

EFCO Technology

Application Note

Document Name	AN7_SmartSL Plus_Isolated DIO
Applicable Products	U7-200 series
Application Note Subject	Isolated DIO
Usage Designation	<input type="checkbox"/> Internal <input checked="" type="checkbox"/> External

Preface

Revision History

Revision	Date	Author	Description
1.0	2020/06/08	J Yen	Preliminary release

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Warnings, Cautions and Notes

Warning! Warnings indicate conditions, which if not observed, can cause personal injury!



Caution! Cautions are included to help you avoid damaging hardware or losing data.



Note! Notes provide optional additional information.



Title

How to use U7-200 product isolated DIO function?

Answer

1. Function Description

DI support PNP(Source) mode and DO support NPN(Sink) mode, 18-pin plug-pluggable terminal block socket.

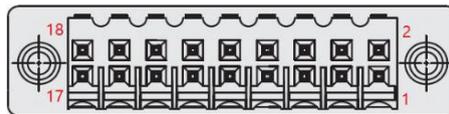


9*2 PIN, 2.54mm (DI: 8bit, DO: 8bit, DI COM, VCC and GND pins).

DI/DO Operation Characteristics:

Parameter	DI	DO
Operation Voltage	5 ~ 36V DC	5 ~ 36V DC, (need add 500Ω up resistance for every ports)
Input/Output Current Limit	100mA	100mA
Turn On Delay Time (Max.)	60 uS	60uS
Turn Off Delay Time (Max.)	60 uS	60uS

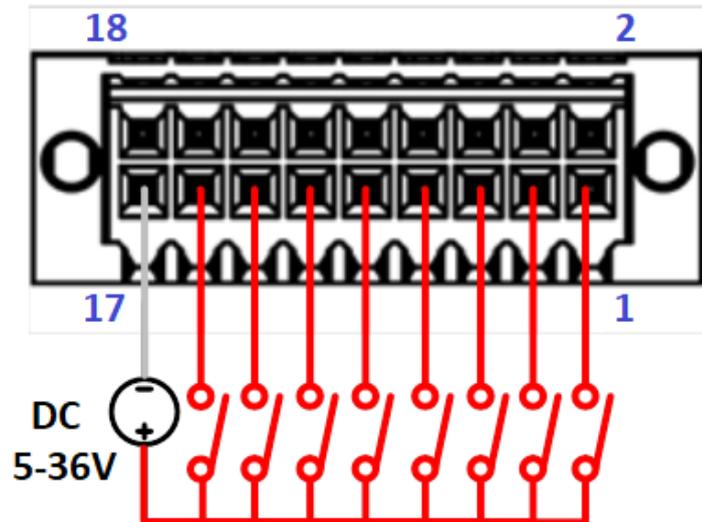
2. Pin Define



Pin No	Description	Pin No.	Description
1	Digital Input bit 7	2	Digital Output bit 7
3	Digital Input bit 6	4	Digital Output bit 6
5	Digital Input bit 5	6	Digital Output bit 5
7	Digital Input bit 4	8	Digital Output bit 4
9	Digital Input bit 3	10	Digital Output bit 3
11	Digital Input bit 2	12	Digital Output bit 2
13	Digital Input bit 1	14	Digital Output bit 1
15	Digital Input bit 0	16	Digital Output bit 0
17	Digital Input COM	18	Digital Output COM

3. Isolation Digital Input Connection Method

Digital Input support **Source Mode**. Pin 17 is Digital Input COM pin connection to V-, Input pin (Pin No 1,3,5,7,9,11,13,15) Control by V+.



4. Isolation Digital Output Connection Method

Digital Output support **Sink Mode**. Each port needs to add an over 500-ohm resistor.

