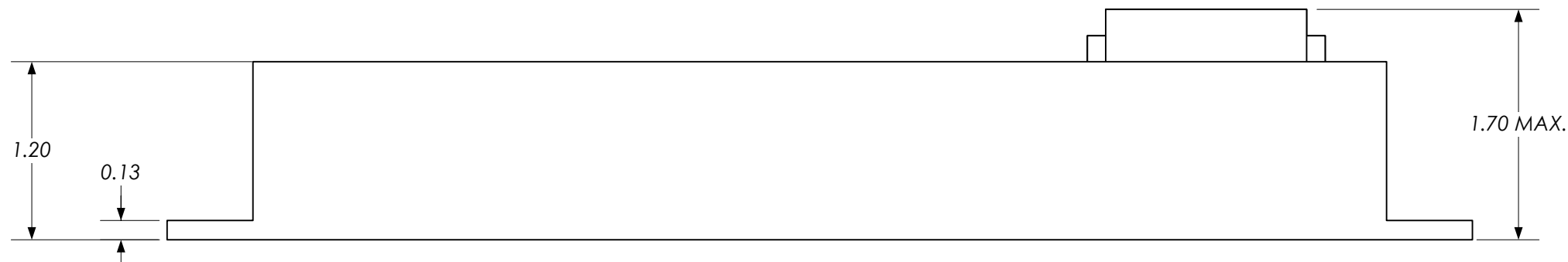


REVISIONS				
REV	DATE	ECN	DESCRIPTION	APVD
D	05/06/24	17856E	UPDATED CUR. IN TOLERANCE	JC
E	03/18/25	18500E	UPDATED HW REV ON PAGE 1	JC

Overview: Module Physical Dimensions

J2
 DEUTSCH DT15-12PB-B016 OR EQUIVALENT
 MATES WITH
 DEUTSCH DT06-12SB-B016 PLUG
 (XXXX = ALL MODIFICATIONS)
 OR EQUIVALENT.

J1
 DEUTSCH DT15-12PA-B016 OR EQUIVALENT
 MATES WITH
 DEUTSCH DT06-12SA-B016 PLUG
 (XXXX = ALL MODIFICATIONS)
 OR EQUIVALENT.



UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES AND TOLERANCES ARE

TWO PLACE DECIMAL	THREE PLACE DECIMAL	ANGLES
+/- 0.05	+/- 0.020	+/-

DO NOT SCALE DRAWING

CHECKED J. COOPER	DATE 04/01/2025
APPROVED J. COOPER	DATE 04/01/2025

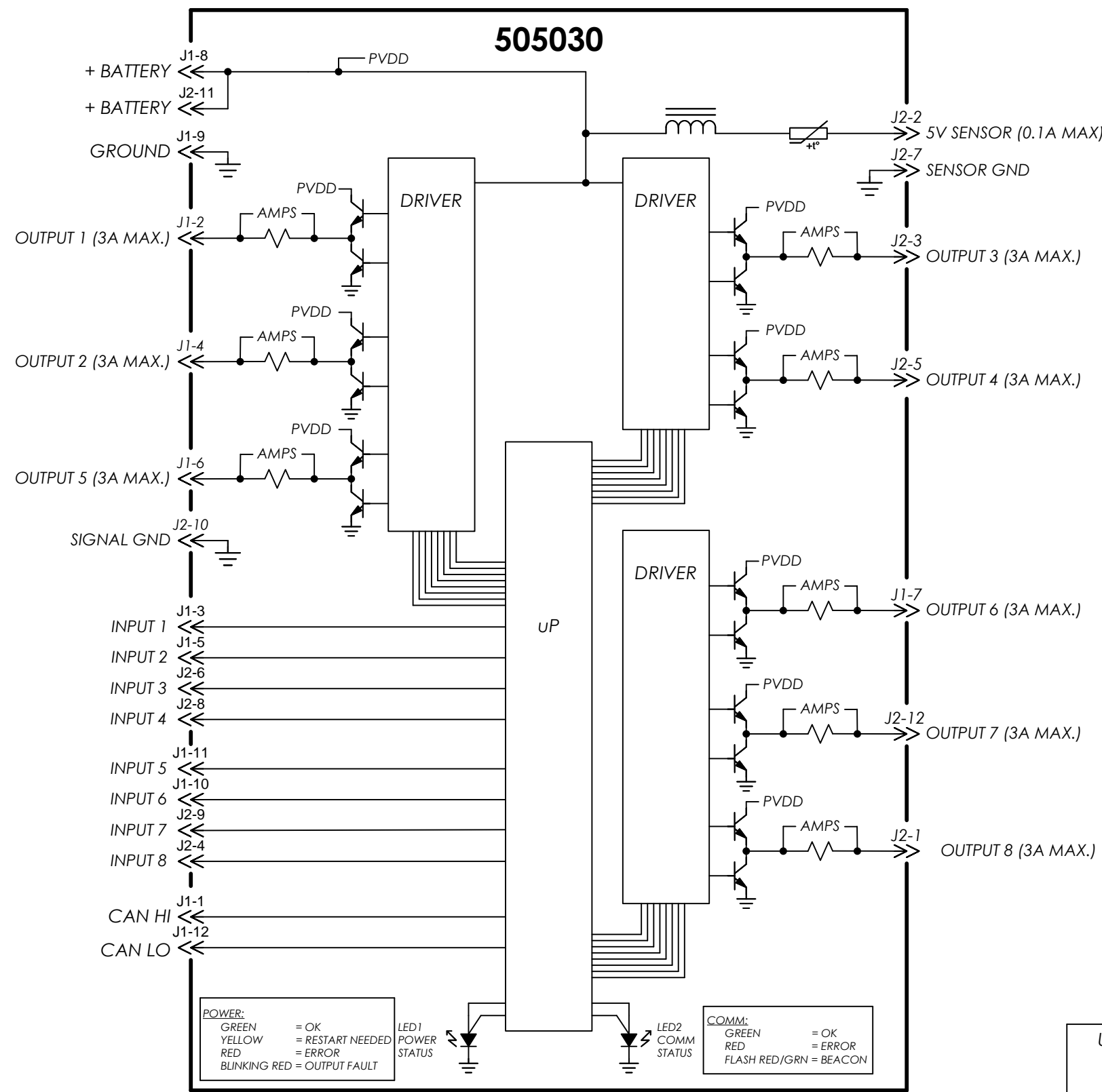
MARLIN TECHNOLOGIES INC.			
TITLE OUTLINE, 505030 MFLEX 8IN/8OUT CAN MODULE			
SIZE B	DRAWING NUMBER 013946	TYPE O	REV E
DRAWN M. PETZKE		DATE 02/07/22	SHEET 1 OF 3

