

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

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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
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/m ²
Orientation	Landscape
Backlight (life time)	LED, white (>20000h)

Controls

Keyboard	4 tactile buttons, backlight
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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) RJTEMP111 or 113	DPYCONN500 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 through 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

