Digital Servo Axis Terminal Board - IC693ACC335

Description

The IC693ACC335 Digital Servo Axis Terminal Board is used to connect the DSM314 to GE Fanuc Digital Servo Amplifiers. The board contains two 36-pin connectors, labeled **DSM** and **SERVO**. A cable IC693CBL324 (1 meter) or IC693CBL325 (3 meters) connects from **DSM** connector (PL2) to the DSM314 faceplate connector A or B. A Servo Command Cable IC800CBL001 (1 meter) or IC800CBL002 (3 meters) connects from the **SERVO** connector (PL3) to the JS1B connector on a GE Fanuc α Series or β Series Digital Servo Amplifier.

Eighteen screw terminals are provided on the Digital Servo Axis Terminal Board for connections to user devices. These terminals have the following assignments:

Table 3-5. IC693ACC335 Digital Axis Terminal Board Pin Assignments

Axis Terminal Board I/O Screw Terminal	*DSM314 Faceplate Pin*	*Circuit Identifier*	*Circuit Type*	*Servo Axis 1, 2 Circuit Function*	*Signal Name (Axis 1 listed)**	*Maximum Voltage*
1 9	1 19	IN1	Single ended /differential 5v inputs	Strobe Input 1 (+) Strobe Input 1 (-)	IN1P_A IN1M_A	5 VDC
2 10	2 20	IN2		Strobe Input 2 (+) Strobe Input 2 (-)	IN2P_A IN2M_A	5 VDC
3	4	P5V	5v Power	5v Power	P5V_A	5 VDC
11	22	0V	0v	0v	0V_A	5 VDC
6	16	IN9	24v optically isolated inputs	Overtravel (+)	IN9_A	30 VDC
14	34	IN10		Overtravel (-)	IN10_A	30 VDC
7	17	IN11		Home Switch	IN11_A	30 VDC
15	35	INCOM	24v Input Common	24v Input Common	INCOM_A	30 VDC
8 16	18 36	OUT1	24 v, 125 mA DC SSR output	Host controller 24v Output (+) Host controller 24v Output (-)	OUT1P_A OUT1M_A	30 VDC
5 13	14 32	OUT3	Differential 5v output	Host controller 5v Output (+) Host controller 5v Output (-)	OUT3P_A OUT3M_A	5 VDC
4	6	AOUT	+/- 10v Analog Out	Host controller Analog Out	AOUT_A	5 VDC
12	24	ACOM	Analog Out Com	Analog Out Com	ACOM_A	5 VDC
S (2 pins)		SHIELD	Cable Shield	Cable Shield	SHIELD_A	5 VDC

*For signal names pertaining to servo axis 2, change all "_A" to "_B".

Six 130V MOVs are installed between selected I/O points and the shield (frame ground) for noise suppression. The I/O terminal points so connected are 6, 7, 8, 14, 15, and 16. The I/O terminals support a wire gauge of 14-28 AWG. Maximum screw torque that may be applied is 5 inch-pounds.

Note: Two of the screw terminals are labeled S for Shield. A short earth ground wire should be connected from one of the S terminals directly to a panel earth ground. The cable shields for any shielded cables from user devices should connect to either of the **S** terminals.

