

Table 7-3. Series 90-30 Discrete I/O Modules

Catalog Number	Points	Description
Discrete Modules - Input		
IC693MDL230	8	120 VAC Isolated
IC693MDL231	8	240 VAC Isolated
IC693MDL240	16	120 VAC
IC693MDL241	16	24 VAC
IC693MDL630	8	24 VDC Positive Logic
IC693MDL632	8	125 VDC Positive / Negative Logic
IC693MDL633	8	24 VDC Negative Logic
IC693MDL634	8	24 VDC Positive / Negative
IC693MDL640	16	24 VDC Positive Logic
IC693MDL641	16	24 VDC Negative Logic
IC693MDL643	16	24 VDC Positive Logic, FAST
IC693MDL644	16	24 VDC Negative Logic, FAST
IC693MDL645	16	24 VDC Positive / Negative Logic
IC693MDL646	16	24 VDC Positive / Negative Logic FAST
IC693MDL652	32	24 VDC Positive / Negative Logic
IC693MDL653	32	24 VDC Positive / Negative Logic, FAST
IC693MDL654	32	5 / 12 VDC (TTL) Positive / Negative Logic
IC693MDL655	32	24 VDC Positive / Negative Logic
IC693ACC300	16	Input Simulator
Discrete Modules - Output		
IC693MDL310	12	120 VAC, 0.5A
IC693MDL330	8	120 / 240 VAC, 2A
IC693MDL340	16	120 VAC, 0.5A
IC693MDL390	5	120 / 240 VAC Isolated, 2A
IC693MDL730	8	12 / 24 VDC Positive Logic, 2A
IC693MDL731	8	12 / 24 VDC Negative Logic, 2A
IC693MDL732	8	12 / 24 VDC Positive Logic, 0.5A
IC693MDL733	8	12 / 24 VDC Negative Logic
IC693MDL734	6	125 VDC Positive / Negative Logic, 1A
IC693MDL740	16	12 / 24 VDC Positive Logic, 0.5A
IC693MDL741	16	12 / 24 VDC Negative Logic, 0.5A
IC693MDL742	16	12 / 24 VDC Pos. Logic, Electronic Short Circuit Protect
IC693MDL750	32	12 / 24 VDC Negative Logic
IC693MDL751	32	12 / 24 VDC Positive Logic
IC693MDL752	32	5 / 24 VDC (TTL) Negative Logic
IC693MDL753	32	12 / 24 VDC Positive / Negative Logic, 0.5A
IC693MDL930	8	Relay, 4A Isolated
IC693MDL940	16	Relay, 2A
IC693MDL931	8	Relay, Isolated, N.C. and Form C, 8A
IC693DVM300	4	Digital Valve Driver module, 1.6A, 24 VDC
Discrete Modules - Combination Input/Output		
IC693MAR590	8 / 8	120 VAC Input, Relay Output
IC693MDR390	8 / 8	24 VDC Input, Relay Output

Table 7-4. Series 90-30 Analog I/O Modules

Catalog Number	Channels	Description
Analog Modules		
IC693ALG220	4	Analog Input, Voltage
IC693ALG221	4	Analog Input, Current
IC693ALG222	16	Analog Input, Voltage, High Density
IC693ALG223	16	Analog Input, Current, High Density
IC693ALG390	2	Analog Output, Voltage
IC693ALG391	2	Analog Output, Current
IC693ALG392	8	Analog Output, Current / Voltage, High Density
IC693ALG442	4In / 2Out	Analog Current / Voltage Combination Input / Output

