

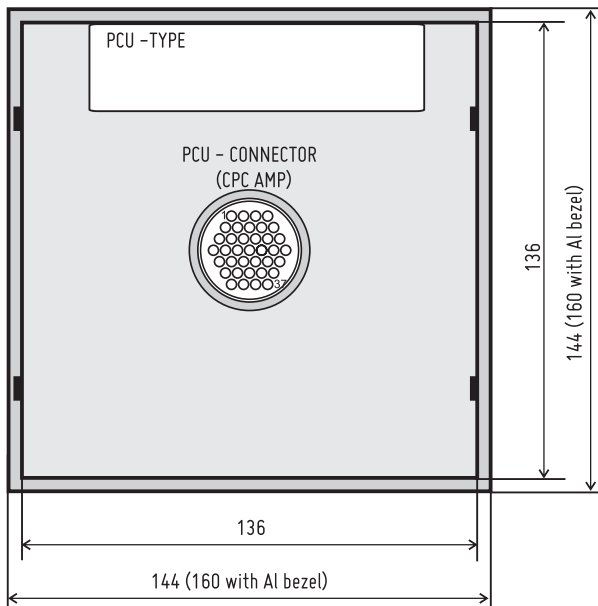
PUMP CONTROL UNIT – PCU

DIMENSIONS

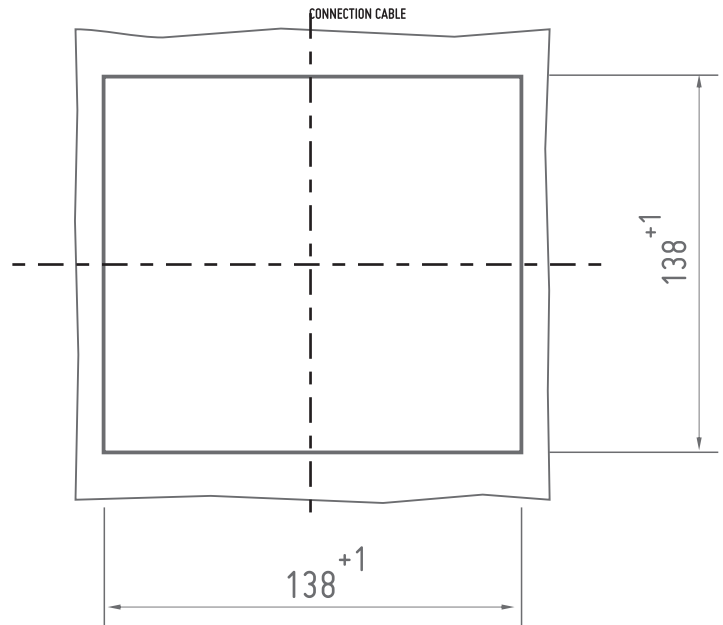


The Pump Control Unit – PCU is an integrated electronic management system used for the pump of a firefighting vehicle with an integrated water tank level gauge. It can also be used to control other vehicle systems such as valves, lighting, warning lights, etc. The main feature is Pressure Governor allows automated regulation of the engine RPMs according to the pressure fluctuations in the pump, which ensures a constant water flow at the nozzle regardless of the number of connected users. The automatic pressure regulation is turned ON by turning the rotation switch – encoder. This will cause the pressure to increase to 4 bars. The pressure can subsequently be adjusted to the desired value using the encoder in 1 bar increments. The value on the LED display flashes until the pump pressure reaches the desired value. If the manual keys for manual control of the RPMs (pressure) are used while the automatic regulation is running, the automatic regulation will be turned off. When pressing the IDLE key, the control unit sets the engine RPMs to IDLE.

