

4

3

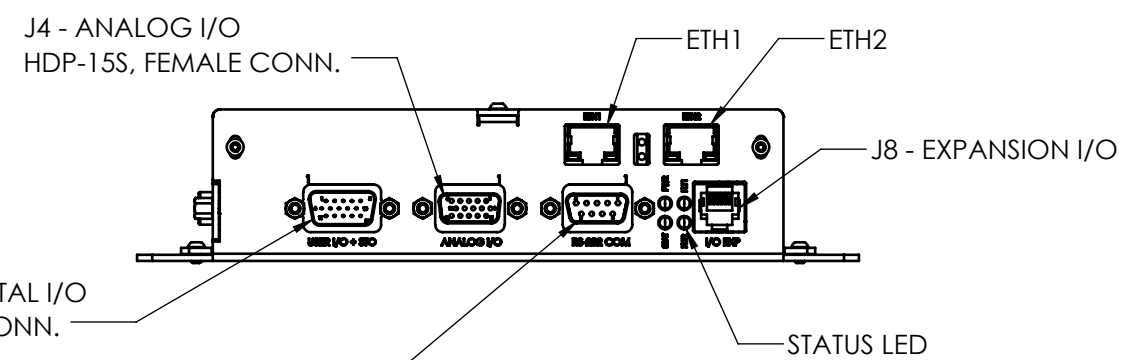
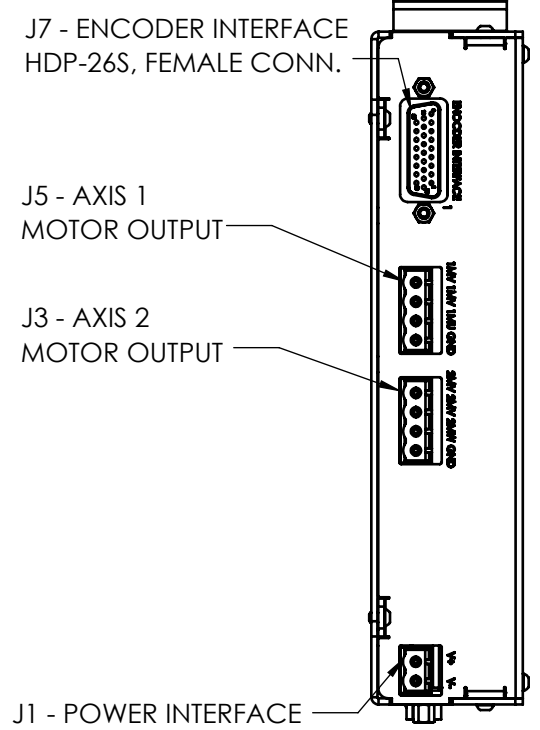
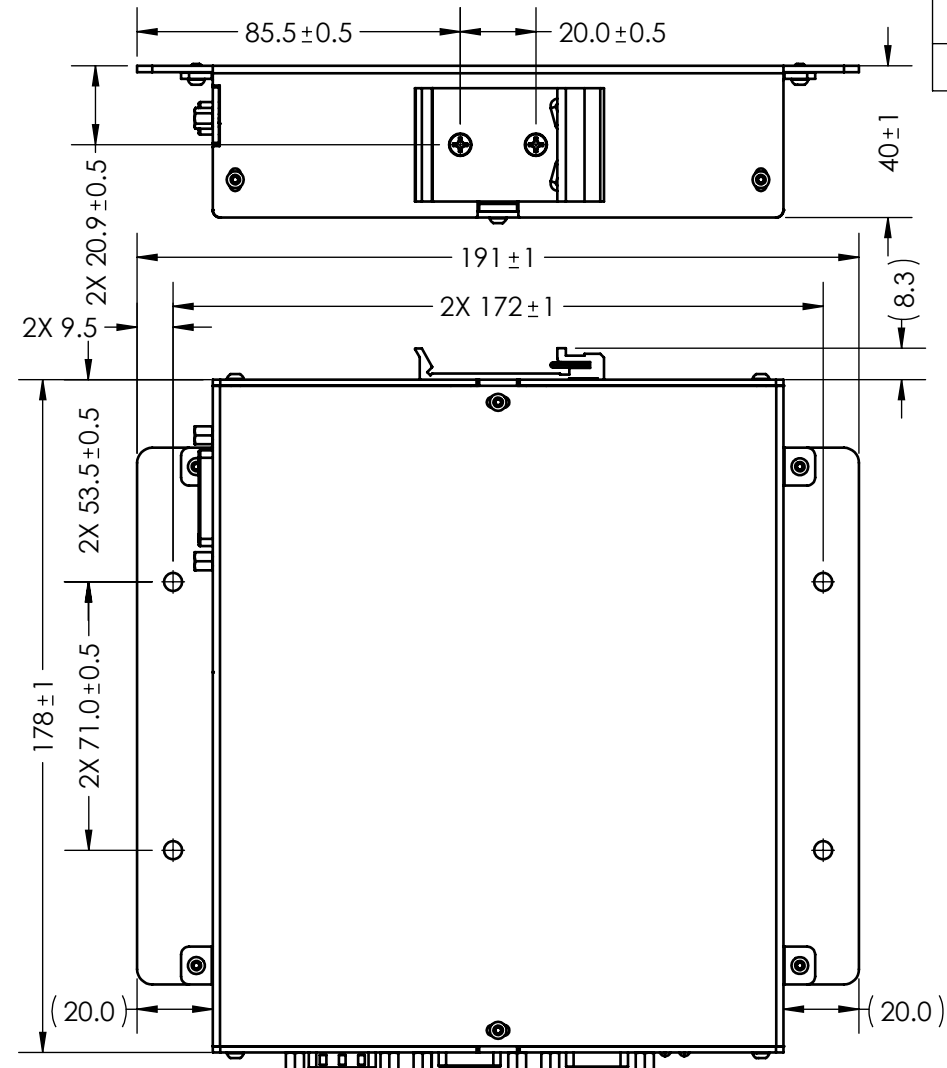
2

