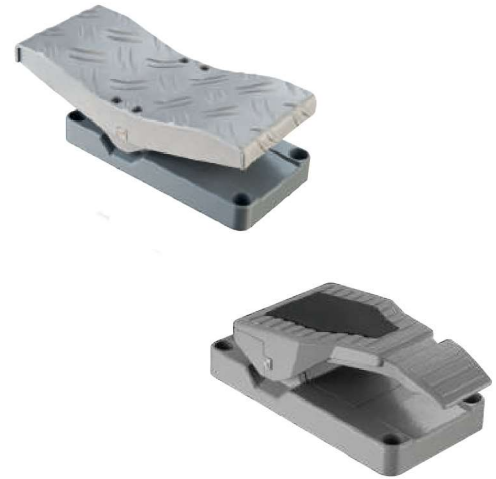


Pedal-controller P20



The pedal-controller P20 is a rugged switching device for electro-hydraulic. The modular design enables the switching device to be used universally. The P20 is resistant to oil, maritime, climate, ozone and UV radiation.



Technical data

Mechanical life P20	10 million operating cycles
Operation temperature	-40°C to +85°C
Degree of protection P20	IP67 (electronic)
Functional safety	PLd (EN ISO 13849) possible

	P20	-1	Example -ZZ	-E1041	-S...	-X
Basic unit						
P20 Pedal-controller						
Pedal						
1 Pedal shape A 0-15°						
2 Pedal shape B 0-25°						
3 Pedal shape C 15°-0-15°						
4 Pedal shape C 0-15°						
Spring return						
Z Spring return						
ZZ Spring return redundant						
Interfaces (description see on the following pages)						
E 0xx Switching output						
E 1xx Voltage output						
E 2xx Current output						
E 3xx CAN-interface						
E 4xx CANopen Safety interface						
Plug connectors						
S... Standard plug connectors (see page 138)						
Special model						
X Special / customer specified						

4

Digital output

Supply voltage	9-32 V DC		
Current carrying capacity	Direction signal 150 mA		
	Zero position signal 500 mA		
Wiring	Cable 500mm long without plug connector		
	Optional with plug connector (<i>standard plug connectors see page 138</i>)		S
2 direction signals + 1 zero position signal (galvanically isolated)		E001 1	
1 direction signal + 1 zero position signal (galvanically isolated)		E003 1	

Voltage output (not stabilized)

Supply voltage	4,75-5,25 V DC		
Current carrying capacity	Direction signal 8 mA		
Wiring	Cable 500mm long without plug connector		
	Optional with plug connector (<i>standard plug connectors see page 138</i>)		S
0,5...2,5...4,5 V redundant + 2 direction signals		E104 1	
0,5...2,5...4,5 V redundant + 1 direction signal		E145 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 500mm long without plug connector		
	Optional with plug connector (<i>standard plug connectors see page 138</i>)		S
0,5...2,5...4,5 V redundant + 2 direction signals + 1 zero position signal (galvanically isolated)		E112 1	
0,5...2,5...4,5 V redundant + 1 direction signal + 1 zero position signal (galvanically isolated)		E146 1	
0...5...10 V redundant + 2 direction signals + 1 zero position signal (galvanically isolated), supply voltage 11,5 - 32 V DC		E132 1	
0...5...10 V redundant + 1 direction signal + 1 zero position signal (galvanically isolated), supply voltage 11,5 - 32 V DC		E147 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		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 +/- 3° *2 (standard)			6
*2 not combinable with output E1121 and E1321, E1461 und E1471			

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 138</i>)		S
0...10...20 mA + 2 direction signals + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal		E206 1	
0...20 mA + 1 direction signal + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal		E222 1	
20...0...20 mA + 2 direction signals + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal		E208 1	
4...12...20 mA + 2 direction signals + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal		E214 1	
4...20 mA + 1 direction signal + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal		E223 1	
20...4...20 mA + 2 direction signals + 1 zero position signal (galvanically isolated), sensor redundant with error monitoring and error signal		E216 1	
	Output options		
	Single		5
	Single with dead zone +/- 3° (standard)		6
<i>Current output with other value on request!</i>			

