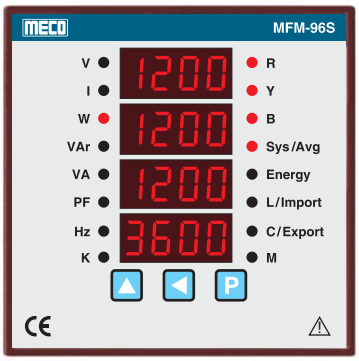
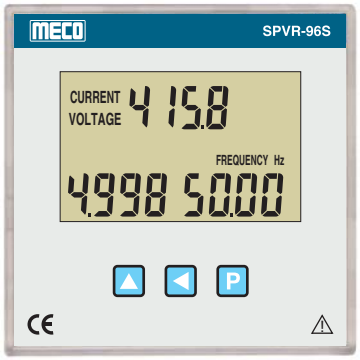
SOFTWARE

CE

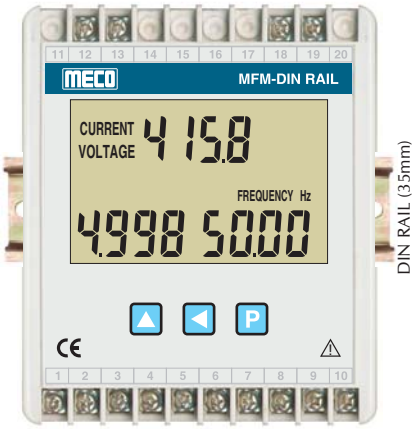
RS 485



MFM-96S



SPVR-96S



MFM-DIN RAIL

Features

- 10 Parameters, 48 Values on 16 Pages (MFM-96S)
- 10 Parameters, 50 Values on 34 Pages (SPVR-96S & MFM-DIN RAIL)
- TRMS Measurement
- 3 Phase 3 Wire / 3 Phase 4 Wire (User Selectable)
- CTR, PTR, Inst. Address, Password & Energy Reset (Programmble)
- Energy Import - Export (4 Quadrant Operation)
- POWER MASTER Software (Optional)
- RS485 Port, 5KV Isolated with MODBUS RTU Protocol (Optional)
- CE Compliance as per EN61010-1, EN61326-1
- Inbuilt Memory to Store CTR, PTR, Inst. Address & Password
- Auto / Manual Scroll Display (Programmble)
- Energy Retention
- Energy Reset Programmable Parameters (Password Protected)

Parameters Measured	Accuracy ±(%FS)	Phase	System
Voltage	± 0.5%	V1N, V2N, V3N, V12, V23, V31	V (System)
Current	± 0.5%	I1, I2, I3	I (Average)
Active Power	± 1.0%	W1, W2, W3	W (System)
Reactive Power	± 1.0%	Var1, Var2, Var3	Var (System)
Apparent Power	± 1.0%	VA1, VA2, VA3	VA (System)
Frequency	± 0.2 Hz	NA	Hz (System)
Power Factor	± 1° Electrical	PF1, PF2, PF3	PF (System)
Active Energy	Class 1	KWh1, KWh2, KWh3	Kwh Total (Import) & Kwh Total (Export)
Reactive Energy		KVarh1, KVarh2, KVarh3	KVarh Total (IND.) & KVarh Total (CAP.)
Apparent Energy		KVAh1, KVAh2, KVAh3	KVAh Total

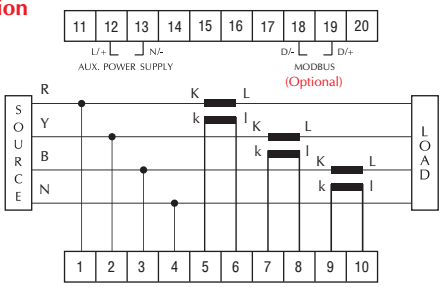
Specifications

Auxiliary Supply	85 - 265VAC / DC (Standard)		Current I/P	< 0.2 VA / Phase
	19 - 90VAC / DC (Optional)		System	3P2E3W / 3P3E4W (User Selectable)
Voltage / Phase	51 - 300VAC (Max.) (PH-N)	Any one	Standard	
	16 - 138VAC (Max.) (PH-N)		Installation category	CAT II (IEC / EN61010 - 1)
	88 - 519VAC (Max.) (PH-PH)	Any one	Pollution	Degree 2 (IEC / EN61010 - 1)
	28 - 239VAC (Max.) (PH-PH)		Environment	
Current / Phase	0.03A to 1.2A (Max.)	Any one	Calibration	27°C ±5°C
	0.110A to 6A (Max.)		Operating	0 to 50°C , RH < 70%
Frequency	45 - 55Hz		Storage	-10 to 60°C , RH < 70%
Power Factor	0.300 Lag (L) - 1.000 - 0.300 Lead (C)		Terminal Block	Screw Type
VA Burden (Typical)			Dielectric strength	2.5KV at 50 Hz for 1 min.
Auxiliary	< 3 VA		Insulation Resistance	> 20 MOhms at 500VDC
Voltage I/P	< 0.3 VA / Phase			

