

ADC311DI Process Signal Scale & Bias Transmitter / Isolator

- Suitable for SIL 1 & SIL 2 rated (EN 61508-2) safety instrumented system (SIS) loop applications, as 1oo1 architecture
- Non-Smart / Non-uProcessor based, Type A instrument
- Supply voltage options:
 - 115Vac $\pm 20\%$
 - 240Vac $\pm 20\%$
 - 24Vdc $\pm 10\%$
 - 48Vdc $\pm 10\%$
 - 110Vdc $\pm 20\%$
- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' option)
- AMELEC Standard 10 year warranty

Technical Specifications

Input

Any voltage or current signal (DC) that can be terminated in a PI network to produce a 400mV span.

Current ranges up to 100mA max input (passive ports)

Voltage ranges up to 250Vdc max input (impedance $\geq 1M\Omega$)

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

Continuous Indication of the Output signal on front fascia Display (LCD as std)

Performance

Accuracy/Linearity: $< \pm 0.1\%$ Span

Response Time: typically $< 100\text{ms}$ (0-100% input step change)

Supply consumption: $< 3\text{VA}$

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)

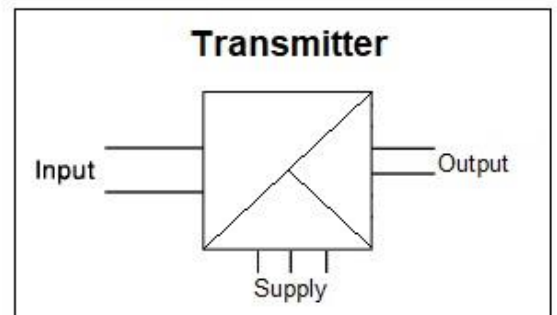
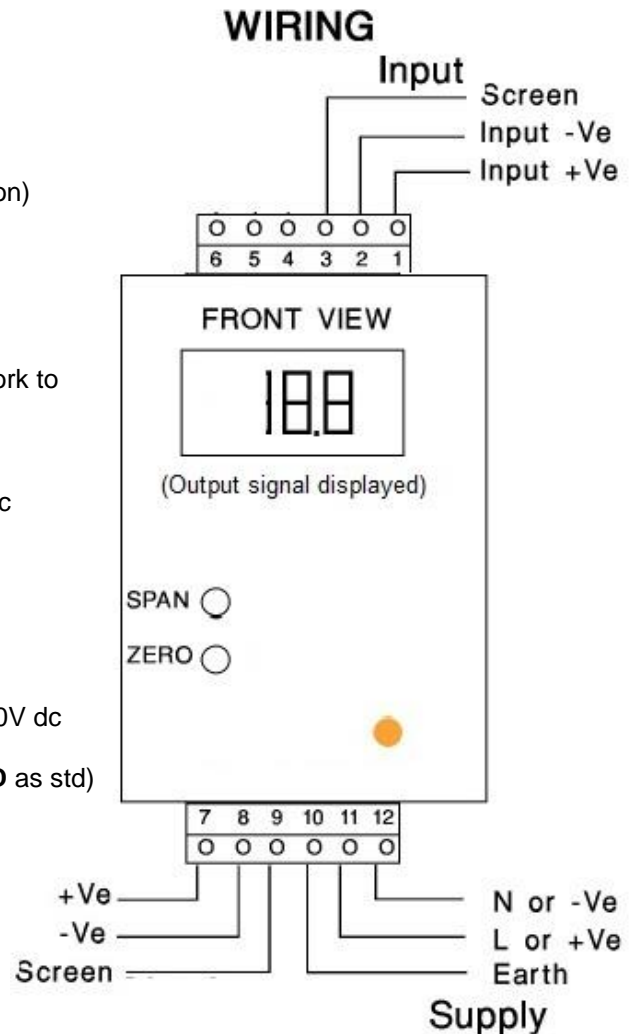
Options

J = Input jack for injecting an external signal into the input for proof testing, without disturbing the original process loop.

K = RF Immunity: 20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$,
80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$, 889MHz/1.75GHz $\leq 40\text{V/m}$.

HV = High Voltage input ranges, up to 1000Vdc max

X = Input Open Circuit response Upscale drive, or 'other' special option



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

(Front of Panel mounting option available)

Dimensions: 50w x 75h x 145d mm

(K option enclosure = 182d mm)

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