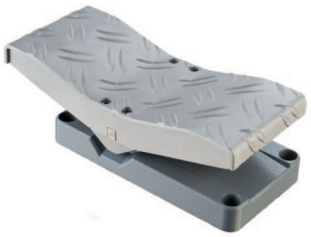
Foot Pedal
P20

The Foot Pedal P20 is a rugged switching device for electro-hydraulic. A long service life and high reliability is ensured by the latest contactless hall-technology. Due to the modular construction and the different electrical interfaces it is universally applicable..



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 compatible (EN ISO 13849, complies SIL2 to DIN EN IEC 61508)

Example

P20	-1	-ZZ	-E1041	-S...	-X

Basic unit

P20	Foot Pedal

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°
	HL	Gearshift mounted on the left side
	HR	Gearshift mounted on the right side

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 120)*

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		
Wiring	Cable 500mm long without plug connector		
	Optional with plug connector *(standard plug connectors see page 120)*		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 *(standard plug connectors see page 120)*		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 *(standard plug connectors see page 120)*		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!			

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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 *(standard plug connectors see page 120)*		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 signal 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
Current output with other value on request!			

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 (based on)		
Baud rate	125 kBit/s to 1 Mbit/s (standard 250 kBit/s)		
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 EN50325-5		
Baud rate	125 kBit/s bis 1 MBit/s (standard 250 kBit/s)		
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

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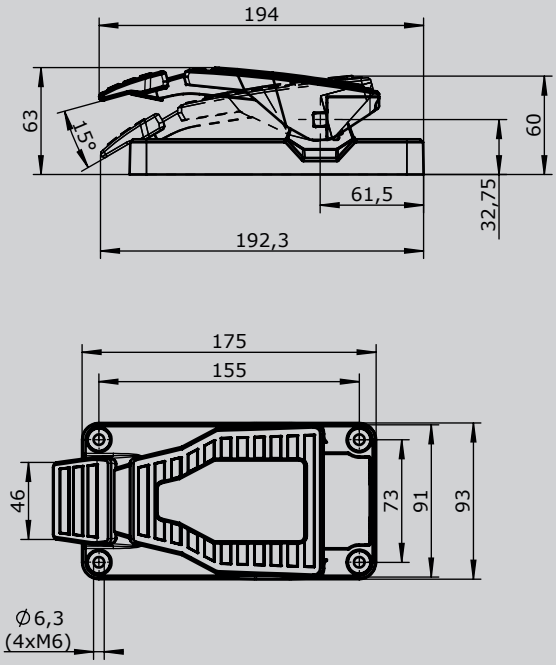
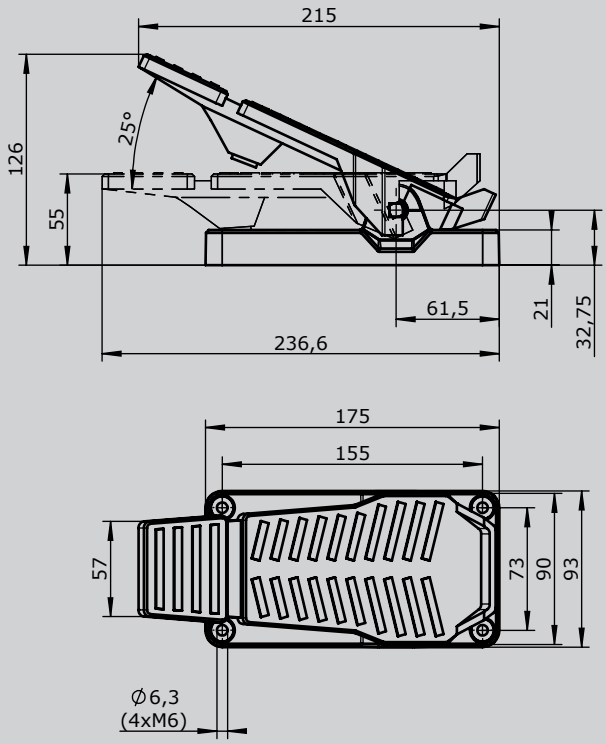
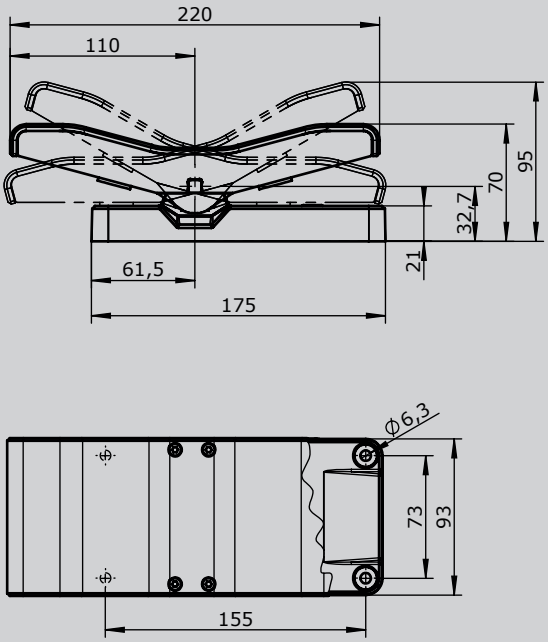
Pedal form A



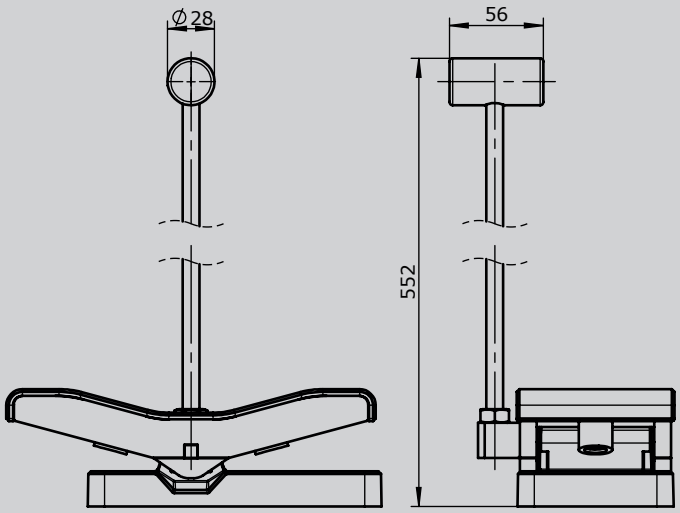
Pedal form B



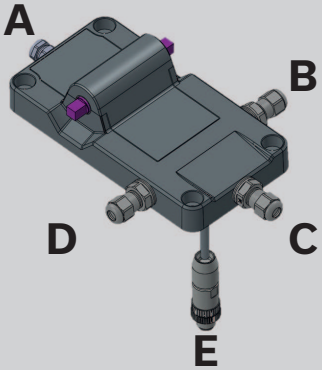
Pedal form C



optional with gear lever



Possible cable outputs



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