Mounting Dimensions

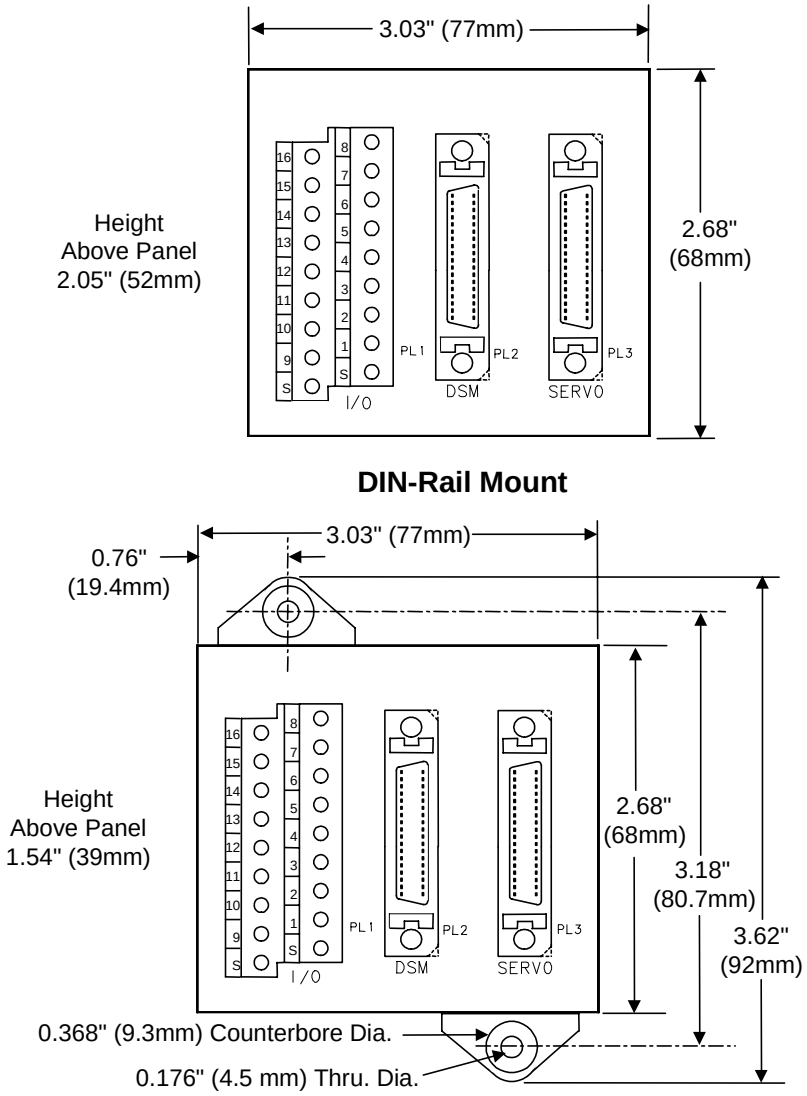

Figure 3-4. IC693ACC335 Digital Axis Terminal Board Mounting Dimensions

Converting From DIN-Rail Mounting to Panel Mounting

The following parts are used in either the DIN-rail or Panel mount assembly options. The axis terminal board is shipped configured for DIN-rail mounting. The instructions in this section guide you in converting the board to its panel mounting optional configuration.

The following table and drawings describe the various plastic parts that make up the axis terminal board assembly and shows a side view of the board configured for DIN-rail mounting

Table 3-6. Axis Terminal Board Assembly Components

Plastic Component Part Number	*Description*	*Quantity*	*Mounting Styles Used With*
UMK-BE 45	Base Element	1	DIN, Panel
UMK-SE 11.25-1	Side Element	2	DIN, Panel
UMK-FE	Foot Element	2	DIN
UMK-BF*	Mounting Ear	2	Panel

* Parts shipped with axis terminal board for optional panel mounting. .

