

DCL-01 relay continuously controls DC supply line and when one of the predetermined four errors occurs, it gives a contact by pulling the relevant relay; the warning lamp is lit continuously as long as the error continues. By Pressing Alarm Delete Button, alarms which are not continuing can be deleted. The reasons of failure determined by the relay are as follows:

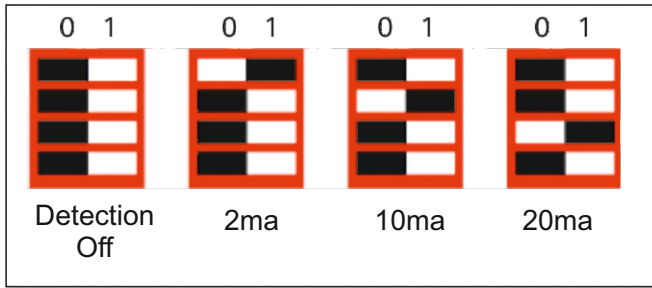
1. Low voltage (Threshold Adjustable)
2. Over-voltage (Threshold Adjustable)
3. (-) leakage (Threshold Adjustable)
4. (+) leakage (Threshold Adjustable)

SETTINGS:

DC LEAKAGE THRESHOLD SET:

DCL-01A DC Leakage threshold can set by swiches which are positioned on front panel. Leakage threshold can be set as 2ma, 10ma, 20ma and Detection off.

Leakage threshold changes with measured voltage. ****Measured voltage must be higher than minimum voltage threshold to leakage detection.

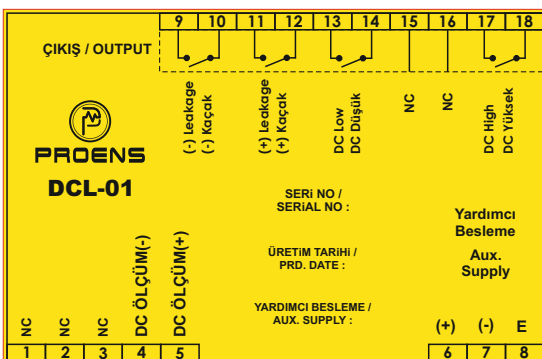
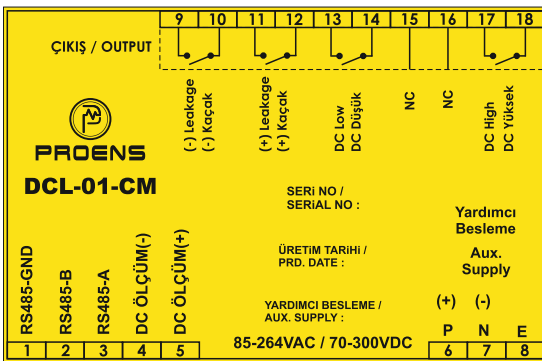


** When measured level is 220VDC leakage detection threshold level is just 6mA. The ON position one of switches are enough to detection.

RS485 MODBUS RTU ID SET (*CM MODEL):

Modbus ID can be set on relay. ID can be set by Buttons which are in front of panel DCL-01.

CONNECTION DIAGRAM



MODBUS RTU ID SETTING:

Screen shall be show output voltage.



Change screen to come Id page by pressing the Button Down.



To activate the setting press Set Button. Change Modbus ID by UP or Down button.



To save the ID press SET button.



DC HIGH-LOW THRESHOLD SET:

DC High and Low thresholds can be set on relay. Threshold can be set by Buttons which are in front of panel DCL-01.

DC HIGH/LOW THRESHOLD SET:

Screen shall be show output voltage.



(1)

Change screen to come DC LOW(1) or DC High(2) page by pressing the Button Down.



(2)



To activate the setting press Set Button. Change threshold level by UP or Down button. To save the threshold press SET button.



Order Table

Order Code	Description
DCL-01-CM-220-24	Uinput:220 AC,DC Ucv:24VDC Communication
DCL-01-CM-220-48	Uinput:220 AC,DC Ucv:48VDC Communication
DCL-01-CM-220-110	Uinput:220 AC,DC Ucv:110VDC Communication
DCL-01-CM-220-127	Uinput:220 AC,DC Ucv:127VDC Communication
DCL-01-CM-220-220	Uinput:220 AC,DC Ucv:220VDC Communication
DCL-01-24VDC	Uinput:24 VDC Ucv:24VDC
DCL-01-48VDC	Uinput:48 VDC Ucv:48VDC
DCL-01-110VDC	Uinput:110 VDC Ucv:110VDC
DCL-01-220VDC	Uinput:220 AC,DC Ucv:220VDC

TECHNICAL SPECIFICATION

Supply Voltage	: 85-264VAC / 70-300VDC(*DCL-01-CM) :24-48-110 VDC (*DCL-01) : 0.8Un-1.2Un (*DCL-01)
Measurement Voltage	:24VDC,48VDC,110VDC,220 VDC
Measurement Accuracy	: +/- %1
Communication	:Rs485 (*DCL-01-CM)
Comm. Insulation	:2.5kV (*DCL-01-CM)
Contact Currents	: 5A-@230VAC
Leakage Detection	: 2-10-20 mA (@220VAC-6mA)
Indication	: Led 100.000 Hour
Buttons	: 20.000 Press
Mounting	: from front to Panel
Cable Section	: 2.5mm
Temperature	: -20 °C / +55 °C
Protection Class	: IP20
Weight	: 0.2kg
Dimension	: 96x96x75 mm

RS485 Settings

Connection	Half Duplex-2 Wire
Protocol	Modbus RTU
Baudrate	9600
Parity	None
Stop Bits	2

READ HOLDING REGISTER-16bit(0x03)

0	DC Measurement Voltage	Voltage*10(Ex:124.2=1242)
1	Alarm Outputs	0bXXXX XXXX XXXX -(-) Leakage-(+) Leakage-DC Low-DC High
2	DC High Threshold Set Value	Voltage*10(Ex:124.2=1242)
3	DC Low Threshold Set Value	Voltage*10(Ex:124.2=1242)
4	MODBUS ID	Signed

Demand :01 03 0000 0005 85C9

Response :01 03 0A 04E7 0000
0514 03E8 0001 FB71

01 : Device Id'si
03 : Function Code
0000 : Register Start Adress
0005 : Register Quantity.
85C9 : CRC

01 : Device Id'si
03 : Function Code
0A : Bytes Count to Send
04E7 : Register 0 (DC Measurement)
0000 : Register 1 (Alarm Outputs)
0514 : Register 2 (DC High Set)
03E8 : Register 3 (DC Low Set)
0001 : Modbus ID
FB71 : CRC

** Modbus ID can ben read on ID-255 or ID-0.

READ COILS-(0x01)

0	(-) LEAKAGE ALARM	0-PASSIVE/1- ACTIVE
1	(+) LEAKAGE ALARM	0-PASSIVE/1- ACTIVE
2	DC LOW ALARM	0-PASSIVE/1- ACTIVE
3	DC HIGH ALARM	0-PASSIVE/1- ACTIVE

Demand:01 01 0000 0004 3DC9

Response :01 01 01 00 51 88

01 : Device Id
01 : Function Code
0000 : Coil Start Adress
0004 : Coil Count
3DC9 : CRC

01 : Device Id
01 : Function Code
01 : Byte Counts to Send.
00 : Coils 0-3
5188 : CRC

** Alarms can be read from Read Holding and Read Coils Funciton.

** Communication Cycle time can be re reduced by using just Read Holding registger to take all information from relay.