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Россия +7(495)268-04-70

Казахстан +7(7172)727-132

Киргизия +996(312)96-26-47

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# Технические характеристики на блоки управления пожаробезопасными мотопомпами, внутренние платы C-SMART 12845, C-SMART12845/ВТ, C-12845-485, C-12845/1200, SCC-1200 компании **ELCOS**

# C-SMART12845

## C-SMART12845/BT

Fireproof engine driven pump control unit for systems in compliance with standard UNI EN-12845



| Date       | Revision | Description                                                                                        | Page   |
|------------|----------|----------------------------------------------------------------------------------------------------|--------|
| 11/02/2021 | 1.00     | First Rel.                                                                                         |        |
| 23/02/2021 | 1.1      | SmartConnect/Auto-Scroll/Big-Fonts. Valid for firmware revision FW 1.02 and above<br>Panel failure |        |
| 22/04/2021 | 1.2      | Type                                                                                               |        |
| 27/07/2021 | 1.3      | Alarms                                                                                             |        |
| 24/08/2021 | 1.4      | Restart, pickup fault. Moving Diagrams. Radiator.                                                  |        |
| 02/11/2021 | 1.5      | Various fixes.                                                                                     |        |
| 08/11/2021 | 1.6      | Instruments, brightness.                                                                           |        |
| 11/03/2022 | 1.7      | Maintenance expiry.                                                                                |        |
| 23/05/2022 | 1.8      | IF Modifications                                                                                   |        |
| 06/09/2022 | 1.9      | FAN. FW>= 1.09                                                                                     |        |
| 05/10/2022 | 1.91     | Technical specifications updated                                                                   | 33     |
| 15/09/2023 | 1.93     | Sensor added: VSG40028, VSG40030                                                                   | 10, 11 |

## TECHNICAL SPECIFICATIONS

|                                  |                                    |                                    |        |
|----------------------------------|------------------------------------|------------------------------------|--------|
| Power supply                     |                                    |                                    |        |
| BATT+.A[B]<br>PWR.OUT            | Suitable for batteries             | 12 Vdc                             | 24 Vdc |
|                                  | Operating range                    | 8 ÷ 48 Vdc                         |        |
| BATT+.A[B]                       | Absorption with engine not running | 190 mA                             | 110 mA |
| Digital inputs                   |                                    |                                    |        |
| IN.0 ÷ 9                         | Type of input                      | Negative (BATT-)                   |        |
|                                  | Maximum current supplied           | 3.3 mA                             |        |
|                                  | Voltage threshold for low signal   | ≤0,8 V                             |        |
|                                  | Voltage threshold for high signal  | ≥1 V                               |        |
| IN.P                             | Type of input                      | Positive (BATT+.A,B)               |        |
|                                  | Maximum absorbed current           | 0.6 mA @48 Vdc                     |        |
|                                  | Voltage threshold for low signal   | ≤1,6 V                             |        |
|                                  | Voltage threshold for high signal  | ≥1.8 V                             |        |
| CRANK IN.                        | Type of input                      | Negative (BATT-)                   |        |
|                                  | Maximum current supplied           | 0.35 mA                            |        |
|                                  | Voltage threshold for low signal   | 1.5 V                              |        |
|                                  | Voltage threshold for high signal  | 1.6 V                              |        |
| Pick-Up Input                    |                                    |                                    |        |
| PCKP.IN,GND                      | AC voltage                         | 0.5 ÷ 5.5 Vac                      |        |
|                                  | Measurement range                  | 100 ÷ 15000 Hz                     |        |
|                                  | Minimum pick-up impedance          | >400 ohm                           |        |
| Alternator W Input               |                                    |                                    |        |
| ALT.W.1.2                        | AC voltage                         | 0.5 ÷ 65 Vac                       |        |
|                                  | Measurement range                  | 40 ÷ 2000 Hz                       |        |
| Digital outputs                  |                                    |                                    |        |
| OUT.1                            | Type                               | C-NC-NO clean contact              |        |
|                                  | Maximum load                       | 3A                                 |        |
|                                  | Maximum applicable voltage         | 48Vdc, 65Vac                       |        |
| OUT.2.3                          | Type                               | PWR.OUT                            |        |
|                                  | Maximum load                       | 3A                                 |        |
| OUT.4 ÷ 8                        | Type                               | C-NC-NO clean contact              |        |
|                                  | Maximum load                       | 3A                                 |        |
|                                  | Maximum applicable voltage         | 48 Vdc, 250 Vac                    |        |
| START.AUT.A[B]<br>START.MAN.A[B] | Type                               | BATT+.A[B]                         |        |
|                                  | Maximum load                       | 5A                                 |        |
| Analogue Inputs                  |                                    |                                    |        |
| Resistance transducer            | IN.OHM.0.1.2                       | 0 ÷ 290 ohm                        |        |
| Current transducer               | IN.AMP.P                           | Battery (BATT+.A,B)                |        |
|                                  | IN.AMP.S                           | 4 ÷ 20 mA                          |        |
| Resistance transducer            | IN.OHM.1.2                         | 0 ÷ 370 ohm                        |        |
| Resistance transducer            | IN.OHM.3.4                         | 0 ÷ 3000 ohm                       |        |
| IN.REF                           |                                    | Analogue ground for IN.OHM.1,2,3,4 |        |
| Lines of communication           |                                    |                                    |        |
| RS485 (Optoisolated)             | Baud-rate                          | 1200 ÷ 115200 bps                  |        |
|                                  | Settings                           | N,8,1; E,8,1                       |        |
| USB 2.0 (Non Optoisolator)       |                                    | Virtual Comm Port                  |        |
| Environmental conditions         |                                    |                                    |        |
| Operating temperature            |                                    | -20 ÷ 60 °C                        |        |
| Storage temperature              |                                    | -20 ÷ 60 °C                        |        |
| Relative humidity                |                                    | ≤80 %                              |        |
| Protection class                 |                                    |                                    |        |
| Back                             |                                    | IP 20                              |        |
| Front                            |                                    | IP 54                              |        |
| Container                        |                                    |                                    |        |
| Weight                           |                                    | 763 g                              |        |
| Material                         |                                    | PC/ABS V0                          |        |
| Dimensions (LxHxD)               |                                    | 254x177x62 mm                      |        |
| Terminals                        |                                    |                                    |        |
| Screw                            |                                    | M3                                 |        |
| Nominal wire size                |                                    | 2,5 mm <sup>2</sup>                |        |
| Installation                     |                                    |                                    |        |
| Type                             |                                    | Wall-mounted                       |        |
| Perforations                     |                                    | 227x155 mm                         |        |
| Nuts                             | Thread                             | M4                                 |        |
|                                  | Tightening torque                  | 1.0 ÷ 1.5 Nm                       |        |

