



# JEMSTAR Retrofit

FOR GENERATION, TRANSMISSION, AND INDUSTRIAL POWER MEASUREMENT



The AMETEK JEMStar High Accuracy Revenue Meter is available in several plug and play configurations to retrofit your old meters. This speeds up your installation time and reduces your costs by re-using your existing meter enclosure and wiring. The JEMStar is a form-fit-function replacement of your old meter and provides the added advantage of higher accuracy, more communication choices and more capabilities.

### Models Available

The JEMStar can retrofit the following Meters:

- JEM-1, JEM-2, JEM-3, JEM-10
- DS63, DSW63, DS64, DSW64
- Phase 3
- Mark V
- ST-Q121, ST-Q220

### Cost Effective Upgrade

The JEMStar Retrofit can be installed in a fraction of the amount of time required for other replacements. In most cases, it can be done without disconnecting power or removing any wiring. The retrofit kit includes all materials and hardware for a plug and play installation into your existing enclosure. It's as simple as:

1. Remove the enclosure cover
2. Pull out meter stab plate and old meter
3. Insert the new meter cover adaptor
4. Slide in new JEMStar retrofit
5. Insert the meter stab plate and new cover

**Your done!**

The JEMStar Retrofit can be easily cost-justified by the reduced installation cost alone.

### Form - Fit - Function Replacement

The AMETEK JEMStar Retrofit will duplicate all the features of your existing meters including: I/O wired to the same terminals, communication methods (if applicable), 4 Quadrant measurements, Transformer and Line Loss Compensation.

### Enhanced Metering

In addition to keeping all the same functions as your existing meter, the JEMStar Retrofit provides many enhancements to bring your metering installation to current standards. This includes higher accuracy, more communication choices, more I/O selections and power quality recording.

## FEATURES AND BENEFITS

- Cost effective replacement
- Quick installation - plug & play
- Higher accuracy, more measurements
- Many I/O and Communication choices



Experience the Power™

## SPECIFICATIONS

Meter Retrofits	Switchboard Enclosure	Meter Forms	I/O and Communications wired out to existing terminals, connectors *							
			Digital Inputs	Digital Outputs	Analog Outputs	Modem	Communications			
							Modem & Serial	Single Serial	Dual Serial	Ethernet & Serial
JEM1-P	Panel Mount	5,6,9	2	5 KYZ	3	Option	Option	Option	Option	Option
JEM1-SW	Tall	5,9	2	5 KYZ	3	Option	Option	Option	Option	Option
JEM1-F	Front Term.	5,9	2	5 KYZ	3	Option	Option	Option	Option	Option
JEM2	Tall	5,6,8,9	2	5 KYZ	Cable	Option	Option	Option	Option	Option
JEM3	Tall	5,6,8,9	2	5 KYZ	Cable	Option	Option	Option	Option	Option
JEM10	Short	5,6,8,9	2	5 KYZ	3	Option	Option	Option	Option	Option
DS63	Short	5	Cable	n/a	Cable	Cable	Cable	Cable	Cable	Cable
DSW63	Short	5	Cable	1 KYZ	Cable	Cable	Cable	Cable	Cable	Cable
DS64	Tall	9	Cable	n/a	Cable	Cable	Cable	Cable	Cable	Cable
DSW64	Tall	9	Cable	1 KYZ	Cable	Cable	Cable	Cable	Cable	Cable
Phase 3	Short	5	1	3KYZ	Cable	Cable	Cable	Option	Cable	Cable
ST-Q121	Tall	5,6,8,9	2	5 KYZ	Cable	Option	Option	Option	Option	Cable
ST-Q220	Tall	5,6,8,9	2	5 KYZ	Cable	Option	Option	Option	Option	Cable
MARKV	Short	5,8,9	Cable	4 KYZ	Cable	Option	Option	Option	Option	Cable

### RETROFIT KITS

For each meter type, the JEMStar Retrofit kit includes:

- JEMStar Meter with custom cradle to fit existing enclosure
- New Enclosure Cover with Plastic Adaptor Plate
- Meter Stab Plates (where applicable)
- All hardware & parts necessary to mount meter in enclosure
- I/O and Communication options wired out to existing terminal blocks and connectors (where applicable) - I/O and Communication options can be provided via external cable also
- JEMWARE Configuration Software, User Manuals, Installation Manual



### I/O AND COMMUNICATION OPTIONS

The following options will be wired out to the existing terminal blocks / wiring connectors as shown above.

*\*If the existing meter doesn't support all of the I/O or communications shown below, they can be brought out via an external cable. Specify Option CBL*

#### DI/DO option

- Two Form-A contact inputs and four Form-A solid-state outputs

#### 5 KYZ option

- Two Form-A contact inputs and five KYZ solid-state outputs

#### Analog Outputs

- Three independent outputs 0 to 1 mA or 4 to 20 mA - Analog Outputs can only be combined with the DI/DO option (not available with the 5KYZ option)

#### Modem Option

- 19,200 Baud Modem - Can be combined with a single Serial Port. Phone Home on Power Fail available

#### Serial Option

- Single or Dual RS-232/RS-485 Serial Ports

#### Ethernet Option

- RJ45 Ethernet supports 4 simultaneous users. Includes Single RS-232/485 Serial Port.

Communication Options can be combined with any protocol: JEM Binary (included), Modbus & DNP (optional)

### OTHER OPTIONS AVAILABLE

#### EAP

- External Auxiliary Power (via external cable)

#### 12CH

- 12 Channels of load Profile (4 provided standard)

#### SASW

- Sag/Swell Power Quality Recording

#### MBUS

- Modbus Communication Protocol

#### DNP

- DNP Communication Protocol

#### CBL

- External Cable for I/O and Communications (standard for Socket Meters)

Refer to the JEMStar datasheet for a complete listing of all meter features and functions.



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