

## GEM Series-Multifunction Panel Meter





## 1. Introduction :

GEM series meters are digital panel meter with 4 digit, 3 row seven segment display. Three navigator keys & Seven Segment display simplifies measurement Display & configuration of meter.

## 2. Features :

- True RMS Measurement
- High glow display for distant viewing
- Auto Decimal & Kilo Select-
- Programmable 1A/5A site selectable
- Accuracy class 1.0 of reading
- Programmable PT & CT Ratio
- SMPS based Aux. Supply

## 3. Model Selection :

Model	Voltage		Current			Frequency	RPM	Run hour
	L-L	L-N	11	12	13			
GEM-1-V		■						
GEM-3-V	■	■						
GEM-1-I			■					
GEM-3-I			■	■	■			
GEM-F						■		
GEM-1-VIF		■	■			■		
GEM-3-VIF	■	■	■	■	■	■		
GEM-1-G		■	■			■	■	■
GEM-3-G	■	■	■	■	■	■	■	■
GEM-3-V3	■	■						
GEM-3-I3			■	■	■			
GEM-FR							■	
GEM-R								■

## 4. Technical Specification :

Measurements*	
Voltage	L-N, L-L
Current	I <sub>1</sub> , I <sub>2</sub> , I <sub>3</sub>
Frequency	Hz
Run Hour	Hr.
RPM	RPM
Input Range	
Voltage Range	10-300V (L-N) 18-520 V (L-L)
Current Range	50mA to 6.0A AC
Frequency Range	40 to 70 Hz
Starting Current	5 mA
Over Current	10A continuous
Current withstand	50A for 3 seconds
Voltage withstand	1000V
Over Voltage	550 V (L-N)
Resolution	4 digit display with auto decimal scrolling
Display Scrolling	Automatic / Manual
Accuracy	Class 1 or 0.5
Auxiliary Supply	35-300V AC/DC
Temperature	-10 to 70°C
Storage :	-20 to 75°C
Humidity (non condensing)	Upto 85% RH
Mounting	Panel Mount

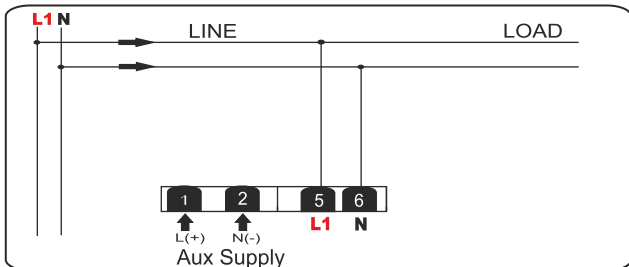
## 5. Display :

Parameter	GEM-1-V/3V/1-I/3-I/F 1-VIF/1-G	GEM-3-VIF/3-G/3V3/3I3
Display	LED Display	LED Display
Digit	4 digit, 1 row display	4 digit, 3 row display
Digit Height	0.39" (9.90 mm)	0.39" (9.90mm)

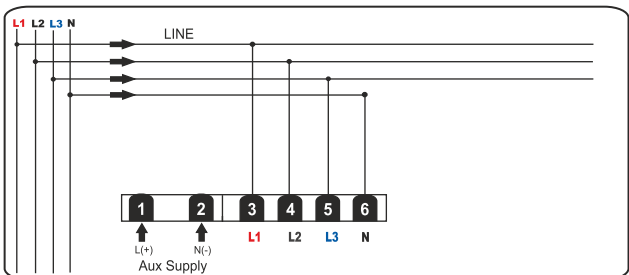
## 6. Setting Range :

CT Primary	1A to 999kA (Programmable for any value)
CT Secondary	1A to 10A (Programmable for any value)
PT Primary	50V to 999kV (Programmable for any value)
PT Secondary	50V to 999 V (Programmable for any value)