1

NOTES (UNLESS OTHERWISE SPECIFIED)

- 1. CONTROLLER TYPE: TWO AXIS.
- 2. 3-PHASE BRUSHLESS, DC BRUSHED, DC LINEAR ACTUATOR.
- 3. (SEE ATTACHED SHEET FOR SPECIFICATION)
- 4. DIN RAIL MOUNTING CLIP: YES

REVISIONS				
REV	ECR	DESCRIPTION	DATE	APPROVED
A	7995	INITIAL RELEASE	8/24/2022	VH



J7 ENCODER INTERFACE

PIN	FUNCTION
1	N/C
2	N/C
3	N/C
4	+5V
5	+5V
6	2A-
7	2A+
8	1A-
9	1A+
10	N/C
11	N/C
12	1HOM
13	GND
14	GND
15	2B-
16	2B+
17	1B-
18	1B+
19	2HOM
20	N/C
21	GND
22	GND
23	2Z- (INDEX-)
24	2Z+ (INDEX+)
25	1Z- (INDEX-)
26	1Z+ (INDEX+)

J4 ANALOG I/O

PIN	FUNCTION
1	AN_IN2
2	AN_OUT0
3	AN_OUT1
4	AN_IN0+
5	AN_IN1+
6	AN_IN3
7	GND
8	GND
9	AN_IN0-
10	AN_IN1-
11	AN_IN4
12	+5V
13	+5V
14	GND
15	GND

ETH1 & ETH2

PIN	FUNCTION
1	TD+
2	TD-
3	RD+
4	NC
5	NC
6	RD-
7	NC
8	NC

J8 I/O EXPANSION

PIN	FUNCTION
1	RX-
2	TX-
3	RX+
4	TX+
5	CLK+
6	CLK-

J2 USER I/O+STO

PIN	FUNCTION
1	GPI0
2	GPI1
3	GPI2
4	GPI3
5	GPI_COM
6	GPO0
7	GPO1
8	GPO2
9	GPO3
10	GPO_COM
11	+5V
12	STO2
13	STO1
14	STO_FB
15	STO_COM

J5 MOTOR 1

PIN	FUNCTION
1	1MU
2	1MV
3	1MW
4	GND

J3 MOTOR 2

PIN	FUNCTION
1	2MU
2	2MV
3	2MW
4	GND

J1 POWER SUPPLY

PIN	FUNCTION
1	POWER SUPP V+
2	POWER SUPP V-

UNLESS OTHERWISE SPECIFIED
 ALL DIMENSIONS ARE IN MM
 BREAK EDGES AND REMOVE BURRS
 TOLERANCES
 X.: ±0.5 X.X: ±0.1
 X.XX: ±0.03 ANGLE: ±0.1°
 CONCENTRICITY: ±0.025
 ROUNDNESS: ±0.025
 EDGE BREAKS: 0.2 MAX
 ALL DIMENSIONS AND TOLERANCES ARE FINAL

MATERIAL: SEE BOM	NAME	DATE
FINISH: SEE BOM	DWN BY	VH 08/24/2022
MACHINE FINISH: 1.6	CHK BY	TW 08/24/2022
INTERPRET PER: ASME Y14.5-2009	ENG APP	TMV 08/24/2022
THIRD ANGLE PROJECTION	MFG APP	
	QA APP	
	PROPRIETARY AND CONFIDENTIAL	
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SMAC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SMAC IS PROHIBITED.		