IC693CBL303	Programmer serial cable to connect Hand-Held Programmer (HHP) to serial connector on PLC Power Supply.	For Hand-Held Programmer: IC693PRG300
IC693CBL304	Wye cable for splitting out two serial port connections from one module connector.	For use with: IC693PCM300 module
IC693CBL305	Wye cable for splitting out two serial port connections from one module connector. (Use cable IC693CBL304 with the IC693PCM300 module.)	For use with the following modules: IC693PCM301 IC693PCM311 IC693CMM311 IC693ADC311 AD693CMM301 IC693SLP300
IC693CBL306	3' (1 meter) extension cable connects between the 50-pin connector on the module faceplate and the connector on the terminal block.	For High Density (32-point) I/O modules having a single 50-pin connector: IC693MDL652 IC693MDL653 IC693MDL750 IC693MDL751
IC693CBL307	6' (2 meter) extension cable connects between the 50-pin connector on the module faceplate and the connector on the terminal block.	For High Density (32-point) I/O modules having a single 50-pin connector: IC693MDL652 IC693MDL653 IC693MDL750 IC693MDL751
IC693CBL308	3' (1 meter) I/O cable connects to the 50-pin connector on the module faceplate. The other end has stripped, tinned, and labeled leads.	For High Density (32-point) I/O modules having a single 50-pin connector: IC693MDL652 IC693MDL653 IC693MDL750 IC693MDL751
IC693CBL309	6' (2 meter) I/O cable connects to the 50-pin connector on the module faceplate. The other end has stripped, tinned, and labeled leads.	For High Density (32-point) I/O modules having a single 50-pin connector: IC693MDL652 IC693MDL653 IC693MDL750 IC693MDL751
IC693CBL310 (Obsolete. Use IC693CBL327 and IC693CBL328)	10' (3 meter) I/O cable connects to one of the 24-pin connectors on the module. The other end has stripped, tinned, and labeled leads. This cable was obsoleted and replaced by IC693CBL315, until that cable also was obsoleted. Two cables are required per module.	For High Density (32-point) I/O modules having dual 24-pin connectors: IC693MDL654 IC693MDL655 IC693MDL752 IC693MDL753

IC693CBL327/328

I/O Interface Cables with Right Angle 24-Pin Connector

Note: These cables replace obsolete I/O Interface cable IC693CBL315. These replacement cables have right-angle connectors to reduce the clearance space required in front of the PLC. These replacement cables use the same pin-outs as the obsolete cables.

Description

These cables each have a right-angle 24-pin connector on one end and a set of stripped wire ends on the other. These two cables are identical except for their opposite connector orientations. This difference in the cables' connector orientations is for the purpose of matching the opposing connector orientations on the dual-connector type of 32-point I/O modules.

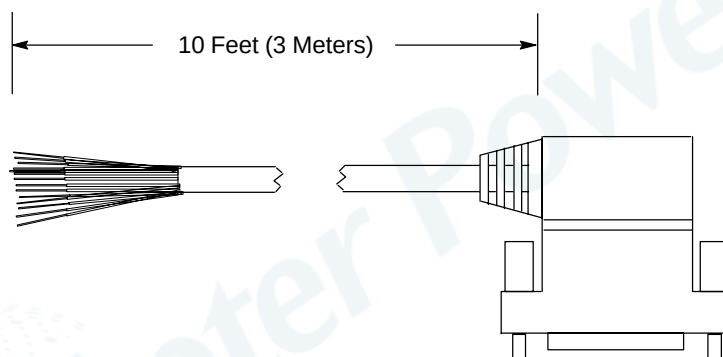


Figure 10-37. IC693CBL327/328 Cables

Note

Each conductor in these 24-conductor cables has a current rating of 1.2 Amps. If using these cables with a 16-point Output module with a higher output current rating, you must use the lower value of 1.2 for the maximum load current rating. If you have field devices that require more than 1.2 Amps, do not use a TBQC assembly. Use the standard Terminal Board instead.

Applications

These cables are for use with Series 90-30 I/O modules that have the Fujitsu 24-pin user I/O connector. There are two categories of these modules:

- **32 point modules** with two 24-pin connectors (IC693MDL654, IC693MDL655, IC693MDL752, and IC693MDL753). The IC693CBL327 cable is for the modules' left side connector (front view), and the IC693CBL328 cable is for the modules' right side connector. The modules' right side connector interfaces with I/O circuit groups A and B; the modules' left side connector interfaces with groups C and D. See Chapter 7, "Input and Output Modules" for a drawing of these modules. See GFK-0898, the *Series 90-30 PLC I/O Module Specifications Manual*, for details about these modules.

