drive.web smarty-RL ®

Universal Automation Controller
with RL Option

model

dw25x-xx-RLxx

Installation & Operation Manual

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Design Statements

EMC Standard, EN 61326-1: 2006, Electrical Equipment for Measurement, Control and Laboratory Use.

Emissions Class A, Commercial Equipment.

Immunity Table 2, Industrial Equipment.

LVD Standards, EN 61010-1: 2010, Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use.

smarty is an industrial controller designed for permanent installation by qualified professionals. If it is used in a manner not specified herein the protection provided may be impaired.

smarty and its packaging contain recyclable materials

This device is designed to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1)This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.

This Class [A] digital apparatus is designed to comply with Canadian ICES-003. Cet appareil numerique de la classe [A] est conforme à la norme NMB-003 du Canada.

⚠️ **Warning!** It is essential that you read and understand this entire manual and the entire contents of the **savvy** software **Help** menu before proceeding with your installation and configuration. See page 6 for **savvy** installation instructions. For more information and to download manuals and software, go to **www.driveweb.com** or contact us. See page 12.

⚠️ **Warning!** Your use of **savvy** software and **drive.web** devices may cause motors and machinery to power up with high Voltages or start or operate in an unexpected, dangerous or lethal way. It is essential that you are completely familiar with all of the equipment and the system design before attempting to program or edit a program or connect to any live device. It is also essential that a risk assessment is conducted to identify hazards. Risks must be reduced to tolerable levels.

⚠️ **Warning!** You are entirely responsible for the configuration or use of any **drive.web** product. By configuring or using these products you agree to indemnify and hold harmless Bardac Corporation, its employees, directors, officers, distributors, and resellers against the consequences of your configuration or use of the products.

⚠️ **Warning!** Information in this manual is subject to change without notice. You are responsible for verifying the proper operation of your **smarty**. Special care must be taken after loading new firmware or installing new options.

⚠️ **Warning!** Avoid permanent damage to your **smarty**, never exceed any **min** or **max** values.

SMARTY, SAVVY, SAVVYPANEL, SPEEDY, BARDAC, and DRIVE.WEB are trade marks of Bardac Corporation, registered in the U.S. and other countries.
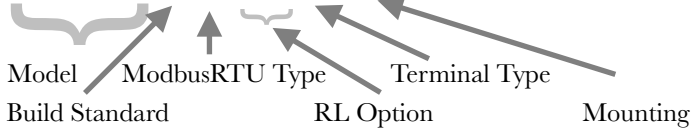
Product Identification - *smarty⁷-RL*

The **RL** option adds four relay outputs on **dw25x**-series universal automation controllers; Two Form-C outputs and two Form-A outputs.

This option manual must be used in conjunction with the **dw25x** product manual, part number HG504266

The model number **dw25x** is appended with a three character extension.

Example; **dw250-DM-RLPD**

Model / ModbusRTU Type / Terminal Type

Build Standard / RL Option / Mounting

Terminal Type *P*

P - Two plug-in screw-terminal blocks; 12 total terminals.

RL Terminal Naming and Ratings

● Terminal names are consistent in the **drive.web savvy** software, on the terminal, and on the cover plate next to the terminal.

24V - **RL** option 24VDC supply for relay coils. 25.2VDC max. The two terminals are internally connected but not to the 24V terminals on the **dw250**. Typically a single jumper wire may be used but an external interlock may also be added. In this case a short jumper wire to DI8 can monitor the coil supply.

External 1A fast-acting fuse or current-limiting is required!

xNO - **RL** option normally-open output. 30VDC, 240VAC max. 5A max.

External fuse or circuit breaker is required!

xNC - **RL** option normally-closed output. 30VDC, 240VAC max. 5A max.

External fuse or circuit breaker is required!

xC - **RL** option common output. 30VDC, 240VAC max. 5A max.

