

New for 2019 . . .

# **smarty dw240 series**



the world's most advanced Universal Automation Controller

Full featured PLC  
Advanced Motion Control  
Smart Process Control

Distributed, deterministic  
processing over Ethernet

Homogeneous integration  
for drives, HMIs, remote I/O

**savvy** system design tools

Right for the IIoT future

Easy, intuitive, affordable, expandable

For systems of any size or complexity



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(410) 604-3400

bardac.com

driveweb.com





The **NEW smarty dw240 series** controller consists of a "cassette" that connects directly to system field wiring via four alternative, passive "terminal carriers". *This means big installation savings!*

### **smarty 1**

#### **basic UAC - 37 terminals - Analog & Digital I/O**

##### **Generic Stock Build Includes:**

100baseTX Ethernet, auto-negotiating, USB microB

Power: 24VDC

dw build options -04 -05 -25 -26, Clamp Terminals, DIN Rail Mounting

- 8 AI analog in, -11V to +11VDC, 100K $\Omega$ , up to 1 KHz  
(can be used as digital inputs)
- 8 AO analog out, ~0.2 to +10.5VDC, 10mA, up to 1KHz  
(can be used as DO or reference voltages)
- 8 DI digital in, 100K $\Omega$ , 8V threshold,  $\pm$ 3V hysteresis,  
50V max, up to 1 KHz (can also be used as event inputs)
- 8 DO digital out, 24V source, up to 350mA (shared), over current protected



**dw241-BX-C1CD**

only 4.2" wide x 3.5" high x 3.1" deep  
(105mm x 87mm x 77mm)

### **smarty2**

#### **advanced UAC - 37 terminals - Analog & Digital I/O**

##### **Generic Stock Build Includes:**

100baseTX Ethernet, auto-negotiating, USB microB

XIO Port for extended I/O options

Battery back up for realtime clock

Port options for CAN & ModbusRTU

Power: 24VDC

dw build options -04 -05 -06 -10 -25 -26 -29 -39,

Master Modbus RTU (unisolated), Clamp Terminals, DIN Rail Mounting

- 8 AI analog in, -11V to +11VDC, 100K $\Omega$ , up to 1 KHz  
(can be used as digital inputs)
- 8 AO analog out,  $\pm$ 10.5VDC, 10mA, up to 1KHz  
(can be used as DO or reference voltages)
- 8 DI digital in, 100K $\Omega$ , 8V threshold,  $\pm$ 3V hysteresis, 50V max,  
up to 1 KHz (can also be used as event inputs)
- 8 DO, digital out, 24V source, up to 350mA (shared),  
internally current limited



**dw240-DM-C2CD**

only 4.2" wide x 3.5" high x 3.1" deep  
(105mm x 87mm x 77mm)

## **smarty3** advanced UAC - 61 terminals - with encoder & steppers

**Generic Stock Build Includes:** 100baseTX, auto-negotiating, USB microB | XIO Port for extended I/O options | Battery back up for realtime clock  
Port options for CAN & ModbusRTU | Power: 24VDC | dw build options -04 -05 -06 -10 -25 -26 -29 -39 | Master Modbus RTU (unisolated)  
Clamp Terminals | DIN Rail Mounting



**dw240-DM-C3CD**  
only 5.5" wide x 3.5" high x 3.1" deep  
(140mm x 87mm x 77mm)

- 8 AI analog in, -11V to +11VDC, 100K $\Omega$ , up to 1 KHz  
(can be used as digital inputs)
- 8 AO analog out,  $\pm 10.5$ VDC, 10mA, up to 1KHz  
(can be used as DO or reference voltages)
- 8 DI digital in, 100K $\Omega$ , 8V threshold,  $\pm 3$ V hysteresis,  
50V max, up to 1 KHz (can be used as event inputs)
- 8 DO digital out, 24V source, up to 350mA (shared)  
internally current limited
- 4 FT Frequency/Timing  
Frequency/event input: 5V max, up to 100KHz  
Frequency/Stepper output: 5V sinking, up to 350mA (shared)  
F inputs can be used as event inputs or digital inputs  
F outputs can be used to generate frequency,  
control stepper amplifiers or as digital outputs
- 1 AB Encoder, differential inputs (5.5V max), up to 1MHz

## **smarty4** advanced UAC - 103 terminals - with encoders, steppers & more!

**Generic Stock Build Includes:** 100baseTX Ethernet, auto-negotiating, USB microB | XIO Port for extended I/O options  
Battery back up for realtime clock | Port options for CAN & ModbusRTU | Power: 24VDC | dw build options -04 -05 -06 -10 -25 -26 -29 -39  
Master Modbus RTU (unisolated) | Clamp Terminals | DIN Rail Mounting



