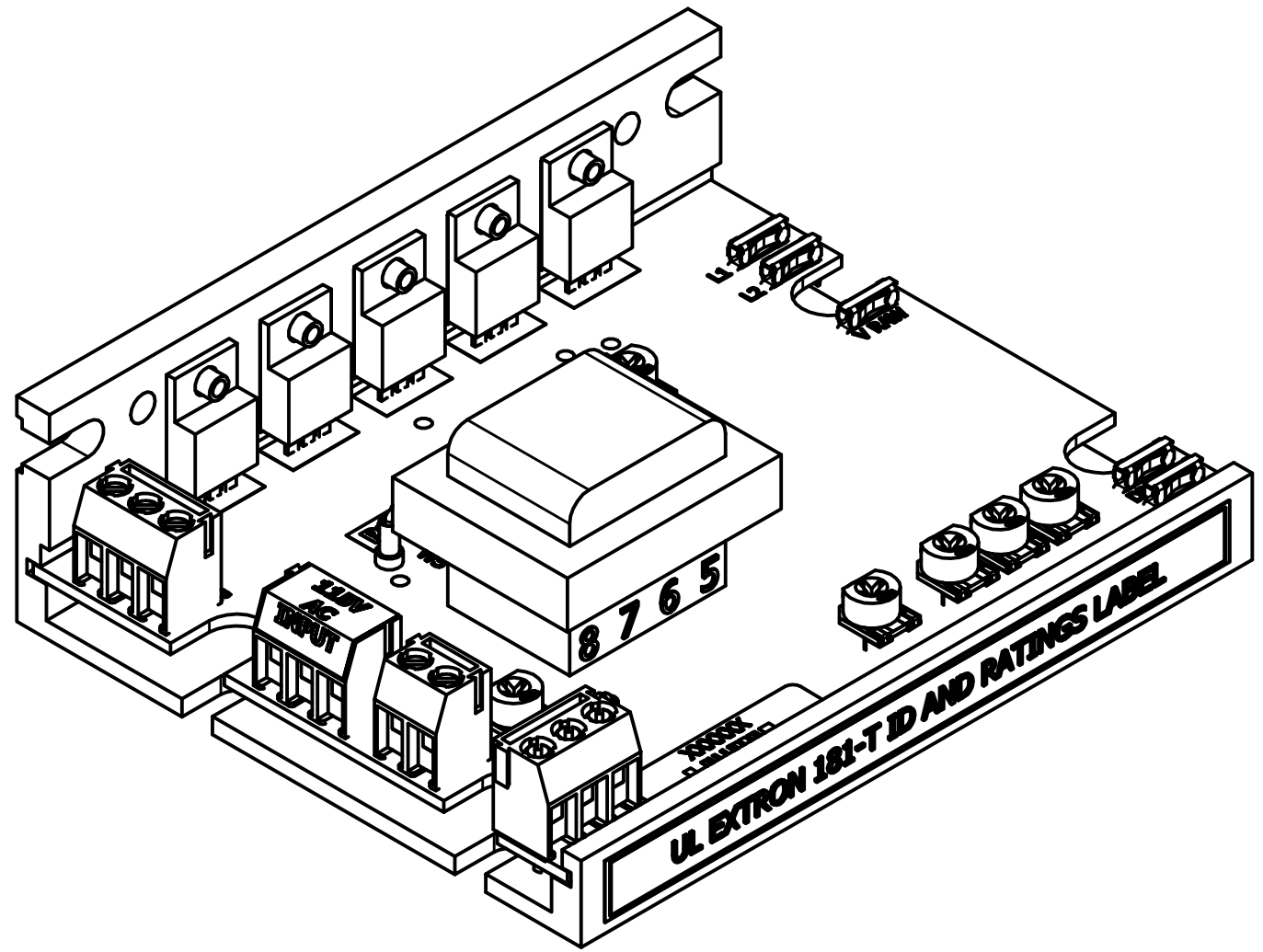