Catalog Number	Description	+5 VDC	+24 VDC Relay Power	+24 VDC Isolated
IC693CSE340	State Logic CPU Module	490	-	-
IC693DSM302/314*	Motion Mate DSM302 or DSM314 Module	1.3A	-	-
IC693MAR590	120 VAC Input, relay Output, 8 In / 8 Out	80	70	-
IC693MDL230	120 VAC Isolated, 8 Point Input	60	-	-
IC693MDL231	240 VAC Isolated, 8 Point Input	60	-	-
IC693MDL240	120 VAC, 16 Point Input	90	-	-
IC693MDL241	24 VAC / DCPos / Neglogic, 16 Point	80	-	125
IC693MDL310	120 VAC, 0.5A, 12 Point Output	210	-	-
IC693MDL330	120 / 240VAC, 1A, 8 Point Output	160	-	-
IC693MDL340	120 VAC, 0.5A, 16 Point Output	315	-	-
IC693MDL390	120 / 240VAC Isolated, 2A, 5 Point Output	110	-	-
IC693MDL630	24 VDC Positive Logic, 8 Point Input	2.5	-	60
IC693MDL632	125 VDC Pos / Neg Logic, 8 Point Input	40	-	-
IC693MDL633	24 VDC Negative Logic, 8 Point Input	5	-	60
IC693MDL634	24 VDC Pos / Neg Logic, 8 Point Input	80	-	125
IC693MDL640	24 VDC Positive Logic, 16 Point Input	5	-	120
IC693MDL641	24 VDC Negative Logic, 16 Point Input	5	-	120
IC693MDL643	24 VDC Positive Logic, FAST, 16 Point Input	5	-	120
IC693MDL644	24 VDC Negative Logic, FAST, 16 Point Input	5	-	120
IC693MDL645	24 VDC Pos / Neg Logic, 16 Point Input	80	-	125
IC693MDL646	24 VDC Pos / Neg Logic, FAST, 16 Point Input	80	-	125
IC693MDL652	24 VDC Pos / Neg Logic, 32 Point Input	5	-	-
IC693MDL653	24 VDC Pos / Neg Logic, FAST, 32 Point Input	5	-	-
IC693MDL654	5 / 12 VDC (TTL) Pos / Neg Logic, 32 Point	195 / 440†	-	-
IC693MDL655	24 VDC Pos / Neg, 32 Point Input	195	-	224
IC693MDL730	12 / 24 VDC Positive Logic, 2A, 8 Point Output	55	-	-
IC693MDL731	12 / 24 VDC Negative Logic, 2A, 8 Point Output	55	-	-
IC693MDL732	12 / 24 VDC Positive Logic, 0.5A, 8 Point Output	50	-	-
IC693MDL733	12 / 24 VDC Negative Logic, 0.5A, 8 Point Output	50	-	-
IC693MDL734	125 VDC Pos / Neg Logic, 6 Point Output	90	-	-
IC693MDL740	12 / 24 VDC Positive Logic, 0.5A, 16 Point Output	110	-	-
IC693MDL741	12 / 24 VDC Negative Logic, 0.5A, 16 Point Output	110	-	-
IC693MDL742	12 / 24 VDC Pos. Logic ESCR, 1A, 16 Point Output	130	-	-
IC693MDL750	12 / 24 VDC Negative Logic, 32 Point Output	21	-	-
IC693MDL751	12 / 24 VDC Positive Logic, 32 Point Output	21	-	-
IC693MDL752	5 / 24 VDC (TTL) Negative Logic, 0.5A, 32 Point	260	-	-
IC693MDL753	12 / 24 VDC Positive Logic, 0.5A, 32 Point Output	260	-	-
IC693MDL930	Relay, N.O., 4A Isolated, 8 Point Output	6	70	-
IC693MDL931	Relay, N.C. and Form C, 8A Isolated, 8 Point Out	6	110	-
IC693MDL940	Relay, N.O., 2A, 16 Point Output	7	135	-
IC693MDR390	24 VDC Input, Relay Output, 8 In / 8 Out	80	70	-
IC693PCM300	Programmable Coprocessor Module, 65K	425	-	-
IC693PCM301	Programmable Coprocessor Module, 85K	425	-	-
IC693PCM311	Programmable Coprocessor Module, 380K	400	-	-
IC693PRG300	Hand-Held Programmer	170	-	-
IC693PTM100*	Power Transducer Module	400		
IC693TCM302	Temperature Control Module	150	-	-

† Refer to module specifications in GFK-0898, Series 90-30 I/O Module Specifications Manual for more details.

