

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.

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 μ V/ohm

Cold Junction Compensation: Less than ± 1 °C typical (± 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 μ 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

ABS Type Approval for Shipboard Applications

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 mm²) 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

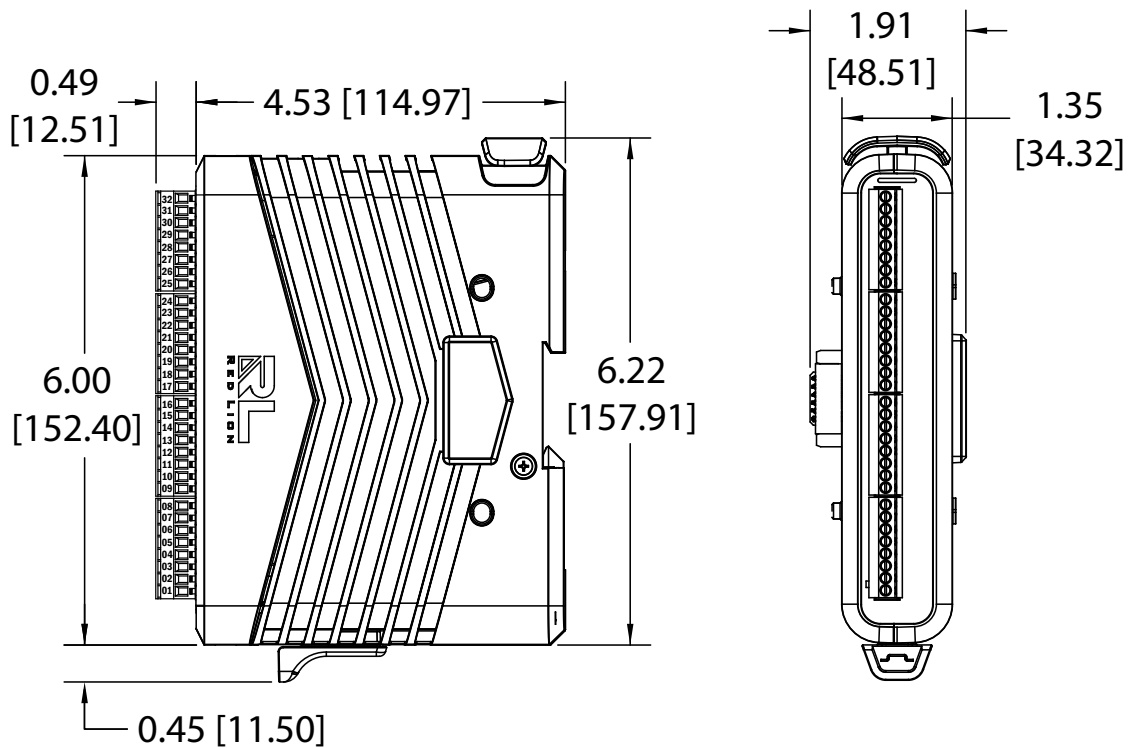
Warranty

3 years on design and manufacturing defects.

Specifications are subject to change.

Visit www.redlion.net for more information.

Dimensions In inches [mm]





www.redlion.net
[contact us](#)

© 2024 Red Lion Controls, Inc. All Rights Reserved. The terms Red Lion, the Red Lion logo, Crimson and FlexEdge are registered trademarks of Red Lion Controls. All other marks are the property of their respective owners.

LD1025C 08 2024