



PoOptoIn

User's manual

v1.0



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Contents

- 1 Introduction..... 4
- 2 Features..... 4
- 3 Connectors and pinout..... 4
- 4 Usage examples..... 6
- 5 Technical specifications..... 6
- 6 Grant of license 8
 - 6.1.1 Access 8
 - 6.1.2 Usage 8
 - 6.1.3 Copyright 8
 - 6.1.4 Liability 8
 - 6.1.5 Fitness for purpose..... 8
 - 6.1.6 Mission Critical applications..... 8
 - 6.1.7 Errors 8
 - 6.1.8 Support..... 8
 - 6.1.9 Upgrades 8
 - 6.1.10 Trademarks..... 8

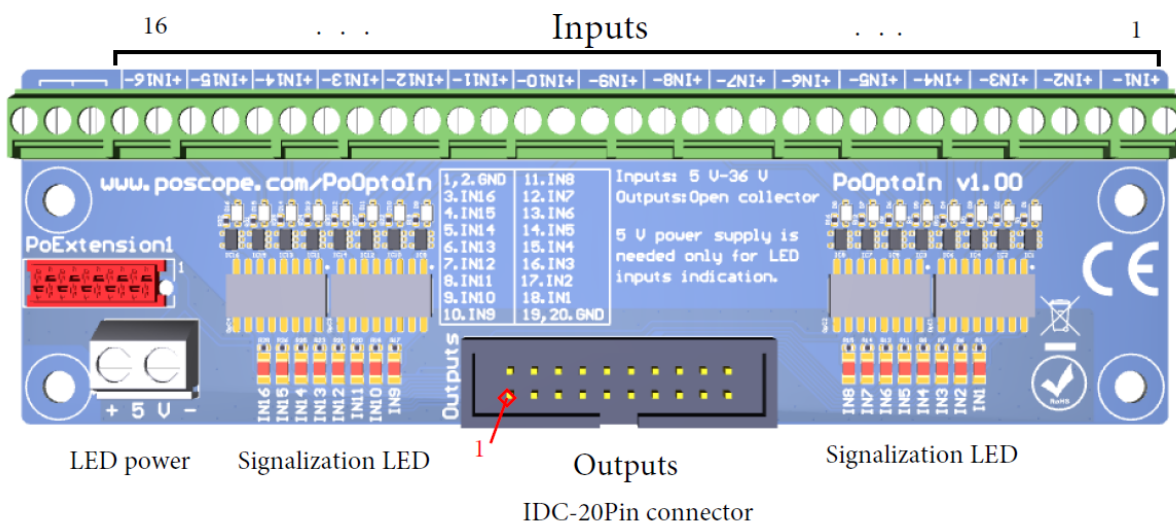
1 Introduction

PoOptoIn is 16-channels industrial digital optical isolator. Thanks to constant current LED driver circuit on input, isolator accepts input voltages from 5 to 24 volts. Digital outputs are open-collector type. Each digital input logic level is signaled with status LED if external 5V is applied to power connector. External 5V voltage is not a condition for PoOptoIn operation! With 20-pin IDC output connector is suitable for use with PoKeys57CNC board or any other microcontroller board.

2 Features

- 16-optical isolated digital outputs
- Recommended input voltages from 5 V to 24 V (Max. 36 V)
- Simple connection to PoKeys57CNC Reference/Limit switch input connector
- Screw terminals on inputs

