

# FLEXEDGE® 6UIN - Universal Input Module W/ 6 Isolated Channels



## FLEXEDGE® Intelligent Edge Automation Platform

The 6UIN module is designed for use with the DA70 controllers and features 6 Universal Analog Inputs operating at 16-bit resolution, making it an ideal choice for data acquisition applications. The module accepts a wide range of thermocouples and RTDs, as well as 0/4-20 mA and 0-10 V process signals. Each input has a dedicated alarm LED that indicates a variety of conditions.

- Six (6) universal analog inputs
- Universal inputs accept TC, RTD, 0-5 V, 0-10 V, 0-20 mA, 4-20 mA, 0-50 mV signals
- Offers complete isolation; inputs, power and Controller
- At-a-glance module status indicator
- Individual channel LEDs for troubleshooting and testing
- Ideal for data acquisition applications
- Configured using Crimson® software (version 3.2 or later)



## Ordering Guide

### Main Unit

Part Number	Description
DAM0010UIN610000	DA 6 Universal Isolated Input Module

A listing of the entire DA Series of products and accessories can be found at [www.redlion.net](http://www.redlion.net).

# DA 6UIN Module Specifications

## Specifications

### Power Requirements

Power is supplied by the DA host device.

**6UIN Port-Isolated Max Power: 1 W**

### LEDs

STS: RGB Status LED shows module condition

AL1 - 6: Alarm LEDs are lit during an internal alarm condition

### Memory

Non-volatile memory retains all programmable parameters.

### Inputs

#### GENERAL:

Effective Resolution: Full 16-bit

Sample Time: 50 msec

Common Mode Rejection: >110 dB, 50/60 Hz

Normal Mode Rejection: >50 dB, 50/60 Hz

Temperature Coefficient: 0.01%/°C

Step Response Time: 100 msec typ., 200 msec max

#### THERMOCOUPLE INPUTS:

Types: T, E, J, K, R, S, B, N C W5/W6, mV

Slope & Offset: Provides sensor error correction

Input Impedance: 20 M ohm

Lead Resistance Effect: 0.25  $\mu$ V/ohm

Cold Junction Compensation: Less than  $\pm 1$  °C typical ( $\pm 1.5$  °C max) over -40 to 75 °C  $T_{AMB}$

Resolution: 0.1°

Temperature Indication Accuracy:  $\pm$  (0.3% of span, +1 °C).

Includes NIST conformity, cold junction effect, A/D conversion errors, temperature coefficient and linearization conformity at 23 °C after 20 minute warm up.

Probe Break Response: Upscale drive, Input Fault Alarm bit set high, ALM LED illuminates.

#### RTD INPUTS:

Type: 385, 392, 672; 2 or 3 wire

Excitation: 150  $\mu$ A

Lead Resistance: 15 ohms Max

Resolution: 1 or 0.1°

Slope & Offset: Provides sensor error correction

Temperature Indication Accuracy: Includes NIST conformity, A/D conversion errors, temperature coefficient and linearization conformity at 23 °C after 20 minute warm up.

Probe Break Response: If channel is enabled: upscale drive, Input

Fault Alarm bit set high, ALM LED illuminates

#### CURRENT INPUTS:

Ranges: 0-20 mA or 4-20 mA

Programmable Scaling:  $\pm 30,000$

Input Impedance: 10 Ohm

Max. Continuous Overload: 100 mA

Accuracy:  $\pm 0.1\%$  of span

Input Fault Response: Upscale Drive, Input Fault Alarm bit set high, ALx LED illuminates below -2 mA, and above 22 mA for 0-20 mA range; below +2 mA and above 22 mA for 4-20 mA signals.

#### VOLTAGE INPUTS:

Ranges: 0-10 VDC, 0-5 V, 0-50 mV

Programmable Scaling:  $\pm 30,000$

Input Impedance: 1 M Ohm

Max. Continuous Overload: 50 V

Accuracy:  $\pm 0.1\%$  of span

Input Fault Response: Upscale Drive, Input Fault Alarm bit set high, ALx LED illuminates below -0.5 or -10.5 VDC and above +10.5 VDC.

### Isolation Level

500 Vrms @ 50/60 Hz for 1 minute between the following:

Power Supply Input to any Universal Input

Any Universal Input to any Universal Input

### Environmental

Operating Temperature Range: -40 to 75 °C  $T_{AMB}$

Storage Temperature Range: -40 to +85 °C  $T_{AMB}$

Operating and Storage Humidity: 0 to 85% max. Relative humidity, non-condensing.

