

## MotionSync™ Technical Specifications

<b>MotionSync™ (v1.0)</b>	
Nominal Voltage	9VDC to 40VDC
Operational Current, Max.	10A
Multiple Motor Synchronization	Up to 5 AM Equipment, MED-CAN motors
Speed Range Control (rpm)	0-70
Position Range Control (deg.)	0-360
Speed Control	CAN 2.0B messaging
Position Control	CAN 2.0B messaging
Size (excluding wire harness):	
Height, mm (in)	43.5 (1.7)
Length, mm (in)	146 (5.8)
Width, mm (in)	95 (3.7)
Mounting Holes, dia. Mm (in)	6.5 (0.25), 4X (see control drawing)
Weight, kg (lb)	0.5 (1.1)
Operating Temperature Range	-40°C to 93°C
Operational Humidity	Relative Humidity of 95%, non-condensing, at 43°C
Operational Vibration	6g per axis, max.
IP Rating	IP68
Communication (input and output)	CAN SAE J1939/11 Baud rate: 250 kbps and CAN FD
Termination Resistor	Resistor footprint provided on PCB, but not populated – standard Customizable to customer specifications – optional
LIN	No
Digital Serial Bit Position Output	CAN 2.0B messaging
Home Position Output	CAN 2.0B messaging
2-Channel Incremental Encoding Output	CAN 2.0B messaging
Digital I/O	Yes
Outputs	CAN 2.0B messaging
Diagnostic	(customizable)
Resolution (degree)	0.35
Compliance(s)	RoHS
	CE
	SAE J1455
Other Functions	<p>WOUT. low side switch capable of a minimum current of 7.5A. Upon activation from a wiper switch or CAN message related to the Washer Pump.</p> <p>Dedicated low side inputs for activation from a traditional wiper switch.</p> <p>Washer fluid level sensor switch: low side input activated by closed or open circuit from AME P/N 406-1053 or equivalent washer fluid level sensor switch. Closed = low fluid level, triggering the MotionSync™ to send the appropriate CAN message to the ICU.</p>

## Windshield Wiper System Functions

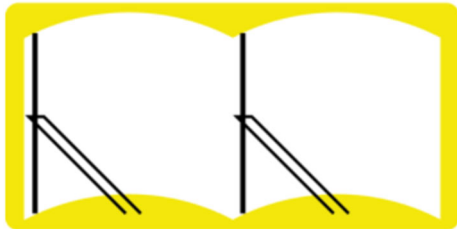
### Radial Sweep Pattern Program:



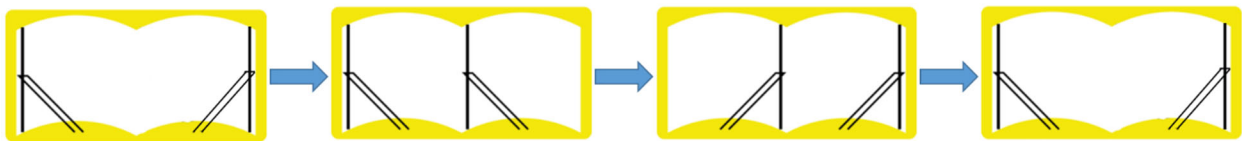
**Programmed Pattern 1.v0** - Synchronization between wiper systems to avoid overlapping or crashes between arms. Reading position of the motor and changing motor speed.



### Pantograph Sweep Pattern Program:



**Programmed Pattern 2.v0** - Synchronization between wiper systems to avoid overlapping or crashes between arms. Reading position of the motor and changing motor speed.



### Opposed Sweep Pattern Program

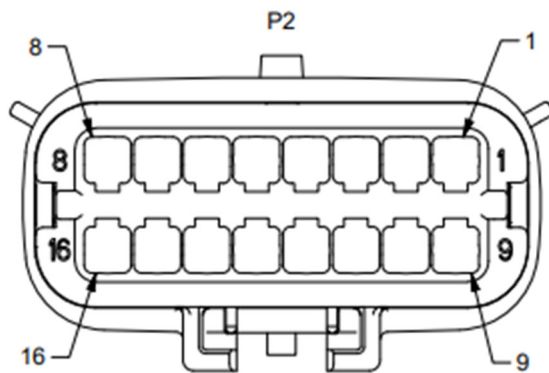


**Programmed Pattern 3.v0 – (Coming Q2, 2025)** Synchronization between wiper systems to avoid overlapping or crashes between arms. Reading position of the motor and changing motor speed.



