

ADC311 Process Signal Scale & Bias Transmitter / Isolator

- Suitable for SIL 1, SIL 2 & SIL 3 rated (EN 61508-2) safety instrumented system (SIS) loop applications
- Non-Smart / Non-uProcessor based, Type A instrument
- Supply voltage options:
 - 115Vac ±20%
 - 240Vac ±20%
 - 24Vdc ±10%
 - 48Vdc ±10%
 - 110Vdc ±20%
- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' option)
- AMELEC Standard 10 year warranty

Technical Specifications

Input

Any current or voltage (DC) drive that can be terminated in a PI network to produce a 400mV span.
 Current ranges from 10uA span, up to 100mA max input (passive ports)
 Voltage from 0.4V span, up to 250Vdc max input (impedance ≥1MΩ)
 Typical Input: 0-10uA, 20-4mA, 4-8mA, -1V to +1V or -10V to +10V dc

Output

Any standard process current or voltage in the range of;
 Current source up to 22mA max, with drive voltage 24Vdc
 (Current Sink option available, 30Vdc max external drive)
 Voltage source up to 20V max output
 Typical Output: 0-100uA, 8-12mA, 20-4mA, -1V to +1V or -10V to +10V dc

Performance

Accuracy/Linearity: <±0.1% Span
 Response Time: typically <100mS (0-100% input step change)
 Supply consumption: <3VA

Protection

Isolation: 1000V RMS* Input/Output/Supply/Earth.
 *(500Vdc when 'K' option RFI protection is specified)
 Internal Fuse
 Input over range: up to typically 300%
 Input Open Circuit response: Downscale drive as std

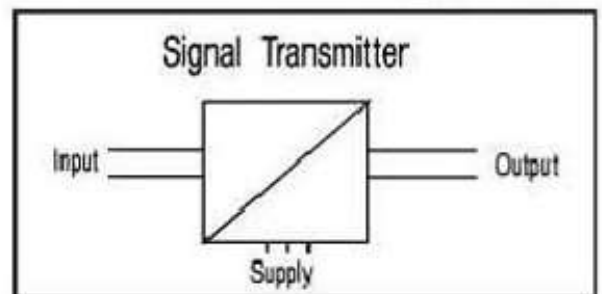
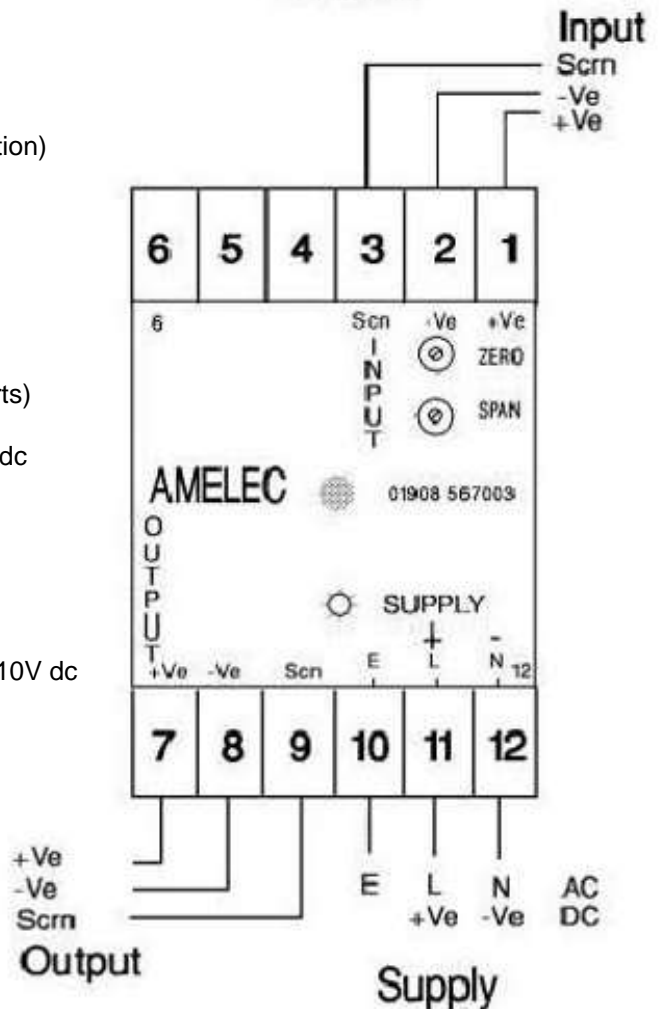
Environmental Conditions

Storage Temperature: -40 to +70°C
 Operating Ambient: -15 to +55°C
 Relative Humidity: 5 – 95% RH (Non-Condensing)
 EMC: 2014/30/EU , EN 61326-1:2013 (controlled EM)
 ('K' option: EMC/EMI/RFI protection to the highest Generic Industrial Standards Test levels)

Options

J = Input jack for injecting an external signal into the input for proof testing, without disturbing the original process loop.
DI = 3½ digit Display: input or output in % or Engineering units to suit
K = RF Immunity: 20MHz-3GHz/5.25GHz ≤10V/m, 80MHz-1GHz/5.6GHz ≤30V/m, 889MHz/1.75GHz ≤40V/m.
HV =High Voltage input ranges, up to 1000Vdc max
X = Input Open Circuit response Upscale drive, or 'other' special option

WIRING



Mounting: Either Din Rail (TS35) **or** Surface by corner fixing holes as standard

Dimensions: 50w x 75h x 110d mm

(DI option=145d mm, K option= 182d mm)

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