

Multi-axis Controller

V26



The V26 is a robust joystick commonly used in electro-hydraulic applications. Long life and high reliability is ensured by the latest contactless hall-technology. With many outputs and grip options the V26 series is hugely customisable.

Technical data

Mechanical life V26	10 million operating cycles
Supply voltage	See interface
Operation temperature	-40°C to +85°C
Degree of protection	IP22
Functional safety	PLd compatible (EN ISO 13849, complies SIL2 to DIN EN IEC 61508)



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	V26	T	-R	+R	-B	-E...	-S...	-X
Basic unit								
V26	2-axis							
Grip / palm grip								
	Knob <i>(included in basic unit!)</i>							
T	Dead man							
H	Signal button							
D	Push button							
B...	Palm grip B... <i>(see page palm grip 170)</i>							
Axis 1								
R	Friction brake							
Axis 2								
R	Friction brake							
Cover housing								
B	Cover housing <i>(included in basic unit!)</i>							
Interface <i>(description see on the following pages)</i>								
E0xx	Switching output							
E1xx	Voltage output							
E2xx	Current output							
E3xx	CAN-interface							
E4xx	CANopen Safety interface							
Plug connectors								
S...	Standard plug connectors <i>(see page 149)</i>							
Special model								
X	Special / customer specified							

Technical details may vary based on configuration or application! Technical data subject to change without notice!

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Digital output			
Supply voltage	9-32 V DC		
Current carrying capacity	Direction signal 150 mA		
	Zero position signal 500 mA		
Mounting depth A	105 mm		
Wiring	Cable 500 mm long without plug connector		
	Optional with plug connector (<i>standard plug connectors see page 149</i>)		S
2 direction signals + 1 zero position signal (galvanically isolated) per axis			
	2 axis		E002 2

Voltage output (not stabilized)			
Supply voltage	4,75-5,25 V DC		
Mounting depth A	105 mm		
Wiring	Cable 500 mm long without plug connector		
	Optional with plug connector (<i>standard plug connectors see page 149</i>)		S
0,5...2,5...4,5 V redundant per axis			
	2 Achsen		E103 2
		Output options	
		Characteristic:	
		Inverse dual	1
		Dual	2
		Inverse dual with dead zone +/- 3° (standard)	3
		Dual with dead zone +/- 3°	4

Voltage output			
Supply voltage	9-32 V DC (*11,5-32)		
Mounting depth A	105 mm		
Wiring	Cable 500 mm long without plug connector		
	Optional with plug connector (<i>standard plug connectors see page 149</i>)		S
0,5...2,5...4,5 V redundant per axis			
	2 axis		E111 2
0...5...10 V redundant per axis, supply voltage 11,5 - 32 V DC			
	2 axis		E131 2
		Output options	
		Characteristic:	
		Inverse dual	1
		Dual	2
		Inverse dual with dead zone +/- 3° (standard)	3
		Dual with dead zone +/- 3°	4
Voltage output with other value on request!			

Current output

Supply voltage	9-32 V DC			
Mounting depth A	105 mm			
Wiring	Cable 500 mm long without plug connector			
	Optional with plug connector (<i>standard plug connectors see page 149</i>)			S
0...10...20 mA per axis, sensor redundant with error monitoring and error signal				
	2 axis	E203 2		
4...12...20 mA per axis, sensor redundant with error monitoring and error signal				
	2 axis	E211 2		
	Output options			
	Single		5	
	Single with dead zone +/- 3° (standard)		6	

Current output with other value on request!

CAN

Supply voltage	9-36 V DC			
Idle current consumption	120 mA			
	External digital output for LEDs 5-30 mA (dependent on the number of LEDs)			
	Digital switching output (potential-free) 100 mA			
Mounting depth A	E3091: 105 mm			
	E3091X: 130 mm			
	E3101X - E3103X: 130 mm			
	E3104X - E3105X: 160 mm			
Protocol	CANopen CiA DS 301 or SAE J 1939			
Baud rate	125 kBit/s to 1 Mbit/s (standard 250 kBit/s)			
Output value	255...0...255			
Wiring	CAN (IN) cable 300 mm with plug connector M12 (male)			
	CAN (OUT) cable 300 mm with plug connector M12 (female)			
	External in-/outputs cable 300 mm without plug connector			
	External in-/outputs cable 300 mm without plug connector (additionally from 32 in-/outputs)			
	Optional with plug connector (<i>standard plug connectors see page 149</i>)			S

CAN expansion stage 1

- 7 analogue Joystickachsen		E309	1	
- 16 digitale Joystickfunktionen				
- Input for capacitive sensor				
With additional external in-/outputs				
- 8 external LED-outputs (dimnable optional), 1 switching output (potential-free, 100 mA), 8 external digital inputs			2	
- 16 external LED-outputs (dimnable optional), 1 switching output (potential-free, 100 mA), 16* external digital inputs			3	

**External LED-outputs can be used for LEDs in the grip*

**With the use of capacitive sensor, the external digital inputs are reduced by one input!*

CANopen Safety			
Supply voltage	9-36 V DC		
Idle current consumption	120 mA		
	External digital output for LEDs 5-30 mA (depending on the number of LEDs)		
	Digital switching output (potential-free) 100 mA		
Mounting depth A	E4091: 105 mm		
	E4091X: 130 mm		
	E4101X - E4103X: 130 mm		
	E4104X - E4105X: 160 mm		
Protocol	CAN Safety CIA 304		
Baud rate	125 kBit/s to 1 MBit/s (Standard 250 kBits)		
Output value	255...0...255		
Wiring	CAN (IN) cable 300 mm with plug connector M12 (male)		
	CAN (OUT) cable 300 mm with plug connector M12 (female)		
	External in-/outputs cable 300 mm without plug connector		
	External in-/outputs cable 300 mm without plug connector (additionally from 32 in-/outputs)		
Optional with plug connector (<i>standard plug connectors see page 149</i>)			S
CANopen Safety expansion stage 1			
- 7 analog joystick axis		E409	1
- 16 digital joystick functions			
- Input for capacitive sensor			
With additional external in-/outputs			
- 8 external LED-outputs (dimnable optional), 1 switching output (potential-free, 100 mA), 8 external digital inputs			2
- 16 external LED-outputs (dimnable optional), 1 switching output (potential-free, 100 mA), 16* external digital inputs			3
*External LED-outputs can be used for LEDs in the grip			
*With the use of capacitive sensor, the external digital inputs are reduced by one input!			

Other outputs			
Voltage output for PVG32 0,25...0,5...0,75Us, power supply 9-32V DC			
Wiring:	1. cable 14 x 0,25 mm² 300 mm long without plug connector		
	2. cable 14 x 0,25 mm² 300 mm long without plug connector (optional for grip function)		
Optional with plug connector (<i>standard plug connectors see page 149</i>)			S
	2 axis	E907 2	

Attachments	
Z01 Mating connector (CAN) M12 (male insert) with 2 m cable	20201140
Z02 Mating connector (CAN) M12 (female contact) with 2 m cable	20202298

