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PRECISION INSTRUMENTATION

Beta G1
Digital Panel Meter
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Multifunction Meters

Transducers & Isolators

Temperature Controllers

Converters & Recorders

Digital Panel Meters

Current Transformers

Analogue Panel Meters

Shunts

Digital Multimeters

Clamp Meters

Insulation Testers

BETA G1 DIGITAL PANEL METER

User Manual - Issue 1.0

SUBJECT TO CHANGE WITHOUT NOTICE

This manual superseded all previous versions – please keep for future reference

Features

- 3/64 DIN Indicator
- LCD: 3-1/2 digit 0.5" high LCD display (non backlit or -ve image red) bright red backlighting
- Limited range display scaling
- Span adjustment and offset adjustment through potentiometer

1. Application

Beta G1. The digital panel meters have been designed for industrial applications, which frequently require precise and on-site adjustment of the display range. It can be used in industrial automation and for laboratory uses.

2. Technical Specifications

Measuring Ranges

DC Voltage

Range	Resolution	Input Impedance	Max Overload Allowed	Display Type		Display Span
200mV	100 μ V	10M Ω	100VDC	Non Backlight (LCD)	-	1999
20V	10mV	10M Ω	250VDC	Non Backlight (LCD)	Negative Image Red (LCD)	1999
200V	100V	9.9M Ω	250VDC	Non Backlight (LCD)	Negative Image Red (LCD)	1999

AC/DC TRMS Current

Range	Resolution	Voltage Drop	Max Overload Allowed	Display Type		Display Span
5A AC	10mA	50mVAC	6A AC	Non Backlight (LCD)	Negative Image Red (LCD)	0 to 10/100/1000
5A AC	10mA	50mVAC	6A AC	Non Backlight (LCD)	Negative Image Red (LCD)	0 to 20/200
5A AC	10mA	50mVAC	6A AC	Non Backlight (LCD)	Negative Image Red (LCD)	0 to 30/300
5A AC	10mA	50mVAC	6A AC	Non Backlight (LCD)	Negative Image Red (LCD)	0 to 50/500
5A DC	10mA	50mVDC	6A DC	Non Backlight (LCD)	Negative Image Red (LCD)	0 to 100

AC TRMS Voltage

Range	Resolution	Voltage Drop	Max Overload Allowed	Display Type		Display Span
200V	100mV	1M Ω	200VAC	Non Backlight (LCD)	Negative Image Red (LCD)	1999

Frequency

Range	Resolution	Display Type		Display Span
20-199.9Hz	0.1Hz	Non Backlight (LCD)	-	20 to 199.9

DC Process

Range	Resolution	Voltage Drop	Max Overload Allowed	Display Type		Display Span
4 to 20mA	0.10%	200mVdc	60mA	Non Backlight (LCD)	Negative Image Red (LCD)	0 to 100%
0 to 10Vdc	0.10%	Input Impedance 10M Ω	250VDC	Non Backlight (LCD)	Negative Image Red (LCD)	0 to 100%
0 to 100Vdc	0.10%	10M Ω	250VDC	-	Negative Image Red (LCD)	1999

Display	LCD
Type	7 Segment
Height	0.5" (12.7mm)
Decimal point (Selectable)	3 position
Overrange Indication	Most significant digit = "1"
Backlighting	Optional negative image, Red Backlight
Polarity	Auto with "-" indication; "+" implied

Power Requirements	
AC Volt	85-250V AC @ 40-440Hz

Power Consumption	
4.0VA (2.4W) Max	2.5VA min / 4VA Max

Isolation	
250Vrms Max	

Accuracy @ 25°C 200Hz	
±0.2% of input ± 0.2Hz	Not Available

DC V	
±(0.1% of reading ± 1count)	±(0.1% of reading ± 1count)

AC TRMS V & A	
±(0.5% of reading + 2 count) (50Hz - 2KHz)	±(0.5% of reading + 5 count) (50Hz - 5KHz)

Excitation Current	
25mA (Maximum)	

Environmental	
Operating Temperature	0 to 55°C
Storage Temperature	-10 to 60°C
Relative Humidity	0 to 85% non condensing @ 40°C
Temperature Coefficient	0.2% of input ± 0.5 digits/°C
Warm-up Time	Less than 20 minutes

Display Scaling
1.Span Adjustment Beta G1 indicators have limited range coarse and fine adjustments for display scaling. There are no optional connections required for these to function. The meter can be scaled up to 2 times, or down 1/2 the value of the input or a maximum reading of 1.999 which ever is lower. Example: a 2 volt input has a maximum reading of 1.999 counts, so you can't double the 2 volts, but you can make 1 volt read 1.999. The fine calibration allows for an approximate range of 1% of the "coarse" calibration.
2. Offset Adjustment Use coarse adjustment for offset. The offset can be scaled up or down approximately 250 counts.

DC Process
±(0.2% of reading ± 1 count)

Input Level (Frequency Meter)	
500mV to 270VRMS @ 1.0MΩ or 5V to 24V Square Wave (DC Offset = 2Vmax)	Not Available

Mechanical	
Bezel	0.95" * 2.84" (24mm * 72mm)
Depth	2.36" (60mm)
Panel Cutout	0.88" * 2.68" (22.2mm * 68mm)
Case Material	94-0, UL-rated, glass-filled thermoplastic

3. Ordering Information

Product Code	BT32-	X	X	XX	X	00000
Size	24X72	B				
LCD Color	Gray LCD		G			
	Red LCD		R			
Input Range	0-20mAD			02		
	4-20mAD			04		
	5AA			54		
	200mVD			0D		
	50mVD			0E		
	10VD			1B		
	20VD			1C		
	100VD			1J		
	200VD			1N		
	220VA			3T		
	200VA			3U		
	20-199.9Hz			05		
Power Supply	85-250U				Q	

Contact



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