

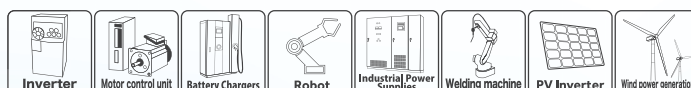
It is an optimum gate driver for 3-Level circuit IGBT (4in1).
We prepared two models for T-TYPE and I-TYPE
with a low profile of almost the same height as the T-Prime terminals.



Features

1. High insulation voltage (AC5kV)
2. Low profile (16mmMax, From the board mounting position)
3. Low stray capacity (12pF TYP)
4. Wide input voltage range (DC13V~28V)

Applications



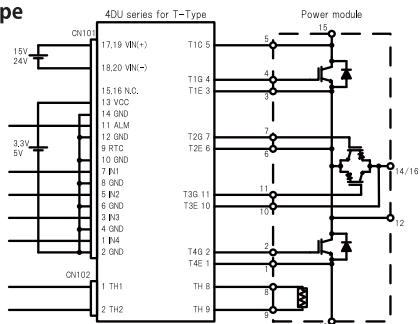
General characteristics (Ta=25°C)

Item		Model	
		4DU151016PIF1 (TBD)	4DU151016PTF1 (TBD)
Application		4MBI600VC-120-50 (Fuji)	4MBI900VB-120R1-50 (Fuji)
Input	Input Voltage Range	DC13V~28V	
	Logic Input Voltage	DC3.3V~5V	
Output	Number of Output	4	
	Gate Voltage (ON)	+14V~+16V	
	Gate Voltage (OFF)	-9V~-11V	
	Maximum Switching Frequency	10kHz(T.B.D)	
	Maximum Peak Current	T.B.D	
Insulation	Withstand Voltage	Primary to secondary : AC5000V Secondary to secondary : AC4000V	
	Delay Time	150ns(T.B.D)	
	Minimum Clearance Distance	Primary to secondary : 14mm Secondary to secondary : T.B.D	
	Minimum Creepage Distance	Primary to secondary : 14mm Secondary to secondary : T.B.D	
Function	Desaturation Protection	T1,T4 : Yes, T2,T3 : None	
	Soft Turn Off	T1,T4 : Yes, T2,T3 : None	
	Miller Clamp	Yes	
	Protection Release Condition	Auto recovery	
Environment	Ambient Temperature (Operating)	-40~+85°C (Input Voltage : DC13V~18V) -40~+75°C (Input Voltage : DC13V~28V)	
	Ambient Humidity (Operating)	20~95%RH (Nil condensation)	
	Ambient Temperature (Storage)	-40~+90°C	
	Ambient Humidity (Storage)	5~95%RH (Nil condensation)	

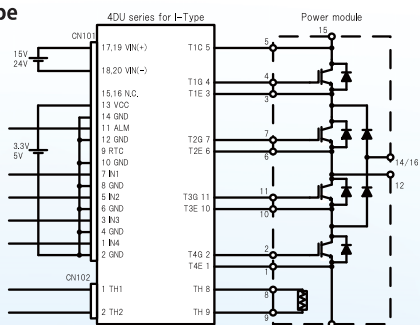
4DU Series

Under Development

Application Image

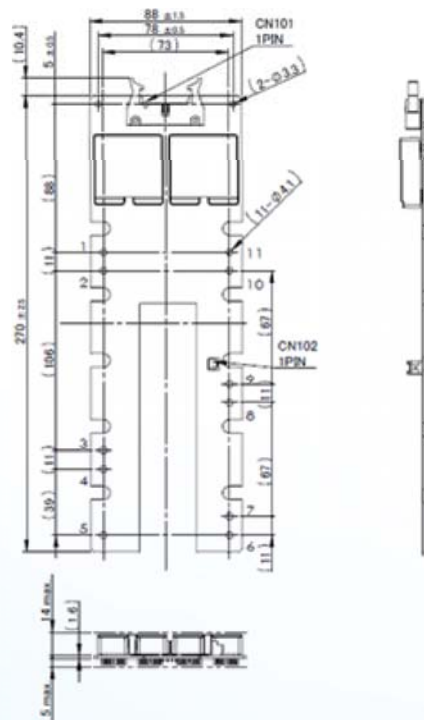


I-Type



Outline Dimensional Drawing

[CN101]		[Power Module]	
No.	Name	No.	Name
1	IN4	1	T4E
2	GND	2	T4G
3	IN3	3	T1E
4	GND	4	T1G
5	IN2	5	T1C
6	GND	6	T2E
7	IN1	7	T2G
8	GND	8	TH
9	RTC	9	TH
10	GND	10	T3E
11	ALM	11	T3G
12	GND		
13	VCC		
14	GND		
15	N.C.		
16	N.C.		
17	VIN(+)	[CN102]	
18	VIN(-)	No.	Name
19	VIN(+)	1	TH1
20	VIN(-)	2	TH2



Unit:mm

Note :1.The dimensional tolerance without directions is $\pm 0.5\text{mm}$.

Pin assignment

CN101 : RA-H201SD-1190/JST For Power supply and signal

Pin No.	Name	Explanation of terminal
1	IN4	Control input terminal (T4)
2	GND	Ground pin for drive circuit
3	IN3	Control input terminal (T3)
4	GND	Ground pin for drive circuit
5	IN2	Control input terminal (T2)
6	GND	Ground pin for drive circuit
7	IN1	Control input terminal (T1)
8	GND	Ground pin for drive circuit
9	RTC	Pin for adjusting the recovery time of the protection circuit
10	GND	Ground pin for drive circuit
11	ALM	Fault signal output pin
12	GND	Ground pin for drive circuit
13	VCC	Power supply input pin of driver circuit
14	GND	Ground pin for drive circuit
15	N.C.	Unused pin
16	N.C.	Unused pin
17	Vin(+)	Power supply terminal for DC/DC converter(+)
18	Vin(-)	Power supply terminal for DC/DC converter(-)
19	Vin(+)	Power supply terminal for DC/DC converter(+)
20	Vin(-)	Power supply terminal for DC/DC converter(-)

Power module side

Pin No.	Name	Explanation of terminal
1	T4E	T4 Emitter connection
2	T4G	T4 Gate connection
3	T1E	T1 Emitter connection
4	T1G	T1 Gate connection
5	T1C	T1 Collector connection
6	T2E	T2 Emitter connection
7	T2G	T2 Gate connection
8	TH	Pin for thermistor
9	TH	Pin for thermistor
10	T3E	T3 Emitter connection
11	T3G	T3 Gate connection

CN102 : B02B-XASK-1(LF)(SN)/JST For Thermistor

Pin No.	Name	Explanation of terminal
1	TH1	Pin for thermistor
2	TH2	Pin for thermistor

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