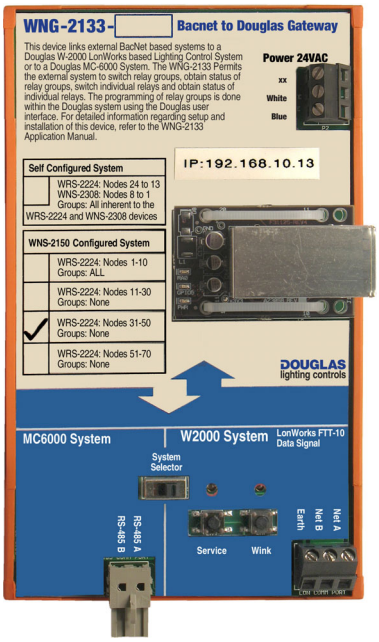


PART No.	DESCRIPTION
WNG-2133	▪ The WNG-2133 Gateway allows a stand-alone Douglas W-2000 system or MC-6000 System to operate independently, but gives an external BACnet network access to switch all relay groups, obtain relay group status, switch any individual relays and obtain individual relay status within the Douglas system. ▪ The WNG-2133 streamlines the inclusion of a Douglas Lighting Controls network into a larger BACnet IP network and significantly reduces the time required to integrate the lighting controls network into the larger network. ▪ After integration, network management and group programming will still be performed by the Douglas W-2000 or MC-6000 System. ▪ The WNG-2133 Gateway works with both the Douglas W-2000 and the Douglas MC-6000 network and allows the programming of the groups to be easily accomplished using the 'user friendly' Douglas system interface. ▪ The WNG-2133 Gateway allows the BACnet network up to 1000 points of control for the groups and individual relays within the Douglas system.

SPECIFICATION

Power

▪ 24VAC, 100mA.

Outputs

▪ Data signals of both the Douglas MC-6000 or W-2000 network and the BACnet control network connect to the Gateway unit.

DOUGLAS W-2000 NETWORK

▪ Standard LonTalk transceiver, FTT-10 (78kbs) type.

▪ Wiring type to be twisted pair, unshielded, #16 AWG Beldon.

▪ Connections are not polarity sensitive.

DOUGLAS MC-6000 NETWORK

▪ RS-485 Transceiver.

▪ WNG-2133 plugs directly into socket on MC-6210- GTW Panel Control Card.

Network Technology Specification

▪ Network signal: BACnet IP.

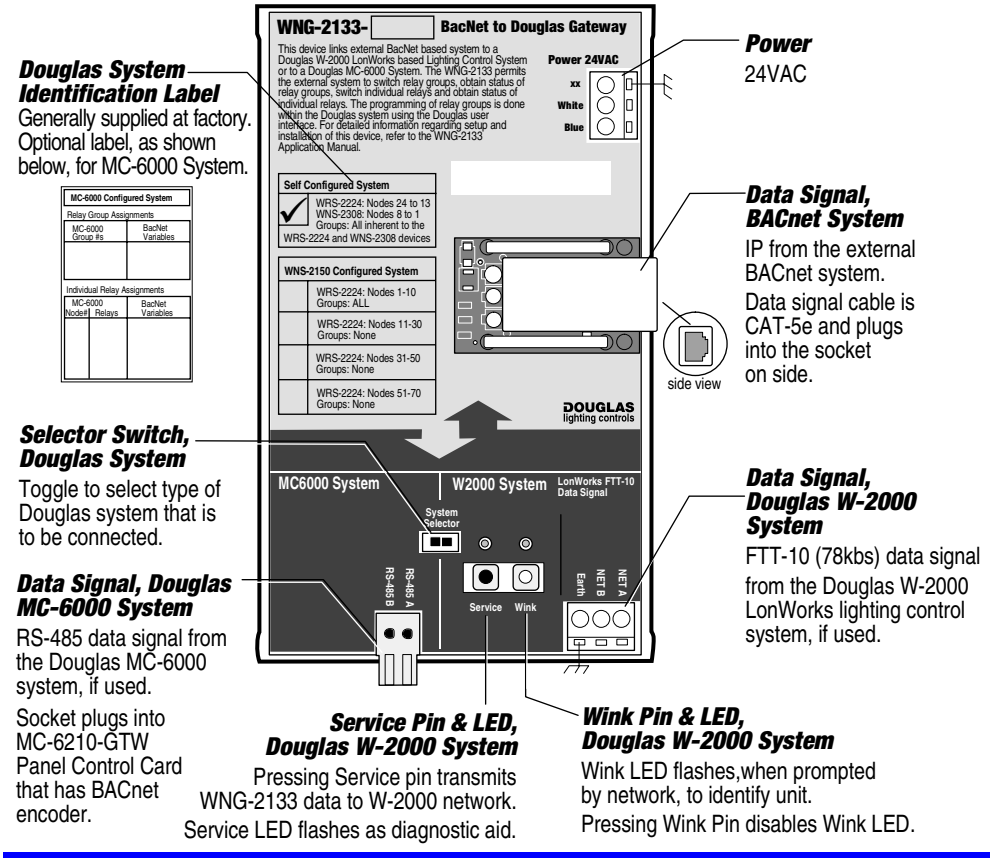
Environment

▪ Indoors, stationary, non-vibrating, non-corrosive atmosphere and non-condensing humidity.

▪ Ambient operating temperature: -0°F to +120°F (-15°C to +50°C).

