DEVELOPMENT MANUFACTURE INSTALLATION SERVICE

ADPMPD Electronic Calculator

for fuel dispensers

The ADPMPD electronic calculator is designed to control **all multiproduct fuel dispenser functions** requested for current fuel sites. The calculator is equipped with the single-chip MOTOROLA HCS12 micro controller. Using the dispensers equipped with the ADPMPD calculator dispensing can be performed in stand-alone mode or under site-control-system control. **The communication line connects** the calculator to the site-control system. The ADPMPD calculator's EASYCALL proprietary communication protocol is used **in dozens of site-control and POS systems supplied in Europe.** The EASYCALL protocol is also employed in the widely used **DOMS and PetroVend** site controllers.

CALCULATOR CHARACTERISTICS

The ADPMPD calculator is designed for one-sided and two-sided multiproduct fuel dispensers. The calculator is able to control up to five nozzles, e.g. dispensing of five different products at each fuelling point.
The qualities of the ADPMPD calculator are in keeping with current global standards.

The main advantages of the ADPMPD calculator produced by Beta Control Ltd. are its reliability and its high performance, its low price and its guaranteed quality. The most outstanding features of the calculators are: **the high flow measurement** (up to 500l/min), i**ntegrated Electronic Calibration of meters** (EC), **Automatic Temperature Compensation** of fuel (ATC was originally requested for LPG dispensers) and the **IFSF standard communication interface**, as well as the proprietary EASYCALL protocol communication interface on standard RS-485 lines (half-duplex two wire lines). Another important integrated function is the **electronic vapour recovery control** and detection of its possible failure.

Fig.: Elektronic multiproduct calculator ADPMPD4 and accesories

- Control and Point-of-Sale Systems
- Electronic Calculators
- Displays LCD and electromechanical
- Communication Protocol Convertors
- IFSF Standard
- Remote Equipment Monitoring

EN ISO 9001:2000
Development, production and service of embedded real-time distributed control and information systems

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There is no need to install additional electronic modules to the dispenser because the calculator covers all functions necessary for its control.

Setting the calculator parameters guarantees flexibility. Unit prices for the stand-alone mode, calculator parameters, meter calibration values and the ATC (propane / butane rates), and vapour recovery calibration can be set using the wireless **keyboards equipped with infrared communication**.

One display can be connected to each fuelling point. The displays are connected to the calculator's internal RS485 bus. In addition to the transaction data, the other data is displayed on the displays, e.g. all the setting data, auto diagnostics etc. The displays can be LCD (standard LCD or backlight LCD) and/or electromechanical Ferranti-Packard (FP). Optional modules can be connected to the RS485 internal bus in addition to the displays when requested, e.g. keyboards, voice module, unit price modules etc.

The calculator is at each nozzle equipped with non-reset-able electronic nozzle-totals of the volume, amount and number of transactions, and at each meter with non-reset-able electronic meter-totals of the volume. The calculator can optionally be equipped with a **seven-digit electromechanical volume-total in litres** per each nozzle.

The calculator can be set to use **two or three-channels meter pulsers**.

A customer pre-set keyboard can be connected to each fuelling point equipped with the ADPMPD calculator. Customers can pre-set the volume or the amount of fuel they want to dispense. The ADPMPD calculator is also equipped with an input for **the manual enabling of the fuelling point** in the stand-alone mode at each fuelling point.

The electronics of the ADPMPD calculator are placed in a metal container that can easily be fixed to the dispenser head. The input and output wires are screwed to the pins of the connectors. The type of connectors used enables the calculator to be changed easily in the event of a fault, since all the wires stay screwed to the connectors.

A guarantee of up to 4 years is negotiable for ADPMPD calculators

TECHNICAL INFORMATION

Power supply voltage	230 V ±15 %, 50 HZ/60 HZ
Power consumption	85 VA max.
Temperature	-40 °C to +70 °C
Relative humidity	0–80 % without condensation
Mass	4,9 kg
Diameters	263x282x117 mm
Maximum flow measurement	500 l/min
Maximum frequency of electromechanical totals	7 Hz
Pulsers	three channels or two channels, power-supply voltage 5 V DC, open collector
Nozzles per side	5 maximum
Displays	high contrast LCD / BLD or electromechanical Ferranti-Packard (FP), amount 6 digits, volume 6 digits, unit price 4 digits, height 1 inch
Display diameters	240x210x50 mm
Time of display after power-down	electromechanical displays: no restriction, LCD / BLD displays: at least 30 minutes after power down
Maximum output load	for each nozzle motor contactor, reduction valve, main valve – each output 24V AC or 230V AC, max. 10W
Communication interface	RS485, half duplex, transmission speed 9 600 b/s (alternatively 19 200 b/s) or interface according to IFSF standard with communication level LON (FTT-10) or TCP/IP (Ethernet) – as requested

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