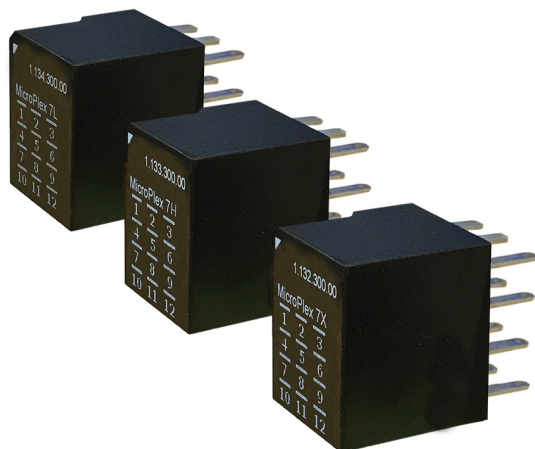


# MICROPLEX™ 7X, 7H, & 7L

9-30V DC • Micro 280 Form Factor



## Description

The MicroPlex™ is one of the smallest automotive grade CAN controllers on the market. The innovative module is well suited for a wide range of automotive applications. Users are able to easily configure and or program special features to customize the MicroPlex™ to better suit their needs.

## Features and Benefits

- 7 total configurable I/Os, 1 CAN interface, 1 Ignition input
- Standard functions and parameters can easily be modified with the MicroPlex™ Lab
- Complex applications can be implemented with C code
- Special programs/programming support are available upon request

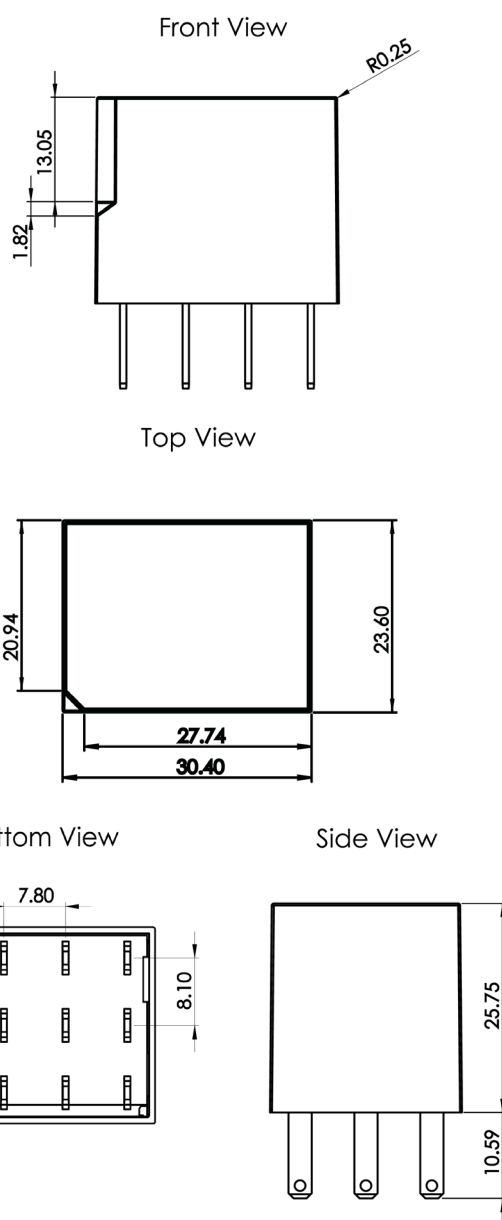
## Specifications

<b>Input Voltage Range:</b>	9V - 30V DC
<b>Power Consumption:</b>	Ignition ON: 6mA Ignition OFF: 0.14mA
<b>Operating Temp:</b>	-40° to +85° C
<b>IP Class:</b>	IP67 when used with standard Micro 280 Relay and Fuse Box Housing
<b>Housing:</b>	PA66 - GF33
<b>Footprint:</b>	Side by Side 2x Micro 280 Relay Form Factor
<b>Protection:</b>	Short Circuit, Battery Reverse Polarity, and Load Dump
<b>Clock Frequency:</b>	40 MHz
<b>Flash:</b>	4K
<b>EEPROM:</b>	2K
<b>Band Rate:</b>	User Configurable

PART NUMBER	DESCRIPTION
LFCRPLXKIT7X	MicroPlex Starter Kit 7X
LFCRPLXKIT7L	MicroPlex Starter Kit 7L
LFCRPLXKIT7H	MicroPlex Starter Kit 7H
LFCRPLX001	CAN Controller 7X
LFCRPLX002	CAN Controller 7H
LFCRPLX003	CAN Controller 7L

MICROPLEX	DESCRIPTION
7X	4 PWM capable High Side Driver Output 3 Analog or Digital inputs which can be configured as a frequency counter, a switch to ground detector with pull up resistor, or a 0-20mA input
7H	7 PWM capable High Side Driver Outputs Outputs 1-6 PWM Speed up to 2kHz Output 7 up to 200Hz using software controlled PWM
7L	7 PWM capable Low Side Driver Outputs Outputs 1-6 PWM Speed up to 2kHz Output 7 up to 200Hz using software controlled PWM

