iblos-IMPact-05

compact ECU for 8 Danfoss PVE controls

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all PVE controllable· CIP-compatible

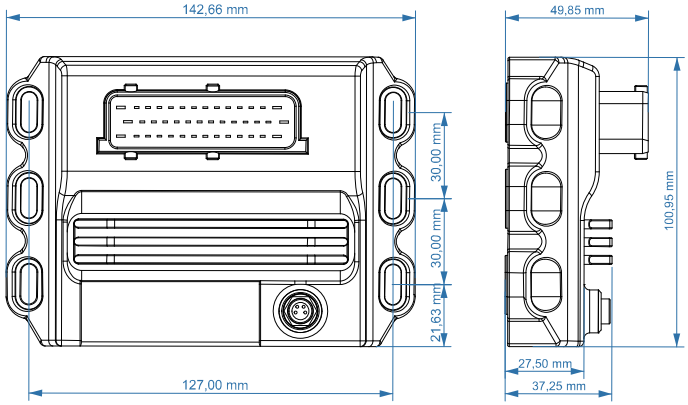
Freely Programmable Control Unit for Danfoss PVG Valves
The IMPact-05 is a flexibly programmable ECU designed for controlling all PVE actuators of Danfoss PVG valves. It is fully pin-compatible with the CIP module, enabling seamless integration into existing systems without modifications.

Applications
The IMPact-05 can function as both a CAN-I/O node or a stand-alone control module in combination with analog or CAN joysticks. For crane applications, it offers a standardized software solution: the iblos Soft Crane Control (SCC).

Benefits of iblos-SCC
The iblos-SCC ensures precise, fast, and smooth movements for modern boom systems. Unlike time-based ramps, the boom responds directly and synchronously to joystick input. Its dynamic control enables jerk-free acceleration and deceleration.

- Accurate Motion Control
- Protection of Machine Structure
- Extended Service Life
- Improved Work Quality and Efficiency

DIMENSIONS



CONFIGURATION

	max available
Analog output/PVE	8
Analog-/emergency input PVE	8
Digital output 1,2A	16
Digital output/Dump-Valve 5A	1

APPLICATIONS

- Forest Cranes
- Front Loaders
- Hay Cranes
- Overhead Cranes
- Loading Cranes
- Side Mowers
- Watering Arms
- General Boom Systems

Communication

- 1 CAN-network
- CAN-protocol Danfoss CIP-Modul
- 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

PVE-controls

- connective compability with Danfoss CIP module
- CAN protocol compatible with Danfoss CIP module

Housing

- additive in-house production
- standard and application-specific housings
- IP66K/IP68, 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
Alte Baumechanik 2
D - 08485 Lengenfeld

phone: +49 (0) 37606 37 8280
mail: verkauf@iblos.com
web: www.iblos.com

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IBLOS
electronics·mobile·hydraulics

... FOR MOBILE

IN-/OUTPUTS

Digital Output	1.2A, protected against short circuit, idle running, reverse polarity, overcurrent, overvoltage and excess temperature, suitable for inductive load
Digital Output	5A, protected against short circuit, idle running, reverse polarity, overcurrent, overvoltage and excess temperature, suitable for inductive load
Analog Output	0V to vdd, 12bit resolution, current-controlled, suitable for controlling all Danfoss PVE control units
Analog Input	protected up to 50VDC (permanent), also available as a digital input, 12 bit resolution, 0 to 10 VDC, 42.2kOhm input impedance

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

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

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
- standard software for crane applications

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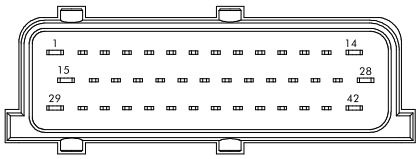
PIN-ASSIGNMENT IMPact-05

Central-	1	PVPX out	Digitaloutput 17 to max. 5A
Pin	2	CAN +	CAN high
	3	CAN +	CAN high
	4	AIn1	Analoginput 1
	5	AIn2	Analoginput 2
	6	GND	0V
	7	AIn3	Analoginput 3
	8	AIn4	Analoginput 4
	9	AIn5	Analoginput 5
	10	GND	0V
	11	AIn6	Analoginput 6
	12	AIn7	Analoginput 7
	13	AIn8	Analoginput 8
	14	GND	0V
	15	Udc	supply voltage
	16	CAN term	CAN termination > bridge to Pin 3
IMPact-05	17	GND	0V
	18	PVE1_A#	Analog-output / Digitaloutput 1 to max. 1,2A
	19	PVE2_A#	Analog-output / Digitaloutput 2 to max. 1,2A
	20	PVE3_A#	Analog-output / Digitaloutput 3 to max. 1,2A
	21	GND	0V
	22	PVE4_A#	Analog-output / Digitaloutput 4 to max. 1,2A
	23	PVE5_A#	Analog-output / Digitaloutput 5 to max. 1,2A
	24	PVE6_A#	Analog-output / Digitaloutput 6 to max. 1,2A
	25	GND	0V
	26	PVE7_A#	Analog-output / Digitaloutput 7 to max. 1,2A
	27	PVE8_A#	Analog-output / Digitaloutput 8 to max. 1,2A
	28	GND	0V
	29	Udc	supply voltage
	30	CAN -	CAN low
	31	CAN -	CAN low
	32	PVE1_B#	Digitaloutput 9 to max. 1,2A
	33	PVE2_B#	Digitaloutput 10 to max. 1,2A
	34	PVE3_B#	Digitaloutput 11 to max. 1,2A
	35	GND	0V
	36	PVE4_B#	Digitaloutput 12 to max. 1,2A
	37	PVE5_B#	Digitaloutput 13 to max. 1,2A
	38	PVE6_B#	Digitaloutput 14 to max. 1,2A
	39	GND	0V
	40	PVE7_B#	Digitaloutput 15 to max. 1,2A
	41	PVE8_B#	Digitaloutput 16 to max. 1,2A
	42	GND	0V

Stecker 3	1	C2D	C2-Data (bn)
(PG-Schnittste	2	C2CK	C2-Clock (wh)
	3	GND	0V (bl)
	4	DE	0V – Programdownload enable (bk)



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