

CORRSYS

DATRON

Sensorsysteme GmbH



Stand-Alone Display

Calculation and Display Unit

for

*Speed Sensors with digital (pulse) output and/or
CDS-DFL Fuel Flow Measurement Systems*

**USER
MANUAL**

Notes:

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General Information

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Safety Instructions

Please read carefully before operating the equipment.

CORRSYS-DATRON is not responsible for damage that may occur when this system is used in any way other than that for which it is intended.

To assure safe and proper operation, all supplied equipment, components and/or accessories must be carefully transported and stored, as well as professionally installed and operated. Careful maintenance and usage in full accordance with operating instructions is imperative.

CORRSYS-DATRON equipment should be installed and operated only by qualified persons who are familiar with devices of this type.

Local regulations may not permit the operation of motor vehicles on public highways while the equipment is mounted on the exterior of the vehicle.

- Use the equipment only for intended applications. Improper application is not advised.
- Do not modify or change the equipment or its accessories in any way.
- Improper use or mounting of the equipment may affect the safety of the vehicle and/or occupants.
- The equipment must not be mounted and/or operated in any way that may compromise vehicle and/or occupant safety.
- Equipment must be mounted firmly and securely.
- Use only original equipment, components and /or accessories included in the scope of delivery.
- Do not mount equipment, components and/or accessories near heat sources (e.g., exhaust).
- Do not use defective or damaged equipment, components and/or accessories.
- Always note correct pin assignments and operating voltages when connecting equipment to power supplies, data acquisition/evaluation systems, and/or any other system or component. Equipment may be damaged if not properly connected and/or operated.
- For additional information, please call the CORRSYS-DATRON hotline: ++49 (6441) 9282-82 or: hotline@corrsys-datron.com.

1. Overview



Calculation and Display Unit

*for
Speed Sensors with digital
(pulse) output and/or
CDS-DFL Fuel Flow
Measurement Systems*

Article no.:

Stand-Alone Display

14245

The CORRSYS-DATRON Stand-Alone Display enables real-time processing and display and of speed and fuel consumption data when used with CDS-DFL fuel flow meters and CDS speed sensors. Incorporating a high-intensity digital display, the unit can work as well as stand alone display for speed or fuel flow sensor.

When used as stand alone display for fuel flow measurement system, consumption data as a function of time in liter/hr and total consumption in liter is proved together with time elapsed since measurement has been started.

When used together with a speed sensor, time, actual speed and distance traveled since the start button has been pressed are displayed.

When used with both types of sensors, the unit provides consumption data as a function of time in liter/hr - and as a function of distance traveled in ltr/100kph, as well as display of instantaneous and mean speed in kph/hr, and of distance traveled in m. Values also can be displayed in English units.

Features

- Integrated calculation and display unit with onboard processor for evaluation and display of test data Sensor weighs only 180 g
- Powered from 12 V DC vehicle battery (power cable with banana plug)
- Start / Stop button at the front panel
- Operation mode selectable for:
 - actual fuel consumption rate (e.g. consumption at idle)
 - average consumption of the test performed
 - total volume since the start button has been pressed
 - actual speed
 - average speed of the test performed
 - total distance since the start button has been pressed
 - time elapsed since the start button has been pressed
- Switchable to metric or English units
- Double input for fuel flow meter and / or speed sensor

Application

- Processing and display of speed when used with CORRSYS-DATRON speed sensors
- Processing and display of fuel consumption when used with CORRSYS-DATRON fuel meters

2. Extent of Delivery

Standard delivery:

- 1.) (1) stand alone display
- 2.) (1) power cable 2m with banana plugs, article n°: 10398
- 3.) (1) suction holder with ball joint, , article n°: 10029
- 4.) (1) hexagon bolt, article n°: 11666
- 5.) (1) plastic transport case with 2 foam inlays, article n°s: 11227 + 2x 11129
- 6.) (1) user manual

Options:

Sensor cable for speed sensor

- | | article no. |
|---|-------------|
| • L 400, S 400 (Sub-D9 to 10 pin Lemo, series 2S) | # 11837 |
| • L-CE / S-CE (Cable connector 12P, PG9 to 10 pin Lemo) | # 10444 |
| • MicroStar (Sub-D9 to 10 pin Lemo, series 2S) | # 13333 |
| • MicroSAT (Sub-D9 to 10 pin Lemo, series 2S) | # 14013 |
| • DLS | # 13226 |

Signal cable for flow-meter input

- | | |
|---|---------|
| • BNC input (BNC to 3-pin Lemo, series 1S) | # 12433 |
| • CDS-DFL-1 (Sub-D9 to 3-pin Lemo, series 1S) | # 11754 |
| • CDS-DFL-3 (Sub-D9 to 3-pin Lemo, series 1S) | # 11753 |

3. Technical Data

3.1 Specifications

Resolution:	Time 1 s Volume 0.001 l; 0.01 l/100kph; 0.001 l/h Distance 1 m Speed 0.01 kph
Maximum reading:	Volume 999.999 l, l/h; 9999.99 l/100 km Time 99:59:59 Distance 999.999 km Speed 9999.99 kph
Calibration factors:	Speed - 340, 400, 460, 500 and 1500 Fuel flow - 10, 500, 1500
Units:	Metric or english (selectable by switch)
Operating temperature range:	-20 ... +70°C
Operating voltage, nominal:	12 V DC (10 ... 18 V DC)
Power consumption:	0,2 A
Dimensions:	370 x 55 x 42 mm (without cable)
Weight:	Approx. 560 g (without cable and mounting units)

3.2 Pin Assignments

ATTENTION!

All views are of the front of the connector.



Sensor Input (SEN) 10-pin Lemo, Series 2S

Dedicated input for
CORREVIT® Sensors

1) n.c.	6) sensor digital low
2) n.c.	7) GND
3) n.c.	8) +12V 300 mA, max
4) n.c.	9) n.c.
5) sensor digital high	10) n.c.



Digital Input 3-pin Lemo, Series 1S

Counter input
0...5V

1) sensor signal (DFL)
2) GND
3) +12V 300 mA, max



Power In 4-pin male

Input for system power

1) 9...36V DC = +UB
2) 9...36V DC = +UB
3) GND = -UB
4) GND = -UB

4. Settings and Connection

4.1 Set-up of the stand-alone-display

Enter set-up mode

1. Press the button on the left side of the display to enter in set-up mode. "DISPL" will be shown in the left display and the LED of the currently selected unit (time, speed, distance) is highlighted.



Set display's units

2. Use the green button to change the unit sequentially.



3. Press the red button to finish setting of the left display and move on to the middle display's settings.
4. Choose the units for the remaining displays accordingly.
5. Press the red button to finish setting of the right display and move on to the setting of the sensor's calibration factor.

Set calibration factor



6. "CAL" will be displayed in the left display together with the LED "SEN". The middle display will show the calibration factor currently selected for the speed sensor.
7. Use the green button to change the factor sequentially.



8. Press the red button to approve your choice and to move on to the setting of the CDS-DFL's calibration factor.
9. Use the green button to change the factor sequentially.



Exit set-up mode

10. By pressing the red button the setting is saved and the display quits the set-up mode.

4.2 Using the stand-alone-display

The green button starts or stops a measurement. When stopped, pressing the red button clears the display readings by setting them to 0.



During the measurement, speed and consumption rates are displayed in the left and middle display as instantaneous values, whereas the right display presents the average since the measurement has been started.

Once the measurement has been stopped, all displays showing speed and consumption rates represent the average.

Time, consumption and distance are total values since the measurement has been started all the time.

4.3 Checking the calibration factors

While no measurement is performed, both calibration factors and the software revision of the stand alone display can be obtained by pressing the red button for more than 3 sec.



The right display indicated the speed sensor's setting, the middle display presents the DFL's calibration factor. The right display indicates the software revision of the stand alone display. When the red button is released the display returns to normal.