

# 263 Series LED Bargraph Indicator and Controllers

## Applications

- Process Control
- Water Treatment
- Power Generation
- Control panels & Switchboards
- Monitoring Systems



## Introduction

Scale can be customised to suit user's particular needs, e.g. numbers, engineering units, logos and colors.

### 51 segments

The 263-ATH is a 51 segment single bar with rear of the instrument zero and span adjustment. This instrument is ideal for use where space is limited.

### 51 Segments

Isolated D.C. auxiliary, 5 or 24V D.C. + 5% 1 Watt. Relays: Contacts rated 0.2A at 250V.

Relays are not energized when the measuring signal is within the area limited by the setpoints or during the absence of an auxiliary supply.

## Specification

### Performance Input:

D.C. current: 0/1mA, 0/10mA and 4/20mA  
 D.C. voltage: 0/1, 0/5, 1/5 and 0/10V D.C.

**Note:** Other D.C., A.C. and temperature parameters may be measured using the Crompton range of transducers in conjunction with this bargraph.

**Case:** Grey ABS  
**Front:** Transparent Acrylic  
**Enclosure:** IP30 for complete instrument  
**Code:** IP42 for front of instrument  
**Temperature:** Storage -40 to +70°C  
 Operating 0 to +60°C  
**Humidity Range:** Up to 80% (non condensing)

**Response time:** <0.5 seconds

**MTBF:** 88000 hours

**Weight:** 263-ATH 80g

**Display element**

**Color:** Red is standard

**Overload:** x2 continuous overload  
 Indicated by:

Top LED flashes 263-ATH  
 + 2% ±1 segment

**Accuracy:** + 2% ±1 segment  
**Zero and gain stability:** 0.02%/°C

**Isolation:** Maximum 500V A.C. between signal inputs and auxiliary supply.

## Product Code

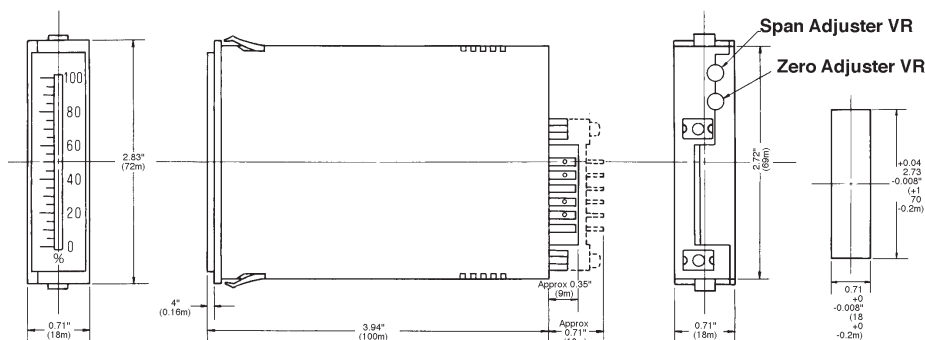
Single bar no setpoints.  
 D.C. (vertical)

263-ATV

Single bar no setpoints.  
 D.C. (horizontal)

263-ATH

## Dimensions

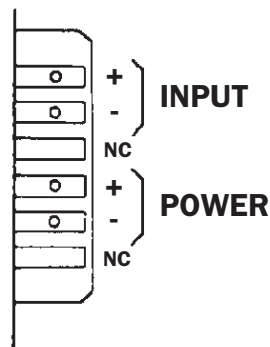


## Features

- » High resolution 51 segment LED Bargraph for easy reading
- » Accuracy 1%
- » Red display
- » Vertical or Horizontal mounting & stackable

## Connection Diagrams

263-ATH



# 264 Series LED Bargraph Indicator and Controllers

The 264 series of 101 segment bargraphs offers 30 plug-in measuring modules and optional isolated analogue output, and up to four programmable set points for monitoring, measurement and control applications. Options include single or dual display, Smart tri-colour or mono-colour centre zero mounted bargraphs, and mono-colour right or left mounted bargraphs.



