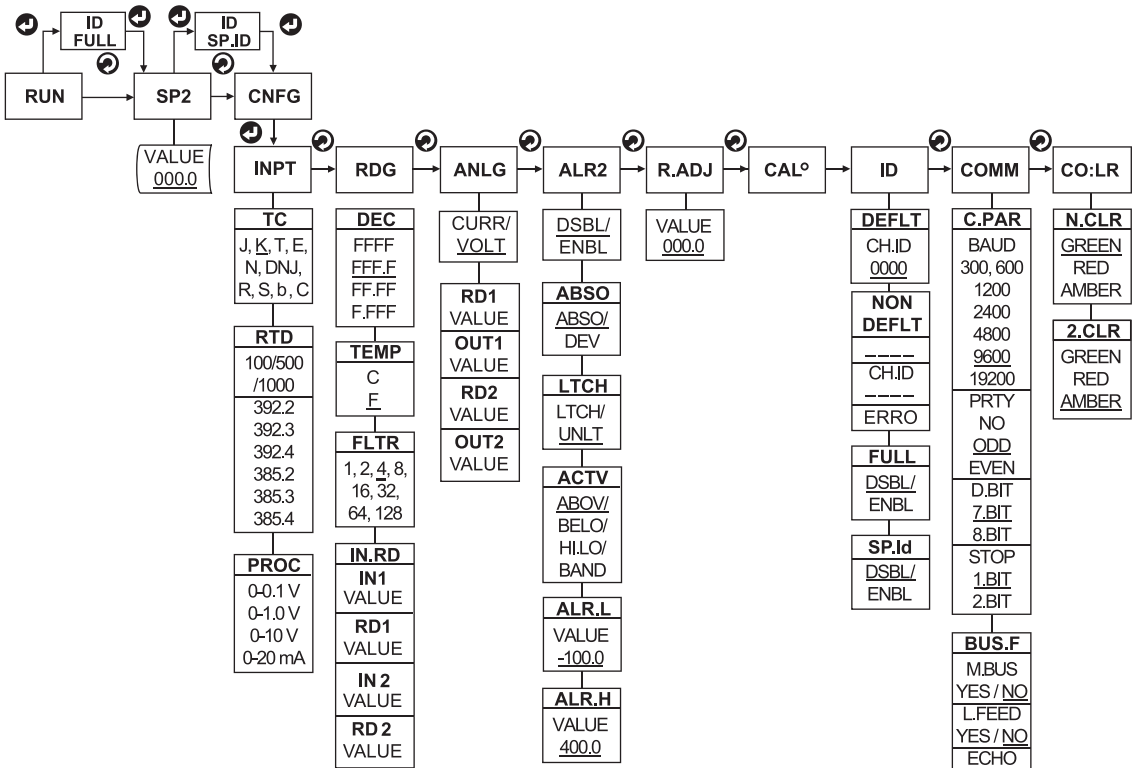


FLOW CHART

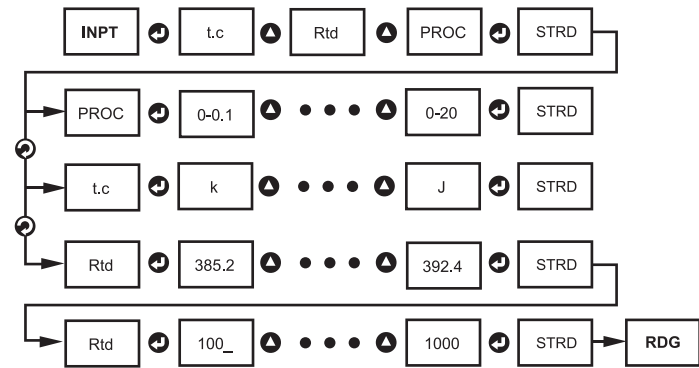
To the right is a flowchart showing how to navigate through all top level menus by pressing the and buttons.

