

# 8-channel Analog Input

4–20 mA with HART®

## 8101-HI-TX

- 8 single-ended 4-20 mA input channels
- Non-incendive field circuits
- HART pass-through
- HART variable and status reporting
- 2- or 4-wire transmitters
- Open and short circuit detection
- 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

#### Line fault detection

- Short circuit current – > 23.5 mA
- Open circuit current – < 0.5 mA

#### Output voltage (@ 20mA)

- 13.5 V (min.)

#### Output current

- 32 mA (max.)

#### Accuracy (over temp range)

- ± 0.1% of span

#### Resolution

- 16 bits

#### Repeatability

- 0.05% of span

#### Isolation

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

### CONFIGURABLE PARAMETERS

#### Alarms

- High, high-high, low and low-low

#### Alarm deadband (hysteresis)

- User defined value

#### Input filter time constant

- User defined value

#### Input dead zone

- User defined value

#### Drive on failsafe

- Disabled / upscale / downscale

#### Channel status

- Active / Inactive

#### HART variable and status reporting

- Enable / Disable

### RESPONSE TIME

#### Signal change to availability on Railbus

- 4–20 mA mode – 27 ms (max.)
- HART mode – 0.75 s per channel

### SAFETY

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

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

### POWER SUPPLIES

#### Railbus (12V) current

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

#### Bussed Field Power

- 2-wire Tx – 300 mA (max.)
- (@ 24 V dc ±10%) 4-wire Tx – 60 mA (max.)

### MECHANICAL

#### Module Key Code

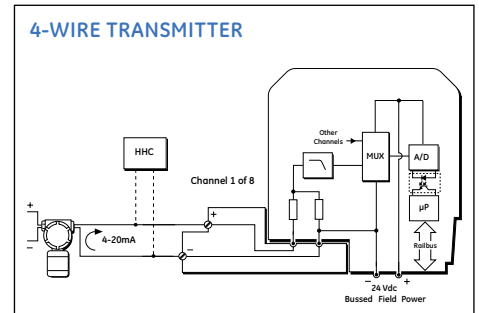
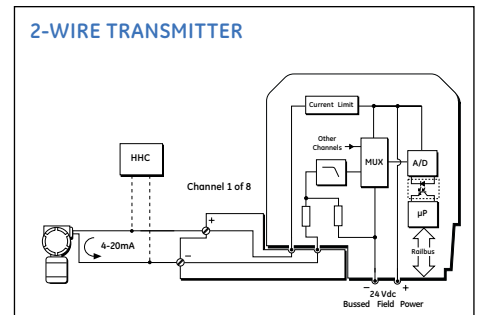
- A1

#### Module width

- 42 mm

#### Weight

- 200 g



#### Field Terminals (2-Wire TX)

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

#### Field Terminals (4-Wire TX)

Field Wiring	Recommended Field Terminal	Compatible Field Terminal
General purpose	8615-FT-4W	–
Class 1, Div 2 or Zone 2 hazardous area	8615-FT-4W	–