### INFORMATION FOR ORDERING

| Type            | Code     |
|-----------------|----------|
| C-SMART12845    | 00242313 |
| C-SMART12845/BT | 00242323 |

### STANDARD ACCESSORIES

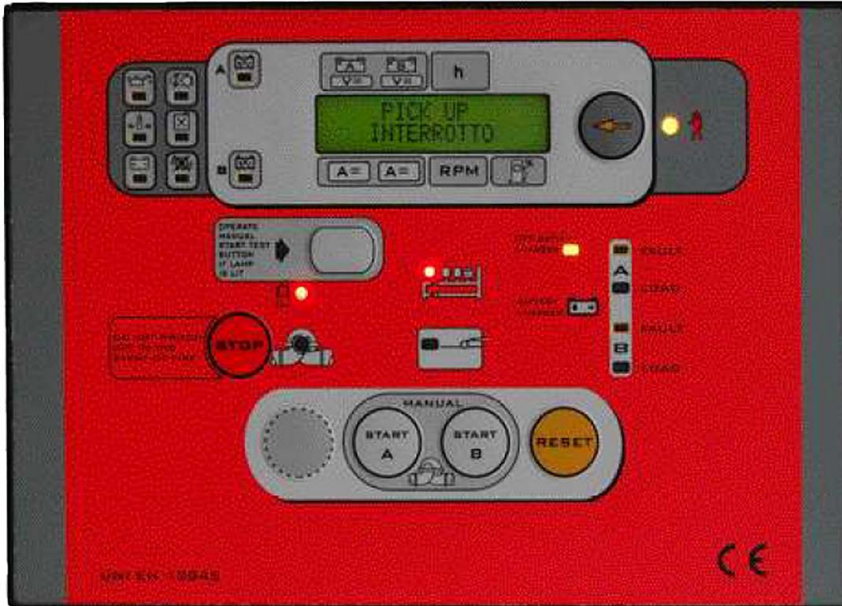
| Type                | Code     |
|---------------------|----------|
| MU C-SMART12845 KIT | 40804540 |