## Features

- Two 10 Amp Form C, and two 5 Amp Form A relays available.
- Auto-sensing AC/DC power supply. For voltages between 85-265 V AC/95-370 V DC (Z) or 18-48/ 10-72 V AC / DC (Y).
- Optional NEMA-4 front cover.
- Optional isolated 16 bit analog output. User or factory scalable to 4 to 20 mA, 0 to 20 mA or 0 to 10 V across any desired span from  $\pm$  one bar to the full scale range.
- 24 V DC excitation is available to power external 4/20 mA transmitters and 5 or 10 V DC excitation is available for resistance bridge type sensors.

## Specifications

<b>Input Specs:</b>	Depends on range and function selected	1: (volts out)	0-10 V DC @ 500 $\Omega$ or higher resistance
<b>A/D Converter:</b>	14 bit single slope	2: (mA out)	4-20 mA @ 0 to 500 $\Omega$ max loop resistance
<b>Accuracy:</b>	$\pm(0.05\%$ of reading + 1 segment)	<b>Power Supply:</b>	AC/DC Auto sensing wide range supply
<b>Temp. Coeff:</b>	100 ppm/ $^{\circ}$ C (Typical)	Y	18-84 VAC / 10-72 VDC @ 2.5W max 4.2W
<b>Warm up time:</b>	2 minutes	Z (std)	85-265 VAC / 110-370 VDC @ 2.5W max 4.2W
<b>Conversion Rate:</b>	10 conversions per second (Typical)	<b>Operating Temp:</b>	0 to 60 $^{\circ}$ C
<b>Bargraph Display:</b>	101 segment 4" vertical (std), horizontal (optn), red (std), green (optn), one red one green (optn)	<b>Storage Temp:</b>	-20 $^{\circ}$ C to 70 $^{\circ}$ C
<b>Polarity:</b>	Selectable center zero	<b>Relative Humidity:</b>	95% (non condensing)
<b>Positive Overrange:</b>	Bargraph display flashes	<b>Case Dimensions:</b>	Bezel 36mm wide x 144mm high DIN Depth behind bezel 135mm (5.32") Plus 16mm (0.63") for connectors
<b>Negative Overrange:</b>	First segment of bargraph display flashes	<b>Weight:</b>	9.5 oz., 12 oz when packed
<b>Relay Output:</b>	Two 5 Amp Form A relays and Two 10 Amp Form C relays		
<b>Analogue Output:</b>	Isolated 16 bit user scalable mA or V		

## Software Features

- The 101 segment bargraph can be easily user scaled
- Bargraph center zero function
- Four programmable setpoints
- Relay activation can be selected to occur above (HI) or below (LO) each setpoint

## Product Code

Single bar 2 setpoints  
Single bar 4 setpoints

264-ATT  
264-ATF

Dual bar no setpoints

264-ATS

## Features

- » Programmable tri-colour or mono-colour display
- » 30 plug-in measuring modules
- » High resolution 101 segment LED Bargraph for easy reading
- » Accuracy 0.05%
- » AC/DC power supply
- » 24V excitation option
- » Dual vertical or horizontal bargraphs (264-ATS only)

## Applications

- » Process Control
- » Water Treatment
- » Power Generation
- » Control Panels & Switchboards
- » Monitoring Systems

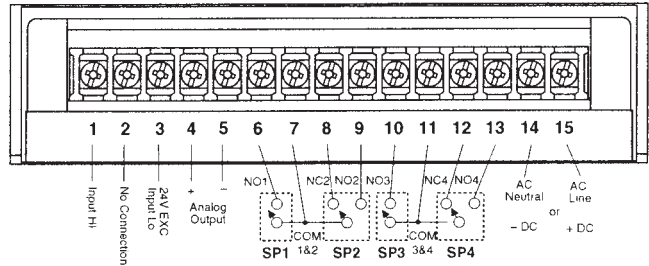
# 264 Series LED Bargraph Indicator and Controllers

