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

The 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	Yes
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 (Out6 Switch4 pos. OFF)	0mA
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)
Current Consumption in Sleep mode	< 1 mA
External Fuse (recommended)	1A slow-blow

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)

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 Bus	SAE J1939
Aux3: RS485 : MODBUS lines fully loaded with 32 unit loads and terminated at both ends with 120-ohm resistors.	MODBUS RTU
Data lines termination	120 ohm for RS485, 120 ohm for CAN bus individually activated with user-accessible dipswitches
Data lines polarization	Yes, RS485 lines only to supply rails, individually activated with user-accessible dipswitches
Aux4: USB: 2.0 device, full speed	1 x USB B connector
Keyboard	4 tactile buttons, backlit

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) IEC 60068-2-6	<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)	IP20; Front panel only IP65
Reliability: MTBF IEC 61709	> 200.000 h
Connection Terminal Blocks Screw Type	0.08-1.31 mm^2 (24 – 16 AWG)
Protection class	II
Housing material	Polycarbonate
Foot latch material	Plastic POM
Dimension (w-h-d) mm	112 x 115 x 52
Weight	0.35 kg approx.
Hole	90 mm
Available Languages	English
Automatic Power ON	By setting Deep Switch (Aux6)

Accessory

Connector Cable RJ45/RJ45 1m for CBI Size 4	RJCONN45
Connector Cable RJ45/RJ45 1m for CBI Size 3	DPYCONN500
Temperature Sensor	RJTEMP111

Hardware Port

Input ports

Input Number	2
Input Type	2x 0-72 V, user-configurable

Output port

Output	1
Output Type	Free Switch 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	

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 2004/108/EC and Low voltage directive 2006/95/EC.

EMC Immunity
EN61000-6-2

EMC Emission:
EN61000-6-3

Electrical Safety

Electrical Equipment for Machinery EN 60204

According to Electrical safety (of information technology equipment) IEC/EN 60950 (VDE 0805) e EN 50178 (VDE 0160) for assembling device.

Electronic equipment for use in electrical power installations EN 50178/VDE 0160 (PELV),SELV IEC 60950 (SELV) and EN 60204 (PELV) Safe isolation DIN VDE 0100-410, DIN VDE 0106-1010

Protection against electric shock DIN 57100-410 Protection against electric shock, basic requirements for safe isolation in electrical equipment DIN VDE 0106-101

Limitation of mains harmonic currents EN 61000-3-2 Safety transformers for power supply units IEC 61558-2-17 The unit must be installed according to IEC/EN 60950.Input / Output separation: SELV EN60950-1 6 Edition, and PELV EN 60204-1. Double or reinforced insulation.