Vibration to IEC 60068-2-6: Operational 5-500 Hz, 2 g

Shock to IEC 68-2-27: Operational 15 g

Altitude: Up to 2000 meters

Installation Category II, Pollution Degree 2 as defined in IEC/EN 60664-1.

### Certification & Compliance

#### CE Approved

EN 61326-1 Immunity to Industrial Locations

Emission CISPR 11 Class A

IEC/EN 61010-1

RoHS Compliant

#### ATEX Approved

Ⓜ II 3 G Ex ec IIC T4 Gc

DEMKO 20 ATEX 2268X

#### IECEx Approved

IECEx UL 20.0007X

#### UKEX Approved

UL22UKEX2576X

#### UL Hazardous: File #E317425

Rugged IP30 enclosure

### Construction

Polycarbonate enclosure with IP30 rating.

Weight: 10.2 oz (317.26 g)

### Connections

Wire Strip Length: 0.3" (7.5 mm)

Wire Gauge Capacity: 14 to 24 AWG (2.08 to 0.20 mm<sup>2</sup>) copper wire only

# DA 6UIN Module Specifications Cont. and Dimensions

## Mounting

DIN Rail: Attaches to standard "T" profile DIN rail according to EN50022 - 35 x 7.5 and 35 x 15

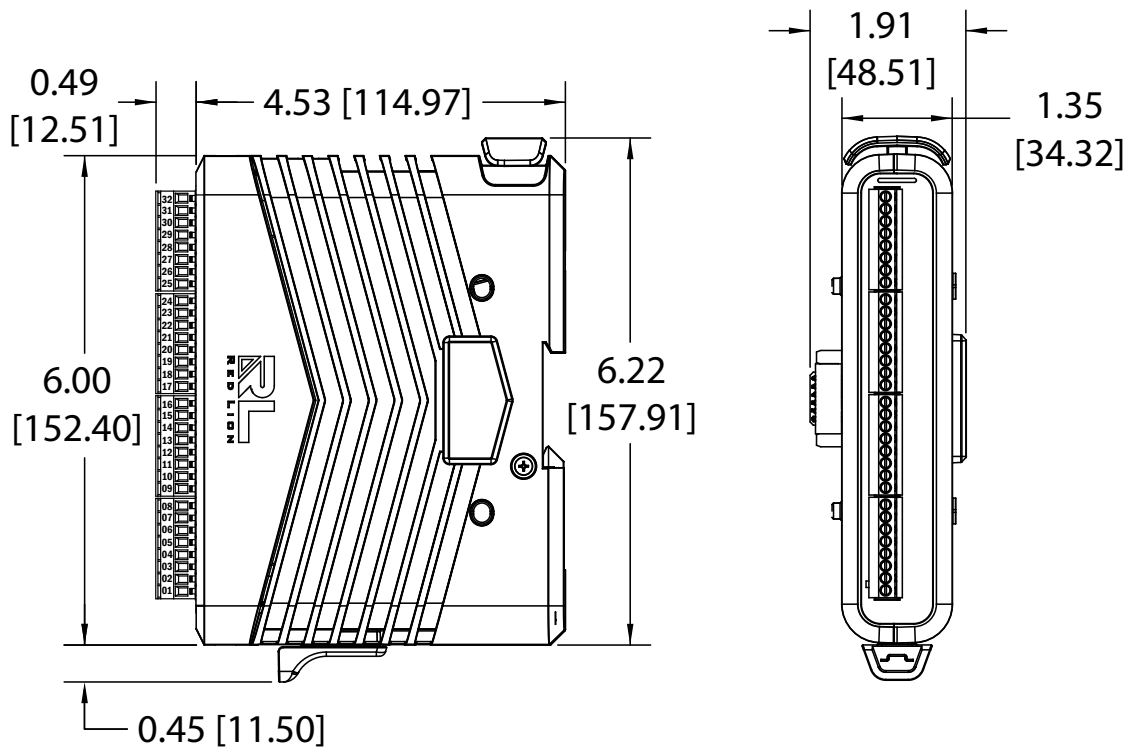
## Warranty

3 years on design and manufacturing defects.

Specifications are subject to change.

Visit [www.redlion.net](http://www.redlion.net) for more information.

## Dimensions In inches [mm]





[www.redlion.net](http://www.redlion.net)  
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