Underline denotes factory default setup



INPUT MENU SETUP (operation example)

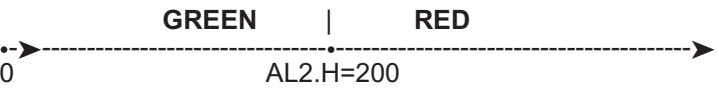
Below is a flowchart showing how to navigate through the submenus of Input menu item by pressing the front buttons.



DISPLAY COLOR SETUP (examples)

**Example 1:**  
Alarm 2 setup: Absolute, Above, Alarm 2 HI Value "ALR.H" =200  
Color Display setup: Normal Color "N.CLR"=Green, Alarm 2 Color "2.CLR"=Red

Display color change sequence:



**Example 2:**  
Alarm 2 setup: Deviation, Hi/Low, "ALR.H = 10", "ALR.L = 5"  
Color Display setup: "N.CLR"=Green, "2.CLR"=Amber

Display color change sequence:



SPECIFICATION

**Accuracy:**  
±0.5°C temp;  
0.03% rdg. process typical

**Resolution:**  
1°/0.1°; 10 µV process

**Temperature Stability:**  
0.04°C/°C RTD;  
0.05°C/°C TC @ 25°C (77°F);  
50 ppm/°C process

**Display:**  
4-digits, 9-segments LED,  
10.2 mm (0.40") with red, green and  
amber programmable colors

**Input Types:**  
Thermocouple, RTD, Analog Voltage  
and Current

**TC: (ITS 90)**  
J, K, T, E, R, S, B, C, N, L

**RTD: (ITS 68)**  
100/500/1000 ohm Pt sensor  
2-, 3-, or 4-wire; 0.00385 or  
0.00392 curve

**Input Impedance:**  
10 MΩ for 100 mV  
1 MΩ for 1 or 10 Vdc

**Voltage:**  
0 to 100 mV (±50 mV), 0 to 1 V,  
0 to 10 Vdc

**Current:**  
0 to 20 mA (5 Ω load)

**Output 1:**  
not available

**Output 2<sup>1</sup>:**  
Relay: 250 Vac @ 3 A Resistive Load  
(SPDT type can be configured as Alarm 2  
output); SSR: 20-265 Vac @ 0.05-0.5A  
(resistive load), continuous;  
DC Pulse: non-isolated 10Vdc @ 20mA  
<sup>1</sup> Only with -AL Limit Alarm option

**Analog Output 3:**  
(Retransmission) Isolated Analog  
Voltage and Current  
Current: 10 V max @ 20 mA output  
Voltage: 20 mA max for 0 - 10 V output

**Options: Communication**  
RS-232 / RS-485 or

**Excitation:** 24 Vdc @ 25 mA  
*Exc. not available for Low Power Option*

**Line Voltage/Power:**  
90 - 240 Vac ±10%, 50 - 400 Hz\* or  
110 - 300 Vdc, equivalent 5 W  
\* No CE compliance above 60 Hz

**Low Voltage Power Option:**  
20 - 36 Vdc, 4 W\*\*  
\*\*Units can be powered safely with 24 Vac  
but, No Certification for CE/UL are claimed.

**Dimensions:**  
48 H x 48 W x 127 mm D (1.89 x 1.89 x 5")

**Weight:**  
159 g (0.35 lb)

**Approvals:**  
FM, UL, C-UL, UKCA, CE per 2014/35/EU

**WARNING:** These products are not designed for use in, and should not be used for, patient-connected applications.

This device is marked with the international caution symbol. It is important to read the Setup Guide before installing or commissioning this device, as the guide contains important information relating to safety and EMC.

It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OEMGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct, but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

TRADEMARK NOTICE:

, *omega.com* <sup>™</sup>, **OMEGA** <sup>™</sup>, and are Trademarks of OMEGA ENGINEERING, INC.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

**OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.**

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY / DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering. OMEGA is a trademark of OMEGA ENGINEERING, INC.

© Copyright 2019 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.

QUICK START



**Series** Temperature & Process  
Monitor DPI16A  
Limit Alarm CNI16A-AL  
with Isolated Analog Output Board

