DPY351

Manages all device ADELsystem.

Main functions:

- **Monitoring**
- **Configuration**
- **Alarms management**
- **History**
- **Logging**
- **Event**

Gateway for:

- **Ethernet**
- **IIoT (Cloud)**
- **CAN Bus**
- **MODBUS**
- **USB**
- **Webserver**

Protocols: SNMP, MODBUS TCP, MODBUS RTU, SAE J1939, MQTT (Cloud)

Inputs:N°2 Digital Input; N°1 Temperature

Output: N°1 isolated

3.5" high-brightness LCD display with 160° viewing angle

Anti-reflection coating for improved visibility in direct sunlight

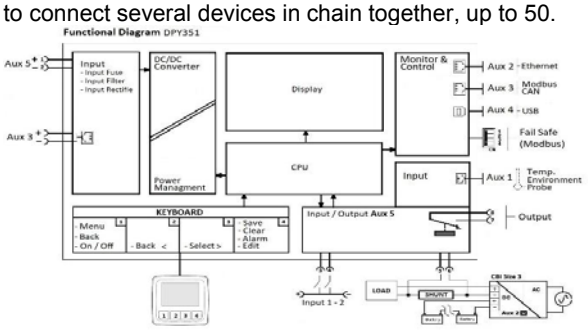
Simple and intuitive user interface

Low power: 130 mA/ 1.6W typ.

IP65

General

DPY351 is a robust and versatile multifunction display that allows monitoring, configuring and managing the Adel System devices connected in an ADELBus network. It is equipped with a high-brightness and wide viewing-angle 3.5'' TFT screen which guarantees an optimum visibility in any operating condition. The user interface is clear, intuitive and allows configuring and managing ADELBus network through its Ethernet interface by remotely monitoring connected devices, using the SNMP and Modbus TCP protocols. The configuration of the Ethernet connection is very straightforward and can be done by means of the embedded webserver or the intuitive user interface. The device IP addressing can be static or dynamic using the DHCP protocol. This makes the connection of a DPY351 to a LAN very easy. It is possible to connect several devices in chain together, up to 50.



Feature

Through the ADELBus network (Adel System network) it manages all the connected devices:

Monitoring
It is possible the monitoring of the input and output data, peak current, peak voltage, all the battery parameters such as temperature, State of Charge, etc…

Configuration
With the DPY351, it is possible to modify the parameters of any device connected: DC Ups, Power Supply and Battery Charger.

Alarms management
All the alarms present on the single device are immediately reported.

History
The history parameters are recorded inside each device. The DPY351 allows inspecting all the historical parameters of each single device.

Logging
Actions that are coordinated among the devices connected can be programmed, thus automating the system.

Web server
It is possible configure and drive the device by Own Server

Event
Actions that are coordinated among the devices connected can be programmed, thus automating the system.

Technical Data

Input Data

DC Input Voltage range (Vdc)	**9-72**
Power from:	**Aux3**
Power from:	**Aux5: Pin 1 - 2**
External Recommended Fuse	**3 to 10 A max**