**dw240-DM-C4CD**  
only 8.3" wide x 3.5" high x 3.1" deep  
(210mm x 87mm x 77mm)

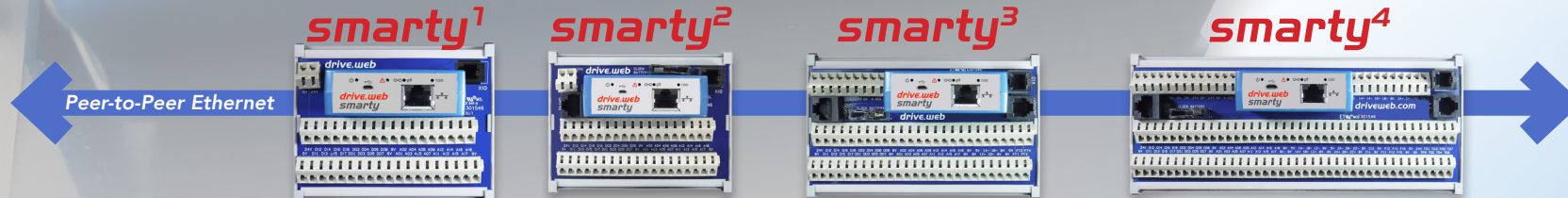
- 8 AI analog in, -11V to +11VDC, 100K $\Omega$ , up to 1 KHz  
(can be used as digital inputs)
- 8 AO analog out,  $\pm 10.5$ VDC, 10mA, up to 1KHz  
(can be used as DO or reference voltages)
- 8 DI digital in, 100K $\Omega$ , 8V threshold,  $\pm 3$ V hysteresis,  
50V max, up to 1 KHz (can also be used as event inputs)
- 8 DO digital out, 24V source, up to 350mA (shared),  
internally current limited
- 2 CI Current Input, 4-20mA, 0-20mA, 20-4mA, 20-0mA, 100 $\Omega$
- 6 FI Frequency in: up to 100KHz, 30V max, 100K $\Omega$   
with pull-up or pull-down. Can be event or digital inputs.
- 7 TO Timing Output, up to 500KHz, 30V max, sinking, pull-up,  
up to 350mA (shared). For frequencies, steppers or DO
- 2 ABZ Encoders, EIA-422/485 differential (5V max), up to 1MHz
- 2 AB Reconnect terminals for encoders



drive.web  
smarty



distributed control  
... the next generation **smarty**!



	smarty <sup>1</sup>	smarty <sup>2</sup>	smarty <sup>3</sup>	smarty <sup>4</sup>
Generic UAC	dw241-BX-C1CD			
P2 Vector Drive UAC	-	dw240-DM-C2CD	dw240-DM-C3CD	dw240-DM-C4CD
E3 Industrial Drive UAC	-	dw244-DM-C2CD	dw244-DM-C3CD	dw244-DM-C4CD
CANopen UAC	-	dw248-DM-C2CD	dw248-DM-C3CD	dw248-DM-C4CD
		dw249-DM-C2CD	dw249-DM-C3CD	dw249-DM-C4CD
Full Featured PLC Functions	✓	✓	✓	✓
Advanced Process Control	✓	✓	✓	✓
Basic Motion Control		✓		
Advanced Motion Control			✓	✓
drive.web distributed control	✓	✓	✓	✓
100baseTX Ethernet	✓	✓	✓	✓
Modbus TCP/IP & EIP/PCCC	✓	✓	✓	✓
USB microB port	✓	✓	✓	✓
8 analog inputs	✓	✓	✓	✓
8 analog outputs	✓ (unipolar outputs)	✓ (bipolar outputs)	✓ (bipolar outputs)	✓ (bipolar outputs)
8 digital inputs	✓	✓	✓	✓
8 digital outputs	✓	✓	✓	✓
4 status LEDs	✓	✓	✓	✓
XIO extended I/O port		✓	✓	✓
Battery backup for clock		✓	✓	✓
CANopen & ModbusRTU ports		✓	✓	✓
Optional Drive Interface		✓	✓	✓
Frequency Inputs/Outputs		4 frequency inputs or timing outputs (2 steppers)		6 frequency inputs + 7 timing outputs (3 steppers)
Encoder		1 encoder, differential AB + reconnect terminals		2 encoders, differential ABZ + reconnect terminals

Even Faster

More Compact

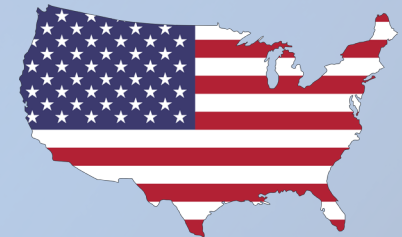
More Versatile

More Memory

More I/O

Quicker, Easier  
Field Wiring

100% Compatible  
with all existing  
**speedys**, **smartys**,  
and **savvyPanels**!



Designed & built with  
ingenuity in the USA!