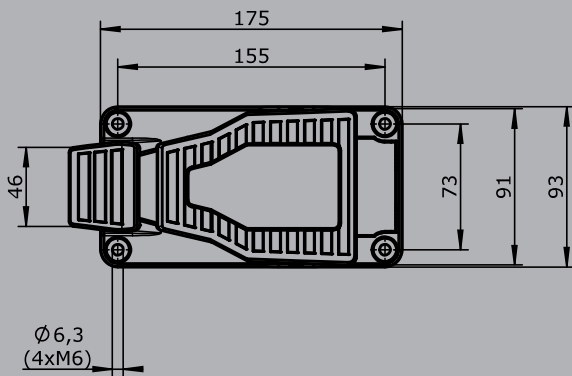
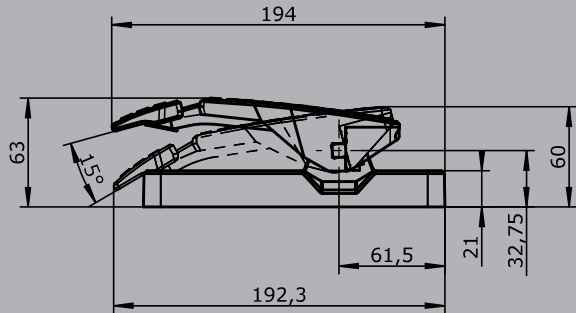
CAN			
Supply voltage	9-36 V DC		
Idle current consumption	120 mA		
Current carrying capacity	Direction signal 100 mA		
Protocol	CANopen CiA DS 301 or SAE J 1939		
Baud rate	125 kBit/s to 1 Mbit/s (standard 250 kBit/s)		
Output value	0...255 / 255...0...255		
Wiring	CAN (IN) cable 500 mm with plug connector M12 (male) CAN (OUT) cable 500 mm with plug connector M12 (female)		
CAN P20		E307 1	
With additional digital output separately wired (not via CAN)			
- 1 direction signal			2

CANopen Safety			
Supply voltage	9-36 V DC		
Idle current consumption	120 mA		
Current carrying capacity	Direction signal 100 mA		
Protocol	CANopen Safety CIA 304		
Baud rate	125 kBit/s bis 1 MBit/s (standard)		
Output value	0...255 / 255...0...255		
Wiring	CAN (IN) cable 500 mm with plug connector M12 (male) CAN (OUT) cable 500 mm with plug connector M12 (female)		
CANopen Safety P20		E407 1	
With additional digital outputs separately wired (not via CAN)			
- 1 direction signal			2

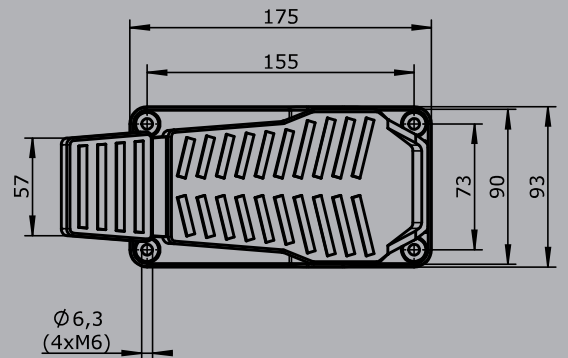
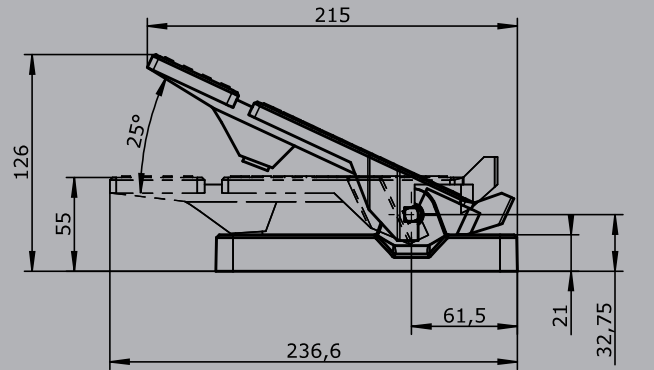
Attachments		
Z01 Mating connector M12 male insert with 2 m cable		20201140
Z02 Mating connector M12 female insert with 2 m cable		20202298

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

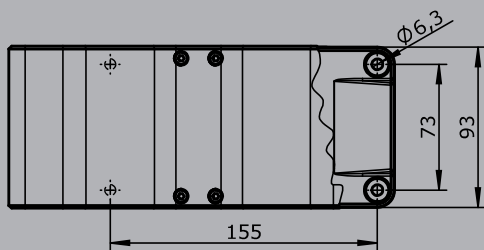
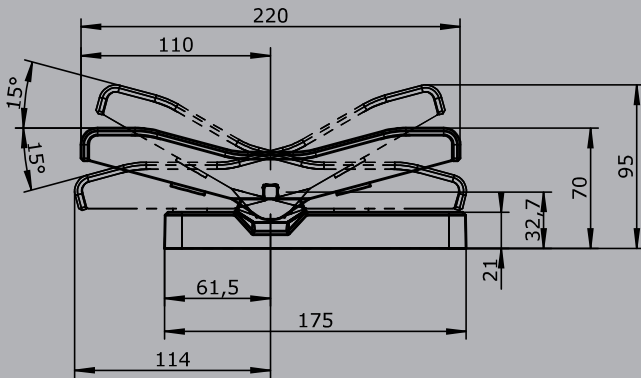
Pedalform A



Pedalform B



Pedalform C



Possible cable outputs