### ON REQUEST ACCESSORIES

| Type        | Code     |
|-------------|----------|
| EXP-IN OUT  | 00242405 |
| EXP-RS485   | 00242406 |
| EXP-RS232   | 00242407 |
| EXP-OUT230V | 00242408 |

# MONITORING AND CONTROL UNIT FIRE-FIGHTING MOTOR PUMP IN CONFORMITY TO UNI EN 12845 STANDARD TYPE C-12845-485

INSTRUCTION AND USER MANUAL



COMPLETE OF:

- two battery ammeters
- two battery voltmeters
- total hour meter
- partial hour meter
- tachometer
- water thermometer
- oil thermometer
- oil pressure gauge
- fuel level indicator

- Automatic start with 6 impulses alternated on the two batteries.
- Manual start-up buttons.
- Test button.
- Button for in-site test for machine putting into service.
- Manual stop with button.
- Check of efficiency of the batteries.
- Engine automatic faults surveillance.
- History events.

## TECHNICAL DATA

|                                                                                         |                                                   |
|-----------------------------------------------------------------------------------------|---------------------------------------------------|
| TWO BATTERIES SUPPLY VOLTAGE AT                                                         | 12 VDC and 24 VDC                                 |
| SUPPLY VOLTAGE                                                                          | 8 ÷ 32 VDC                                        |
| CIRCUIT LOADING WITH ENGINE STATIONARY                                                  | 70 mA at 12V 40 mA at 24V                         |
| MAXIMUM LOADING                                                                         | 130 mA at 12V 70 mA at 24V                        |
| CAPACITY OF CONTACTS 5-7-11-13                                                          | MAX 5A 25 VAC 60 VDC                              |
| CAPACITY OF CONTACTS 17-19                                                              | MAX 3A 25 VAC 60 VDC                              |
| CAPACITY OF CONTACTS from 71 to 85                                                      | MAX 5A (AC1) 250 VAC                              |
| DEGREE OF REAR PROTECTION                                                               | IP 20                                             |
| DEGREE OF FRONT PROTECTION                                                              | IP 64                                             |
| TEMPERATURE RANGE                                                                       | -10 ÷ +60 °C                                      |
| HOUR METER                                                                              | 4 DIGITS                                          |
| TACHOMETER                                                                              | 4000 rpm ± 15 rpm                                 |
| BATTERY CHARGERS VOLTMETERS                                                             | MAX 38 V Precision 5%                             |
| BATTERY CHARGERS AMMETERS                                                               | MAX 99 A Precision 5%                             |
| OIL PRESSURE GAUGE, WATER AND OIL THERMOMETERS,<br>AND FUEL LEVEL INSTRUMENTS PRECISION | 2%                                                |
| SERIAL COMMUNICATION PARAMETERS                                                         | 9600 baud, 8 bit data, 1 bit<br>stop; EVEN parity |
| INSTALLATION CONDITIONS                                                                 | INSIDE FOR INTERNAL USE                           |
| WEIGHT                                                                                  | 850 gr                                            |
| DIMENSIONS                                                                              | L243 x H170 x P62                                 |
| HOLE                                                                                    | 227X155                                           |

