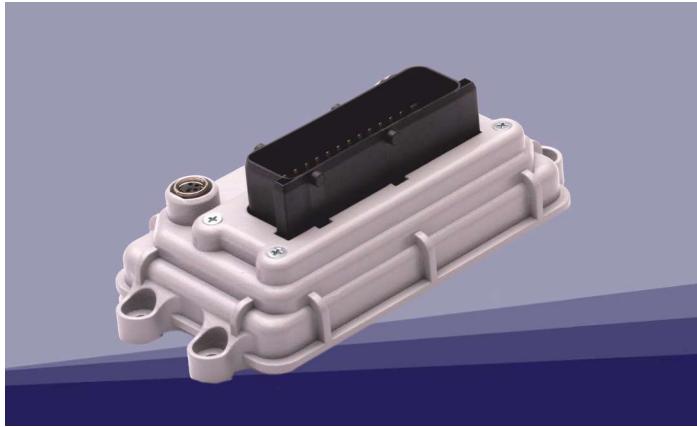


iblos-IMPact-02

compact ECU with 28 I/Os and terminal level

IBL·HYDRONIC

... the solution provider



robust · easy-to-use · versatile

ECU for use in vehicles, construction machines, agricultural and forestry machines, municipal devices and mobile specialized machines. Most suitable for controlling hydraulic control blocks, pumps and motors or as a CAN-I/O module.

Easy-to-use technology via the integrated terminal level for actuators and sensors.

Equipment

- 10 power outputs
- 18 inputs
- 4 analog outputs / PVE controlling channels / frequency outputs
- 12-bit analog inputs
- 12-bit real-time current-controlled PWM outputs
- 5V reference voltage, VDD and 0V on terminal level for sensors and actuators

Communication

- 1 CAN-network
- CANopen based PDO-communication
- SAE J1939
- free-CAN

Protection features

- excess voltage and short circuit protected, cable break monitoring
- voltage-proof in 12 and 24 VDC vehicular electrical systems
- EMC according to mobile machine norms
- external hardware watchdog

Connection

- Multi-I/O Connector
- M12-Connector for CAN und electronics supply

Housing

- additive in-house production
- standard and application-specific housings
- IP67, fully cast
- customized coloring



Programming

- freely programmable in C
- Softwaretools for Applications
- Softwareupdate via M8 programming socket or CAN

Parametrization and diagnostics tool

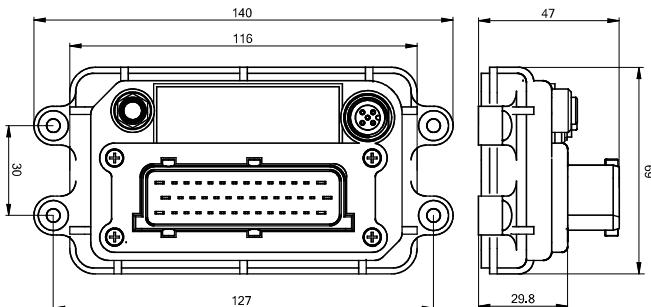
- iblos-CAN-master-pro
- iblos-CLOUD-master

CONFIGURATION

	max available
Analog inputs	14
Digital inputs	18
Frequency inputs	2
For-/Backward counter	2
current controlled PWM-Outputs	8 *)
Digital outputs	10
Frequency outputs	1
Analog outputs/PVE controls	4

*) 4 independent channels for 2 solenoids A + B each

DIMENSIONS



OPTIONS

Enable signal

Digital Output

shutdown of all outputs via relay

7A, protected against short circuit, idle running, reverse polarity, overcurrent, overvoltage and excess temperature, suitable for inductive load, diagnostics feature

Analog Output

Frequenz Output

max 4 analog outputs 0 ... vdd, suitable for Danfoss-PVE

max 4 analog output, 100mA

Electrical drivers

HH-bridge for DC motors, on/off or proportional, 3A (7A)

IN-/OUTPUTS

Digital-Output

3A, protected against short circuit, idle running, reverse polarity, overcurrent, overvoltage and excess temperature, suitable for inductive load, diagnostics feature

PWM-Output

3A, 12bit resolution, current-controlled, protected against overcurrent, overvoltage and excess temperature, suitable for inductive load, also available for on/off valves, diagnostics feature

Analoginput

protected up to 50VDC (permanent), also available as a digital input, 12 bit resolution,
0 to 10 VDC: input impedance 30 kOhm,
0 to 20 mA: input impedance 255 kOhm
20mA power source, measurement input for resistors (hardware configuration)

Reference supply

Digitalinput

protected up to 50VDC (permanent), 30kOhm input impedance positive switching, adjustable activation and deactivation levels

Counter

protected up to 50VDC (permanent), input impedance 30kOhm positive switching, also available as a digital input, adjustable activation and deactivation levels, frequency max 5 kHz

