



I-87041W-G

32-channel Sink-type Open
Collector Isolated Digital
Output Module

I-87041PW-G

32-channel Sink-type Open
Collector Isolated Self Protected
Digital Output Module

Introduction

The I-87041W/I-87041PW module offers 32 Digital Output channels, each of which features Photocouple isolation and supports sink-type output using an open collector. The I-87041W/I-87041PW includes 32 LED indicators that can be used to monitor the status of the Digital Output channels, and options are available for configuring both power-on and safe values. 4 kV ESD protection and 3750 V_{rms} intra-module isolation is provided as standard. The I-87041W/I-87041PW can be paired with a daughterboard, such as the DN-37-381-A for easy wiring, or the DN-8K32R for relay output. The I-87041PW integrates over-current, over-voltage and short-circuit functionality. ICP DAS recommends selecting either the "PW" version of the digital output module for industrial use.

System Specifications

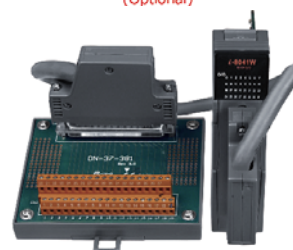
Model	I-87041W	I-87041PW
Communication		
Interface	RS-485	
Format	N, 8, 1	
Baud Rate	1200 to 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
LED Indicators/Display		
System LED Indictors	Yes, 1 as Power/Communication Indicator	
I/O LED Indicators	32 as Digital Output Indicators	
Isolation		
Intra-module Isolation, Field-to-Logic	3750 Vrms	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal	± 8 kV Contact for each Terminal
	±8 kV Air for Random Point	±16 kV Air for Random Point
Power		
Power Consumption	1.7 W Max.	
Mechanical		
Dimensions (W × L × H)	30 mm × 114 mm × 85 mm	
Environment		
Operating Temperature	-25 to +75°C	
Storage Temperature	-40 to +85°C	
Humidity	10 to 95% RH, Non-condensing	

Features

- 32-channel Open Collector Output
- Sink-type Digital Output
- Short circuit protection, Overvoltage Protection and Overload Protection for I-87041PW
- Optional Daughterboards
- 4 kV ESD Protection
- 3750 V_{rms} Intra-module Isolation
- Configurable Power-on Value
- Configurable Safe Value



I-8041W, I-8041AW, I-8041PW, I-87041W and I-87041PW
with DN-8K32R & DB37 Male to Female Cable
(Optional)



I-8017DW, I-8040W, I-8040PW,
I-8041W, I-8041AW, I-8041PW, I-8042W,
I-87017DW, I-87024DW, I-87028CDW,
I-87040W, I-87040PW, I-87041W, I-87041PW and I-87042W
with DN-37-381-A & DB37 Male to Female Cable
(Optional)

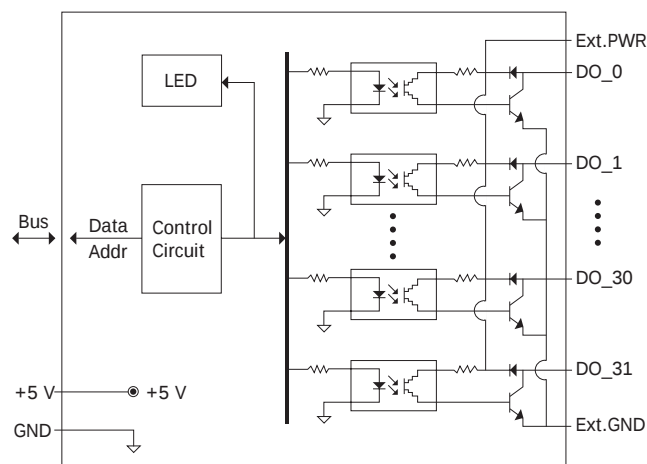
Applications

- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

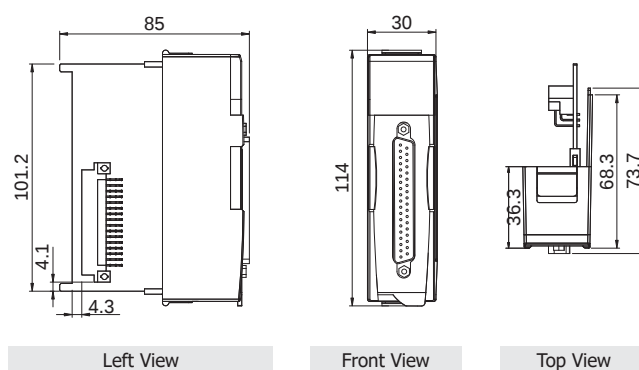
I/O Specifications

Model	I-87041W	I-87041PW
Digital Output		
Channels	32	
Type	Open Collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+5 VDC ~ +30 VDC	+5 VDC ~ +50 VDC
Max. Load Current	100 mA/Channel	200 mA/Channel
Output Type	Open Collector	
Overvoltage Protection	-	60 VDC
Overload Protection	-	1.1 A
Short-circuit Protection	-	Yes
Power-on Value	Yes	
Safe Value	Yes	

Internal I/O Structure



Dimensions (Units: mm)



Wire Connections

Output Type	ON State Readback as 1	OFF State Readback as 0
Digital Output (Resistance Load)		
Digital Output (Inductive Load)		

Pin Assignments

Pin Assignment	Terminal	No.	Pin Assignment
Ext.PWR	19	37	Ext.PWR
Ext.GND	18	36	Ext.GND
Ext.GND	17	35	DO_31
DO_15	16	34	DO_30
DO_14	15	33	DO_29
DO_13	14	32	DO_28
DO_12	13	31	DO_27
DO_11	12	30	DO_26
DO_10	11	29	DO_25
DO_9	10	28	DO_24
DO_8	09	27	DO_23
DO_7	08	26	DO_22
DO_6	07	25	DO_21
DO_5	06	24	DO_20
DO_4	05	23	DO_19
DO_3	04	22	DO_18
DO_2	03	21	DO_17
DO_1	02	20	DO_16
DO_0	01		

37-pin Male D-sub Connector

Ordering Information

I-87041W-G CR	32-ch Isolated DO (Sink, NPN, 5 ~ 30 VDC) Module (Gray Cover) (RoHS)
I-87041PW-G CR	32-ch Isolated DO (Sink, NPN, 5 ~ 50 VDC) Module with Self Protection (Gray Cover) (RoHS)

Accessories

	DN-8K32R CR	32-channel Relay Output Board (RoHS) Include: CA-3705A (DB37 Male to Female Cable, 90°, 0.5 M)
	DN-37-A CR	Female DB37 to Screw Terminal Board (Pitch= 5.08 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male to Female Cable, 90°, 1 M)
	DN-37-381-A CR	Female DB37 to Screw Terminal Board (Pitch=3.81 mm) with DIN-rail Mounting (RoHS) Include: CA-3710A (DB37 Male to Female Cable, 90°, 1 M)
	CA-3705A CR CA-3710A CR CA-3715A CR	DB37 Male to Female Cable, 90°, 0.5 M/1 M/1.5 M (RoHS)
	CA-3710AM CR CA-3720AM CR CA-3730AM CR CA-3750AM CR CA-37100AM CR	DB37 Male to Female, with Molded Cable, 45°, 1 M/2 M/3 M/5 M/10 M (RoHS)