‡ Note that the model 350–364 CPUs **do not** support the A version (IC690ACC901A) of the Miniconverter.

* Note that this is preliminary information. The IC693DSM314 and IC693PTM100 will not be available until late 1999.

Terminal Block Quick Connect Components for 32-Point Modules

The 32-point modules do not require a new faceplate since they are equipped with a dual-connector faceplate as a standard feature. Since each module has two 24-pin connectors, they each require two cables and two terminal blocks. Also, since the modules' two connectors are oriented differently (see example in figure below), the two cables are different. One is called a "right side" cable and the other, a "left side" cable.

Note: These terminal blocks will not work with the 32-point I/O modules that have 50-pin connectors.

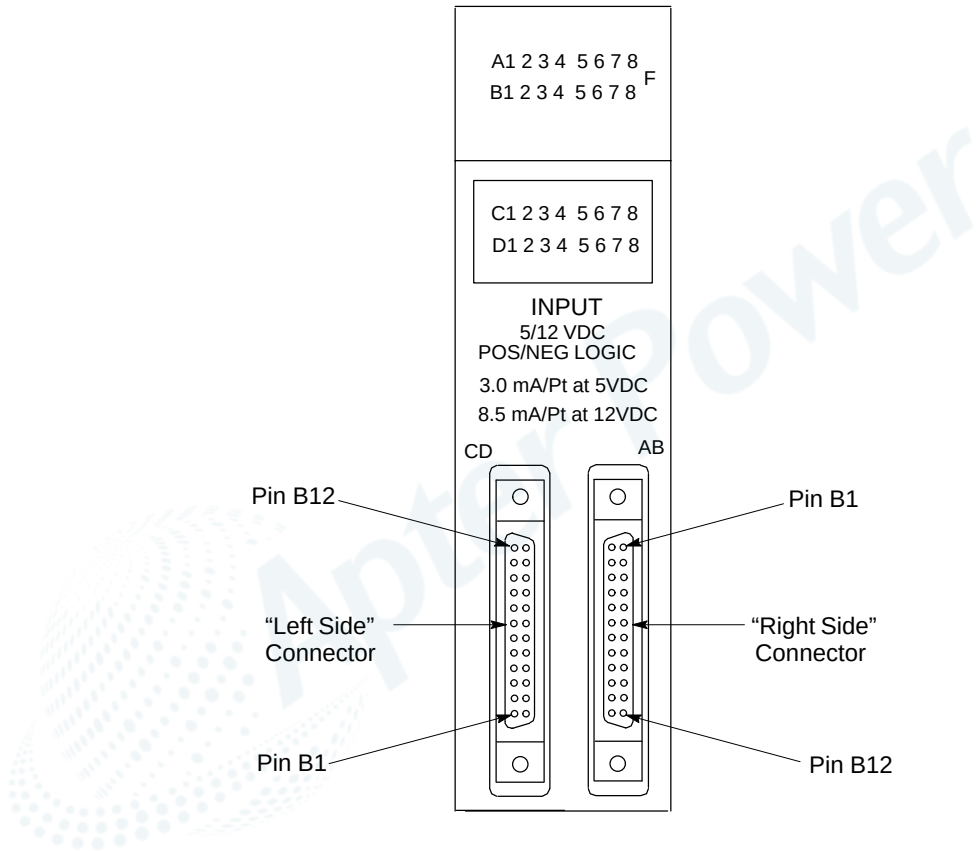


Figure J-8. IC693MDL654 32-Point Module

Terminal Block

Terminal blocks have three rows of terminals, arranged in three levels, as shown in Figure J-1. The terminals feature an easy to use captive-screw, "rising cage" type connection system. Catalog numbers for the terminal block and the modules it can be used with are listed below.

Catalog Number	Use With These Modules	Module Description
IC693ACC337	IC693MDL654 IC693MDL655 IC693MDL752 IC693MDL753	Input, 5/12 VDC (TTL) Pos / Neg Logic–32 points Input, 24 VDC Pos / Neg Logic–32 points Output, 5/24 VDC Neg Logic–32 points Output, 12/24 VDC Pos Logic, 0.5A – 32 points