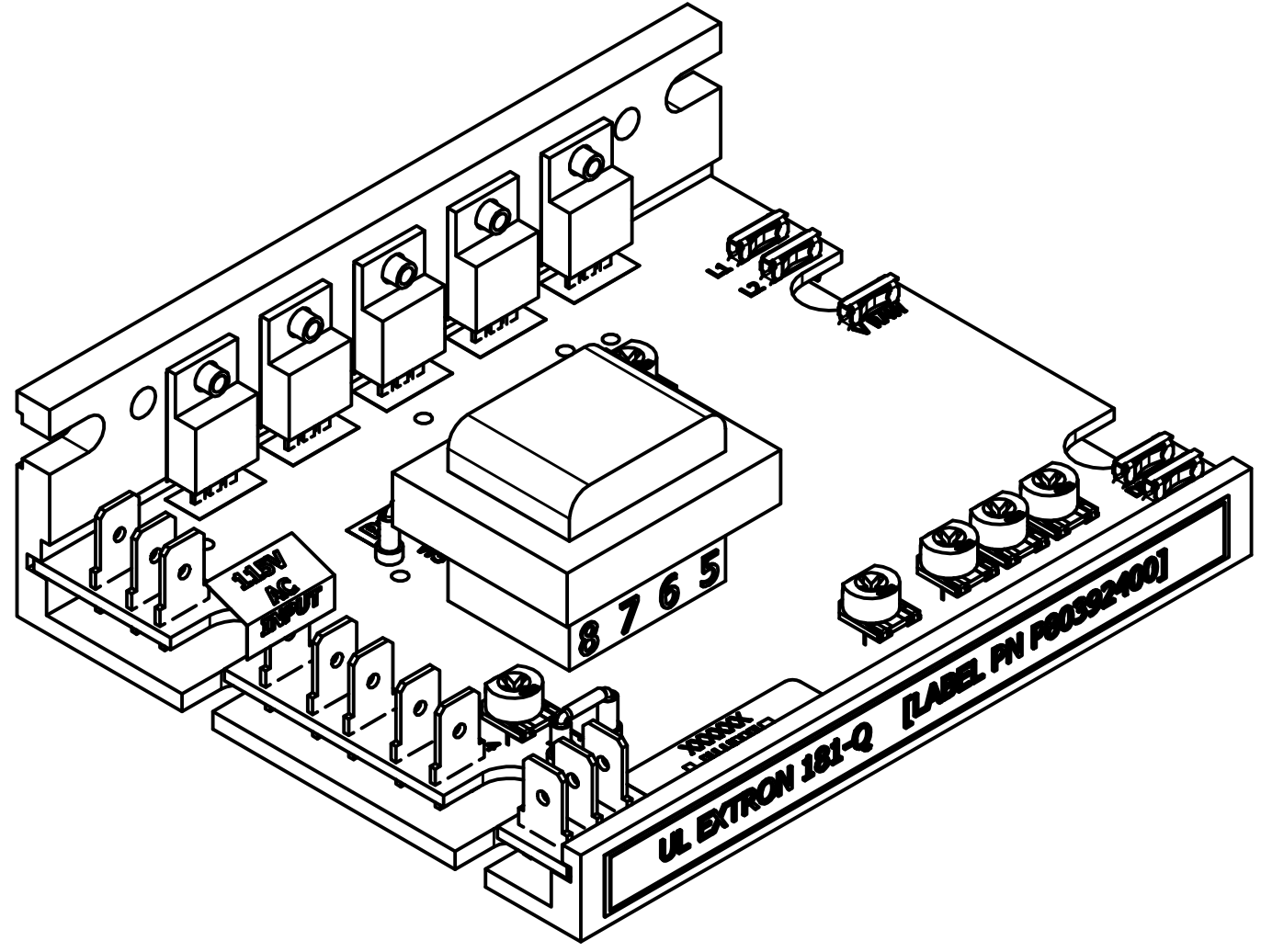


REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	NEW DRAWING RELEASE	12/21/2022	PSG



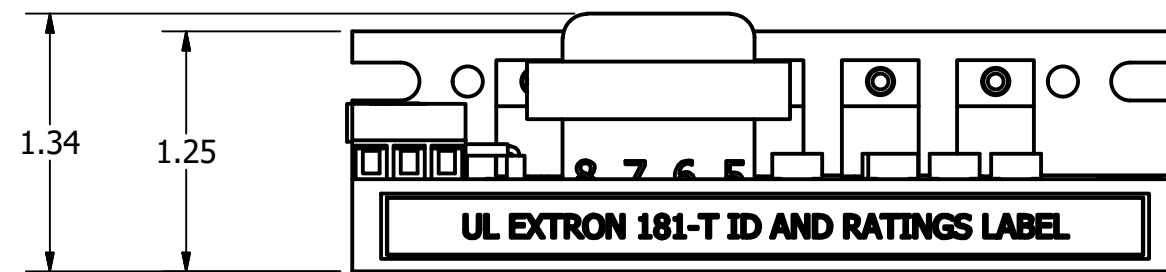
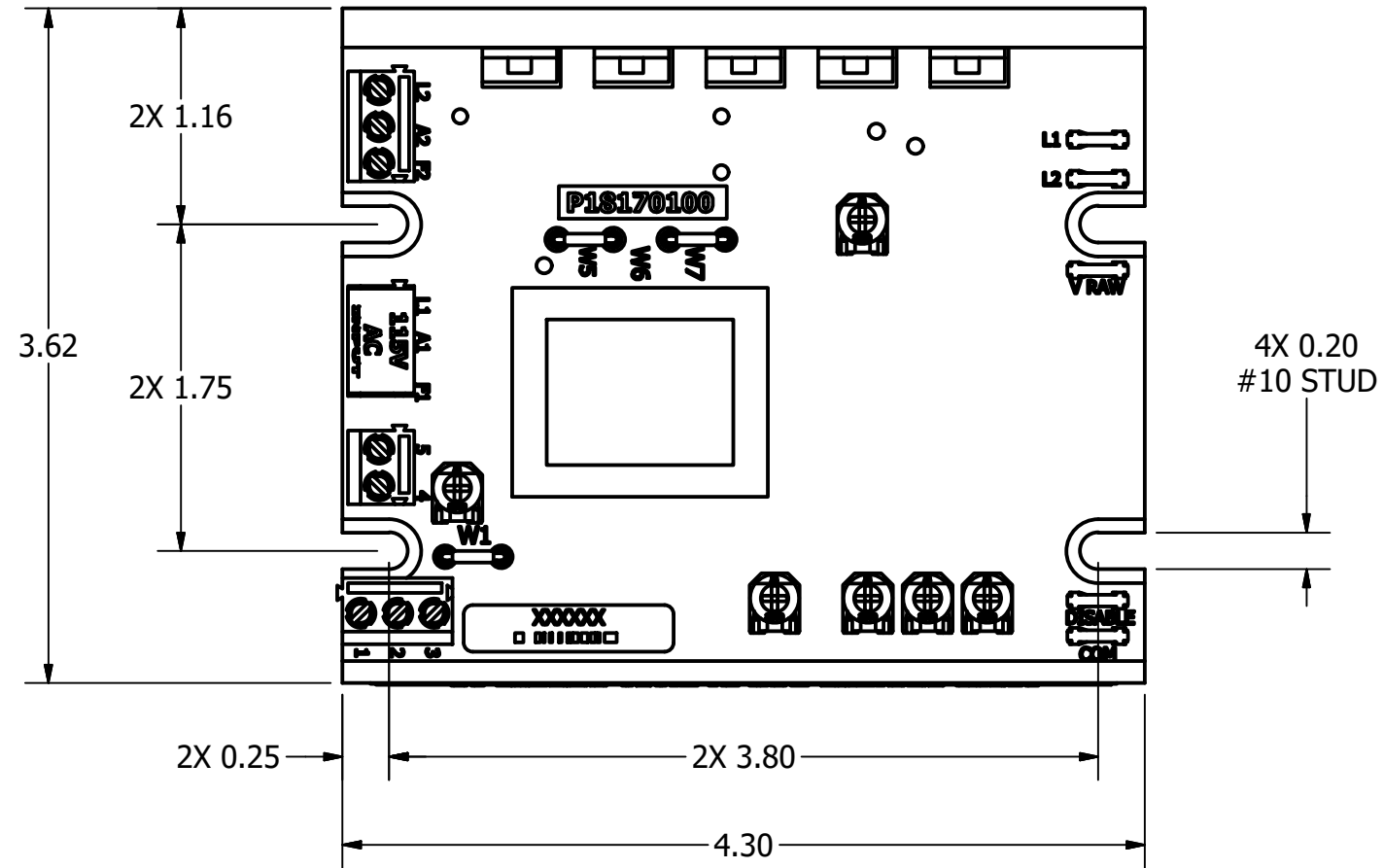
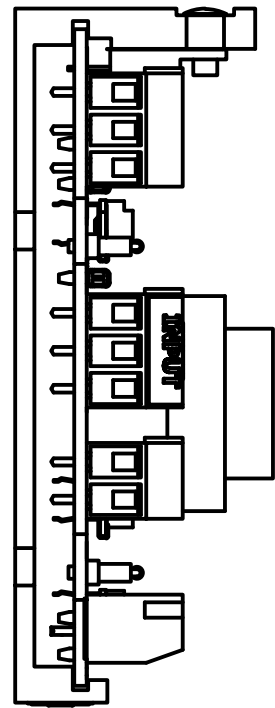
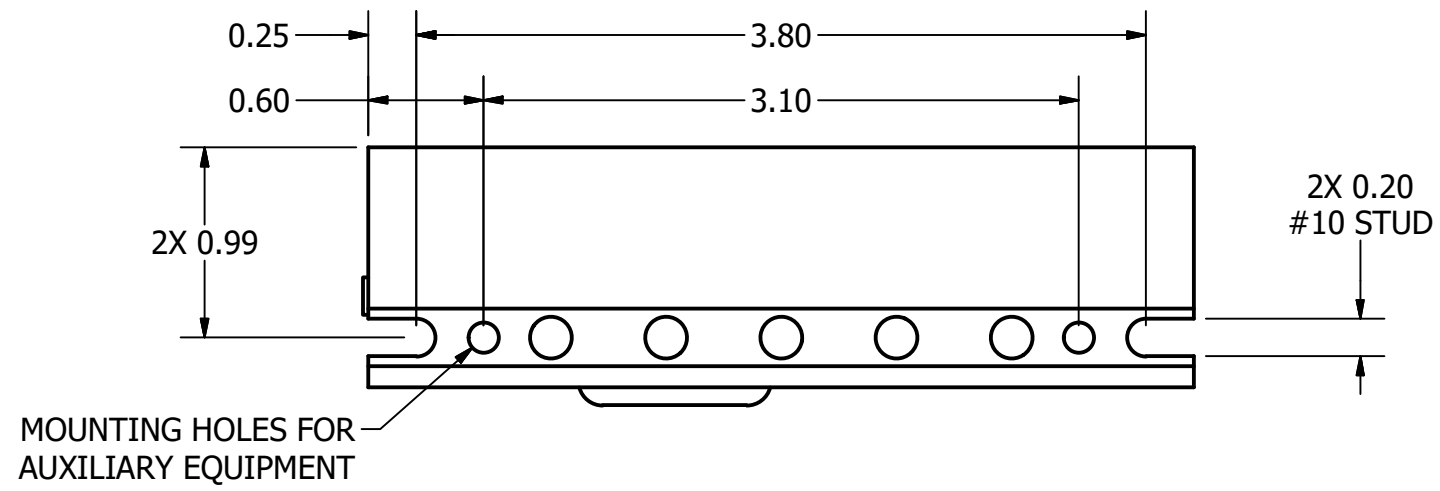
181-T
TERMINAL CONNECTIONS



