

# 8-channel Analog Output

4–20 mA

## 8104-AO-IP

- 8 single-ended outputs
- 4–20 mA
- For I/P converters and remote indicators, etc
- Open circuit detection is provided on each channel
- 24 V dc bussed field power required

## MODULE SPECIFICATION

See also *System Specification*

### INPUTS

#### Number of channels

- 8, single-ended

#### Nominal signal range (span)

- 4 to 20 mA

#### Full signal range

- 1 to 23 mA

#### Open loop detection threshold

- $0.7 \pm 0.25$  mA

#### Output compliance

- 20 mA at 21.6 V dc supply (into 700  $\Omega$  load)

#### Accuracy (over temp range)

- $\pm 0.25\%$  of span

#### Resolution

- 12 bits

#### Isolation

- Any channel to Railbus – 100 V ac
- Between channels – None

## CONFIGURABLE PARAMETERS

#### Initialization state

- Predefined value

#### Drive on fail-safe

- Predefined value / last value

#### Channel status

- Active / Inactive

## RESPONSE TIME

#### Response Time

- From Railbus command to output change – 25 ms (max.)

## SAFETY

### FM non-incendive field wiring parameters (each channel)

- $V_{oc} = 28.7$  V;  $I_{sc} = 33$  mA;  $C_o = 0.17$   $\mu$ F;  $L_o = 11.0$  mH

## POWER SUPPLIES

### Railbus (12V) current

- 100 mA (typ.)
- 150 mA (max.)

### Bussed Field Power

- 300 mA (max.) at 24 Vdc  $\pm 10\%$

### Quiescent current

- 60 mA

## MECHANICAL

### Module Key Code

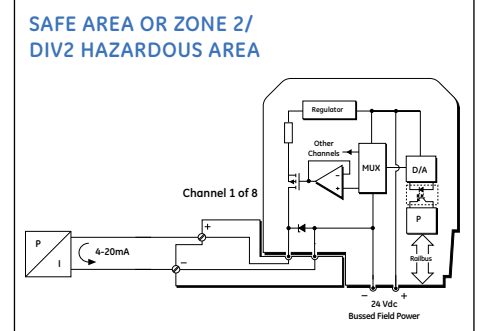
- A4

### Module width

- 42 mm

### Weight

- 200 g



## FIELD TERMINALS

Field Wiring	Recommended Field Terminal	Compatible Field Terminal
General purpose	8602-FT-ST Standard	8604-FT-FU Fused
Class 1, Div 2 or Zone 2 hazardous area	8601-FT-NI Non-incendive	8603-FT-FU Non-incendive Fused