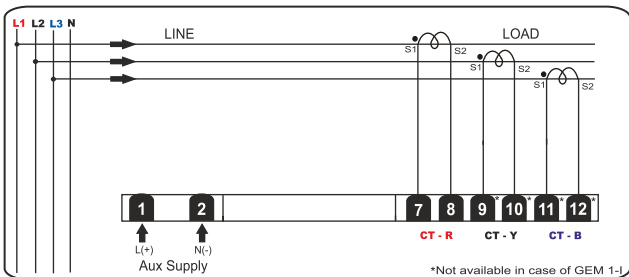
## 7.4 Connection : GEM 1-VIF/GEM 1-G



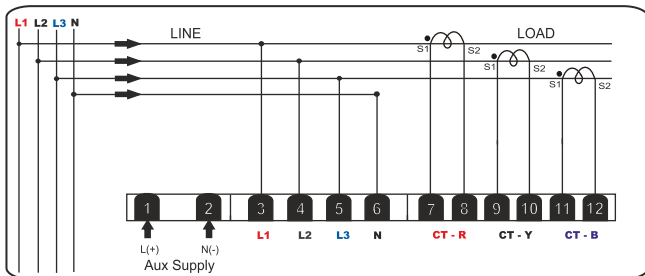
## 7.5 Connection : GEM-3V / 3V3



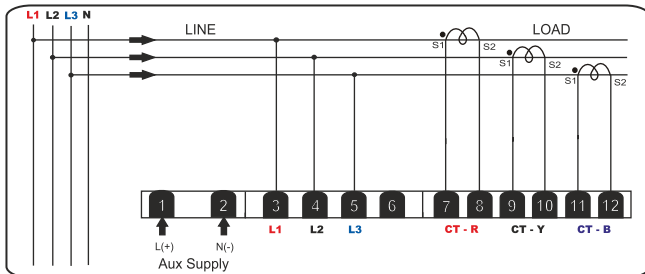
## 7.6 Connection : GEM-1-I/GEM 3-I / GEM- 3I3



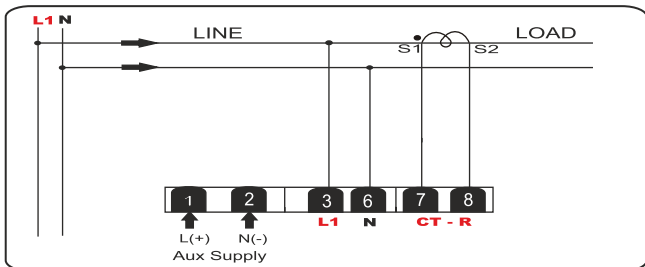
## 7.1 Connection : GEM 3-VIF/GEM 3-G - 3-Phase, 4-Wire



## 7.2 Connection : GEM 3-VIF/GEM 3-G - 3-Phase, 3-Wire



## 7.3 Connection : GEM 1-VIF/GEM 1-G



## 8. Setting Procedure :

Enter the parameter mode by pressing NXT and DEC button both at a time. The row will display respective parameter sequentially by pressing NXT button:

### ***Display Parameter under change***

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*PtPr* Voltage primary (for next parameter press ►►)

04 15 Default PT Primary value, can be changed by pressing INC/DEC Button (for next parameter press ►►)

dEC Decimal place for PT primary value (for next parameter press ►►)

04 15 PT Primary value, decimal place can be adjusted by pressing INC/DEC button (for next parameter press ►►)

Unit k Unit of PT primary voltage ( for next parameter press ►►)

04 15 PT Primary value, Unit (in k or normal) can be changed by Pressing INC/DEC button. K led will glow if set as Kilo Volt (for next parameter press ►►)

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*PtSr* Voltage secondary (for next parameter press ►►)

04 15 Default PT Secondary value, can be changed by pressing INC/DEC button. (For next parameter press ►►)

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*CtPr* Current Primary (For next parameter press ►►)

0005 Default CT Primary value, can be changed by pressing INC/DEC Button. (For next parameter press ►►)

dEC Decimal place for CT primary value. (For next parameter press ►►)

0005 CT Primary value, decimal place can be adjusted by pressing INC/DEC button. (For next parameter press ►►)

Unit k Unit of CT primary value (For next parameter press ►►)

0005 CT Primary value, Unit (in k or normal) can be changed by pressing INC/DEC button. K led will glow if set as Kilo Amp (For next parameter press ►►)

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*CtSr* Current secondary. (For next parameter press ►►)

0005 Default CT secondary value, can be changed by pressing INC/DEC button. (For next parameter press ►►)

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*rP7\*\** Generator RPM (For next parameter press ►►)

1500 Default value, can be changed by pressing INC/DEC button.

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*PHAS* System Phase Configuration

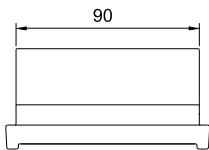
0003 Default value, can be changed by pressing INC/DEC button. ( For exit from edit mode press ►► )

## Example :

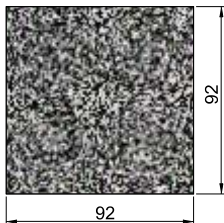
Setting 11.10KV as primary voltage

- Step 1- Enter the parameter mode by pressing NXT and DEC Button both at a time.  
Display will indicate **PtPr**  
Press NXT Button  
Display will indicate value (eg **0415** )
- Step 2- By pressing DEC change **415** to **0111**
- Step 3- Press NXT button  
Display will show **dEC**  
Press NXT button  
Display will show **0111**  
Press INC/DEC button to adjust the decimal.
- Step 4- Press INC/DEC button till the display is **011.1**
- Step 5- Press NXT button  
Display will show **Unit**  
Press NXT button  
Display will show **011.1**  
Press INC/DEC button to light up K Led  
LED K will glow up
- Step 6- Press NXT for next parameter
- To edit next parameters follow the same procedure as above.  
Continue till all the parameters are set.

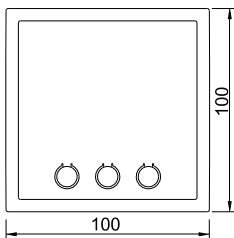
**Note: For Scroll on/off Press INC Button For 3 Sec**



Top View



Panel Cutout



Front View



Side View

All dimensions are in mm.

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