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REVISIONS

REV	DATE	ECN	DESCRIPTION	APVD
D	05/06/24	17856E	UPDATED CUR. IN TOLERANCE	JC
E	03/18/25	18500E	UPDATED HW REV ON PAGE 1	JC

Overview: Module Block Diagram



POWER:
 GREEN = OK
 YELLOW = RESTART NEEDED
 RED = ERROR
 BLINKING RED = OUTPUT FAULT

LED1
POWER
STATUS

COMM:
 GREEN = OK
 RED = ERROR
 FLASH RED/GRN = BEACON

LED2
COMM
STATUS

OPERATING VOLTAGE: 8 TO 36VDC (12VDC OR 24VDC NOMINAL)

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES AND TOLERANCES ARE

TWO PLACE DECIMAL +/- 0.05	THREE PLACE DECIMAL +/- 0.020	ANGLES +/-
-------------------------------	----------------------------------	---------------

DO NOT SCALE DRAWING

CHECKED J. COOPER	DATE 04/01/2025
APPROVED J. COOPER	DATE 04/01/2025

MARLIN TECHNOLOGIES INC.

TITLE: **OUTLINE, 505030**
MFLEX 8IN/8OUT CAN MODULE

SIZE B	DRAWING NUMBER 013946	TYPE O	REV E
DRAWN M. PETZKE		DATE 02/07/22	
SHEET 2 OF 3			

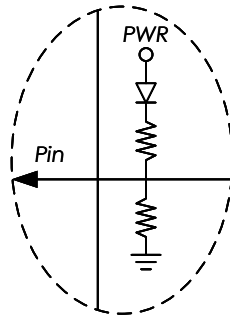
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Overview: Input/Output Configurations

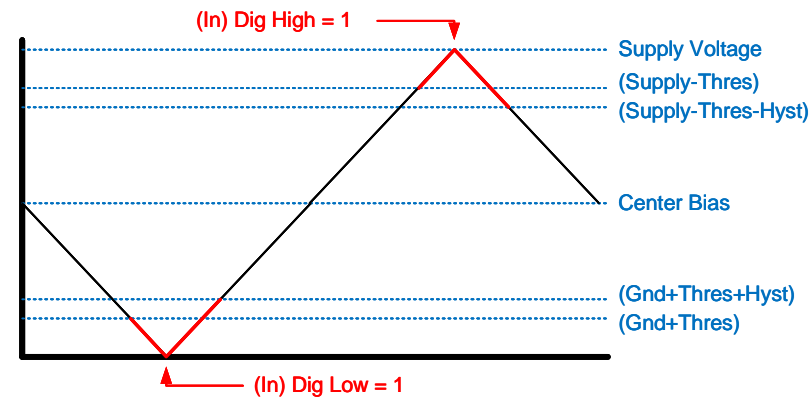
REVISIONS

REV	DATE	ECN	DESCRIPTION	APVD
D	05/06/24	17856E	UPDATED CUR. IN TOLERANCE	JC
E	03/18/25	18500E	UPDATED HW REV ON PAGE 1	JC

