


## Joystick - 1 Axis Hall Effect With Mechanical Gate



Newly redesigned joysticks address the issues of accuracy and reliability with other products in this market. Our Joysticks are not sensitive to electromagnetic interference and will continue to operate without issue even in the most demanding applications..

Part Number	AJSC-J1A1-001	Joystick - 1 Axis to J1939 bus
	AJSCE-J1A1-001	With extra inputs (up to 6)

Package			
Part Number	AJSC-J1A1-001 GH	AJSC-J1A1-001 SH	AJSC-J1A1-001 GH
			
Length	4" (102 mm)	4" (102 mm)	4" (102 mm)
Height	8.5" (215 mm)	8.5" (215 mm)	5.5" (140 mm)
Depth	2" (52 mm)	2" (52 mm)	2" (52 mm)
Frame Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy
Handle Material			
Weight	435 g	420 g	400 g
Environmental			
Operating Temperature	-40°C to 85°C		
Storage Temperature	-50°C to 85°C		
Vibration	Level ±3g, 10Hz to 200Hz (random) @ 3.6g(rms)		
Shock	3.2 V+/-5%		
Life Cycle	10 million operations		
Electrical			
Voltage (Power)	6.5 - 38 VDC		
Current	< 25mA		
Over Voltage	Up to 50 VDC for 2 sec		
Reverse Polarity Protected	YES		
Communication			
Data Sampling	8 bits		
Protocols	CAN / J1939		
Baud Rate	250 kBit/s		

## AJSC-J1A1-001 - J1939 Output

Source Address (SA): 0x34 (52)

### Joystick position and buttons state

Transmission rate: 30 mS.  
 Data Length: 8 bytes  
 PDU format PF: 0xFF (255)  
 PDU specific PS: 0x18 (24)  
 Default priority: 7  
 Parameter group number PGN: 0xFF18 (65304)

Start byte[bit] <sup>1</sup>	Length bits	Description	Format	Units	Value
0[0]	16	N/A			Reserved
2[4]	1	Handle Moved Back			0 - OFF / 1 - ON
2[5]	1	Handle moved Forward			0 - OFF / 1 - ON
2[6]	1	Handle in neutral			0 - OFF / 1 - ON
3[0]	8	Handle deviation from Neutral position			0 to 255
7[0]	6	Status			0 – Startup/Default 1 - Position Reading Complete 2 - Zero Set Complete 3 - Zero Reset Complete 4 - Communication Parity Fault 5 - Position Invalid/Detection Fault 6 - Unsupported Request
7[6]	2	Unused			

<sup>1</sup> Data bytes in the message are numbered from 0 to 7

### Joystick Status

Transmission rate: On any state change or 1000 mS.  
 Data Length: 8 bytes  
 PDU format PF: 0xFF (255)  
 PDU specific PS: 0x17 (23)  
 Default priority: 7  
 Parameter group number PGN: 0xFF17 (65303)

Start byte[bit] <sup>1</sup>	Length bits	Description	Format	Units	Value
0[0]	2	Input 0 (Sensor 1)			0 – Off 1 – On 2 – Error 3 – Not Applicable
0[2]	2	Input 1 (Sensor 2)			0 – Off 1 – On 2 – Error 3 – Not Applicable
0[4]	60	N/A			

<sup>1</sup> Data bytes in the message are numbered from 0 to 7