External fuse or circuit breaker is required!
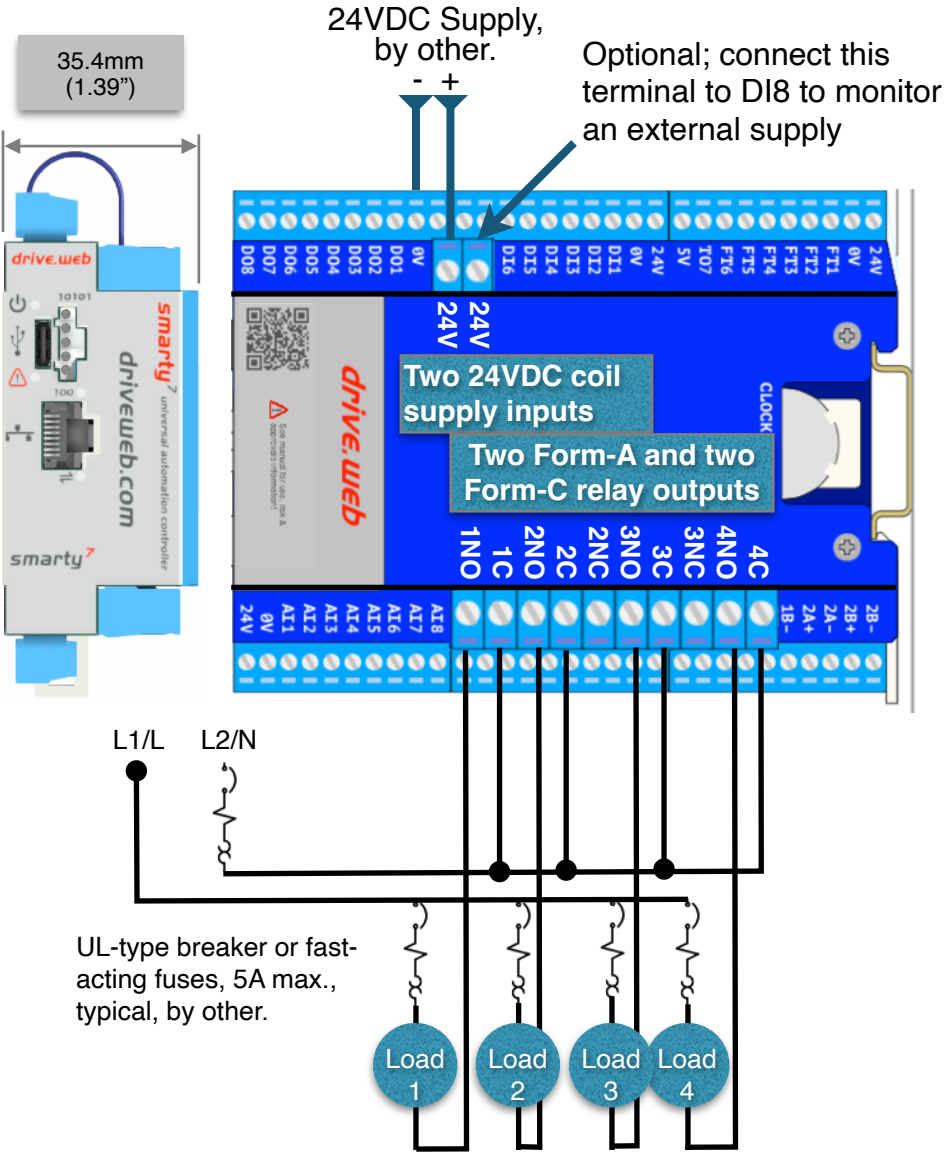
RL Terminal Wiring

Strip 7mm(0.28"). 1.5mm^2 (AWG16) max. One wire with ferrule, 0.8mm^2 (AWG18) maximum.

Tighten 0.5N•m (4.4in•lb)

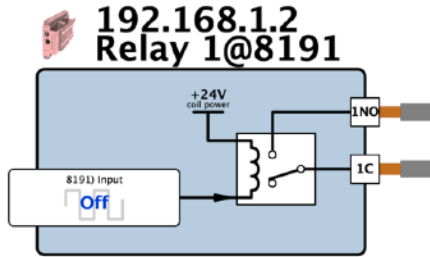Fast transient over-Voltage 1kV per EN 61000-4-4.

RL Dimensions and Terminal Map
See dw25x product manual for other dimensions and terminals.

35.4mm
(1.39")

24VDC Supply,
by other.
- +

Optional; connect this
terminal to DI8 to monitor
an external supply

24V
24V
**Two 24VDC coil
supply inputs**

**Two Form-A and two
Form-C relay outputs**

L1/L   L2/N

UL-type breaker or fast-
acting fuses, 5A max.,
typical, by other.

Load 1   Load 2   Load 3   Load 4

RL Function Blocks

• Using *drive.web savvy* software, instantiate function blocks. E.g. *I/O XRLY > Relay 1*.

• The function block *Input* parameter controls the relay output. The switch graphic closes when the input is On.

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Free online interactive training seminars take about one hour.

Specialized online and factory training sessions are also available.

To register email **training@driveweb.com** or call.