



# PLECS DEMO MODEL

## **Buck Converter with Digital Controls**

Last updated in PLECS 4.3.1

## www.plexim.com

- ► Request a PLECS trial license
- ► Check the PLECS documentation

### 1 Overview

This demonstration shows a buck converter with a digital controller implementation. The controller block uses a configurable subsystem that can be toggled between a continuous and discrete proportional integral derivative (PID) control scheme. By looking under the mask (**Ctrl+U**) of the PID Controller block, two further masked subsystems contain the S- and Z-domain controllers.

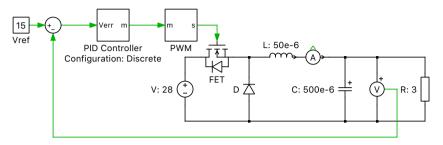


Figure 1: Buck converter with digital controls

www.plexim.com 1

#### **Revision History:**

PLECS 4.3.1 First release

#### **How to Contact Plexim:**

7	+41 44 533 51 00	Phone	•
	+41 44 533 51 01	Fax	
	Plexim GmbH	Mail	
	Technoparkstrasse 1		

Technoparkstras 8005 Zurich Switzerland

@ info@plexim.com Email http://www.plexim.com Web

#### PLECS Demo Model

#### © 2002–2023 by Plexim GmbH

The software PLECS described in this document is furnished under a license agreement. The software may be used or copied only under the terms of the license agreement. No part of this manual may be photocopied or reproduced in any form without prior written consent from Plexim GmbH.

PLECS is a registered trademark of Plexim GmbH. MATLAB, Simulink and Simulink Coder are registered trademarks of The MathWorks, Inc. Other product or brand names are trademarks or registered trademarks of their respective holders.