3 Connectors and pinout



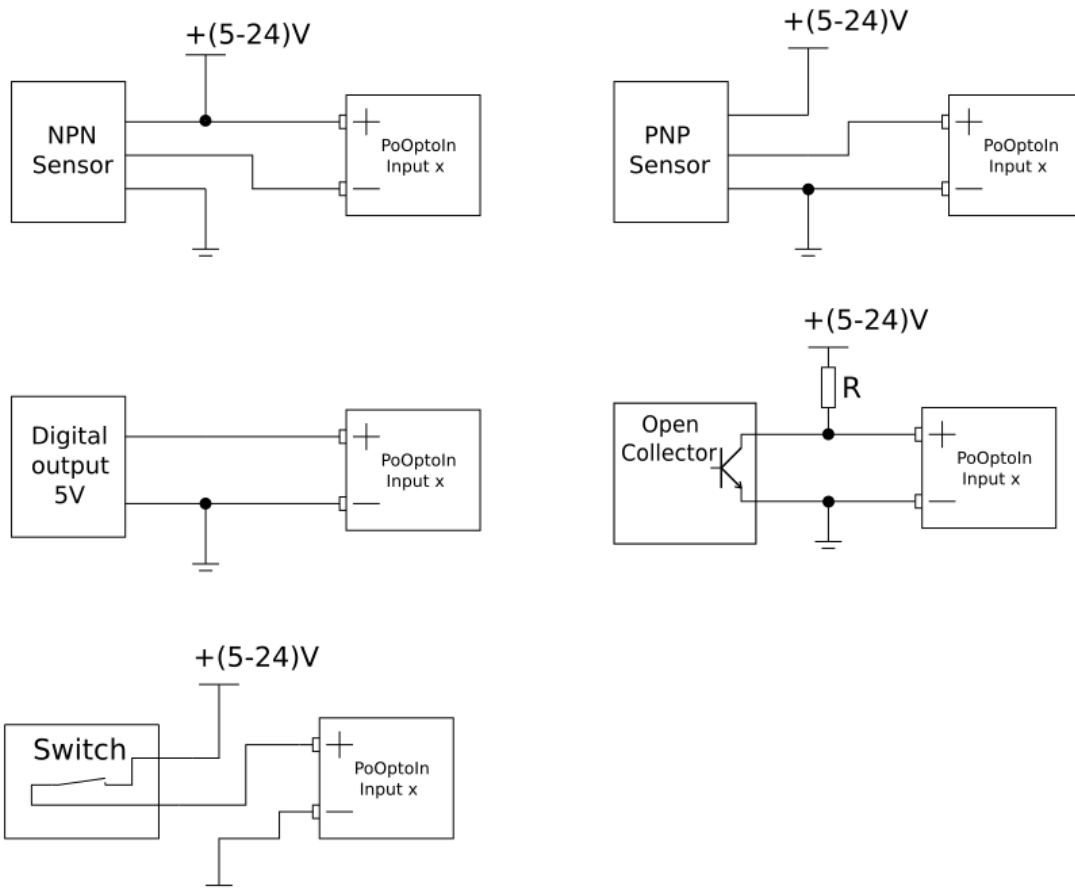
PoOptoIN	PoKeys57CNC function
1	Ax1 home
2	Ax1 limit -
3	Ax2 home
4	Ax2 limit -
5	Ax3 home
6	Ax3 limit -
7	Ax4 home
8	Ax4 limit -
9	Ax5 home
10	Ax5 limit -
11	Ax6 home
12	Ax6 limit -
13	Ax7 home
14	Ax7 limit -
15	Ax8 home
16	Ax8 limit -

Figure 1: PoOptoIN input mapping when using it with PoKeys57CNC for limit switches

4 Usage examples

Each PoOptoIn input contains a serial diode for protection against incorrect wiring. Keep in mind that outputs are open collector. Output logical levels are inverted!

Input voltage level depends on sensor device specification (switch) and should not be supplied from the isolated side!



Connection to: NPN or PNP sensor type; standard 5V digital output, open collector output; ordinary switch

5 Technical specifications

- Recommended input voltage 5-24 V_{DC} (36 V; short time < 1s)
- Isolation voltage 3000 V_{RMS}
- Open collector I_{Cmax} 30 mA
- Switching frequency max 100 kHz
- Working temperature -20 °C ÷ +80 °C
- Weight 40g
- Mechanical dimensions [mm]

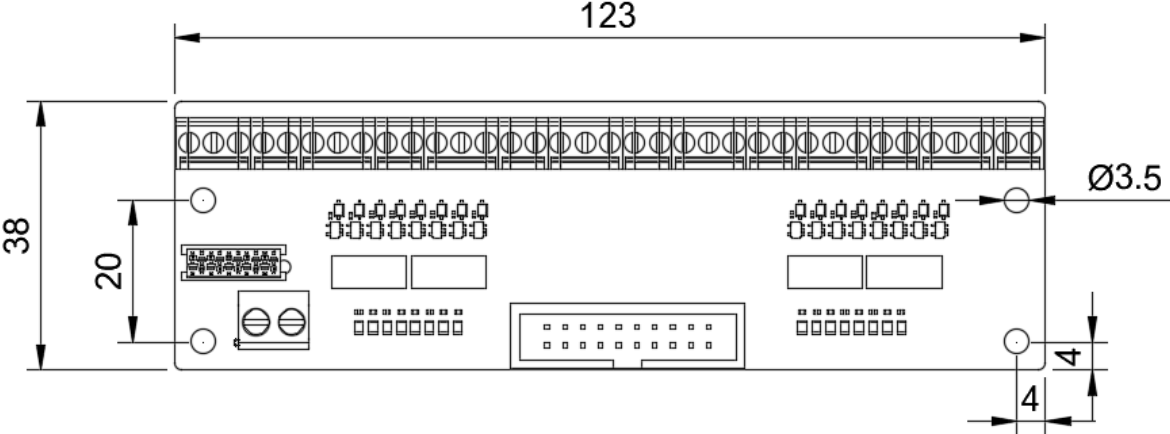


Figure 2: Drawing with dimensions

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