(* NOTE: Analog Input Circuit and Best Practices)



- Generated Analog Signal
- Analog Potentiometer (5k or less)
- On/Off Switch to Power (No Pull-Down)
- On/Off Switch to Gnd (No Pull-Up)
- 3-way Switch to Pwr/Gnd (No PU/PD)
- Frequency Input (0-5V, LS_Output)
- PWM Duty Cycle (0-5V, LS_Output)
- Quadrature Input (0-5V, LS_Output)

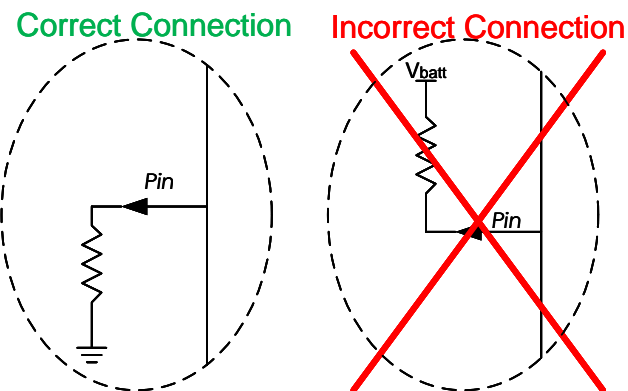


Input/Output Configuration Options

Input Type	#1	#2	#3	#4	#5	#6	#7	#8
Digital Active High - Thres	•	•	•	•	•	•	•	•
Digital Active Low - Thres	•	•	•	•	•	•	•	•
Analog 0-36V	•	•	•	•	•	•	•	•
Frequency	•	•	•	•				
PWM Duty Cycle	•	•	•	•				
Resistance	•	•	•	•				
Current (0-20mA)	•	•	•	•				
Quadrature – X1	•*	•*	•*	•*	•*	•*	•*	
Quadrature – X2	•*	•*	•*	•*	•*	•*	•*	
Quadrature – X4	•*	•*	•*	•*	•*	•*	•*	
Quadrature – B		•	•	•	•	•	•	•

*When configured as Quadrature, The next adjacent input is automatically configured as the channel B input. (i.e. If In1 = QuadX_, then In2 = Quad Channel B)

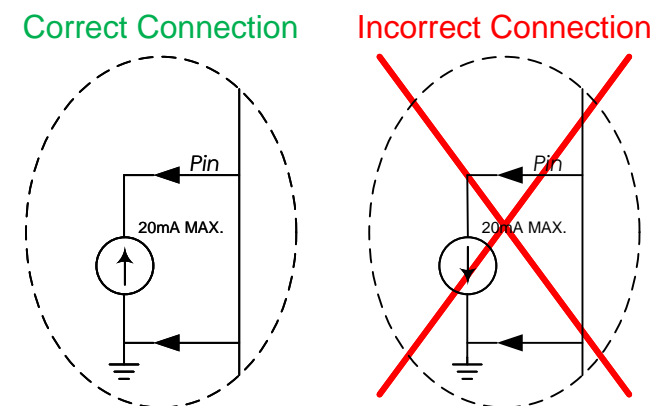
(* NOTE: Resistance Input Circuit and Best Practices)



- An improper resistor connection is likely to damage the module.

Output Type	#1	#2	#3	#4	#5	#6	#7	#8
00 - Disabled	•	•	•	•	•	•	•	•
01 – Active HI Digital	•	•	•	•	•	•	•	•
02 – Active LO Digital	•	•	•	•	•	•	•	•
03 – HS PWM Closed Loop	•	•	•	•	•	•	•	•
04 – HS PWM Open Loop	•	•	•	•	•	•	•	•
03 – LS PWM Closed Loop	•	•	•	•	•	•	•	•
04 – LS PWM Open Loop	•	•	•	•	•	•	•	•

(* NOTE: Current Input Circuit and Best Practices)



- Voltage on the input Pin must not exceed 6V when configured for current input.

- The input Pin when configured for current sensing is current sink and must be wired as such. Improper wiring can damage the module.

In/Out Tolerances (@25C)	
Analog Input	+/-50mV
Resistance Input	+/-2%
Current Input (0-20mA)	+/-100uA
Current Control Output	+/-15mA

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TWO PLACE DECIMAL	THREE PLACE DECIMAL	ANGLES
+/- 0.05	+/- 0.020	+/-

DO NOT SCALE DRAWING

CHECKED	J. COOPER	DATE	04/01/2025
APPROVED	J. COOPER	DATE	04/01/2025

MARLIN TECHNOLOGIES INC.

TITLE
OUTLINE, 505030
MFLEX 8IN/8OUT CAN MODULE

SIZE	DRAWING NUMBER	TYPE	REV
B	013946	O	E
DRAWN M. PETZKE		DATE 02/07/22	
SHEET 3 OF 3			

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