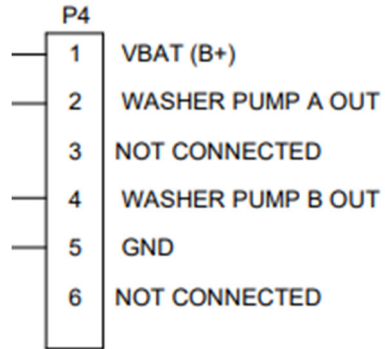
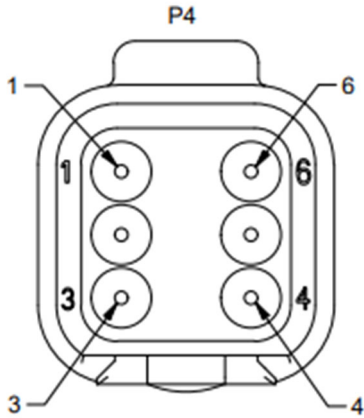
## Connector Diagrams

MOLEX MX# 33482-8601

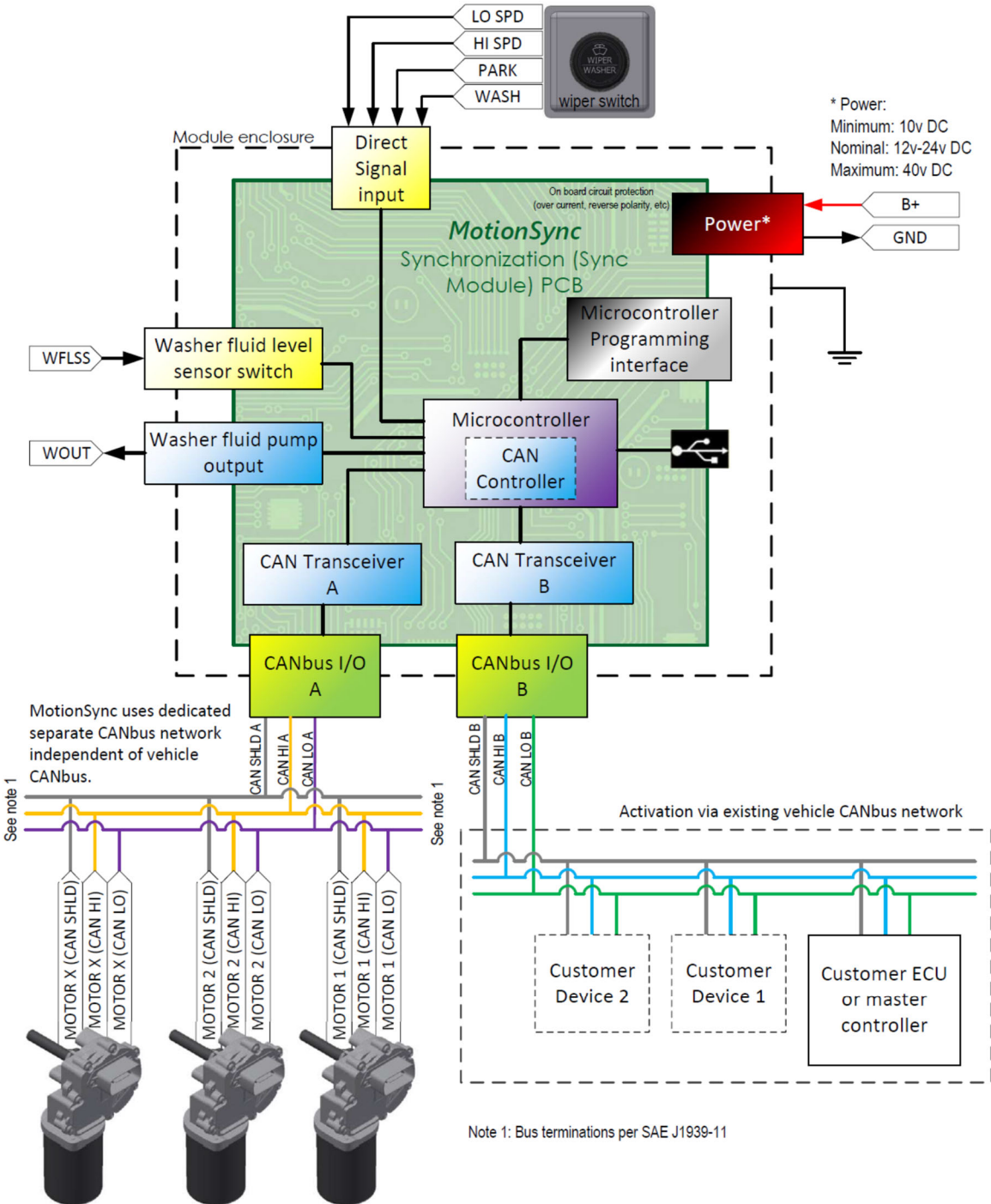


1	CAN H MS	
2	CAN L MS	
3	CAN SHLD MS	
4	NOT USED	
VG	5	NOT USED
6	CAN SHLD VEH	
7	CAN L VEH	
8	CAN H VEH	
9	WIPER SWH IN	
VG	10	WASHER SW A IN
NG	11	FLUID SWA IN
;	12	FLUID SWB IN
;	13	WASHER SW B IN
14	NOT USED	
;	15	WIPER SWL IN
16	WIPER SWPARK IN	
P2		

DEUTSCH DT# DT04-6P-CE02



## System Diagram





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