

The Single-Axis Controller S27 is a hall sensor switching device designed for electro-hydraulic and remote controlled hydraulic. The modular design of the switching device is universally applicable. The Single-Axis Controller is resistant to oil, maritime conditions e.g. offshore /vessels, UV radiation typically from the sun.

Technical data

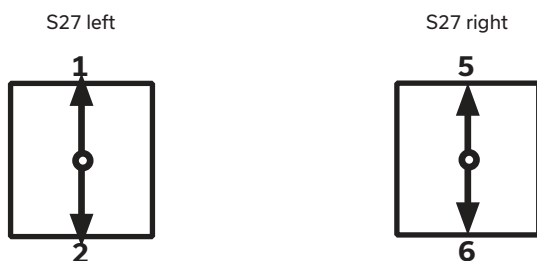
Mechanical life S27	6 million operating cycles
Operating temperature	-40°C to +85°C
Degree of protection	Up to IP65, electronic assembly IP67
Functional safety	PLd compatible (EN ISO 13849, complies SIL2 to DIN EN IEC 61508)



	S27L	M	<i>Example</i> - Z	- E...	- S...	- X
Basic unit						
S27L Single-Axis Controller left						
S27R Single-Axis Controller right						
Grip / palm grip						
Knob (standard)						
M Mechanical zero interlock						
Q T-grip						
Z Spring return						
R Friction brake						
Interface (description on the following pages)						
E0xx Digital output						
E1xx Voltage output						
E2xx Current output						
E3xx CAN-Interface						
E4xx CAN Safety Interface						
Plug connectors						
S.. Standard plug connectors (see page 127)						
Special model						
X Special / customer specific						

Identification of the installation variants

with switching directions:



Digital Output			
Supply voltage	9-32 V DC		
Current carrying capacity	Direction signal 150 mA		
	Zero position signal 500 mA		
Wiring	Cable 500 mm long without plug connector		
	Optional with plug connector (standard plug connectors see page 127)		S
2 direction signals + 1 zero position signal (galvanically isolated)			
	1 axis	E001 1	

Voltage output (not stabilized)			
Supply voltage	4,75-5,25 V DC		
Current carrying capacity	Direction signal 8 mA		
Wiring	Cable 500 mm long without plug connector		
	Optional with plug connector (standard plug connectors see page 127)		S
0,5...2,5...4,5 V redundant + 2 direction signals			
	1 axis	E104 1	
	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 V)		
Current carrying capacity	Direction signal 150 mA		
	Zero position signal 500 mA		
Wiring	Cable 500 mm long without plug connector		
	Optional with plug connector (<i>standard plug connectors see page 127</i>)		S
0,5...2,5...4,5 V redundant + 2 direction signals + 1 zero position signal (galvanically isolated)			
	1 axis	E112 1	
0...5...10 V redundant + 2 direction signals + 1 zero position signal (galvanically isolated), supply voltage 11,5 - 32 V DC			
	1 axis	E132 1	
10...0...10 V + 2 direction signals + 1 zero position signal (galvanically isolated), supply voltage 11,5 - 32 V DC, sensor redundant with error monitoring and error signal			
	1 axis	E136 1	
Output options			
Characteristic:			
Inverse dual *1			
Dual *1			
Inverse dual with dead zone +/- 3° *1 (standard)			
Dual with dead zone +/- 3° *1			
*1 Not combinable with output E136X			
Single *2			
Single with dead zone *2 (standard)			
*2 Not combinable with output E112X and E132X			
Voltage output with other value on request!			

Current output					
Supply voltage	9-32 V DC				
Current carrying capacity	Direction signal 150 mA				
	Zero position signal 500 mA				
Wiring	Cable 500 mm long without plug connector				
	Optional with plug connector (<i>standard plug connectors see page 127</i>)				
0...10...20 mA + 2 direction signals + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal					
		1 axis	E206 1	S	
20...0...20 mA + 2 direction signals + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal					
		1 axis	E208 1		
4...12...20 mA + 2 direction signals + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal					
		1 axis	E214 1		
20...4...20 mA + 2 direction signals + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal					
		1 axis	E216 1		
		Output options			
		Single		5	
		Single with dead zone +/-3° (standard)		6	
Current output with other value on request!					

CAN			
Supply voltage	9-32 V DC		
Idle current consumption	120 mA (24 V DC)		
Current carrying capacity	External digital output for LEDs 5 mA - 30 mA (dependent on the number of LEDs)		
Mounting depth A	35 mm		
Protocol	CANopen CiA DS 301 or SAE J1939 (based on)		
Baud rate	20 kBit/s to 1 Mbit/s (standard 250 kBit/s)		
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 long without plug connector		
Optional with plug connector (standard plug connectors see page 127)			S
CAN			E322 1
- 3 analog joystick axis			
- 8 digital joystick functions (incl. input for capacitive sensor)			
- Output for vibrator control			
With additional outputs			
- 8 LED-Outputs (dimmable optional)			2

CAN Safety		
Supply voltage	9-32 V DC	
Idle current consumption	120 mA (24 V DC)	
Current carrying capacity	External digital output for LEDs 5 mA - 30 mA (dependent on the number of LEDs)	
Baud rate	20 kBit/s to 1 MBit/s (standard 250 kBit/s)	
Mounting depth	35 mm	
Protocol	CANopen Safety EN50325-5 or J1939-76	
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 long without plug connector	
Optional with plug connector (standard plug connectors see page 127)		S
CAN Safety		E422 1
- 3 analog joystick axis		
- 8 digital joystick functions (incl. input for capacitive sensor)		
- Output for vibrator control		
With additional outputs		
- 8 LED-Outputs (dimmable optional)		
2		

M = Latch for mechanical zero interlock

