

PUMP CONTROL UNIT

PCU-PG



Customizable
key icons



KEY FEATURES

- + **Pressure Governor** with Cavitation Warning
- + Selection of Pressure by **Large Rotary Knob** (Encoder)
- + Integrated **I/O Driver**
- + **CAN Bus** Communications
- + Alphanumeric **Super-Bright LED Display**
- + Integrated **10 Warning Lights**
- + **Programmable Keypad** (2 Keys)

PRECISION PRESSURE CONTROL AND MONITORING UNIT

The **PCU-PG** is an advanced electronic Pump Control Unit (PCU), designed with a variety of powerful features, including a pressure governor, manual keys for RPM adjustment (throttle increase and decrease), an idle button, two programmable keys, warning lights, and a super-bright alphanumeric LED display.

This versatile unit can also control other vehicle systems such as valves or display engine data. It also provides pump warning messages like cavitation and temperature alerts.

The unit can operate as a stand-alone device - integrated IOs, or it can be connected to the IO controller MMX EC1 to expand the IO functions.

The PCU-PG is an ideal solution for automated pressure control and vehicle system management, offering durability, flexibility, and reliability, even in challenging operational environments.

SPECIFICATIONS

POWER

Supply Voltage	8-32 V DC
Current	0.5 A maximum, no outputs active
Electrical Protection	overvoltage, transients, reverse polarity, load dump

INTERFACES

CAN	2x CAN, CAN Link
CAN termination	120 ohm, DIP switch
USB	1x USB 2.0, for firmware update

FEATURES

Pressure governor	automatic pressure regulation with cavitation warning
Display	alphanumeric super bright LED display, 11 digits
Warning lights	4 red, 4 amber, 2 green, total 10 LEDs
Keypad	2 soft keys (programmable) + 4 hard keys (pre-defined)
Status Indicator	super bright green LED bar
Icons	customizable key icons
Key Design	RIM-embossed keys with tactile feedback, white backlit keys, dimension 23 x 23 mm
Operating Life	>250.000 cycles
Rotary Knob	Encoder 16 pos. / 360° with push button
Day/Night operation	automatic - integrated ambient light sensor

I/O

Sensor input	0.5-4.5 V, sensor supply voltage Ubat.
Digital Input	configurable active low/high levels 0..Ub with solder pad on PCB, freq. input (RPM sensor), protected
Digital Output	positive switching (high-side), max. 2 A
OUT1 - OUT7	optional negative switching (low-side), max. 0.5 A
Loads	inductive, capacitive, resistive
Miscellaneous	Protection from short circuit and overload

ENVIRONMENT

IP Class (IEC529)	IP67
EMC Conformity	EN61000-6-2 noise immunity EN61000-6-4 radiation of interference
Temperature Range	storage -40° to +85°C (-40° to 185°F) operating -40° to +85°C (-40° to 185°F)

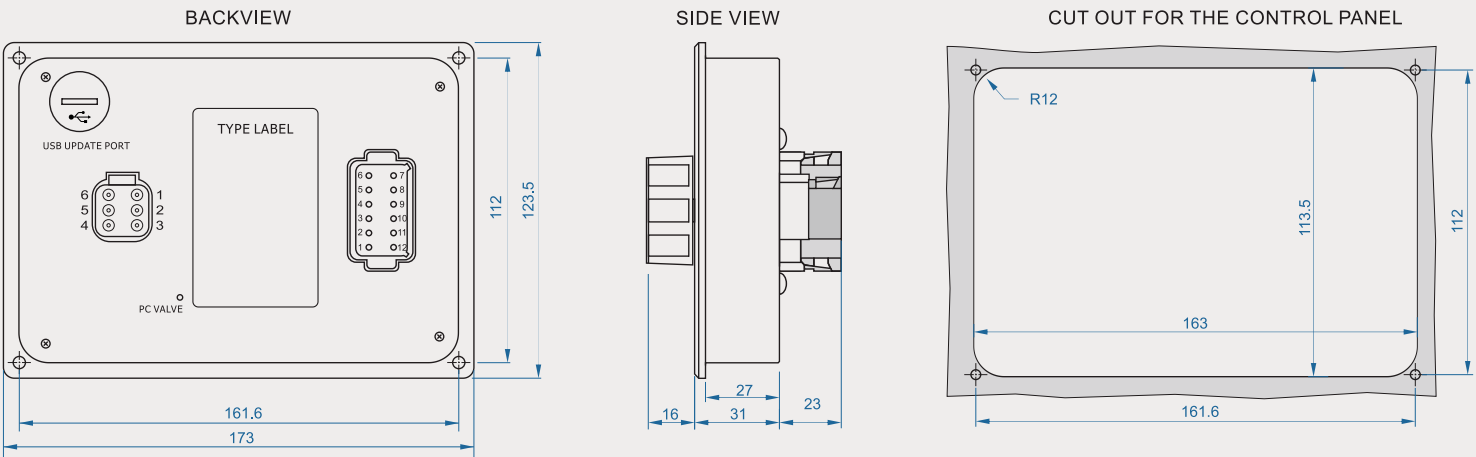
ENCLOSURE

Housing Material	aluminium
Mounting	in-dash, with 4 screws M3 or 2.9 mm tapping screws
Mating Connector	Deutsch DT06-6S and DT06-12S

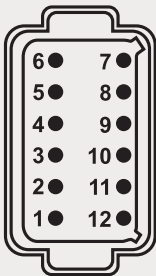
SIZE & WEIGHT

W x H x D	173 x 123 x 54 mm, with mating connector
Weight	1 kg

DIMENSIONS



CONNECTIONS



CONNECTION DEUTSCH DT06-12S

PIN	Description	PIN	Description
1	OUT 1 (INC +)	7	OUT 7 (KEY 2.2)
2	OUT 2 (DEC -)	8	INPUT +/- (P)
3	OUT 3 (IDLE)	9	INPUT +/- (PTO ON)
4	OUT 4 (KEY 1.1)	10	Sensor [V]/[mA] VCC+
5	OUT 5 (KEY 1.2)	11	Sensor [V] GND
6	OUT 6 (KEY 2.1)	12	SENSOR [V]/[MA] SIGNAL



CONNECTION DEUTSCH DT06-6S

PIN	Description
1	BATTERY + ("15")
2	CAN1 L
3	(J1939) CAN2 L
4	CAN2 H (J1939)
5	CAN1 H
6	BATTERY -

PRODUCT CODE

Ordering code example:

P	C	U	-	P	G	-	2	0	P	-	S
PUMP CONTROL UNIT				PRESSURE GOVERNOR			MAX. PRESSURE		OUTPUTS POLARITY		SENSOR OPTION
	-			PG: PG FUNCTION		-	20: 4 .. 20 BAR 40: 4 .. 40 BAR		P: POSITIVE VOLTAGE CONTROL SIGNALS N: NEGATIVE VOLTAGE CONTROL SIGNALS /: NO OUTPUTS, ONLY CAN		S: PRESSURE SENSOR INCLUDED