AHC815 Multiplier / Divider Arithmetic

- Suitable for any process input
- Supply voltage 21 to 30Vdc
- Amelec standard 10 year guarantee
- Suitable for SIL Level 1, 2, & 3 (IEC 61508-2)

APPLICATION

Mass flow compensation
Temperature correction of flow
Heat flow calculation
Energy consumption calculation

TECHNICAL SPECIFICATION

FUNCTION

$$OUTPUT = \left[\frac{(K1\,X \pm a)\,(K2\,Y \pm b)}{(K3\,Z \pm c)}\right](K4 \pm d)$$

Where the inputs are X, Y and Z.
K1, K2, K3, K4 are span constant
A, b, c and d are zero constant

INPUT

DC current / voltage can be specified in the range of:
Current up to 100mA max (Passive)
Voltage 0.4 to 100V max
Typical input: 4 - 20mA (Passive)

OUTPUT

DC current or voltage can be specified in the range of:
Current up to 100mA max in Sink configuration (externally powered)
Current up 22mA max Source configuration (Internally powered)
Voltage any from 0.4 to 20V max @ up to 20mA.
Typical output range: 4 - 20mA (Active)

CONTROLS

Zero / Span: 15 turn potentiometer to calibrate Output.

INDICATOR

Amber Led power ON indicator

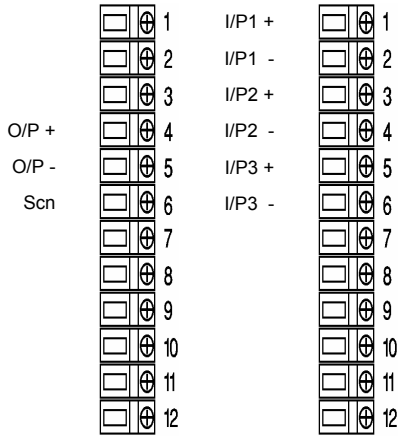
PERFORMANCE

Linearity: < ±0.1%
Response time: Typically < 400mS
Accuracy: upto ±0.1%

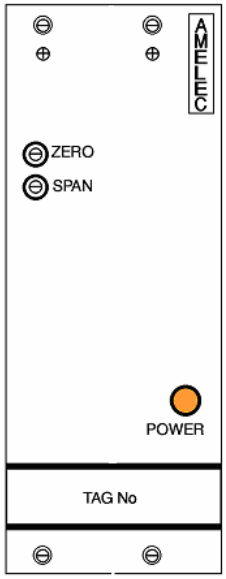
PROTECTION

Isolation 1000V RMS. Inputs/Output/Supply/Earth
Internal Fuse.
Input over range up to typically 300%.
Output limited typically @120%

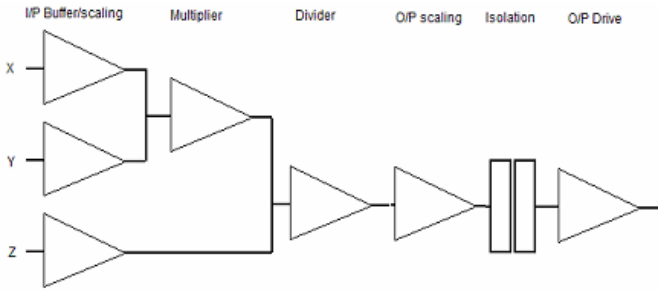
TERMINATION



FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIROMENTAL CONDITION

Storage temperature: - 40 to +70 ℃
Operating Ambient: -15 to +55 ℃
Relative Humidity: 5 to 95% RH

MOUNTING / DIMENSION

Card 3U high 8E wide
Mounting 19" rack / 84E wide (See rack GA for details)
Card weight < 200g

ADD ON / OPTIONS

DI: Common LCD display for local monitoring
H : Hart compatible (Transparent)
J : Input injection jack socket
P: Test point (Trip set point monitoring)
K: RFI protection to IEC801-3
Non standard Power supply ranges available

sales@amelec-uk.com www.amelec-uk.com Tel: 00 44 (0)1908 567003

Issue 1 2009