## Connections

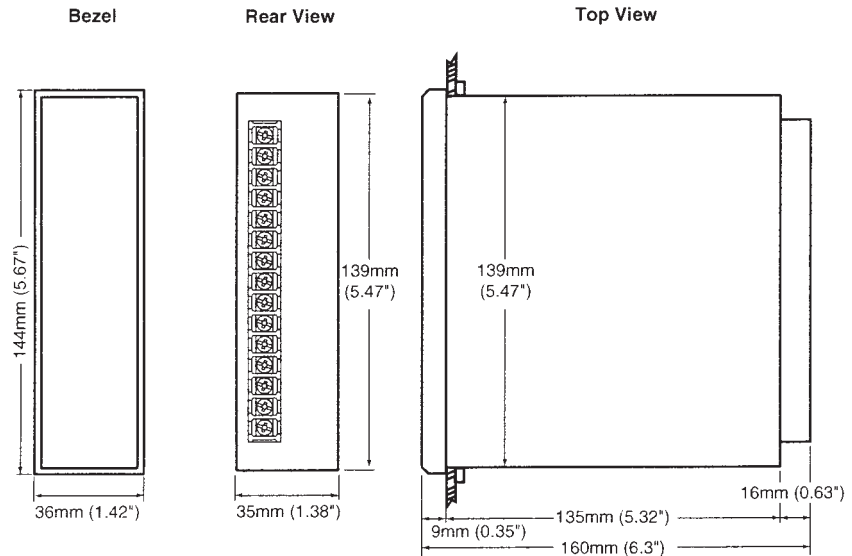
### Rear Panel Pinout Diagram

This meter uses plug-in type screw terminal connectors for all input and output connections.

**WARNING: AC and DC input signals and power supply voltages can be hazardous. Do not connect live wires to screw terminal plugs, and do not insert, remove or handle screw terminal plugs with live wires connected.**

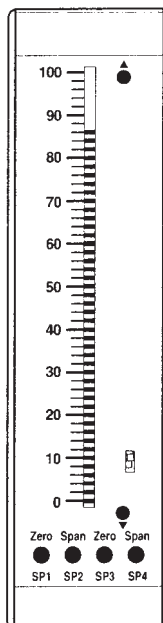


## Dimensions

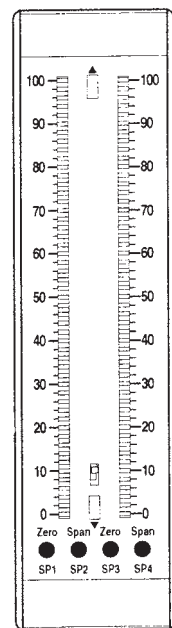


## Display

264-ATT  
264-ATF Single Display



264-ATS Dual Display



# 264-DT Series LED Digital Indicator and Bargraph Controller



## Applications

**Designed to provide the user with an accurate combination of instantaneous digital reading and trend indications, the 264-DT series can be used in a variety of applications and industries such as:**

- Process Control
- Water Treatment
- Power Generation
- Control Panels & Switchgear
- Monitoring System

## Features

- » Programmable 3 colour bargraph
- » 38 plug-in measuring modules
- » Display colour options of Red, Yellow or Green
- » High resolution 101 LED Bargraph
- » Accuracy: Digital  $\pm 0.1\%$  1 digit Bargraph  $\pm 1\%$  1 segment
- » Two or four setpoint relay versions to suit a wide range of control applications
- » Easy to set up
- » Time delay option on relay contact operation

## 38 Plug-in Modules

- » AC/DC current
- » AC/DC voltage
- » Load cell
- » Pressure
- » Process
- » Prototype
- » Resistance
- » Temperature
- » 4 to 20 mA

## Display/Operation

Smart Tricolour or mono-colour digital bargraph with more than 38 different plug-in measuring modules, and optional isolated analogue output and up to four fully programmable set points for monitoring, measurement, and control applications.

The digital display is 4 digit 7 segment with a character size of 8 x 4mm. The display can be programmed for either 1999 or 9999 reading at full scale. The Bargraph display is a 101 segment LED. Relay status indication

is provided by LEDs situated at the side of the display.

All units have non volatile memory so in power down conditions all set parameter information is retained.

All units have a choice of inputs and auxiliary supplies available. Scales can be customised to suit users particular needs, e.g numbers, engineering units, logos and colors.

## Features

- External transmitters or signal conditioners can be eliminated by direct connection of the sensor output to more than 38 plug-in Input Signal Conditioners that include:
  - AC/DC Current - Pressure - Resistance
  - AC/DC Voltage - Process - Temperature
  - Load Cell - Prototype - 4 to 20 mA
- Optional isolated 16 bit analogue output. User or factory scalable to 4 to 20 mA, 0 to 20 mA or 0 to 10 V across any desired digital span from  $\pm$  one count to the full scale range of -1999 to 9999 (12000 counts).
- A Programmable Tricolor (Red-Green-Orange) or mono colour (red or green), 101 segment high brightness bargraph. Optional vertical or horizontal format.
- Red 4-digit LED display with a range of -1999 to 9999 (12000 counts). Optional green digital display.
- Front panel LED annunciators provide indication of setpoint status.
- Two 10 Amp Form C, and two 5 Amp Form A relays available
- Auto-sensing AC/DC power supply. For voltages between 85-265 V AC / 95-370 V DC (Z) or 18-48 / 10-72 V AC / DC (Y)
- 24 V DC excitation is available to power external 4/20mA transmitters and 5 or 10 V DC excitation is available for resistance bridge type sensors.
- Optional NEMA-4 front cover.
- Automatic intelligent averaging, smooths noisy signals while providing a fast display response to real level changes.

## Software Features

- Digital display and the 101 segment bargraph can be independently scaled
- Relay activation can be selected to occur above (HI) or below (Lo) each setpoint.
- Bargraph centre zero function.
- Digital display blanking.
- Four programmable setpoints.
- Decimal point setting.
- Adjustable delay-on-make and delay-on-break time for setpoint 1.
- Four-level brightness control of bargraph, digital display, and setpoint LEDs.

# 264-DT Series LED Digital Indicator and Bargraph Controller

## Specifications

<b>Input Specs:</b>	Depends on Input signal module	<b>Relay Output:</b>	Two 5 Amp Form A relays and Two 10 Amp Form C relays.
<b>A/D Converter:</b>	14 bit single slope	<b>Analogue Output:</b>	Isolated 16 bit user scalable mA or V.
<b>Accuracy:</b>	±(0.05% of reading + 2 counts)	1: (volts out)	0-10 V DC @ 500 Ω or higher resistance
<b>Temp. Coeff:</b>	100 ppm/°C (Typical)	2: (mA out)	4-20 mA @ 0 to 500 Ω max loop resistance
<b>Warm up time:</b>	2 minutes	<b>Power Supply:</b>	AC/DC Auto sensing wide range supply
<b>Conversion Rate:</b>	10 conversions per second (Typical)	Y	18-48 VAC / 10-72 VDC @ 2.5W max 4.2W
<b>Digital Display:</b>	4 digit 0.31" LED red (std), green (optn). Range -1999 to 9999 counts.	Z (std)	85-265 VAC / 110-370 VDC @ 2.5 W max 4.2W
<b>Bargraph Display:</b>	101 segment 4" red vertical (std), green or tricolour (optn), horizontal (optn)	<b>Operating Temp:</b>	0 to 60°C
<b>Polarity:</b>	Assumed positive. Displays - negative	<b>Storage Temp:</b>	-20°C to 70°C
<b>Decimal Selection:</b>	Front panel button selectable, X•X•X•X•	<b>Relative Humidity:</b>	95% (non condensing)
<b>Positive Overage:</b>	Bargraph and top segments of digital display flash.	<b>Case Dimensions:</b>	Bezel 36mm wide x 144mm high DIN Depth behind bezel 135 mm (5.32") Plus 16 mm (0.63") for connectors
<b>Negative Overage:</b>	First segment of bargraph and bottom segments of digital display flashes	<b>Weight:</b>	9.5 oz., 12 oz when packed

## Product Codes

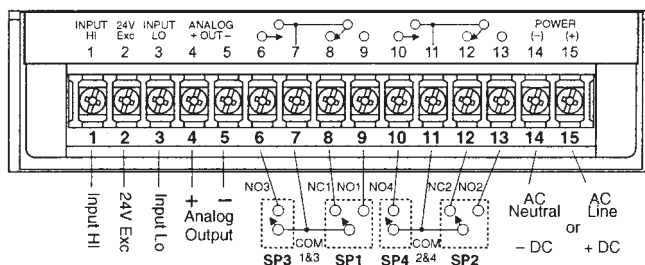
Single bar no setpoints	264-DTV	Single bar 2 setpoints	264-DTT
		Single bar 4 setpoints	264-DTF

## Connections

### Rear Panel Pinout Diagram

This meter uses plug-in type screw terminal connectors for all input and output connections.

**WARNING: AC and DC input signals and power supply voltages can be hazardous. Do not connect live wires to screw terminal plugs, and do not insert, remove or handle screw terminal plugs with live wires connected.**



## Dimensions