* Dimension (mm)

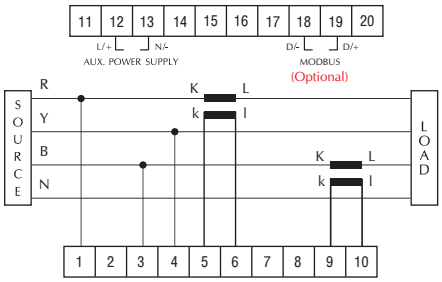
Model	MFM-96S / SPVR-96S	MFM-DIN RAIL
Front	96 x 96	115 (L) x 96(W) x 60(D)
Depth (Behind Bezel panel)	43	
Cut - out	$92^{(+0.8,-0.0)}$ x $92^{(+0.8,-0.0)}$	
Case / Housing Material	DIN Black ABS, Dimension as per DIN 43700	ABS Gray
Mounting	Panel	DIN RAIL (35mm)
Mounting Clamps	Sturdy, Moulded Derlin with Suitable Hardware	
Terminals/Connectors	Terminal Block : Thermo Plastic (UL94V-0) with Tin Plated Brass Terminal	

Terminal Connection



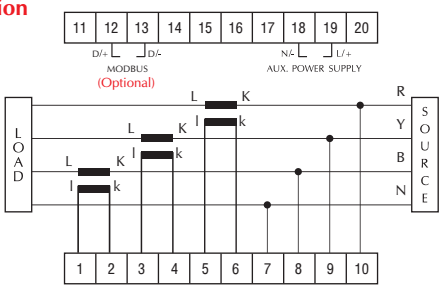
3 Phase 3 Element 4 Wire

SPVR-96S
MFM-96S



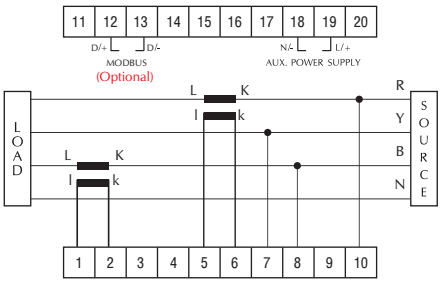
3 Phase 2 Element 3 Wire

Terminal Connection



3 Phase 3 Element 4 Wire

MFM-DIN RAIL



3 Phase 2 Element 3 Wire

Ordering Information : Model, Input Voltage, Input Current, Input Frequency, System 3P3E4W / 3P2E3W, CTR / PTR (if any), Auxiliary Supply & RS485 MODBUS Communication Port (Optional)

RS485 - RS232 Converter

CE

Features

- Half Duplex Transreceivers
- Data Transmission up to 1Mbps
- Compliance to TIA / EIA-485A Standard
- Allowing up to 32 Nodes on a Single Bus
- 5KV Isolation
- LED for Indicating RX / TX Data Flow
- Built in Power Supply

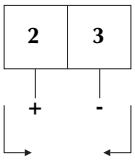
Application

- Energy Meter
- Industrial Automation
- Modem & Computers
- Telecommunication Equipment

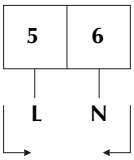
Technical Specification

Model	RS485 - RS232 Converter	
Power Supply	85-265 V AC/DC	
Auxiliary (VA Burden)	< 2.5VA (Typical)	
Environment	Operating	0 to 60°C, RH < 70%
	Calibration	27°C ±5°C
	Storage	-10 to 60°C, RH < 70%
Standard	TIA / EIA-485A	
Dimensions (mm)	85 x 60 x 38mm	

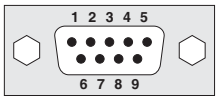
Terminal Connection



RS 485 (input)



Aux. Supply



9DB Connector

RS 232 (Output)

Ordering Information : Model