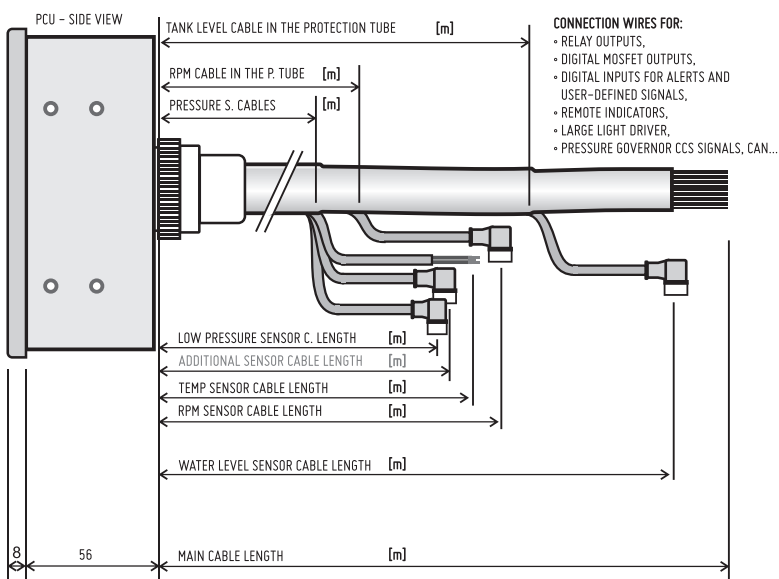
PCU DIMENSIONS (back side)



