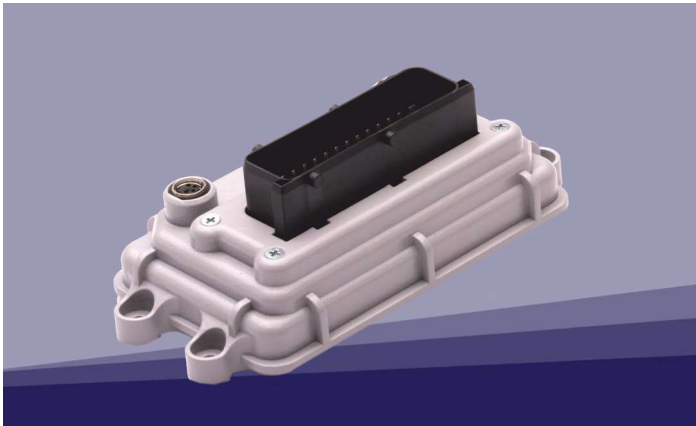


# iblos-EHD-self-sufficient

Bearing pressure regulation for work machines

# IBL·HYDRONIC

... the solution provider



**robust · easy-to-use · versatile**

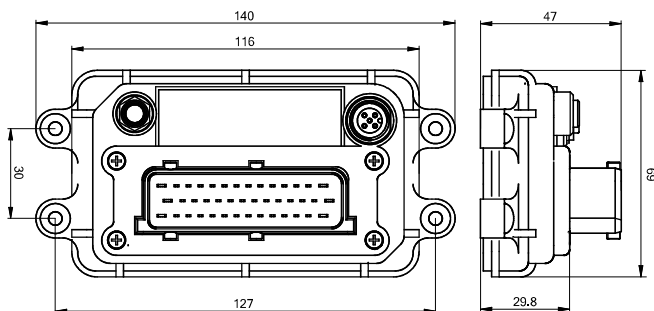
ECU for use in vehicles, construction machines, agricultural and forestry machines, municipal devices and mobile specialized machines. Most suitable for controlling hydraulic control blocks, pumps and motors or as a CAN-I/O module. Easy-to-use technology via the integrated terminal level for actuators and sensors.

## CONFIGURATION

	max available
Analog inputs	6
Digital inputs	10
Frequenzy inputs	2
current controlled PWM-Outputs	8*)
Digital outputs	18
Frequenzy outputs	1

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

## DIMENSIONS



## Equipment

- 18 power outputs
- 10 inputs
- 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

IBL-HYDRONIC GmbH und Co. KG phone: +49 (0) 37606 37 8280  
Alte Baumechanik 2 mail: verkauf@iblos.com  
D - 08485 Lengenfeld web: www.iblos.com

**IBL·HYDRONIC**  
... the solution provider

## OPTIONS

<b>Enable signal</b>	shutdown of all outputs via relay
<b>Digital Output</b>	7A, protected against short circuit, idle running, reverse polarity, overcurrent, overvoltage and excess temperature, suitable for inductive load, diagnostics feature
<b>Electrical drivers</b>	HH-bridge for DC motors, on/off or proportional, 3A (7A)

## IN-/OUTPUTS

<b>Digital-Output</b>	3A, protected against short circuit, idle running, reverse polarity, overcurrent, overvoltage and excess temperature, suitable for inductive load, diagnostics feature
<b>PWM-Output</b>	3A, 12bit resolution, current-controlled, protected against overcurrent, overvoltage and excess temperature, suitable for inductive load, also available for on/off valves, diagnostics feature
<b>Analoginput</b>	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)
<b>Reference supply</b>	5V, max 100mA
<b>Digitalinput</b>	protected up to 50VDC (permanent), 30kOhm input impedance positive switching, adjustable activation and deactivation levels
<b>Counter</b>	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

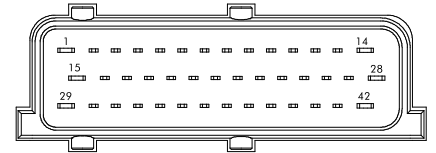
### Software

- freely programmable in C
- ePTS-softwaretools for applications

## PIN ASSIGNMENT IMPact-03

I/O-central Pin

<b>IMPact-03</b>	I/O-Central-Pin	1	GND	0V Outputs
		14	GND	0V Outputs
		15	VREF	5V reference supply
		28	GND A	0V Analogground
		29	VBB	supply Outputs
		42	VBB	supply Outputs
		2	OUT1A+	PWMI -Output 1A+ / Digital-Output 1
		16	OUT1B+	PWMI -Output 1B+ / Digital-Output 2
		4	OUT2A+	PWMI -Output 2A+ / Digital-Output 3
		18	OUT2B+	PWMI -Output 2B+ / Digital-Output 4
		11	OUT3A+	PWMI -Output 3A+ / Digital-Output 5
		25	OUT3B+	PWMI -Output 3B+ / Digital-Output 6
		13	OUT4A+	PWMI -Output 4A+ / Digital-Output 7
		27	OUT4B+	PWMI -Output 4B+ / Digital-Output 8
		30	OUT1A-	PWMI -Output 1A-
		31	OUT1B-	PWMI -Output 1B-
		32	OUT2A-	PWMI -Output 2A-
		33	OUT2B-	PWMI -Output 2B-
		38	OUT3A-	PWMI -Output 3A-
		39	OUT3B-	PWMI -Output 3B-
		40	OUT4A-	PWMI -Output 4A-
		41	OUT4B-	PWMI -Output 4B-
		3	DOUT9	Digital-Output 9
		17	DOUT10	Digital-Output 10
		5	DOUT11	Digital-Output 11
		19	DOUT12	Digital-Output 12
		6	A/DIN5	Analog-/Digital-Input 5/ 0V/ current source 20mA
		20	A/DIN6	Analog-/Digital-Input 6/ 0V/ current source 20mA
		9	A/DIN7	Analog-/Digital-Input 7/ 0V/ current source 20mA
		23	A/DIN8	Analog-/Digital-Input 8/ 0V/ current source 20mA
		10	DOUT13	Digital-Output 13
		24	DOUT14	Digital-Output 14
		12	A/DIN11	Analog-/Digital-Input 11/ Counter 2 forward
		26	A/DIN12	Analog-/Digital-Input 12/ Counter 1 forward / 0-20mA
		7	DOUT17	Digital-Output 17
		21	DOUT18	Digital-Output 18
		8	DOUT19	Digital-Output 19
		22	DOUT20	Dig-/Freq.-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



### CAN/Electronics

CAN and Electronics	1		intern reserved
	2	12/24V	supply electronics
	3	GND	0V electronics
	4	CAN-H	CAN-high
	5	CAN-L	CAN-low

120 Ohm termination