## ORDERING DATA

TYPE C-12845-485

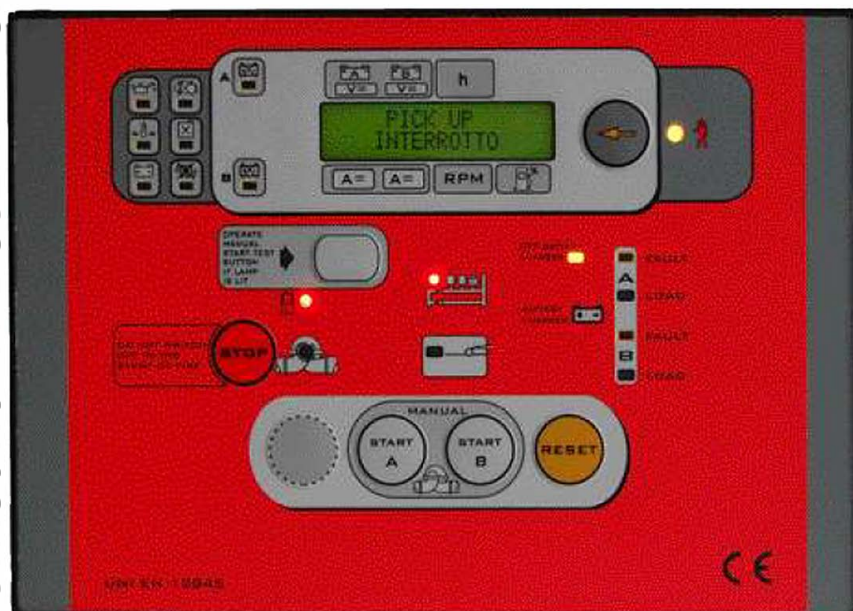
Code 00242291

## ACCESSORIES KIT

KIT MU-C-12845-485

Code 40804523

# MONITORING AND CONTROL UNIT FIRE-FIGHTING MOTOR PUMP IN CONFORMITY TO UNI EN 12845 STANDARD TYPE C-12845/1200



COMPLETE OF:

- two battery ammeters
- two battery voltmeters
- total hour meter
- partial hour meter
- tachometer
- water thermometer
- oil thermometer
- oil pressure gauge
- fuel level indicator

- Automatic start with 6 impulses alternated on the two batteries.
- Manual start-up buttons.
- Test button.
- Button for in-site test for machine putting into service.
- Manual stop with button.
- Check of efficiency of the batteries.
- Engine automatic faults surveillance.
- History events.

## TECHNICAL DATA

|                                                                                         |                                                   |
|-----------------------------------------------------------------------------------------|---------------------------------------------------|
| TWO BATTERIES SUPPLY VOLTAGE AT                                                         | 12 VDC and 24 VDC                                 |
| SUPPLY VOLTAGE                                                                          | 8 ÷ 32 VDC                                        |
| CIRCUIT LOADING WITH ENGINE STATIONARY                                                  | 70 mA at 12V 40 mA at 24V                         |
| MAXIMUM LOADING                                                                         | 130 mA at 12V 70 mA at 24V                        |
| CAPACITY OF CONTACTS 5-7-11-13                                                          | MAX 5A 25 VAC 60 VDC                              |
| CAPACITY OF CONTACTS 17-19                                                              | MAX 3A 25 VAC 60 VDC                              |
| CAPACITY OF CONTACTS from 71 to 85                                                      | MAX 5A (AC1) 250 VAC                              |
| DEGREE OF REAR PROTECTION                                                               | IP 20                                             |
| DEGREE OF FRONT PROTECTION                                                              | IP 64                                             |
| TEMPERATURE RANGE                                                                       | -10 ÷ +60 °C                                      |
| HOUR METER                                                                              | 4 DIGITS                                          |
| TACHOMETER                                                                              | 4000 rpm ± 15 rpm                                 |
| BATTERY CHARGERS VOLTMETERS                                                             | MAX 38 V Precision 5%                             |
| BATTERY CHARGERS AMMETERS                                                               | MAX 99 A Precision 5%                             |
| OIL PRESSURE GAUGE, WATER AND OIL THERMOMETERS,<br>AND FUEL LEVEL INSTRUMENTS PRECISION | 2%                                                |
| SERIAL COMMUNICATION PARAMETERS                                                         | 9600 baud, 8 bit data, 1 bit<br>stop; EVEN parity |
| INSTALLATION CONDITIONS                                                                 | INSIDE FOR INTERNAL USE                           |
| WEIGHT                                                                                  | 850 gr                                            |
| DIMENSIONS                                                                              | L243 x H170 x P62                                 |
| HOLE                                                                                    | 227X155                                           |

## ORDERING DATA

TYPE C-12845/1200

Code 00242302

## ACCESSORIES KIT

KIT MU-C-12845/1200

Code 40804526



# SCC-1200

## FIRE-FIGHTING MOTOR PUMP CONTROL UNIT

Internal power board for automatic motor pump control panel conforming to standard EN12845, to be connected to the control unit C-12845/1200, to simplify the relevant connections.

### KEY FEATURES

- Equipped with 35A relays.
- Simple connection with supplied cables.

### IDENTIFICATION DATA

| Type         |                  | Code     |
|--------------|------------------|----------|
| SCC-1200 12V | For C-12845-1200 | 00024801 |
| SCC-1200 24V | For C-12845-1200 | 00024802 |

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