



## Technical Data Sheet

# *Beta 50/60/70*



**Beta 50/60/70** is a digital panel meter used for the measurement & electrical parameters like volt, millivolt & current. It is mainly used in laboratories

### Special Features

- DC Current ranges and DC Voltage ranges
- 4 ½ Digit ultra bright Display
- Highly adaptable DPMs suitable for a wide range of measuring applications
- Versions available for DC Current (mA) and DC voltage (mV & Volts) inputs

## Application

**Beta 50/60/70** The digital panel meters Digit 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.

## Technical Specifications

Accuracy	
<b>(DIGIT A DC)</b>	
Measuring Accuracy Current (Voltage drop < 600 mV)	< 0.1% of range + 1 digit.
Temperature coefficient	300 ppm / °C.
Zero point drift	200 ppm / °C.
Range adjustment span	from 10% to 100% of range.

Measuring input	
DC Current input	Terminal 1 (LO -) and 2, 3 (HI +).
Display adjust (with external calibrator)	With zero and span pots.
Decimal point programming	With short links at front side..

DIGIT V DC	
<b>1) milli Volt ranges</b>	
Measuring Accuracy milli volts (Input current < 300uA)	< 0.1% of range + 1 digit.
Temperature coefficient	300 ppm / °C.
Zero point drift	200 ppm / °C.
Range adjustment span	from 10% to 100% of range.
<b>2) Volt ranges</b>	
Measuring Accuracy volts (Input current < 300uA)	< 0.1% of range + 1 digit.
Temperature coefficient	300 ppm / °C.
Zero point drift	200 ppm / °C.
Range adjustment span	from 10% to 100% of range.

Display	
Display range	19999
Decimal point position	Selectable by short links at the rear side of Display.
Negative display indication	"_ "
Digit height	14 mm / 7- segment digits.
Overload indication	Last 4 digits blank. (1 )

Sundry	
Connections	Plug-in screw terminal blocks.

Environmental conditions	
Climatic class	Class 2 to VDE / DIN 3540.
Operating temperature	-0 to 55°C.
Storage temperature	-25 to 65°
Humidity	0...95% non condensing
Safety class	II to IEC 348 / VDE 0411.
IP Protection	IEC EN 60 529. For Back : IP 20. Front : IP 50 ( IP 54 on request )
Device safety	According to IEC EN 61 010.
High Voltage Test	For AC Aux.: 2 kV AC, 50 Hz for 1 minute. For DC Aux. : 1 kV AC, 50 Hz for 1 minute.
EMC immunity	According to IEC / EN 61 000-4-1 up to 4.
EMC radiated interference	According to IEC / EN 61326 class B.

Applicable Regulations and Standards	
Protection Class Front	IP 20 to IEC EN 60 529 IP 50
Device safety	IEC EN 61 010
EMC immunity	IEC/ EN 61 000-4-1 to 4
EMC radiated interference	IEC/ EN 61326 Class B

Measuring ranges [Max. Overload 120% of full-scale range value]	
<b>Model</b>	<b>Beta 50 mA DC</b>
DC Current Ranges Available (Voltage drop < 600 mV)	<b>0...20 mA</b> and <b>4...20 mA</b> (Range selection by input choice)
<b>Model</b>	<b>Beta 60 mV DC</b>
DC mV Ranges Available (Input current <300uA)	<b>0...60 mV, 0...75mV, 0...150 mV</b> and <b>0...200 mV</b> (Range selection by input choice)
<b>Model</b>	<b>Beta 70 V DC</b>
DC Voltage Ranges Available	<b>0...2V or 0...20V or 0...200V or 0...500V or 0...1000V</b> or Please specify any non - standard input Voltage range, available on request.

Dimensions and Weights	
<b>V DC / A DC</b>	
Bezel size	96 mm x 48 mm DIN 43 718
Panel cut-out	92 + 0.8 mm x 43.5 + 0.6 mm
Overall depth	138 mm.
Weight	500 gm. Approx.

