## Honeywell

# Din-Mon<sup>™</sup> D2 & D5 Smart Meter



### FEATURES

- Advanced 4-line display showing:
  - kWh
  - kW demand (with peak date & time)
  - Power factor per phase
  - Real-time load in kW
  - Amps per Phase
  - Volts per phase
  - On-board set-up option for:
  - IP address (D5 only)
  - Meter date/time
  - ID codes for EZ7, Modbus and BACnet
- Dual-protocol functionality allows operation for RS-485/ Ethernet or RS-485/LonWorks communication simultaneously with selectable BAS protocols. (D5 Only)
- Supports independent communication to E-Mon's Automatic Meter Reading (AMR) system and Building Automation System (BAS) or other front-end monitoring systems.

### A GUIDE SPECIFICATION FOR THE ENGINEER

- Meter provides bidirectional meter data via communication
   protocols for net metering applications:
  - kWh & kVARh delivered
  - kWh & kVARh received
- 0.333 volt output split-core current sensors (standard) allow for enhanced safety and accurate remote mounting of sensors up to 500 feet from meter. (Optional solid-core sensors and 100mA output current sensors available.)
- Up to 3 sets of 0.333V sensors can be used in parallel
- Meters can be ordered without current sensors and used with commercially available 0.333V and 100mA output current sensors. (Specify V3 (0.333V) or C1 (100mA) in model number and order without current sensors when using third-party current sensors).
- Two customer configurable pulse outputs:- Watt-hour and VAR-hour pulse outputs or- Watt-hour and phase loss (N.O. Contact)
- Onboard installation diagnostics and verification system.
- Built-in RS-485 communication capability supports the following connection configurations (or combinations not to exceed 52 devices per channel):
  - Up to 52 Din-Mon D2, Din-Mon D5, Class 320 and 500 meters and/or IDR interval data recorders.
  - Cabling using 3-conductor, 18-22 AWG, up to 4,000 cable feet total
- Protocols
  - EZ7
  - Modbus RTU
  - Modbus TCP/IP (D5 Only)
  - BACnet MS/TP\* `
  - BACnet IP\* (D5 Only)
  - LonWorks FT-10 (Twisted Pair)\* (D5 Only)
- Records kWh and kVARh delivered, kWh and kVARh received in first four channels. Data stored in 15-min. for up to 72 days or 5-minute intervals for up to 24 days. Maintains data in a first-in, first-out format.
- Compatible with E-Mon Energy software via EZ7 protocol for automatic meter reading, energy billing and profiling.
- Meter is designed for use on both 3-phase, 3-wire (delta) and 3-phase, 4-wire (wye) circuits.
- Non-metallic enclosure with Din-rail mounting and surface mounting flexibility.
- UL/CUL Listed. Meets or exceeds ANSI C12.20 national accuracy standards. (+/- 0.2% from 1% to 100% of rated load.)
- Meter meets or exceeds MID accuracy standards.
  BTL and Lonworks (D5 Only) certified.
- \*Note: Internal data not stored in BACnet.



### Model numbers

NOTE: Replace x below with "2" for D2 or "5" for D5.

#### 120/208-240V, 127/220V, 3-PHASE

H-D<u>x</u>-208100-S<u>\*</u>SPL3-V3KIT3 (100 amp) H-D<u>x</u>-208200-S<u>\*</u>SPL3-V3KIT3 (200 amp) H-D<u>x</u>-208400-S<u>\*</u>SPL3-V3KIT3 (400 amp) H-D<u>x</u>-208800-S<u>\*</u>SPL3-V3KIT3 (800 amp)

#### 220/380V, 230/400V, 240/415V, 3-PHASE

H-Dx-400100-S\*SPL3-V3KIT3 (100 amp) H-Dx-400200-S\*SPL3-V3KIT3 (200 amp) H-Dx-400400-S\*SPL3-V3KIT3 (400 amp) H-Dx-400800-S\*SPL3-V3KIT3 (800 amp)

#### 277/480V, 3-PHASE

H-D<u>x</u>-480100-S<u>\*</u>SPL3-V3KIT3 (100 amp) H-D<u>x</u>-480200-S<u>\*</u>SPL3-V3KIT3 (200 amp) H-D<u>x</u>-480400-S<u>\*</u>SPL3-V3KIT3 (400 amp) H-D<u>x</u>-480800-S<u>\*</u>SPL3-V3KIT3 (800 amp)

#### 347/600V, 3-PHASE

H-D<u>x</u>-600100-S<u>\*</u>SPL3-V3KIT3 (100 amp) H-D<u>x</u>-600200-S<u>\*</u>SPL3-V3KIT3 (200 amp) H-D<u>x</u>-600400-S<u>\*</u>SPL3-V3KIT3 (400 amp) H-D<u>x</u>-600800-S<u>\*</u>SPL3-V3KIT3 (800 amp)

NOTE: All standard meter kits include one set of three 0.333V split-core current sensors.

### **Ordering Options**

#### Solid Core current sensors -

Replace "SPL" in model with "SCS" Ex. E-D5-480400-S04SCS3-V3KIT3 Ex. E-D5-480400-S04SCS3-V3KIT3

#### 2-element meter set up -

Change "3-" in model to "1-" for single element or "2" for 2-Element Ex. E-D5-480100S01SPL2-V3-KIT2 Ex. E-D5-480100S01SPL2-V3-KIT2

#### Include 1 current sensor -

Replace "KIT3" in model with "KIT1 Ex. E-D5-208200S04SPL1-KIT1

#### 100mA current sensors instead of 0.333V sensors -

Replace "V3" in model number with "C1" Ex. E-D5-480200S02SPL3-C1-KIT3 Ex. E-D5-480200S02SPL3-C1-KIT3

# D2 Communication Protocol & Option Packages

Specify protocol package when ordering D2 meters. Replace <u>\*</u> in model number with protocol package specification below.

RS-485 Port	Specify
EZ7	EZ7
Modbus RTU	RTU
BACnet MS/TP	BAC

## D5 Communication Protocol & Option Packages

Specify protocol package when ordering D5 meters. Replace <u>\*</u> in model number with protocol package specification below.

RS-485 Port	Ethernet Port	Specify
EZ7	EZ7 Ethernet	01
Modbus RTU	EZ7 Ethernet	02
BACnet MS/TP	EZ7 Ethernet	03
EZ7	Modbus TCP/IP	04
EZ7	BACnet IP	05
Modbus RTU	Modbus TCP/IP	06
EZ7	Lonworks FT-10	12

# Din-Mon Advanced Smart Meter Specifications

- Sensors shall be of split-core configuration to allow installation without disconnecting cabling, etc. Sensors shall be available from 100 amp to 800 amp. Sensors shall be optionally available in solid-core configuration (100A & 200A).
- Meter shall provide current sensor installation diagnostics indicator, phase error indicator and phase angle diagnostics on display.
- Meter shall be field programmable for meter date/time, IP address and ID code for communication options.
- Meter shall be enclosed in a non-metallic enclosure with Din-rail mounting and surface mounting flexibility. Dimensions: 5" H x 4" W x 2" D
- Meter shall provide non-volatile memory to maintain reading during power outages.
- Meter shall operate as slave device when used with Modbus or LONworks (D5 only) options. Meter works as a master device on BACnet MS/TP.

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