

Single-Axis Controller S11



GESSMANN®

The S11 is a one-axis joystick designed for electro-hydraulic and remote controlled hydraulic. Long life and high reliability is ensured by the latest contactless hall-technology. The modular design of the switching device is universally applicable.

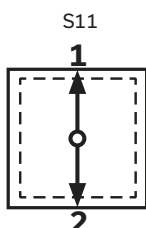
Technical data

Mechanical life S11	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 EN IEC 61508)



	S11	T	Example - Z	- E...	- S...	- X
Basic unit						
S11	Single-Axis Controller, 1-axis					
Grip / Palm Grip						
	Knob (standard)					
M	Mechanical zero interlock					
T	Dead man					
D	Push button					
GS8	Knob GS8					
Z	Spring return (<i>included in basic unit!</i>)					
R	Friction brake					
Interface (description on the following page)						
E0xx	Digital output					
E1xx	Voltage output					
E2xx	Current output					
E3xx	CAN-Interface					
E4xx	CAN Safety Interface					
Plug connectors						
S..	Standard plug connectors (<i>see page 127</i>)					
Special model						
X	Special / customer specified					

Identification of the installation variants with switching directions:



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

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 (<i>standard plug connectors see page 127</i>)		S
Cable 500mm long with plug (male)			
	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 (<i>standard plug connectors see page 127</i>)		S
0,5...2,5...4,5V 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 (standard plug connectors see page 127)		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		1
	Dual *1		2
	Inverse dual with dead zone +/- 3° *1 (standard)		3
	Dual with dead zone +/- 3° *1		4
	*1 Not combinable with output E136X		
	Single *2		5
	Single with dead zone *2 (standard)		6
	*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>)			
S				
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	
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
Voltage 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 (dimmmable 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 (<i>standard plug connectors see page 127</i>)	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

T = Dead man's button