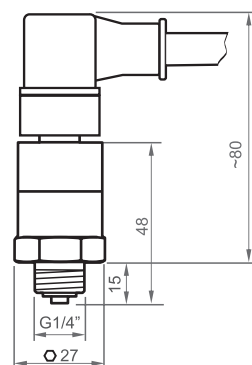
CUT OUT FOR THE CONTROL PANEL



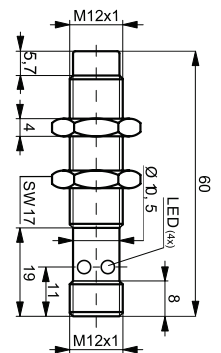
CONNECTION CABLE



PRESSURE SENSOR DIMENSION

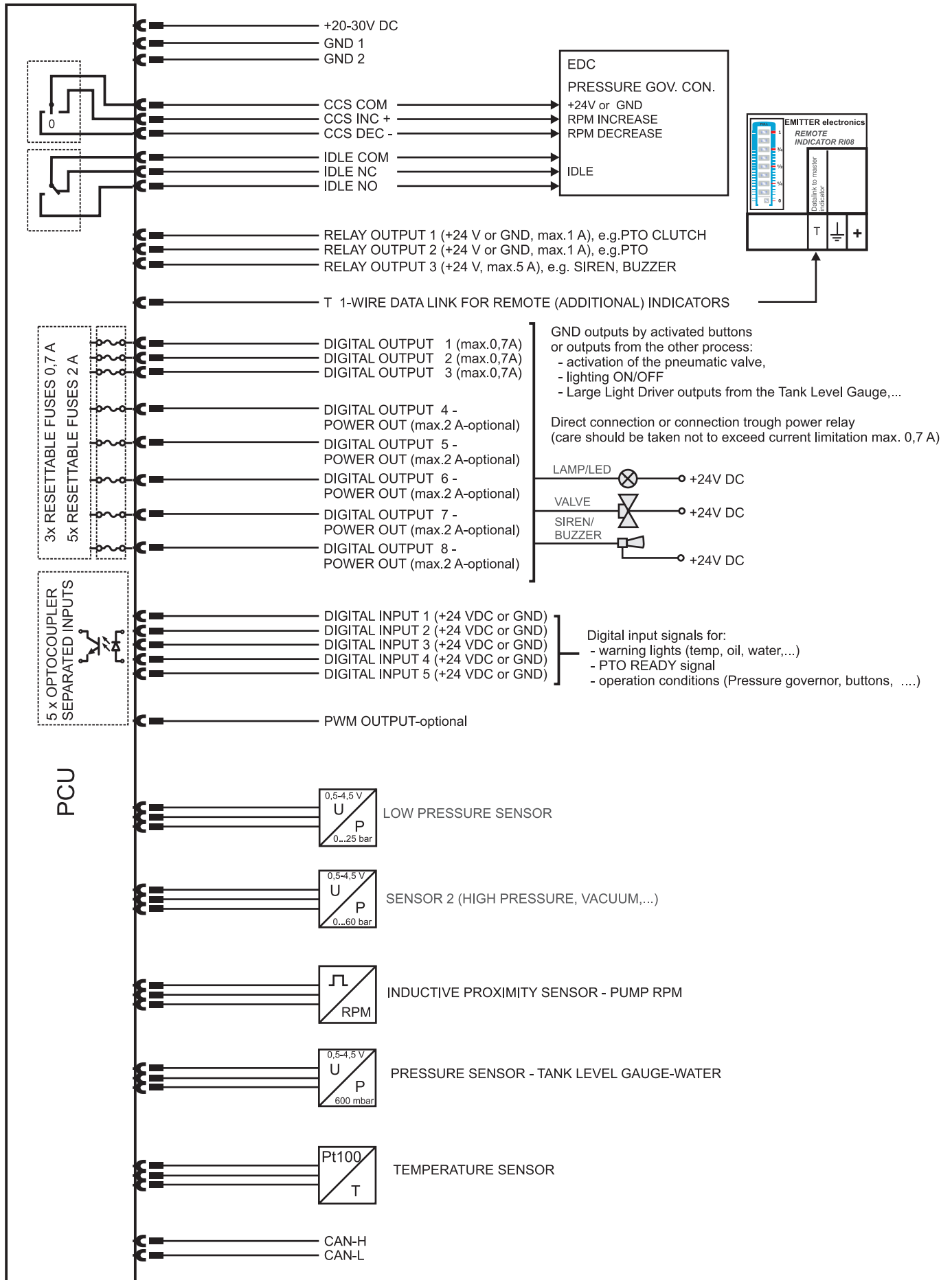


INDUCTIVE PROXIMITY SENSOR DIMENSION



PUMP CONTROL UNIT - PCU

WIRING DIAGRAM - GENERAL



PUMP CONTROL UNIT – PCU

SPECIFICATIONS AND ORDERING INFORMATION

SPECIFICATIONS

Power supply	21–30 Vdc
Power consumption	max. 10 W
Relay output 1	5 x, max. 1 A
Relay output 2	1 x, max. 5 A
Digital outputs 1	3 x MOSFET outputs, max. 0,7 A (PTC protected)
Digital outputs 2	5 x MOSFET outputs, max. 2,0 A (PTC protected)
Buttons	5 programmable with pictograms + 4 pre-defined
Pressure sensor range – low pressure	0 ... 25 bars
Pressure sensor range – high pressure	0 ... 60 bars, optional
Pressure sensor range – vacuum	-1... 24 bars, optional
Transducer electrical connection	3-wire cable 3x0,35 mm ² + connector M12
Transducer pressure port fitting	G 1/4"
Transducer housing	Stainless steel 316L
Temperature sensor	Pt100, 0...130°C (pump) or 0...200°C (engine)
Automatic Pressure regulation range / accuracy	4 (min.3) ... 16 (max.24) bars / 0,5bar
Displays	2 x 2-digit superbright 7 segment and 1 x LCD graphic, high contrast
Wiring protection	reverse polarity, overvoltage, I/O protected with optocouplers / PTC fuses
Enclosure protection (IEC 529)	IP67 PCU (front panel); IP67 sensors
Operating temperature	-25°C...+80°C
Dimension of the PCU	144x144x68 mm or 160x160x68 with Aluminium Bezel (LxHxW)
PCU Connector	CPC connector 37p. 1 x
Weight	PCU 700 g; Sensor: 100 g/pcs

ORDERING INFORMATION

(use the **RED** character below to construct basic product code)

PCU

- + **W** Water tank level gauge
- + **LLD5** Large light driver – vwater level
- + **H100/75** ... Water level auto-fill and refill function between 100% and 75% (Hvsteresis)
- + **RI08W** Remote indicator – water
- + **DPI60** Digital pressure gauge – high pressure
- + **DVI** Digital vacuum gauge
- + **DT** Digital pump/engine temperature dispav
- + **RPM** RPM displav
- + **BATT** Batterv voltage display
- + **B5/5** Number of user-defined keys (e.g. 5 of 5 available)
- + **MCL5** Main cable length (e.g. 5m)
- + **ALXS** Aluminium Eloxated Bezel – Silver

THE COMPLETE EQUIPMENT CONSISTS OF THE:

- Pump Control Unit – PCU,
- pressure sensors for low pressure and vwater level
- inductive proximity sensor for RPM measurement, optional
- temperature sensor, optional

To connect the PCU vwith the chassis, an PCU connection cable vwith a 37p. CPC connector is needed For detailed ordering specification please use special PCU order form!