Positions Power Comsumption

The MEA-2000 have three different power situations

INITIALIZATION process

The learning process is stronger to press firmly to the stopper the maximum power observed during the initialization process is 24Volts at 1.1 Amps.

Standard ACTUATION

For switching from PORT1 to PORT2 or PORT2 to PORT1 the maximum power during an actuation is 24 Volts at 0.650 Amp.

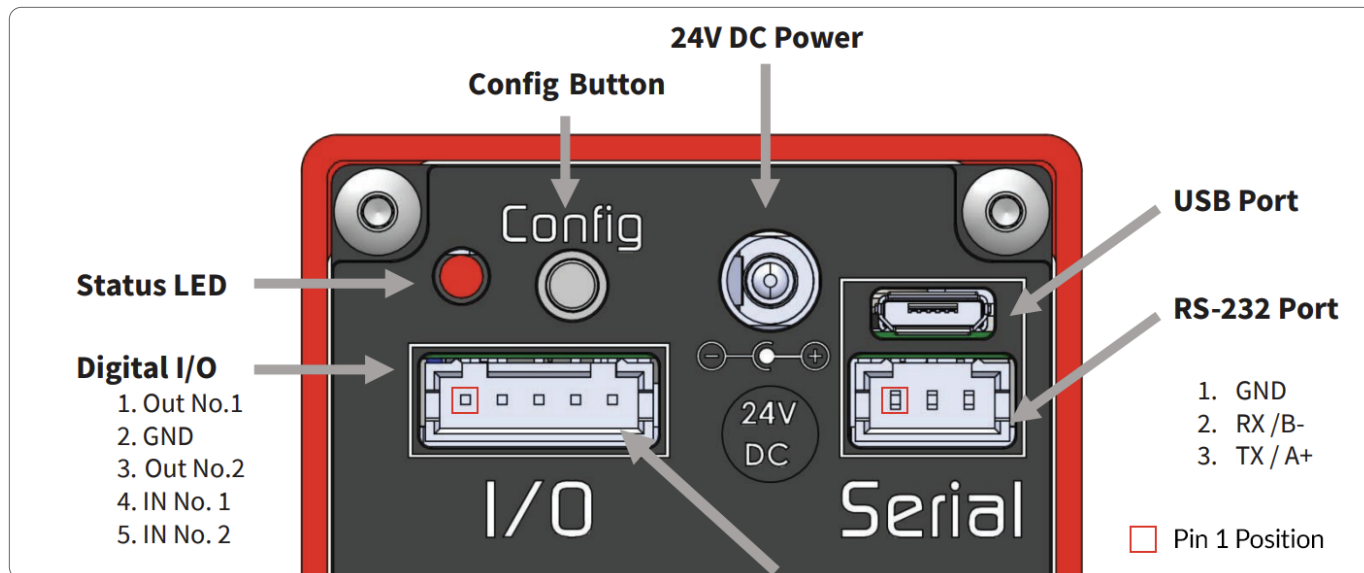


STANDBY/ IDLE

Between actuation, or as 'standby mode', the MEA-2000 and the MEA-2100 requires only 0.07 Amp.



MEA-2000 and MEA-2100 Back Panel



MEA-2000 and MEA-2100 Approved Power Supply



Image shown is a representation only. Exact specifications should be obtained from the product data sheet.

SDI65-24-U-P6

Digi-Key Part Number	102-3821-ND
Manufacturer	CUI Inc.
Manufacturer Product Number	SDI65-24-U-P6
Description	AC/DC DESKTOP ADAPTER 24V 65W
Manufacturer Standard Lead Time	10 Weeks
Detailed Description	24V 65 W AC/DC External Desktop (Class I) Adapter Cord (Sold Separately) Input
Customer Reference	Customer Reference
Datasheet	PDF Datasheet

MEA-2000 and MEA-2100 Approved Power Supply



date 03/13/2023
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SERIES: SDI65-U | DESCRIPTION: AC-DC POWER SUPPLY

FEATURES

- DoE Level VI, CoC Tier 2 efficiency
- 65 W power
- universal input (90~264 Vac)
- compact size
- single regulated output from 12~48 Vdc
- over voltage and short circuit protections
- UL/cUL and PSE safety approvals
- custom designs available
- certified to 60950-1 and 62368-1 standards



MODEL	output voltage (Vdc)	output current max (A)	output power max (W)	ripple and noise ¹ max (mVp-p)	efficiency level ²
SDI65-12-U	12	5	60	120	VI
SDI65-15-U	15	4.34	65	150	VI
SDI65-18-U	18	3.62	65	180	VI
SDI65-19-U	19	3.43	65	190	VI
SDI65-24-U	24	2.71	65	240	VI
SDI65-48-U	48	1.36	65	480	VI
SDI65-56-U	56	1.17	65.52	560	VI

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, each output terminated with 0.1 μ F multilayer ceramic and 10 μ F low ESR electrolytic capacitors.
2. CoC Tier 2 compliant

MEA-2000 and MEA-2100 Approved Power Supply

DC PLUG TYPE PART NUMBER KEY

P6

XXX

Plug Polarity:

P = Center Positive

N = Center Negative

Plug Code:

X = Choose a code from the options below

Plug Angle:

"blank" = Straight

R = Right Angle

Plug Polarity		Code	Type	Dimensions (mm)			Plug Angle	
Center Pos.	Center Neg.	Option		A	B	C	Straight	Right
•	•	5	Standard	5.5	2.1	9.5	•	•
•	•	6	Standard	5.5	2.5	9.5	•	•
•	•	7	Standard	5.5	1.35	9.5	•	•
•	•	8	Standard	3.8	1.35	9.5	•	•
•	•	9	Standard	3.8	1.05	9.5	•	•
•	•	10	Locking ²	5.5	2.1	9.5	•	N/A
•	•	11	Locking ²	5.5	2.5	9.5	•	N/A
•	•	12	EIAJ-1	2.35	0.7	9.5	•	•
•	•	13	EIAJ-2	4.0	1.7	9.5	•	•
•	•	14	EIAJ-3	4.75	1.7	9.5	•	•
N/A	N/A	ST	Stripped & Tinned				N/A	N/A

Note:

1. Contact CUI for additional plug options

2. Maximum insertion depth is 10mm

Standard

A

B

C

Straight

Right Angle (R)

EIAJ

A

B

C

Straight

Right Angle (R)

MEA-2000 and MEA-2100 Compatible DC Connector

PP3-002B

Image shown is a representation only. Exact specifications should be obtained from the product data sheet.

360°

DigiKey Part Number

CP3-1001-ND

Manufacturer

CUI Devices

Manufacturer Product Number

PP3-002B

Description

CONN PWR PLUG 2.5X5.5MM SOLDER

Manufacturer Standard Lead Time

15 Weeks

Customer Reference

Detailed Description

Power Barrel Connector Plug 2.50mm ID (0.098"), 5.50mm OD (0.217") Free Hanging (In-Line)

Datasheet

Datasheet

EDA/CAD Models

PP3-002B Models

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