

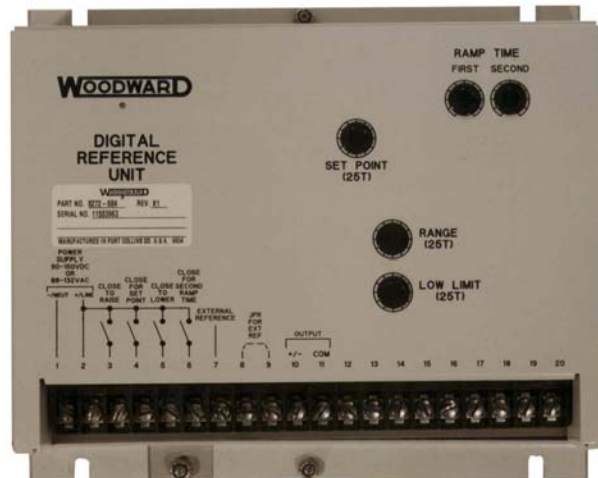
# Digital Reference Unit

## with High, Low, and Intermediate Set Points

### Applications

The Digital Reference Unit generates a precise voltage that may be used wherever a very accurate reference signal is required. Typical use combines the Digital Reference Unit with other Woodward controls for regulation of speed, load, pressure, or voltage.

### Description



- Precise reference signal
- 3 adjustable set points
- 2 separate, fully-adjustable ramp rates
- Digital circuitry
- Precise remote operation

#### Reference Set Points—

The Digital Reference Unit provides electronic control of the reference-signal voltage. Lower limit, upper limit, and an intermediate set point can be selected.

**Ramp Rates—**The Digital Reference Unit has two separate and independent ramp rates (which determine the time required to change from the low limit to the high limit). Each ramp rate can be set for a ramp rate from a minimum of 5 seconds to a maximum of 10 minutes.

**Location of Adjustments—**Rocker switches under the cover allow selection of ramp rate ranges. All other adjustments are made from potentiometers accessible on the front of the cover.

### Specifications

**Construction:** The Digital Reference Unit consists of a printed circuit board housed in a steel chassis and cover.

**Power Supply** 10–45 Vdc  
 90–150 Vdc  
 88–132 Vac, 45–440 Hz

**Signal Output** 0–8 Vdc

#### Ramp Rates:

Ramp 1 5 seconds to 10 minutes  
 Ramp 2 (switch selectable) 5 seconds to 10 minutes

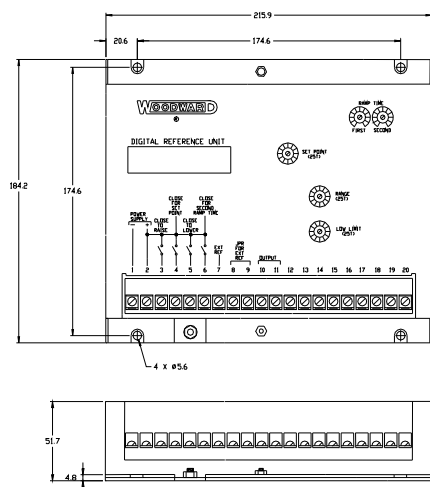
#### Relay Indications (optional):

Low Limit  
 High Limit  
 Set Point

**External Reference** provided for ramp speed setting on Woodward EPG and 2500 controls.

**Temperature** –40 to +85 °C  
 –40 to +185 °F

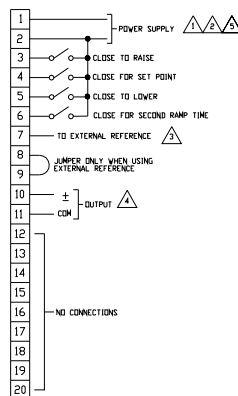
**Location:** Can be mounted in any position that provides adequate ventilation and room for servicing. May not be mounted on the engine. Protect from exposure to rain or pressure wash.



OUTLINE

METRIC

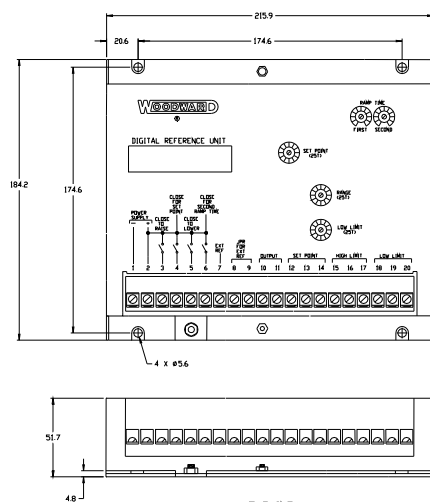
| MM    | INCH  |
|-------|-------|
| 215.9 | 8.500 |
| 184.2 | 7.250 |
| 174.6 | 6.875 |
| 51.7  | 2.032 |
| 25.6  | .010  |
| 4.8   | .188  |



PLANT WIRING

## NOTES

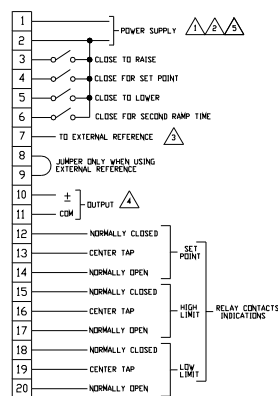
- △ POWER REQUIREMENT LESS THAN 3 WATTS.
- △ TERMINAL 1 TO BE NEGATIVE POLARITY FOR DC POWER SUPPLY. NEUTRAL FOR AC POWER SUPPLY. TERMINAL 2 TO BE POSITIVE POLARITY FOR DC POWER SOURCE. LINE FOR AC POWER SUPPLY.
- △ EXTERNAL REFERENCE USED ONLY ON SPEED REFERENCE APPLICATIONS (SEE SHEET 7).
- △ REFER TO SHEETS 7 AND 8 FOR SPECIFIC OUTPUT CONNECTIONS.
- △ SEE OPTION CHART.

032-001  
00-04-14

OUTLINE

METRIC

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032-002  
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### Digital Reference Unit (8272-682/-684 above; 8272-683/-685 below)

(Do not use for construction)

| Part No. | Power Source                       | Relay Indications? | Manual |
|----------|------------------------------------|--------------------|--------|
| 8272-682 | 10-45 Vdc                          | No                 | 82006  |
| 8272-683 | 10-45 Vdc                          | Yes                | 82006  |
| 8272-684 | 90-150 Vdc OR 88-132 Vac 45-440 Hz | No                 | 82006  |
| 8272-685 | 90-150 Vdc OR 88-132 Vac 45-440 Hz | Yes                | 82006  |



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