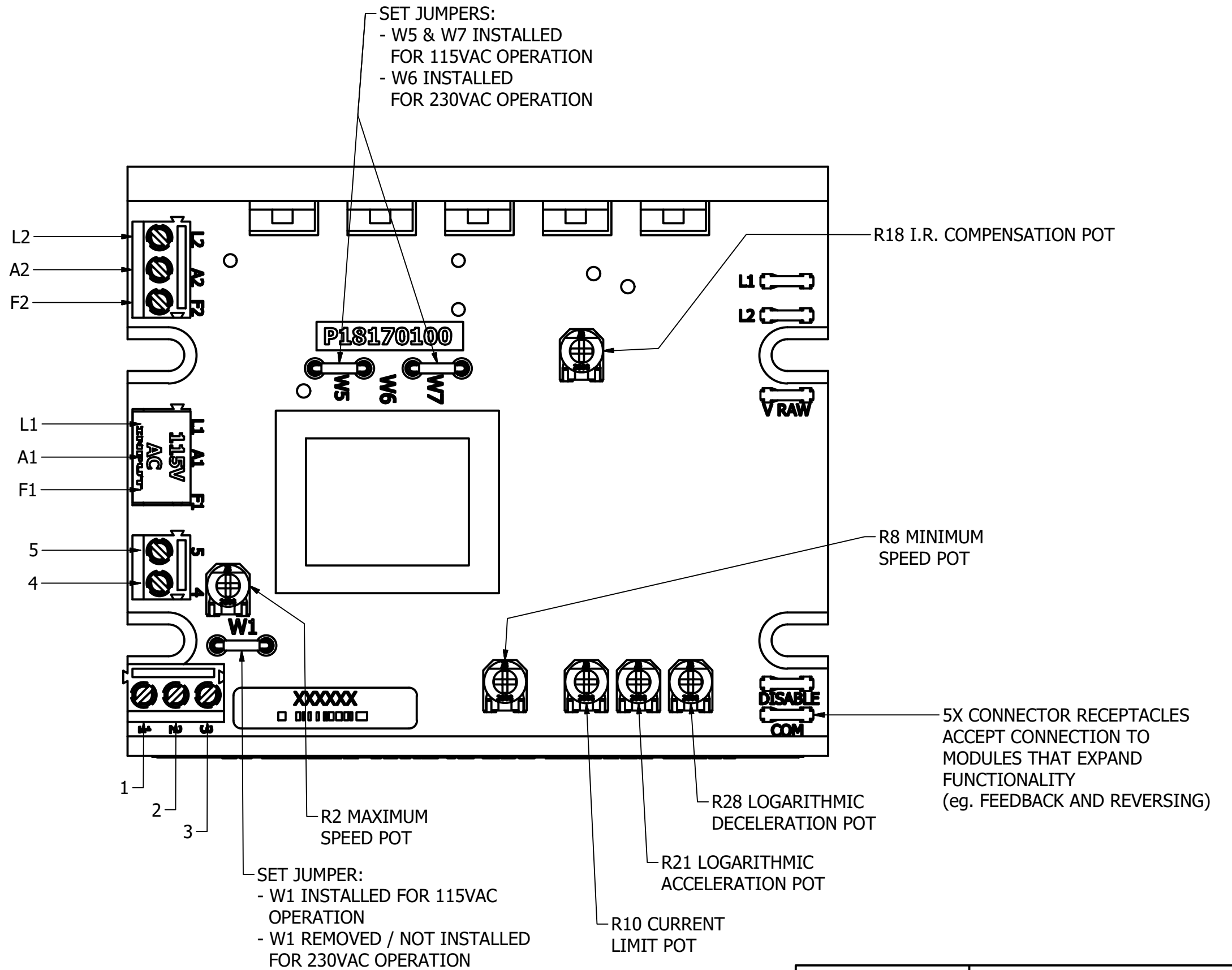
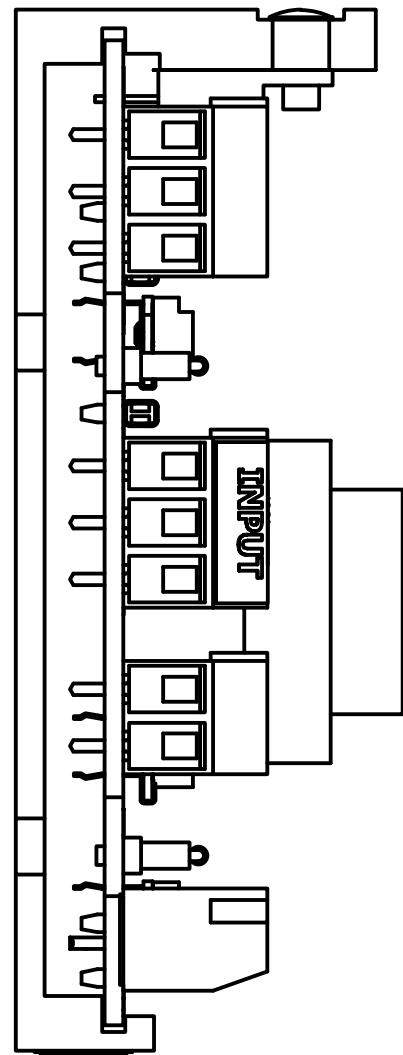
181-Q
QUICK CONNECT

MATL: 181-T	Extron Company, Minneapolis, MN (c) 2022 http://extroncompany.com		
FINISH:	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		
SHEET METAL (14-20 GA) LASER OR PUNCH AND PRESS BRAKE FORMING	TOLERANCES:		
	HOLE DIAMETER: ±0.003	SAME PLANE HOLE-TO-HOLE: ±0.010	
	SAME PLANE SHEAR EDGE-TO-HOLE: ±0.015	FORMED EDGE-TO-HOLE: ±0.015	
	ANGULAR: ±1°		
3rd ANGLE PROJECTION	UNLESS SUPERSEDED BY THE ABOVE		
	X ± 0.1		
	XX ± 0.03		
	XXX ± 0.015		
DO NOT SCALE DRAWING	DWG NO: P181701X0	REV: A	
SCALE: 1.25:1	DWG SIZE: B	SHEET 1 OF 4	

TITLE:
F/A SNAP-TROL 181-T/181-Q
MOTOR CONTROL [CUST]



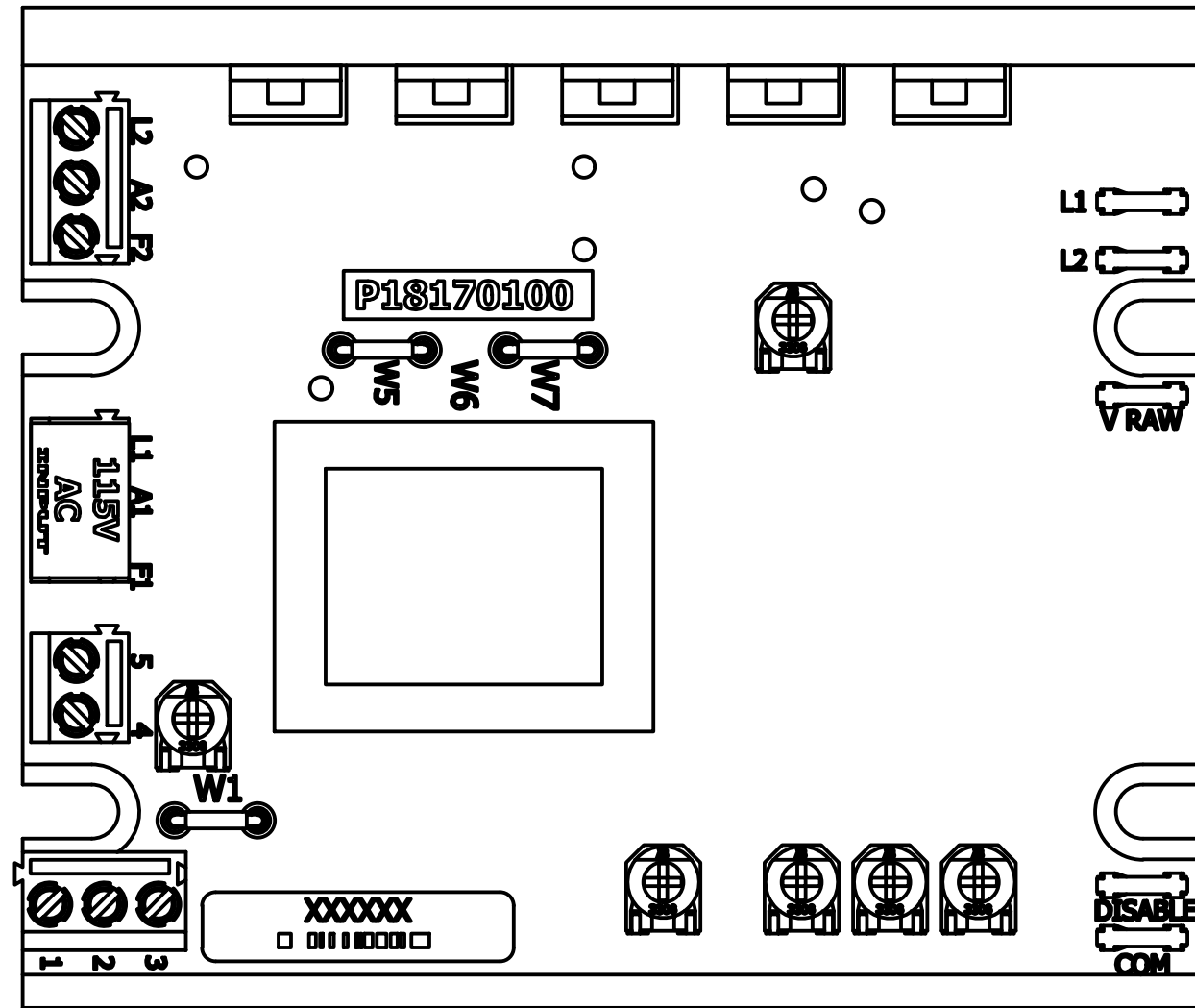
MATERIAL: 181-T		Extron Company, Minneapolis, MN (c) 2022 http://extroncompany.com	
FINISH:		TITLE:	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		F/A SNAP-TROL 181-T/181-Q MOTOR CONTROL [CUST]	
SHEET METAL (14-20 GA) LASER OR PUNCH AND PRESS BRAKE FORMING TOLERANCES: HOLE DIAMETER: ±0.003 SAME PLANE HOLE-TO-HOLE: ±0.010 SAME PLANE SHEAR EDGE-TO-HOLE: ±0.015 FORMED EDGE-TO-HOLE: ±0.015 ANGULAR: ±1°		DWG NO:	REV:
3rd ANGLE PROJECTION 		P181701X0	A
DO NOT SCALE DRAWING		SCALE: 1:1	DWG SIZE: B SHEET 2 OF 4