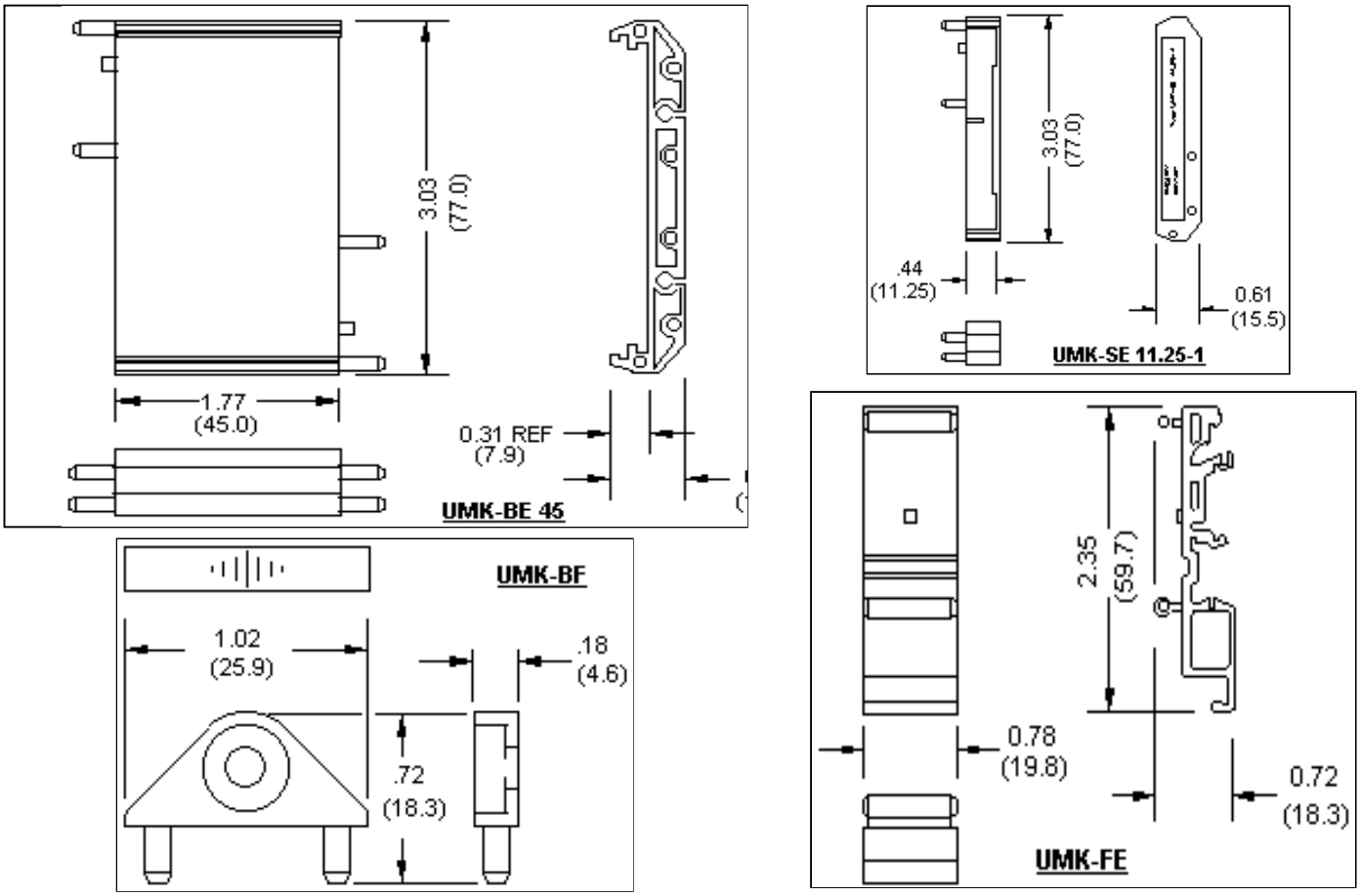

Figure 3-5. Digital Servo Axis Terminal Board Assembly Drawings

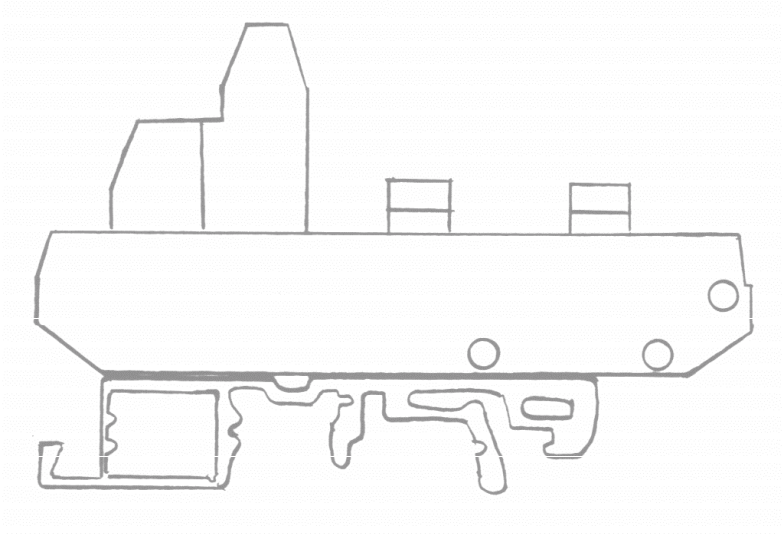

Figure 3-6. Digital Servo Axis Terminal Board Assembly Side View

The following procedure should be used to convert the Digital Servo axis terminal board to its panel mounting form. Remember to save all removed parts for possible later conversion back to DIN-rail mounting.

1. Carefully remove one UMK-SE 11.25-1 side element from the UMK-BE 45 base element. If a screwdriver or other device is used, exercise extreme caution to avoid damaging either the plastic parts or the circuit board.
2. Slide the UMK-FE foot element off the base element. Save this part for possible future use in converting the terminal board back to its DIN-rail mounting configuration.
3. Snap the side element, removed in step 1 above, back into the base element.
4. Insert one UMK-BF mounting ear into the appropriate two holes in the side element. Note that the mounting ear has a recessed hole for later inserting a (user supplied) mounting screw. The recessed hole should face upwards to accommodate the mounting screw.
5. Repeat steps 1-4 above for the other side of the terminal board.