

UC16PG-R Universal Programmable Controller with Relay output

DESCRIPTION

The UC16PG-R is a programmable controller, with 8 inputs and 8 outputs.

MECHANICAL

Size 225 x 130 x 45 mm
(8.86 x 5.12 x 1.78")

Enclosure Injection moulded ABS

Mounting DIN rail

ENVIRONMENT

Ambient Temperature 0° - 90% RH non-condensing
 Ambient Humidity 0° - 50°C (32°-122°F) ambient.
 EMC Immunity EN 50082-1
 EMC Emission EN55011 Class B

Note: This equipment is intended for field installation within another enclosure.

WIRING

Termination PCB mounted plug terminal connections.
 Conductor Area Max: AWG 12 (3.09 mm²)
 Min: AWG 22 (0.355 mm²)

Note: Use Copper or Copper Clad Aluminium conductors only.

ELECTRICAL

Supply Requirements 24 V AC +/- 20% 50/60 Hz
 Power Rating 10 VA
 Fuse Rating 2 A anti-surge (250 V AC - 2AT)

PROCESSOR

Type Motorola 68HC11
 Clock Speed 8 MHz
 Operating System Memory 128K
 User Programmable Memory 128K RAM Battery backed for 2 years minimum
 Real-Time Clock Battery backed for 2 years minimum

INPUTS/OUTPUTS

8 Universal Inputs

Note: Screened cable is recommended for all input connections.
 Active voltage input: 0-10 V @ 134 K
 Passive input recommended sensor: PT1000
 Resolution: 12 bits (with exponential filter applied to the input block in the controller's strategy)
Note: '10k option' controllers use 10k3A1 sensors only
 Active current input: 0-20 mA @ 120 Ω (screened cable)
 Digital Volt Free Contact: Pulse up to 12 Hz, minimum pulse width 42ms.
 Jumper selectable: 0 - 10 V DC 10mA max
 or 24 V AC Relay, 2 A continuous / 15 A max inrush.

8 Universal Outputs

COMMUNICATIONS

Local RS232 TTL port @ 1200, 2400, 9600, 19200 or 38400 Baud
 Network RS485 port @ 1200, 2400, 9600, 19200 or 38400 Baud
 Keypad port @ 9600 Baud, RJ11 socket
 Modem Modem connection supported through RS232 service port

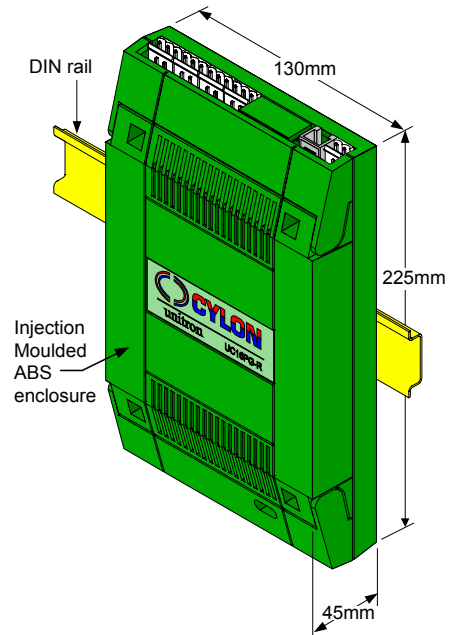
INTERFACE

Software WN3000 software suite, Unitron Palmtop program
 Remote Keypad UCKRA420 Serial Text Keypad connected via RJ11 port
 Maximum cable length 50m

SOFTWARE FEATURES

Maximum number of strategy blocks 255
 Maximum number of Datalog Modules 16
 Maximum Datalog Module capacity 192 entries per Datalog
 Maximum Controller Address 16

Note: The maximum controller address is 8 for UC16PG-R controllers with firmware versions of 5.5.0 or earlier.



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Due to Cylon's policy of continuous improvements these specifications may be upgraded without notice.