KEY:
 L1/L2 SUPPLY VOLTAGE IN
 A1/A2 ARMATURE VOLTAGE TO SHUNT WOUND OR PERMANENT MAGNET MOTOR
 F1/F2 FIELD FOR SHUNT WOUND MOTOR
 1-5 TERMINALS FOR DC DRIVE CONTROL

REFER TO P18190100 181 BLOCK DIAGRAM

MATL: 181-T	Extron Company, Minneapolis, MN (c) 2022 http://extroncompany.com	
FINISH:	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	
SHEET METAL (14-20 GA) LASER OR PUNCH AND PRESS BRAKE FORMING	TOLERANCES:	
	HOLE DIAMETER: ±0.003	
	SAME PLANE HOLE-TO-HOLE: ±0.010	
	SAME PLANE SHEAR EDGE-TO-HOLE: ±0.015	
	FORMED EDGE-TO-HOLE: ±0.015	
	ANGULAR: ±1°	
3rd ANGLE PROJECTION	UNLESS SUPERSEDED BY THE ABOVE	
	X ± 0.1	
	XX ± 0.03	
	XXX ± 0.015	
DO NOT SCALE DRAWING	DWG NO: P181701X0	REV: A
SCALE: 1.5:1	DWG SIZE: B	SHEET 3 OF 4



THE EXTRON COMPANY MODEL 181 IS A SOLID STATE, VARIABLE VOLTAGE DC MOTOR CONTROL

181-T/181-Q DC MOTOR CONTROLLER	
PROPERTY	DESCRIPTION
SUPPLY VOLTAGE	115VAC OR 230VAC, 50-60 Hz JUMPER SELECTABLE
MAXIMUM DC LOAD CURRENT	12A
MAXIMUM DC FIELD CURRENT	1.5A
OPERATING TEMPERATURE RANGE	-20 DEG F (-29 DEG C) TO 120 DEG F (50 DEG C)

DIAGNOSTICS:

1. APPLY A DC VOLTMETER TO THE VRAW (+) AND COM (-) EXPANSION LUGS ON THE RIGHT HAND EDGE
EXPECTED MEASUREMENT: APPROX 20VDC.
2. 115VAC SUPPLY VOLTAGE
APPLY A DC VOLTMETER TO ARM A1 (+) AND ARM A2 (-)
EXPECTED MEASUREMENT: 0VDC - 90VDC AS THE EXTERNAL VARIABLE SPEED CONTROL POTENTIOMETER IS ADJUSTED (MOTOR LOAD NOT REQUIRED)

MATL: SEE SHEET 1	Extron Company, Minneapolis, MN (c) 2022 http://extroncompany.com	
FINISH: SEE SHEET 1	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	
SHEET METAL (14-20 GA) LASER OR PUNCH AND PRESS BRAKE FORMING	TOLERANCES:	
	HOLE DIAMETER: ±0.003	
	SAME PLANE HOLE-TO-HOLE: ±0.010	
	SAME PLANE SHEAR EDGE-TO-HOLE: ±0.015	
	FORMED EDGE-TO-HOLE: ±0.015	
	ANGULAR: ±1°	
3rd ANGLE PROJECTION	UNLESS SUPERSEDED BY THE ABOVE	
	X ± 0.1	
	.XX ± 0.03	
	.XXX ± 0.015	
DO NOT SCALE DRAWING	DWG NO: P181701X0	REV: A
SCALE: 1.5:1	DWG SIZE: B	SHEET 4 OF 4