AVS AVS Danmark ApS
 Skelvej 18 - 2640 Hedehusene
 +45 46 56 43 43 - www.avsdanmark.dk

TITLE:
VLC EIP CONTROLLER

SIZE: **B** PART NO: **VLC-2-EIP-XX** REV: **A**

SCALE: 1:2 **DO NOT SCALE** SHEET: 1 / 2



4

3

2

1

4

3

2

1

NOTES (UNLESS OTHERWISE SPECIFIED)

1. CONTROLLER TYPE: TWO AXIS.
2. 3-PHASE BRUSHLESS, DC BRUSHED, DC LINEAR ACTUATOR.
3. (SEE ATTACHED SHEET FOR SPECIFICATION)
4. DIN RAIL MOUNTING CLIP: YES

SMAC
MOVING COIL ACTUATORS

Controller	VLC-2-EIP-13 and VLC-2-EIP-07
Description	Ethernet/ip Stand-Alone 2-Axis Servo Motor Controller / Driver
Operation	Position, Velocity, Torque
Filter Algorithm	PID
Max. Servo Loop Rate	100 μ S
Trajectory Generator	Trapezoidal, Electronic Gearing
Servo Position Feedback	Incremental Encoder with Index
Motor Type	3-Phase Brushless, DC Brushed, DC Linear Actuator
PWM Frequency	20.0 KHz
Encoder and Index Input	Differential
Encoder Supply Voltage	5 VDC
Encoder Input Voltage	5.5 VDC Max., -0.1 VDC Min.
Encoder Count Rate	40 Million Encoder Counts per Second
Position Range	31 Bits
Velocity Range	31 Bits
Acceleration Range	31 Bits
General Purpose Digital I/O	4x Opto-Isolated Digital Inputs, 5V to 24V Max
	4x Opto-Isolated Digital Outputs, 60V, 200 mA Max
Dedicated Digital I/O	2x Opto-Isolated Coarse Home Inputs
STO (Safe Torque Off)	2x STO Opto-Isolated Digital Inputs with Common: 5V to 24V Level Input
	1x STO Opto-Isolated STO Feedback Output: 200 mA Current/ Tolerant to 60V
Analog Inputs	2x 12-Bit Pseudo-Differential Analog Inputs, 0 to +/- 10V Range
	3x 12-Bits Analog Inputs, 0V to 10V Range (0V to <10V Optional)
Analog Outputs	2x 12-Bit Analog Outputs, 0V to 10V Range (0V to 5V Optional)
LEDs	1x Power on LED
	1x Status LED
	2x Fault LEDs
Serial Interface	RS-232 Non-Isolated, 9600 Baud Default, Selectable Between 2400-921600
Supply Voltage	+8 to +48 VDC
Operating Temperature	0 - 50°C
Protections	> Reversed Power Supply Polarity
	> Driver Overtemperature
	> I ² T
	> (Excessive) Servo Position Error
Program Space	> Macro Storage: 56286 Bytes
	> Maximum Number of Macros: 512
	> Maximum Number of Program Registers: 2048

	VLC-2-EIP-13	VLC-2-EIP-07
Output (Standard) with PWM (Space-Vector Modulated) at 48 VDC Max	10 Arms Continuous Current	6 Arms Continuous Current
	13 Arms Peak Current	7.8 Arms Peak Current
Current Resolution	6.35 mA	2.93 mA

AVS AVS Danmark ApS
Skelvej 18 - 2640 Hedehusene
+45 46 56 43 43 - www.avsdanmark.dk

TITLE:
VLC EIP CONTROLLER

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF SMAC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF SMAC IS PROHIBITED.

SIZE: **B** PART NO: **VLC-2-EIP-XX** REV: **A**
SCALE: 1:2 **DO NOT SCALE** SHEET: 2 / 2

4

3

2

1