Universal Input Selection Jumpers

Volt free contacts

Passive input

0-20 mA input

0-10 V input

Legend
 Pins covered by jumper
 Pins open

Address/Baud-Rate Selector Switch

8 7 6 5 4 3 2 1
 Sub-Network Baud Rate MSB Sub-Network Address LSB
 Binary 1
 Binary 0

Baud Rate

The Baud Rate of the controller on the Sub-Network is set on DIP switches 6, 7, and 8:

9600 baud

1200 baud 19200 baud

2400 baud 38400 baud

Sub-Network Address

The address of the controller on the Sub-Network is set on these DIP switches as binary numbers as illustrated in the examples below:

Address 1

Address 16

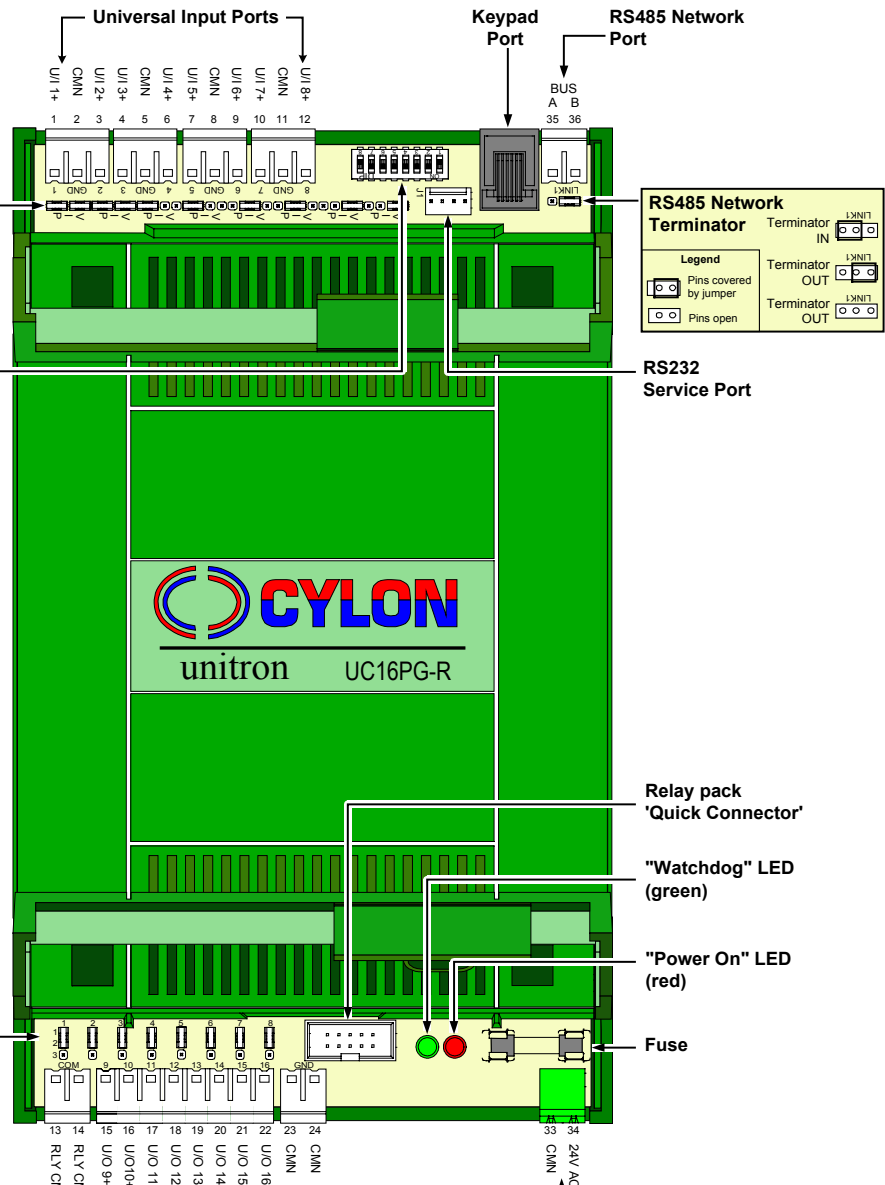
Universal Output Configuration Jumpers

0-10 V Output

Relay (24 V AC only)

Legend
 Pins covered by jumper
 Pins open

Note:
 To avoid potential damage to controller during installation, it is recommended that RLY CMN be connected to a fused 24 V AC supply.



Power input (24v AC)
IMPORTANT
 Earth this controller by connecting the CMN wire (C₀), on the secondary side of the 24 V AC transformer, to Earth at one point.

Note:
 Outputs which are configured as relay outputs must use terminals 13 and 14 (RLY CMN) as their common point.

Digital Inputs and Outputs configured as Universal Outputs must use terminals 23 and 24 (CMN) as their common point.

This is because inside the UC controller, terminals 13 and 14 (RLY CMN) are connected to the relays only, whereas terminals 23 and 24 are connected to the Power Input's CMN line on pin 33 as shown in this diagram: