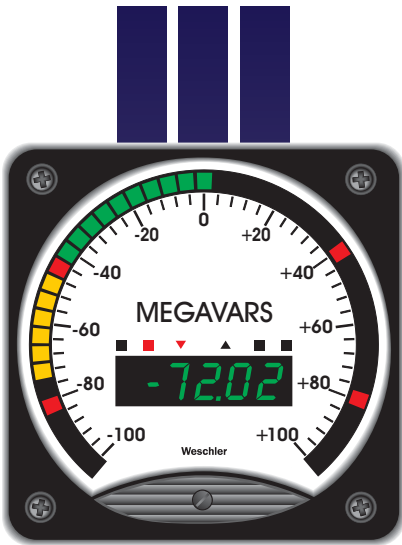
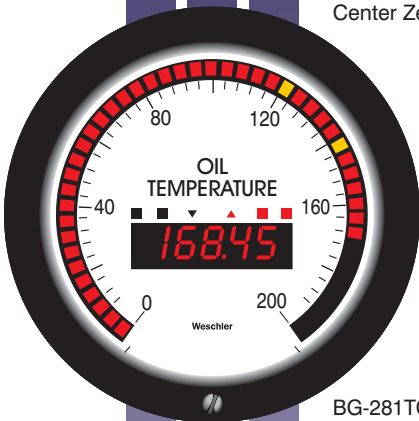


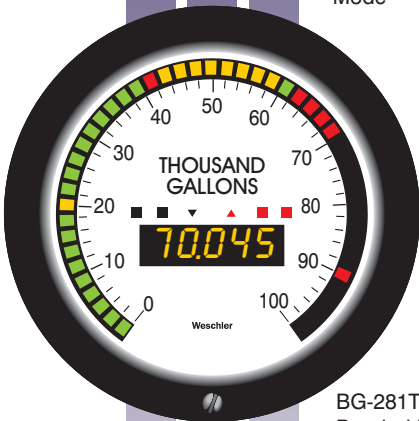
BG TC Series Circular TriColor BarGraphs™



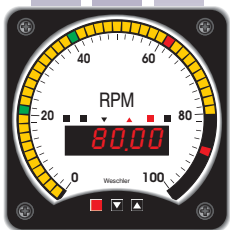
BG-261TC
Center Zero



BG-281TC
Solid Bar
Mode



BG-281TC
Banded Bar
Mode



BG-241TC

The Weschler Instruments BG "TC", TriColor BarGraphs provide the quickest way to spot problems in your process control panels with bright changing colors. Each 50 segment LED (Light emitting diode) of the BG TC family has the ability to illuminate as Red (Danger), Yellow (Caution), or Green (Safe condition). The bar color identification can be changed by the user, from the front pushbuttons or through a tamper safe mode.

The Weschler BG Series Circular BarGraphs consist of model 241, 261 and 281. The panel footprint, shape and mounting meets direct retrofit applications for 4½" and 8¾" switchboard meters, as well as 8" pressure gauge meters. The electronics housing remains the same. Quick identification of trouble conditions can help prevent equipment damage or production loss, thus reducing down time and maintenance costs, and improving operational safety. The fully programmable Weschler BG TC BarGraph™ fits the widest range of inputs and retrofits most edgewise switchboard and panel meters. Weschler's instruments satisfy the high quality standards set forth by the utility, OEM, and process control industries.

FEATURES

Large, high resolution 50 segment LED bar array

5 digit display with resolution to 0.01%

Field programmable functions

- Zero and full scale point location
- Setpoint type (Hi or Low)
- Hysteresis & latching
- Setpoint time delay
- 16 step dimming
- Digital display for engineering units
- Enable/disable front buttons
- I.D. selection for communication
- Bar form
- Peak / Valley enable
- Color zones
- Over-range/Under-range flashing
- Lamp test

Form-C relay outputs

- Normally Open
 - 5A, resistive @ 250V AC
 - 5A, resistive @ 28V DC
- Normally Closed
 - 3A, resistive @ 250V AC
 - 2A, resistive @ 28V DC

Peak and Valley hold

Trend indication for signal direction

Communication

RS232/485, SCADA, DCS

Analog retransmit

4-20, 0-1mA DC
1-5, 0-1, 0-5 V DC

Retrofit sizes for:

GE/Yokogawa AB/DB 40, 4½" and AB/DB 16 8¾" switchboard meters

Crompton 075/07, 4½" and 8¾" switchboard meters

Ashcroft, Heise 8" gauges

Dixon BW051/P

Weschler K241, K261

Versatile selection of inputs

DC	Up to 5A & 250V
AC	Up to 5A & 250V
Thermocouple	J, K, T
RTD	10Ω Cu or 100Ω Pt
Serial	ASCII
Frequency	Line or mag pickup
Process Control	V, mA



16900 FOLTZ PARKWAY - CLEVELAND, OH 44149
Phone: (440) 238-2550 - Fax: (440) 238-0660
www.weschler.com e-mail: sales@weschler.com

SPECIFICATIONS

Bar Display

50 segment LED
2% full scale resolution
Circular display:
BG-241 285°
BG-261/281 255°

Digital Display

5 digit -9999 to 99999
Resolution 0.01% full scale
Linearity ±1 count

Height
BG-241 0.4" (10.16mm)
BG-261/281 0.8" (20.32mm)

Response Time

DC <600msec full scale
AC <800msec full scale

Temperature

Operation 0° to 50°C, <95% RH (non-condensing)
Storage -40° to 85°C

Input Isolation

AC Transformer isolated (>50mA, 1V)
DC Differential

Sensor Power

24VDC (excitation power) @ 90mA DC

Setpoints

Up to 4 SPDT relays with form C contacts available
Hysteresis 0.00-10.00% FS or latching
Time delay 0-10 sec.

Retransmit Signals

4-20mA DC
0-1mA DC
1-5V DC
0-5V DC

Communication

RS232
RS485 (2-wire)

Power

120, 240V AC (13VA)
12, 24, 28, 48, 125, 250V DC (8W)

Input Impedance

2Mohm @ >4V DC
30kohm @ 120V AC P.T.
0.1ohm @ 5A AC C.T.
250ohm @ 4-20mA DC
100ohm @ 10-50mA DC

Input Overload Ratings

200%, not to exceed 10A
200%, not to exceed 300V

Input Sensitivities [ANSI C39.1]

DC:
Current 50 microamp - 5A
Voltage 50mV - 250V
Accuracy 0.04% of full scale ± 1 count

AC RMS:
Current 1mA - 5A
Voltage 50mV - 250V
Accuracy 0.1% of full scale ± 1 count

Temperature:

Thermocouple °C °F
Type J -210 to 795 -346 to 1463
Type K -270 to 851 -454 to 1563
Type T -270 to 400 -454 to 752
Accuracy 0.1% of full scale ± 1 count
Linearity 50 point, 0.1%

RTD °C °F
100Ω Pt -260 to 700 -436 to 1292
Alpha 0.00385 & °C standard
Other Alpha ratings available
10Ω Cu -100 to 260 -148 to 500
Accuracy 0.2% of full scale ± 1 count

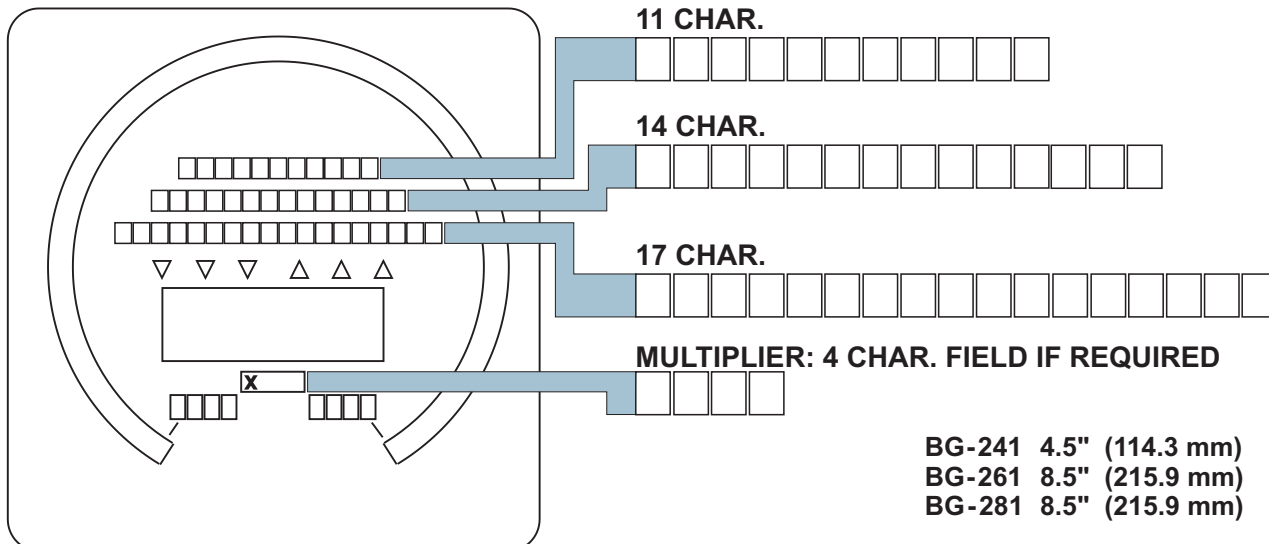
Frequency:

50Hz to 20kHz at 5 to 250V p-p
Accuracy 0.1% of full scale ± 1 count

Line Frequency (55 to 65 Hz):

Accuracy 0.01% of full scale ± 1 count

ARTWORK GUIDELINES



ORDERING GUIDE

SAMPLE PART NUMBER (SEE BOTTOM OF PAGE FOR EXAMPLE)

4 B Y 4 P A A M 1 F A P T T T

PART NUMBER

TYPE:

- 4 = BG241 4-1/2" Square BarGraph
- 6 = BG261 8-3/4" Square BarGraph
- 8 = BG281 8" Circle BarGraph

BAR ZERO POINT:

- B = Zero at Bottom
- H = Zero at 50% mid scale
- F = Zero at F.S.
- S = Special /off scale zero

DIGITAL DISPLAY:

- R = Red
- Y = Yellow
- G = Green
- S = Special

SETPOINT RELAYS:

- 4 = 4Relays
- X = No relays
- S = Special order

SETPOINT HYSTERESIS:

- P = Programmable
- S = Special
- X = Not required

INPUT TYPE:

- A = DC Volts
- B = DC Amps
- P = 4/20 mA DC (input level AK)
- N = 1/5 VDC (input level AV)
- M = 10/50 mA DC (input level BA)
- C = AC Volts RMS
(Barrier terminal strip connections included)
- D = AC Amps RMS
(Barrier terminal strip connections included)
- F = Line Frequency
- Q = MAG Pickup Frequency
- J,K,T = Thermocouple Types
- R = RTD: Specify 3 or 4 wire & alpha
 100 Ohm Pt or 10 Ohm Cu
- S = Special
- U = Serial ASCII (requires com type A, B or C in Communication options)

BAR COLOR:

- T = TriColor

- B = Analog Backplate
- K = Conformal Coating
- T = Terminal Strip Connector
- A = Custom Artwork
- Y = Spraytight Front & Rear (241/261)
- Z = Spraytight Front (241/261)
- X = None

- T = Trend Indicator
- X = NA

- P = Peak/Valley Hold
- X = NA

COMMUNICATION:

- A = RS232
- C = RS485 Bi-directional
- X = None

RETRANSMIT:

- C = 1-5V DC (or 0-5V on request)
- D = 0-1V DC
- F = 4-20mA DC, 700 ohm max.
- G = 0-1mA DC
- W = Excitation Power 24 VDC @ 90mA
- S = Special
- X = None

POWER:

- 1 = 120V AC ±15% 50/60Hz
- 2 = 240V AC ±15% 50/60Hz
- 4 = 12V DC ±10% *
- 6 = 250VDC ±10%
- 7 = 24V DC ±10%
- 8 = 28V DC ±10%
- 9 = 48V DC ±10%
- U = 110-250V DC / 85-264V AC, 50-440Hz

*Max ambient 45°C

INPUT LEVEL:

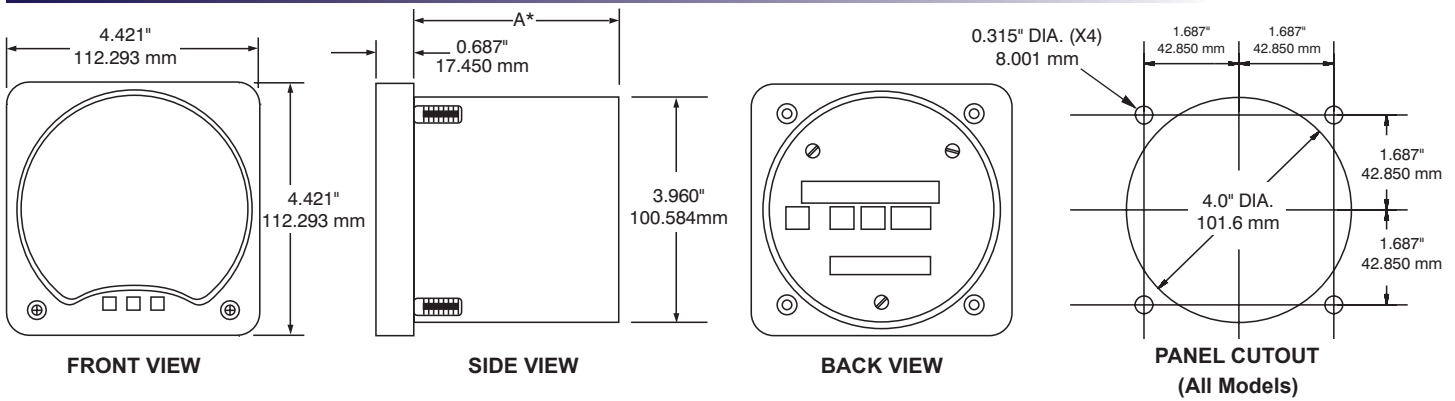
See input Level Matrix Guide

EXAMPLE: 4 B Y 4 P A A M 1 F A P T T T

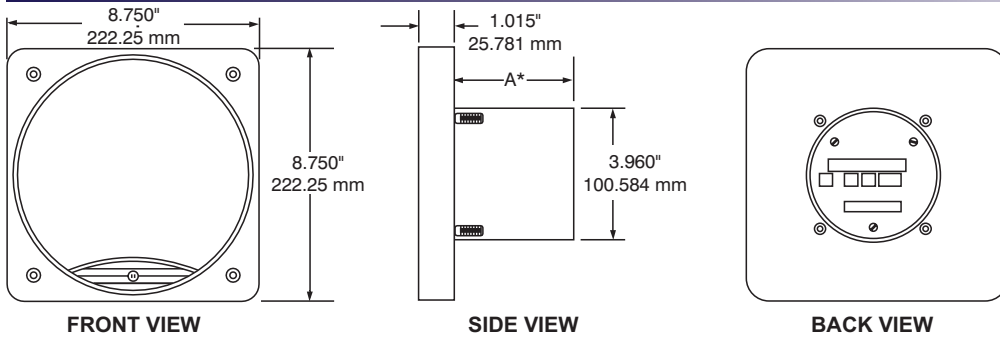
(4) BG-241, (B) zero at bottom, (Y) Yellow, (4) 4 relays, (P) Programmable setpoint hysteresis, (A) DC volts input, (AM) full scale is 0.05 volts, (1)120 VAC 50/60 Hz power, (F) 4-20 mA DC isolated retransmit, (A) RS232 communication, (P) peak/valley hold, (T) trend indicator, (T) terminal strip connector, (T) TriColor

DIMENSIONS

BG-241TC



BG-261TC

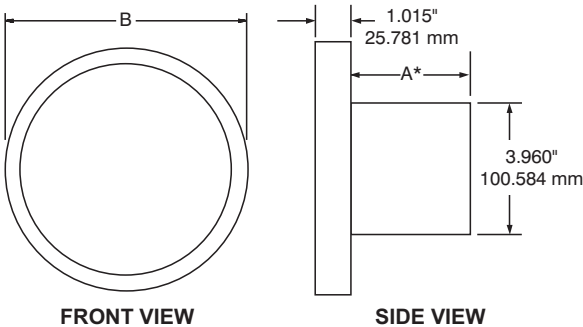


*Case Depth	A	
	inches	mm
Regular	3.600	88.2
Extended	5.150	126.17

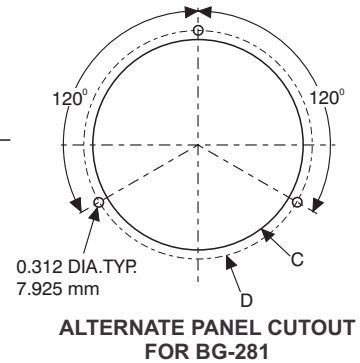
1/4-28x5/8" mounting studs

Mounting Torque Requirements
65-70 inch-pounds maximum.

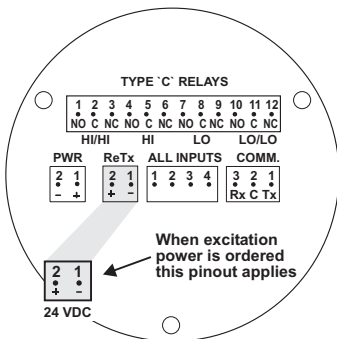
BG-281TC



DIM. B Inches (mm)	DIM. C Inches (mm)	DIM. D Inches (mm)
10.062 (255.6)	5.1-8.91 dia. (130-226)	9.508 dia. (241.5)



TERMINAL CONNECTIONS



INPUTS

VOLTAGE / CURRENT

(1) Hot Side (+) (2) Return Side (-)

RTD

(1) + Source (2) + Sense
(3) - Sense (4) - Source

MAGNETIC PICKUP

(1) - (2) +

THERMOCOUPLE

Provided w / flying lead and plug

AC LINE FREQUENCY

(1) Hot Side (+) (2) Return Side (-)

AC Inputs have 6/32 barrier lug connections.

POWER

(1) Hot Side (+) (2) Return Side (-)

EXCITATION POWER 24 VDC

(1) - (2) +

COMMUNICATIONS

(1) Transmit (2) Common
(3) Receive

RELAY CONTACTS*

(1) AL 1 N.O. (2) AL 1 C.
(3) AL 1 N.C. (4) AL 2 N.O.
(5) AL 2 C. (6) AL 2 N.C.
(7) AL 3 N.O. (8) AL 3 C.
(9) AL 3 N.C. (10) AL 4 N.O.
(11) AL 4 C. (12) AL 4 N.C.

* N.O. = Normally Open
N.C. = Normally Closed
C. = Common

BG-241TC / BG-251TC / BG-261TC / BG-281TC

Options and features vary by model. Contact factory for details and latest specifications. For AC power measurements see the terminal connections & wiring diagrams on the BG-AC Power Circular BarGaps.



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www.weschler.com e-mail: sales@weschler.com