ADELSYSTEM

Current consumption ON typ. (backlight 30%, MODBUS* on, relay off)	**0.13A (12VDC, Ethernet off)** **0.17A (12VDC, Ethernet on)** **0.08A (24VDC, Ethernet off)** **0.1A (24VDC, Ethernet on)**
Current Consumption	**0mA; Aux6 Switch4 pos. OFF**
Current Consumption Sleep mode	**< 1 mA;Aux6 Switch4 pos. ON**
Maximum current consumption with backlight 100%	**0.32A (9VDC, MODBUS*, Ethernet and relay on)** **0.10A (72VDC, MODBUS*, Ethernet and relay on)**
Maximum current consumption with backlight 0%	**0.22A (9VDC, MODBUS*, Ethernet and relay on)** **0.07A (36VDC, MODBUS*, Ethernet and relay on)**
Display Screen	
Type	**TFT LCD display, 16bit color (64k colors)**
Resolution	**320 x 240 pixels 3.5 Inch**
Brightness	**800 cd/m²**
Orientation	**Landscape**
Backlight (life time)	**LED, white (>20000h)**
Controls	
Keyboard	**4 tactile buttons, backlight**
Data Connection	
Aux1: Input temperature sensor	**ADELSystem RJ Temp temperature probe**
Aux2: Ethernet	**10/100M. VLAN is supported.**
Protocols:	**SNMP, DHCP, MODBUS TCP, HTTP webserver**
Aux3: CAN Communications	**SAE J1939**
Aux3: RS485 : MODBUS lines fully loaded with 32 unit loads.	**MODBUS RTU (RS 485) terminated at both ends with 120-ohm resistors.**
Aux4: USB 2.0 device, full speed	**1 x USB B connector**
Aux5:	**N° 2 Digital Input** **N° 1 Analog Input** **N° 1 Output**
Aux6:Data lines termination (individually activated to dipswitches)	**120 ohm for RS485, 120 ohm for CAN bus**
Modbus Communication RS485	
Aux3:	**RJ45**
Supported Protocols	**MODBUS RTU**
Supported Baud Rate (Factory setting: 38400)	**2400, 4800, 9600, 19 200, 38400**
Internal Terminating Resistor (120 Ω) (Factory Setting OFF)	**Configurable by Switch Aux6 (Section: Hardware configurations RS485)**
CAN Communication	
Aux3:	**RJ45**
Supported Protocols	**J1939** **Raw CAN** **Can Open**
Supported Baud Rate (Factory setting: xxxxxx)	**50 Kbit/s, 100 Kbit/s, 125 Kbit/s, 250 Kbit/s, 500 Kbit/s, 800 Kbit/s, 1 Mbit/s,**
Internal Terminating Resistor (120 Ω) (Factory Setting OFF)	**Configurable by Switch Aux6 (Section: Hardware configurations Can)**
Ambient Conditions	
Ambient Temperature operation	**-25 up to +70 °C**
Ambient Temperature Storage	**-40 up to +85 °C**
Humidity at 25 °C, no condensation	**95 % to 25 °C**
Vibration (operation) IEC60068-2-6	**<15 Hz, amplitude ± 2.5mm<15Hz-150Hz, 2.3G 90 min.**
Shock IEC 60068-2-6	**30g in all directions**
General Data	
Protection Class (EN/IEC 60529)	**Front panel only IP65; Rear IP22**
Reliability: MTBF IEC 61709	**> 700.000 h (Automatically Switch Off Beck Light after 30 sec)**
Aux5 Connection Terminal Blocks Push Button Type	**Wire diameter Ø: 0.05 mm (30AWG) - 1.5 mm (14AWG)**
Protection class	**II**
Housing material	**Polycarbonate**
Dimension (w-h-d) mm	**112 x 117 x 52**
Weight	**0.35 kg approx.**
Hole	**90 mm**
Available Languages	**English**
Automatic Power ON	**Deep Switch 4 ON (Aux6)**
Accessory	
Connector Cable RJ45/RJ45 1m for CBI Size 4	**RJCONN45**
Connector Cable RJ45/RJ45 1m for CBI (Device Size 3)	**DPYCONN500**
RJTEMP111 or 113	**Temp. Environment Sensor**
Shunt 50 (for Device Size 3)	**Measure the Load current**

Hardware Port

Digital Input ports "Aux5"

Input:	**N° 2**
Application Pins	**Pins 3,4**
Minimum Voltage for Low Level:	**0-72 V, user-configurable**
Minimum Voltage for High Level:	**0-72 V, user-configurable**

Analog Input ports "Aux5"

Input:	**N° 1**
Application Pin	**Pins 5,6**
For Shunt connection	**50 A**

Output port "Aux5"

Output	**N° 1**
Application Pin	**Pins 7,8**
Output Type	**Dry Contact (NO)**

Max. current can be switched (EN60947.4.1):
Max. DC1: 30 Vdc 1 A; AC1: 60 Vac 1A (Resistive Load)
Min.1mA at 5 Vdc (Min. Load)

Software Port

Remote Monitoring "Ethernet Connection"

IP (Static)	**192.168.1.100**
User	**admin**
PW	**admin**

Web Server

- User friendly operation trough monitoring and configuration on one page
- Independent identification of individual modules, a system configuration it is not necessary
- Integrated access management: access can be individually determined locally and centrally
- Integrated data storage, each modification and each error can be recorded

Norms and certifications

The CE mark in conformity to EMC 2014/30/EU: Electromagnetic Compatibility Directive; 2014/35/EU: Low Voltage Directive; ROHS 2011/65/EU: Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS), as amended by 2015/863/EU. EMC Immunity: EN61000-6-2;EMC Emission: EN61000-6-3

Electrical Safety for mounting

According to: Electrical Equipment for Machinery EN 60204; Electrical safety (of information technology equipment) IEC/EN EN62368-1.

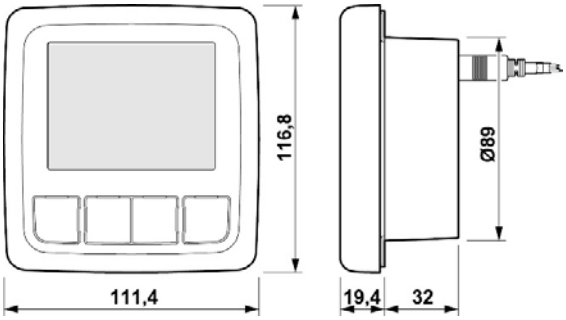
Environmental Norm Conditions

Degrees of protection provided by enclosures IEC/EN 60529: IP65: Environmental Testing IEC/EN 60068

ADELSYSTEM

All specifications are subject to change without notice

Drowings:



Accessory