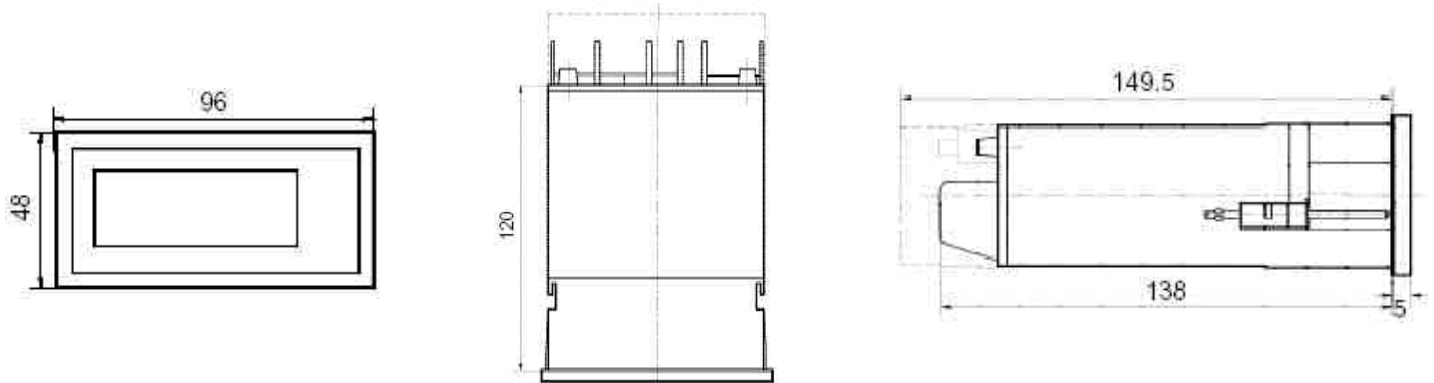
## Technical Specifications

### Power supply

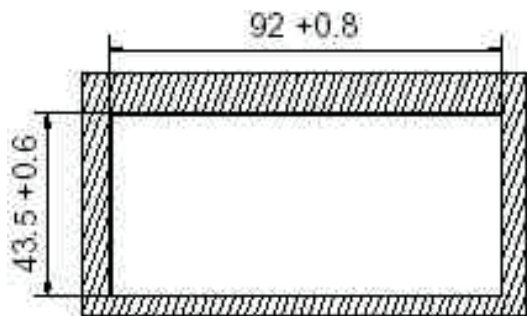
4 ranges for power supply are available.

Direct voltage DC	24 V DC (+/- 15%) 110 V DC (+ 10% / -15%)	5.5W approx. (isolated). 5.5W approx. (isolated).
Alternating voltage AC	110 V AC (+ 10% / -15%) 230 V AC (+10 % / -15%)	5.5W approx. (isolated). 5.5W approx. (isolated).
Frequency	47 - 60 Hz.	

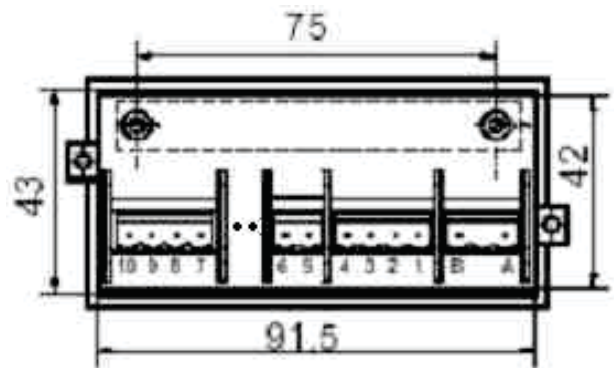
## Design



## Installation Cut-out



## Connection

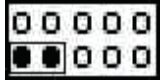
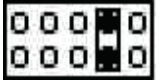


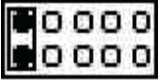


## Connection

Current DC		Milli Volts DC		Volts DC	
0... 20 mA	Terminals 1 and 2 with terminals 5 and 6 open.	0... 60 mV / 0... 75 mV	Terminals 1 and 2.	0...2 V or	Terminal is 1 and 4
				0...20 V or	
4... 20 mA	Terminals 1 and 3 plus jumper between terminals 5 and 6.	0...150 mV	Terminals 1 and 3.	0...200 V or	
				0...500 V or	
		0... 200 mV	Terminals 1 and 4.	0...1000 V	

## Decimal point Adjustment

Decimal point position is selectable by short links at the rear side

Short Link Position	Decimal point position on Display	Short Link Position	Decimal point position on Display	Short Link Position	Decimal point position on Display	Short Link Position	Decimal point position on Display	Short Link Position	Decimal point position on Display
	XXXXX		X.XXXXX		XX.XXX		XXX.XX		XXXX.X

## Ordering Information

Product Code	BT57-	X	X	XX	X	X	X	000000
Size	48X96	E						
Input Type	Beta 50		6					
	Beta 60		4					
	Beta 70		5					
Input Range	0-20mA	Beta 50 Option		02				
	4-20mA	Beta 50 Option		04				
	0-60mV	Beta 60 Option		0A				
	0-75mV	Beta 60 Option		0B				
	0-150mV	Beta 60 Option		0C				
	0-200mV	Beta 60 Option		0D				
	0-2V	Beta 70 Option		1A				
	0-10V	Beta 70 Option		1B				
	0-20V	Beta 70 Option		1C				
	0-24V	Beta 70 Option		1M				
	0-200V	Beta 70 Option		1D				
	0-500V	Beta 70 Option		1E				
	0-1000V	Beta 70 Option		1L				
Power Supply	110A			2				
	120A			4				
	230A			6				
	24D			9				
	110D			B				
	220D			E				
IP Protection	W/O IP Protection					0		
	With IP Protection					1		
Display Type	Normal Display					0		
	+/- Display					1		