TECHNICAL PROPERTIES

Electrical Connection

- power supply 12/24 VDC (9 to 32 VDC)
- load dump protection, suitable for vehicular electrical systems
- voltage internally monitored
- supply output: external quick-acting fuse 10A, per PIN
- supply electronics: external quick-acting fuse 3A

Housing

- PA12, IP67, cast
- installation screw flange

I/O-central pin

- locking pin, 42-pin, AMP-junior power timer, pin with single-wire sealing

CAN and electronics

- IM12, 5-pin socket, CiA standard

Programming interface

- C2/JTAG M8, 4polig oder
- CAN

Ambient temperature

-40° C ... +80° C

Mechanical strength

- Vibrations DIN IEC 68-2-6/mobile devices
- Continuous shock DIN IEC 68-2- 29/Eb 250-6-1000/1 (25g)
- Shock DIN IEC 68-2-27 / Ea 500-6-18/4 (50g)

EMC-Norms

- agricultural machines DIN EN ISO 14982: 2009
- construction machines DIN EN 13766-1/2: 2018-12
- interferences on the line ISO 7637: 2009
- load dump ISO 16750-2: 2012-11-01

Data interfaces

1xCAN-network 2.0 A/B

Watchdog

external hardware-Watchdog

Software

- freely programmable in C
- ePTS-softwaretools for applications

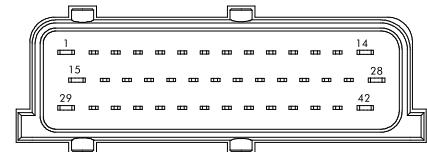
MTTFd/FIT

- 186 years/614

PIN ASSIGNMENT IMPact-02

I/O-centralpin

I/O-Central	Pin	Description
	1	GND
	14	GND
	15	VREF 5V reference supply
	28	GNDA 0V analog signals
	29	VBB supply outputs
	42	VBB supply outputs
	2	OUT1A+ PWM -Output 1A+ / Digital-Output 1
	16	OUT1B+ PWM -Output 1B+ / Digital-Output 2
	4	OUT2A+ PWM -Output 2A+ / Digital-Output 3
	18	OUT2B+ PWM -Output 2B+ / Digital-Output 4
	11	OUT3A+ PWM -Output 3A+ / Digital-Output 5
	25	OUT3B+ PWM -Output 3B+ / Digital-Output 6
	13	OUT4A+ PWM -Output 4A+ / Digital-Output 7
	27	OUT4B+ PWM -Output 4B+ / Digital-Output 8
	30	OUT1A- PWM -Output 1A-
	31	OUT1B- PWM -Output 1B-
	32	OUT2A- PWM -Output 2A-
	33	OUT2B- PWM -Output 2B-
	38	OUT3A- PWM -Output 3A-
	39	OUT3B- PWM -Output 3B-
	40	OUT4A- PWM -Output 4A-
	41	OUT4B- PWM -Output 4B-
	3	A/DIN1 Analog-/Digital-Input 1/ 0-20mA/Analogoutput PVE
	17	A/DIN2 Analog-/Digital-Input 2/ 0-20mA/Analogoutput PVE
	5	A/DIN3 Analog-/Digital-Input 3/Analogoutput PVE
	19	A/DIN4 Analog-/Digital-Input 4/ 0-20mA/Analogoutput PVE
	6	A/DIN5 Analog-/Digital-Input 5/ current source 20mA
	20	A/DIN6 Analog-/Digital-Input 6/ current source 20mA
	9	A/DIN7 Analog-/Digital-Input 7/ current source 20mA
	23	A/DIN8 Analog-/Digital-Input 8/ current source 20mA
	10	A/DIN9 Analog-/Digital-Input 9
	24	A/DIN10 Analog-/Digital-Input 10/ 0-20mA
	12	A/DIN11 Analog-/Digital-Input 11/ Counter 2 backward
	26	A/DIN12 Analog-/Digital-Input 12/ Counter 2 forward/ 0-20mA
	7	A/DIN13 Analog-/Digital-Input 13/ Counter 1 backward
	21	A/DIN14 Analog-/Digital-Input 14/ Counter 1forward
	8	DOUT19 Digital-Output 19
	22	DOUT20 Digital-/Frequenz-Output 20
	34	DigIn17 Digital-Input17/ 0V/ 12V-24V
	35	DigIn18 Digital-Input18/ 0V/ 12V-24V
	36	DigIn19 Digital-Input19/ 0V/ 12V-24V
	37	DigIn20 Digital-Input20/ 0V/ 12V-24V



IMPact-02

CAN/Electronic

CAN	1	Vdd	option enable
Electronic	2	12/24V	electronic supply
	3	GND	0V electronic
	4	CAN-H	CAN-high
	5	CAN-L	CAN-low

120 Ohm termination