## Dimensions in millimeters



## Web Resources

Download 2D print, 3D model and more at:  
[littelfuse.com/Microplex](http://littelfuse.com/Microplex)

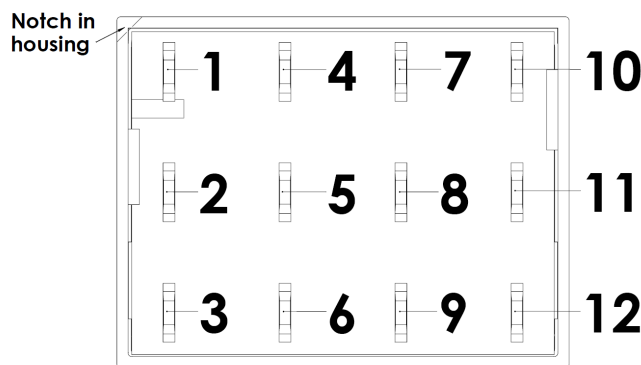
# MICROPLEX™ 7X, 7H, & 7L

## Input/Output Features

PIN NUMBER	MICROPLEX 7X		
	DESCRIPTION	INPUT	RATINGS
2	Voltage input 0 to 12.1V Voltage input 0 to 32V	Input resistance Input resistance	80 kΩ 54.7 kΩ
	Frequency Counter Input	Input resistance Input frequency	112 kΩ <2.2kHz @ 3% >2.2kHz to 10kHz @ 10% >7 V <3 V
	Digital Input Positive	Input resistance Turn-on threshold Turn-off threshold	80 kΩ >8 V <4 V
	0-20mA input	Input resistance Resolution Accuracy	500Ω 12 bit ± 1 % full scale
7	Voltage input 0 to 12.1V Voltage input 0 to 32V	Input resistance Input resistance	80 kΩ 54.7 kΩ
	Digital Input Positive	Input resistance Turn-on threshold Turn-off threshold	80 kΩ >8 V <4 V
	Switch to GND Digital Input	Pull-up resistance Resolution Accuracy	1 kΩ 12 bit ± 1 % full scale
8	Voltage input 0 to 12.1V Voltage input 0 to 32V	Input resistance Input resistance	80 kΩ 54.7 kΩ
	Digital Input Positive	Input resistance Turn-on threshold Turn-off threshold	80 kΩ >8 V <4 V
	0-20mA input	Input resistance Resolution Accuracy	500Ω 12 bit ± 1 % full scale
9, 10, 11, 12	Voltage input 0 to 11.4 V	Resolution Accuracy Input resistance	12 bit ± 1 % full scale 66 kΩ
	Digital/PWM High Side Driver Output	Switching voltage Switching current Output Frequency	9-30 V DC 0.02 - 2.5 A Up to 200 Hz

PIN NUMBER	MICROPLEX 7H	
	OUTPUT	RATINGS
2, 7, 8	Switching voltage Switching current	9-30V DC Up to 1A each output
	Short circuit protected against GND and VB Fault diagnostic possible via current sense	
9, 10, 11, 12	Switching voltage Switching current	9-30V DC Up to 2.5A each output
	Short circuit protected against GND and VB Fault diagnostic possible via current sense	

PIN NUMBER	MICROPLEX 7L	
	OUTPUT	RATINGS
2, 7, 8, 9, 10, 11, 12	Sinking current	Up to 0.5A each output
	Short circuit protected against GND and VB Fault diagnostic for over current and over temperature.	



\*Viewed from Bottom

PIN NUMBER	MICROPLEX		
	7X	7H	7L
1	GND	GND	GND
2	Analog or Digital Input 1 (or Frequency Counter Input, or 0-20mA Input)	PWM High Side Driver Output 6	Low Side Driver Output 6
3	BATT	BATT	BATT
4	CAN L -	CAN L -	CAN L -
5	CAN H +	CAN H +	CAN H +
6	IGN	IGN	IGN
7	Analog or Digital Input 3 (or Switch-to-GND Input)	High Side Driver Output 7	Low Side Driver Output 7
8	Analog or Digital Input 2 (or 0-20mA input)	High Side Driver Output 5	Low Side Driver Output 5
9	High Side Driver Output 4 (or Analog Input)	High Side Driver Output 4	Low Side Driver Output 4
10	High Side Driver Output 3 (or Analog Input)	High Side Driver Output 3	Low Side Driver Output 3
11	High Side Driver Output 2 (or Analog Input)	High Side Driver Output 2	Low Side Driver Output 2
12	High Side Driver Output 1 (or Analog Input)	High Side Driver Output 1	Low Side Driver Output 1



Visit [Littelfuse.com](http://Littelfuse.com) for the most up-to-date product information. Littelfuse reserves the right to make product changes, without notice. Material in this document is as accurate as known at the time of publication.