WNG-2133 BACnet Gateway

Install lighting gateway in a panel.
Connect external BACnet system's RS-485 data signal to gateway.
Select the type of Douglas Control system (MC-6000 or W-2000) and connect Gateway.



Douglas System Identification Label
Generally supplied at factory. Optional label, as shown below, for MC-6000 System.

Power
24VAC

Data Signal, BACnet System
IP from the external BACnet system.
Data signal cable is CAT-5e and plugs into the socket on side.

Selector Switch, Douglas System
Toggle to select type of Douglas system that is to be connected.

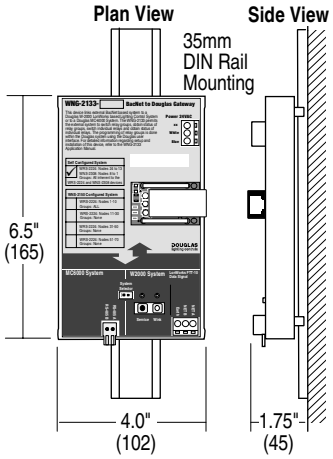
Data Signal, Douglas W-2000 System
FTT-10 (78kbs) data signal from the Douglas W-2000 LonWorks lighting control system, if used.

Data Signal, Douglas MC-6000 System
RS-485 data signal from the Douglas MC-6000 system, if used.
Socket plugs into MC-6210-GTW Panel Control Card that has BACnet encoder.

Service Pin & LED, Douglas W-2000 System
Pressing Service pin transmits WNG-2133 data to W-2000 network.
Service LED flashes as diagnostic aid.

Wink Pin & LED, Douglas W-2000 System
Wink LED flashes,when prompted by network, to identify unit.
Pressing Wink Pin disables Wink LED.

DIMENSIONS & MOUNTING



WNG-2133 BACnet Gateway

- The Douglas WNG-2133 Gateway incorporates a Douglas MC-6000 Lighting Control Network or a Douglas W-2000 Lighting Control Network into a Management Control System that uses BACnet technology. It is assumed that the BMS supports standard BACnet objects that can be used for lighting control.
- The WNG-2133 communicates using BACnet-IP and is built using Field Server Technology. All BACnet Vendors using standard BACnet-IP protocol can communicate with the WNG-2133.
- All objects are native BACnet. No proprietary objects are used.
- The WNG-2133 allows for up to 1000 points of control, with the type and number of objects exposed to the external BACnet System being fully configurable. The default configurations for the W-2000 System and the MC-6000 System are shown at the right. They are provided for the benefit of System Integrators who are incorporating the WNG-2133 into a BACnet system.

Advantages of utilizing a WNG-2133 Gateway in a BACnet Network

The WNG-2133 will:

- Isolate the Douglas Lighting Controls network, thus relieving the task of lighting configuration, including creation of the groups, from the Integrator.
- Allow Douglas tools to set up the lighting portion of the network.
- Allow programming the lighting controls via the user-friendly W-2000 System or MC-6000 System interface.
- Allow an external system to track group status, regardless of which relays in the group are ON or OFF.
- Allow an external system to track individual relay status, regardless of whether the relay is ON or OFF.

W-2000 System Default Configuration

TABLE A: Groups and Relays	Object Type	Default Count
GROUP CONTROL (GROUP1 - GROUP140) Sets actions for Group as listed in TABLE B.	Analog (16 bit)	140
GROUP STATUS ENUMERATIONS (STATUSGROUP1 - STATUSGROUP140) Indicates if relay group is ON or OFF.	Binary Out	140
RELAY CONTROL ENUMERATIONS Switches individual relay ON or OFF.	Analog (16 bit)	360
RELAY STATUS Indicates if individual relay is ON, OFF, or faulty.	Analog (16 bit)	360
MAXIMUM NUMBER OF CONTROL POINTS		**1000**

TABLE B: Group Action Type	Enumeration Value
OFF (all relays in group OFF)	3
ON (all relays in group ON)	4
FLICK (flick warn signal before programmed OFF)	9
TIMEOUT (all relays OFF at end of programmed 'timeout' period, with 'timeout' period restarted when any relay is switched ON)	10
TIMEOUT/FLICK (timeout with flick warn signal added)	11
DELAY OFF (all relays OFF a delay period after OFF signal received)	12
DELAY OFF/FLICK (flick warn signal before delay OFF occurs)	13
DELAY ON (all relays ON a delay period after ON signal received)	14
ENABLE GROUP (enable all relays if they are disabled)	15
DISABLE GROUP (disable all relays)	16
CLEAN ON (all relays ON, then return to original state when OFF signal received)	17
CLEAN OFF (all relays OFF, then return to original state when ON signal received)	18
WINK (all relays turn ON, then back to OFF after a delay period called 'wink')	19

MC-6000 System Default Configuration

TABLE A: Groups and Relays	Object Type	Default Count
GROUP CONTROL (GROUP1 - GROUP140) Sets actions for group.	Analog (16 bit)	140
GROUP STATUS ENUMERATIONS (STATUSGROUP1 - STATUSGROUP140) Indicates if relay group is ON or OFF.	Binary Out	140
RELAY CONTROL ENUMERATIONS Switches individual relay ON or OFF.	Analog (16 bit)	360
RELAY STATUS Indicates if individual relay is ON or OFF.	Analog (16 bit)	360
MAXIMUM NUMBER OF CONTROL POINTS		**1000**