

**USING GS1
AC DRIVES WITH
AUTOMATIONDIRECT
PLCs**



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Compatible AutomationDirect PLCs and Modules

The following tables show which AutomationDirect PLCs and modules can be used with the GS1 Series AC Drive.

AutomationDirect PLC Modules for Use with GS1 AC Drives	
CLICK PLCs *	
C0-00DD1-D	CLICK CPU, 8 DC in / 6 sinking DC out; 24 VDC power supply; RS-232C Modbus/ASCII comm port. Discrete Inputs: 8 DC inputs, 24 VDC sink/source, 2 isolated commons. Discrete Outputs: 6 DC outputs, 5-27 VDC sinking, 0.1A/pt, 2 isolated commons. Removable I/O terminal block.
C0-02DD1-D	CLICK CPU, 4 DC in / 4 sinking DC out; 2 channels analog in / 2 channels analog out (current/voltage selectable); 24 VDC power supply; RS-232C Modbus/ASCII comm port, 3-wire RS-485 Modbus/ASCII comm port. Discrete Inputs: 4 DC inputs, 5-27 VDC sink/source, 1 common. Discrete Outputs: 4 DC outputs, 24 VDC sinking, 0.1A/point, 1 common. Analog Inputs: 2 channels 4-20 mA or 0-5 VDC. Analog Outputs: 2 channels 4-20 mA or 0-5 VDC. Removable I/O terminal block.
C0-02DD2-D	CLICK PLC CPU, 4 DC in / 4 sourcing DC out, 2 channels analog in / 2 channels analog out (current / voltage selectable); 24 VDC power supply; RS-232C Modbus/ASCII comm port, 3-wire RS-485 Modbus/ASCII comm port. Discrete Inputs: 4 DC inputs, 24 VDC sink/source, 1 common. Discrete Outputs: 4 DC outputs, 24 VDC sourcing, 0.1A/point, 1 common. Analog Inputs: 2 channels 4-20 mA or 0-5 VDC. Analog Outputs: 2 channels 4-20 mA or 0-5 VDC. Removable I/O terminal block.
C0-02DR-D	CLICK PLC CPU, 4 DC in / 4 relay out, 2 channels analog in / 2 channels analog out (current / voltage selectable); 24 VDC power supply; RS-232C Modbus/ASCII comm port, 3-wire RS-485 Modbus/ASCII comm port. Discrete Inputs: 4 DC inputs, 24 VDC sink/source, 1 common. Discrete Outputs: 4 relay outputs, 6-240 VAC / 6-27 VDC Form A (SPST) relays, 1.0A/point, 1 common. Analog Inputs: 2 channels 4-20 mA or 0-5 VDC. Analog Outputs: 2 channels 4-20 mA or 0-5 VDC. Removable I/O terminal block.
CLICK DC Output Modules	
C0-08TD1	8-pt. 3.3-27 VDC current sinking output, 2 isolated commons, 0.3A/pt., removable terminals.
C0-16TD1	16-pt. 5-27 VDC current sinking output, 2 isolated commons, 0.1A/pt., removable terminals.
DL05 PLCs	
D0-05AR	DL05 CPU, 8 AC in / 6 Relay out, 110/220VAC Power Supply. Inputs: 8 AC inputs, 90-120 VAC, 2 isolated commons. Outputs: 6 Relay outputs, 6-27 VDC, 6-240 VAC, 2A/pt. max., 2 isolated commons
D0-05DR	DL05 CPU, 8 DC in / 6 Relay out, 110/220VAC Power Supply. Inputs: 8 DC inputs, 12-24 VDC current sinking/sourcing, 2 isolated commons. Outputs: 6 Relay outputs, 6-27 VDC, 6-240 VAC, 2A/pt. max., 2 isolated commons
D0-05DD	DL05 CPU, 8 DC in / 6 DC out, 110/220VAC Power Supply. Inputs: 8 DC inputs, 12-24 VDC current sinking/sourcing, 2 isolated commons. Outputs: 6 DC outputs, 6-27 VDC current sinking, 1.0A/pt. max.
D0-05DD-D	DL05 CPU, 8 DC in / 6 DC out, 12/24VDC Power Supply. Inputs: 8 DC inputs, 12-24 VDC current sinking/sourcing, 2 isolated commons. Outputs: 6 DC outputs, 6-27 VDC current sinking, 1.0A/pt. max.
D0-05DR-D	DL05 CPU, 8 DC in / 6 Relay out, 12/24VDC Power Supply. Inputs: 8 DC inputs, 12-24 VDC current sinking/sourcing, 2 isolated commons. Outputs: 6 Relay outputs, 6-27 VDC, 6-240 VAC, 2A/pt. max., 2 isolated commons
* "Brick" PLCs may contain some I/O that are not compatible with GS1 drives. Refer to "Typical Connections..." section to determine specifically which I/O are compatible.	

AutomationDirect PLC Modules for Use with GS1 AC Drives (continued)	
DL06 PLCs	
D0-06DD1	DL06 CPU, 20 DC in / 16 DC out, 110/220VAC Power Supply, with 0.3A 24VDC Auxiliary Device Power Supply. Inputs: 20 DC inputs, 12-24 VDC current sinking/sourcing, 5 isolated commons (4 inputs per common). Outputs: 16 DC outputs, 12-24 VDC current sinking, 1.0A/pt. max., 4 commons non-isolated (4 pt/common).
D0-06DR	DL06 CPU, 20 DC in / 16 Relay out, 110/220VAC Power Supply, with 0.3A 24VDC Auxiliary Device Power Supply. Inputs: 20 DC inputs, 12-24 VDC current sinking/sourcing, 5 isolated commons (4 inputs per common). Outputs: 16 Relay outputs, 6-27 VDC, 6-240 VAC, 2A/pt. max., 4 isolated commons (4 pt/common).
D0-06AR	DL06 CPU, 16 AC in / 20 Relay out, 110/220VAC power supply, with 0.3A 24VDC auxiliary device power supply. Inputs: 20 AC inputs, 90-120 VAC, 5 isolated commons (4 inputs per common). Outputs: 16 Relay outputs, 6-27 VDC, 6-240 VAC, 2A/pt. max., 4 isolated commons (4 pt/common).
D0-06DD1-D	DL06 CPU, 20 DC in / 16 DC out, 12/24VDC Power Supply. Inputs: 20 DC inputs, 12-24 VDC current sinking/sourcing, 5 isolated commons (4 inputs per common). Outputs: 16 DC outputs, 12-24 VDC current sinking, 1.0A/pt. max., 4 commons non-isolated (4 pt/common).
D0-06DR-D	DL06 CPU, 20 DC in / 16 Relay out, 110/220VAC Power Supply. Inputs: 20 DC inputs, 12-24 VDC current sinking/sourcing, 5 isolated commons (4 inputs per common). Outputs: 16 Relay outputs, 6-27 VDC, 6-240 VAC, 2A/pt. max., 4 isolated commons (4 points per common).
DL05/DL06 DC Input/Output Module	
D0-08CDD1	4 pt. 12-24VDC current sinking/sourcing input, 1 common, 4 pt. 12-24VDC sinking output, 0.3A/point, 1.2A/module, removable terminal, no fuse
DL05/DL06 DC Output Modules	
D0-10TD1	10 pt. 12-24 VDC current sinking output module, 2 commons non-isolated (5 pts. per common), 0.3A/point, 1.5A/common, removable terminal, no fuse
D0-16TD1	16 pt. 12-24 VDC current sinking output module, 2 commons non-isolated (5 pts. per common), 0.3A/point, 1.5A/common, removable terminal, no fuse.
DL05/DL06 Analog Module	
F0-2AD2DA-2	2 channel in, 2 channel out voltage analog option card; 0-5V, 0-10V.
F0-4AD2DA-2	4 channel in, 2 channel out voltage analog option card; 0-5V, 0-10V.
F0-4AD2DA-1	4 channel in, 2 channel sourcing out current analog option card; 4-20mA.
DL105 PLCs	
F1-130DR	DL06 CPU, 20 DC in / 16 DC out, 110/220VAC Power Supply, with 0.3A 24VDC Auxiliary Device Power Supply. Inputs: 20 DC inputs, 12-24 VDC current sinking/sourcing, 5 isolated commons (4 inputs per common). Outputs: 16 DC outputs, 12-24 VDC current sinking, 1.0A/pt. max., 4 commons non-isolated (4 points per common).
F1-130DD-D	DL130 CPU, 10 DC in / 8 DC out, 12/24VDC Power Supply. Inputs: 10 DC inputs, 12-24 VDC current sinking/sourcing, 3 isolated commons. Outputs: 8 DC outputs, 5-30VDC current sinking, 0.5A/pt. max, 3 internally connected commons.
F1-130DR-D	DL130 CPU, 10 DC in / 8 Relay out, 12/24VDC Power Supply. Inputs: 10 DC inputs, 12-24 VDC current sinking/sourcing, 3 isolated commons. Outputs: 8 relay outputs, 12-30 VDC, 12-250VAC, 7A/pt. max., 4 isolated commons.
F1-130DD-D	DL130 CPU, 10 DC in / 8 DC out, 12/24VDC Power Supply. Inputs: 10 DC inputs, 12-24 VDC current sinking/sourcing, 3 isolated commons. Outputs: 8 DC outputs, 5-30VDC current sinking, 0.5A/pt. max, 3 internally connected commons.

AutomationDirect PLC Modules for Use with GS1 AC Drives (continued)	
DL205 DC Output Module	
D2-16TD1-2	16 pt. 12-24 VDC current sinking output module, 1 common (2 common terminals), 0.1A/point, 1.6A/module, no fuse, European type removable terminal.
D2-32TD1	32 pt. 12-24 VDC current sinking output module. 1 common (4 common terminals), 0.1A/point, 3.2A/module, no fuse.
DL205 Relay Output Modules	
D2-04TRS	4-pt. 5-30 VDC or 5-240 VAC isolated relay output module, 4 Form A (SPST) relays, 4 commons, 4A/point, 8.0A/module, replaceable fuse, removable terminal.
D2-08TR	8-pt. 5-30 VDC or 5-240 VAC output module, 8 Form A (SPST) relays, 1 common (2 common terminals), 1A/point, 4.0A/module, replaceable fuse, removable terminal.
F2-08TR	8-pt relay output, 10A/common, 5-30VDC or 5-240VAC.
F2-08TRS	8-pt. 12-28 VDC or 12-240 VAC output module, 5 Form A (SPST) relays, 3 Form C (SPDT) relays, 8 isolated commons, 7A/point max., no fuses, removable terminal.
D2-12TR	12 pt. 5-30 VDC or 5-240 VAC relay output module, 12 Form A (SPST) relays, 2 commons, 1.5A/point max., 3.0A/common, 2 replaceable fuses, removable terminal.
DL205 DC Input/Output Modules	
D2-08CDR	4 pt. 24VDC sinking/sourcing input, 1 common, 4 pt. relay output, 1A/pt., 4A/module, 1 common, replaceable fuse.
DL205 Analog Output Module	
F2-02DAS-1	2 channel, 16-bit resolution, Isolated 4-20mA sourcing (2 isolated commons). Designed to operate with 24 VDC user-supplied power supply.
F2-02DAS-2	2 channel analog output, 16 bit resolution, isolated, range: 0-5V, 0-10V (2 isolated commons). Designed to operate with 24 VDC user-supplied power supply.
F2-08DA-1	8 channel analog output module, 12 bit resolution, range: 4-20mA, sink or source output configurable. Designed to operate with 24 VDC user-supplied power supply.
F2-02DA-2	2 channel analog output module, 12 bit resolution, ranges: 0-5V, 0-10V, -5 to +5V, -10 to +10V. Designed to operate with 24 VDC user-supplied power supply.
F2-08DA-2	8 channel analog output module, 12 bit resolution, ranges: 0-5V, 0-10V. " Designed to operate with 24 VDC user-supplied power supply.
DL305 Relay Output Modules	
D3-08TR	8 pt. 5-30 VDC or 5-220 VAC output module, 5A/point DC or 4A/point AC, 8 Form A relays (SPST), 2 commons (isolated), non-removable terminal, 2 user replaceable fuses
D3-16TR	16 pt. 5-30 VDC or 5-220 VAC output module, 2A/point, 16 Form A relays (SPST), 2 commons (isolated), removable terminal, no internal fuses
DL305 Analog Output Modules	
F3-04DAS	4 channel isolated analog output module, 12 bit resolution, ranges: 0 to 5V, 0 to 10V, -5 to +5V, -10 to +10V, 4 to 20mA, 0 to 20mA. -750 to +750 VDC channel to channel isolation

AutomationDirect PLC Modules for Use with GS1 AC Drives (continued)	
DL405 DC Output Modules	
D4-08TD1	8 pt. 12-24 VDC current sinking output module, 2 commons (internally connected), 2A/point, 5A/common, removable terminal
D4-16TD1	16 pt. 5-24 VDC current sinking output module, 2 commons (internally connected), 0.5A/point, 3A/common, removable terminal
D4-32TD1	32 pt. 5-24 VDC current sinking output module, 4 commons (isolated), 0.2A/point, 1.6A/common. Requires one connector, sold separately.
DL405 Relay Output Modules	
D4-08TR	8 pt. 5-30 VDC or 5-250 VAC output module, 8 Form A (SPST) relays, 2 commons (isolated), 2A/point, 5A/common, removable terminal
F4-08TRS-1	8 pt. 12-30 VDC or 12-250 VAC isolated output module, 4 Form A (SPST) and 4 Form C (SPDT) relays, 8 commons (isolated), 10A/point, 40A/module, removable terminal.
F4-08TRS-2	8 pt. 12-30 VDC or 12-250 VAC isolated output module, 4 Form A (SPST) relays and 4 Form C (SPDT) relays, 8 commons (isolated), 5A/point, 40A/module, replaceable fuses, removable terminals.
D4-16TR	16 pt. 5-30 VDC or 5-250 VAC output module, 8 Form A (SPST) relays, 2 commons (isolated), 1A/point, 5A/common, removable terminals.
DL405 Analog Output Modules	
F4-04DAS-1	4 channel analog output module, 16 bit resolution, isolated, range: 4 to 20mA current sourcing.
F4-04DAS-2	4 channel analog output module, 16 bit resolution, isolated, range: 0-5V, 0-10V.
F4-08DA-2	8 channel analog output module, 12 bit resolution, range: 0-5V or 0-10V.
F4-16DA-2	16 channel analog output module, 12 bit resolution, range: 0-5V or 0-10V.
Terminator I/O DC Output Modules	
T1K-08TD1	8 pt. 12-24 VDC current sinking output module, 4 points per common, 1.0A/point, 2 replaceable fuses (T1K-FUSE-1). (use with T1K-08B or T1K-08B-1 terminal base)
T1K-16TD1	16 pt. 12-24 VDC current sinking output module, 4 points per common, 1.0A/point, 4 replaceable fuses (T1K-FUSE-1). (use with T1K-16B or T1K-16B-1 terminal base)
Terminator I/O Relay Output Modules	
T1K-08TR	8 pt. 5-30 VDC or 5-240 VAC output module, 8 Form A (SPST) relays, 4 points per common, 2.0A/point max., 2 replaceable fuses (T1K-FUSE-2). (use with T1K-08B or T1K-08B-1 terminal base)
T1K-16TR	16 pt. 5-30 VDC or 5-240 VAC output module, 16 Form A (SPST) relays, 4 points per common, 2.0A/point max., 4 replaceable fuses (T1K-FUSE-2). (use with T1K-16B or T1K-16B-1 terminal base)
T1K-08TRS	8 pt. 5-30 VDC or 5-240 VAC isolated relay output module, 8 Form A (SPST) relays, 1 point per common, 7.0A/point max., 8 replaceable fuses (T1K-FUSE-3). (isolation requires use of T1K-16B or T1K-16B-1 terminal base)
Terminator I/O Analog Output Modules	
T1F-08DA-2	8 channel analog output, 12 bit resolution, range: 0-5VDC, 0-10VDC, +/-5VDC, +/-10VDC. (use with T1K-08B or T1K-08B-1 terminal base)
T1F-16DA-2	16 channel analog output, 12 bit resolution, range: 1-5VDC, 1-10VDC, +/-5VDC, +/-10VDC. (use with T1K-16B or T1K-16B-1 terminal base)

Typical PLC Connections to GS1 Series AC Drives

The following drawings show some typical connections between the GS1 Series AC Drive and AutomationDirect PLCs and modules.

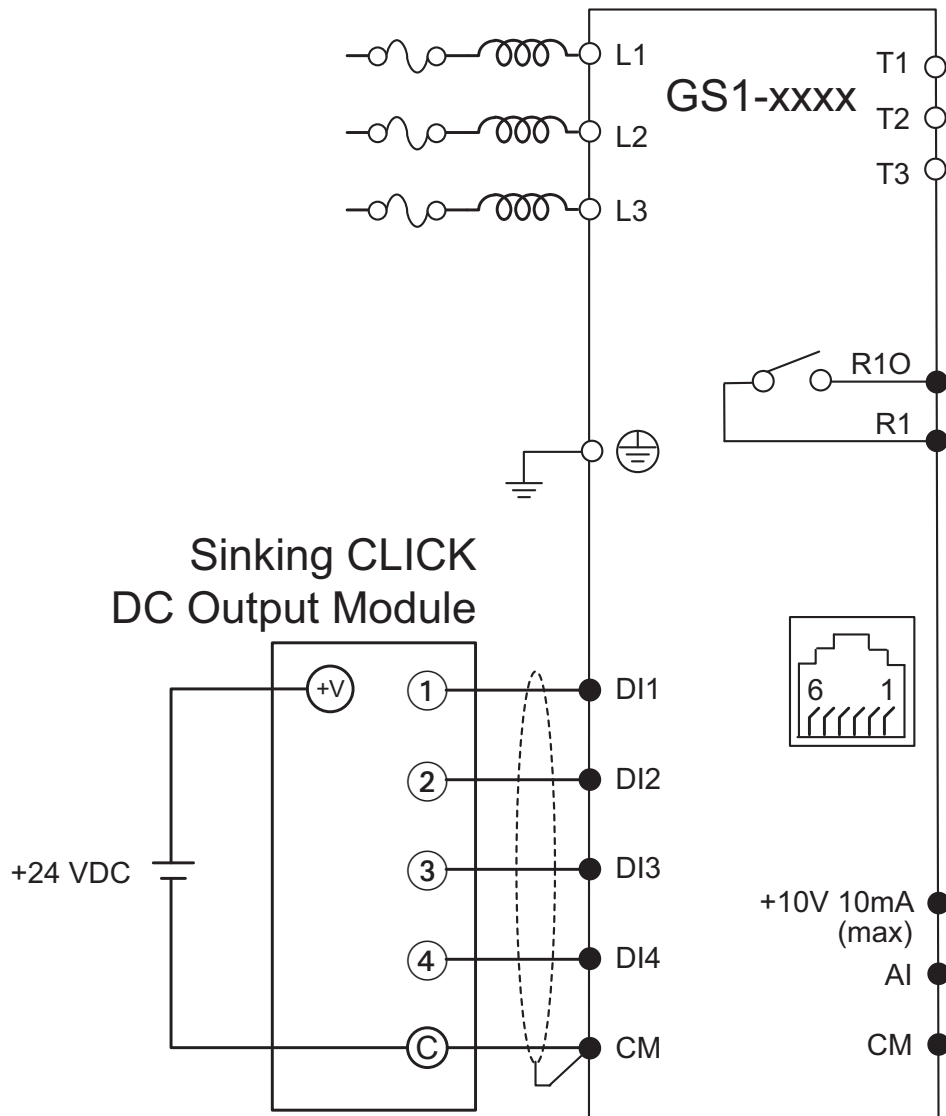
CLICK CPU and DC Output Modules (Sinking)

• C0-00-DD1-D

• C0-02-DD1-D

• C0-08-TD1

• C0-16-TD1



○ Main circuit (power) terminals ● Control circuit terminals ⏏ Shielded leads

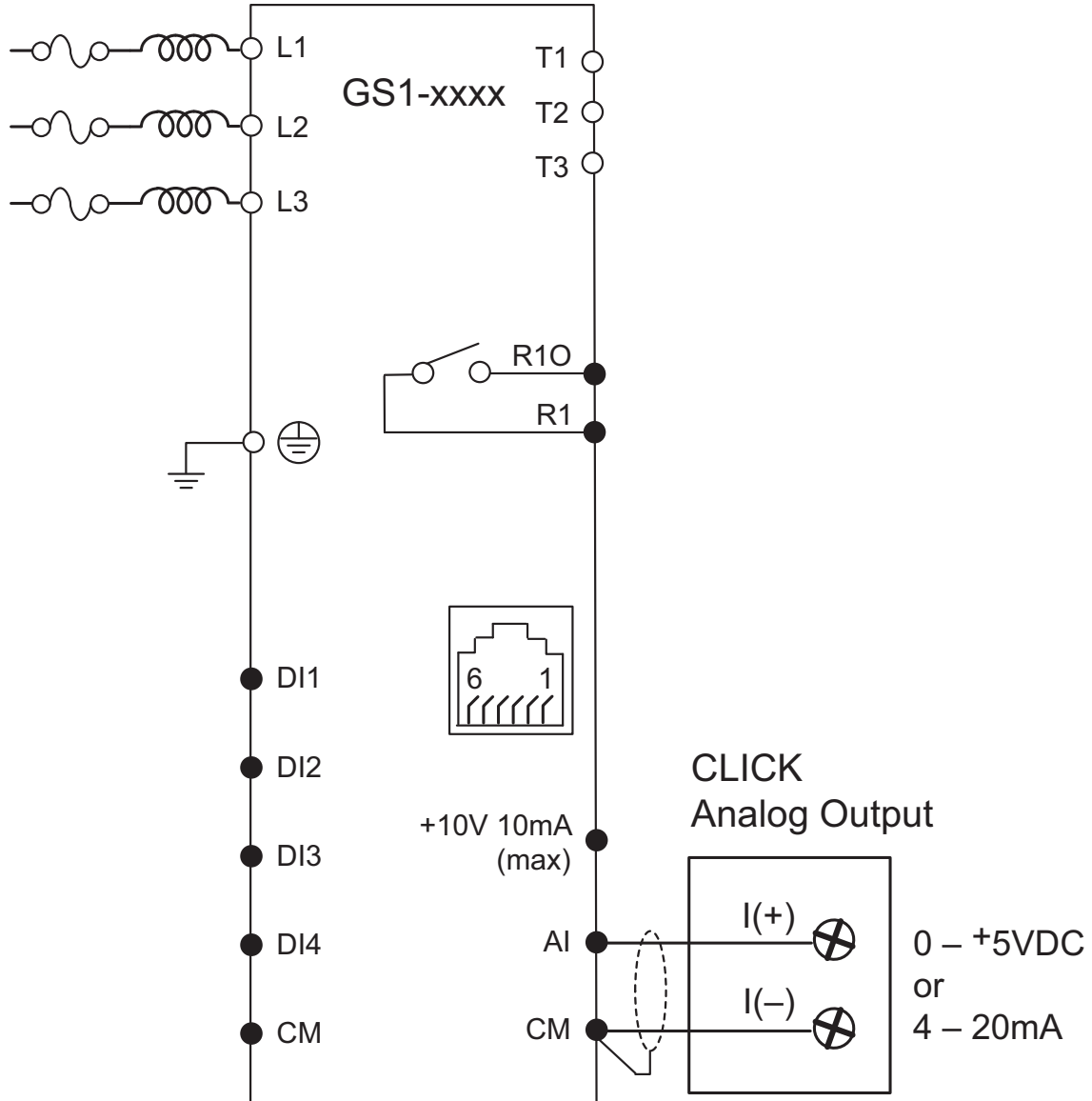
Typical PLC Connections to GS1 Series AC Drives (continued)

CLICK CPU Modules with Non-isolated Analog Outputs

• C0-02DD1-D

• C0-02DD2-D

• C0-02DR-D

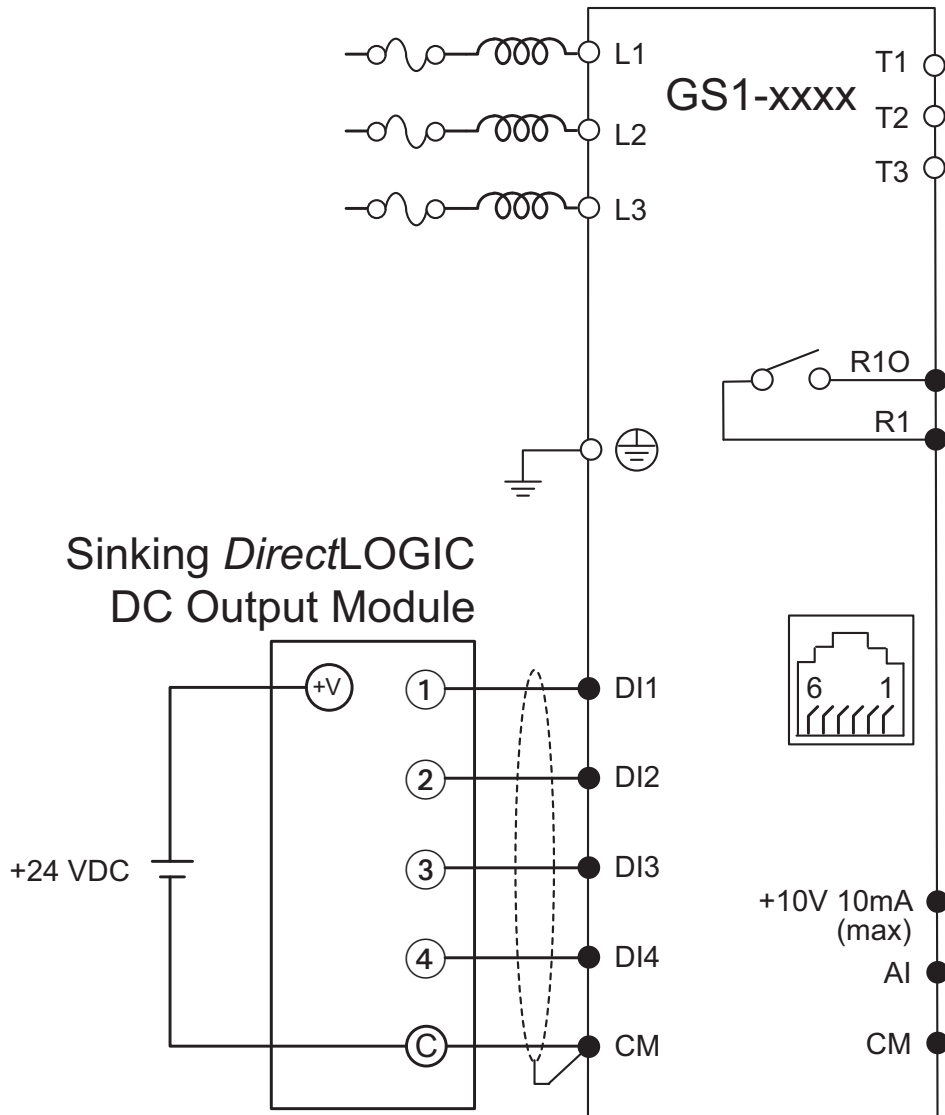


○ Main circuit (power) terminals ● Control circuit terminal ⊕ Shielded leads

Typical PLC Connections to GS1 Series AC Drives (continued)

DirectLOGIC DC Output Modules (Sinking)

- D0-05DD
- D0-05DD-D
- D0-06DD1
- D0-06DD1-D
- D0-10TD1
- D0-16TD1
- D2-16TD1-2
- D2-32TD1
- D4-08TD1
- D4-16TD1
- D4-32TD1
- T1K-08TD1
- T1K-16TD1

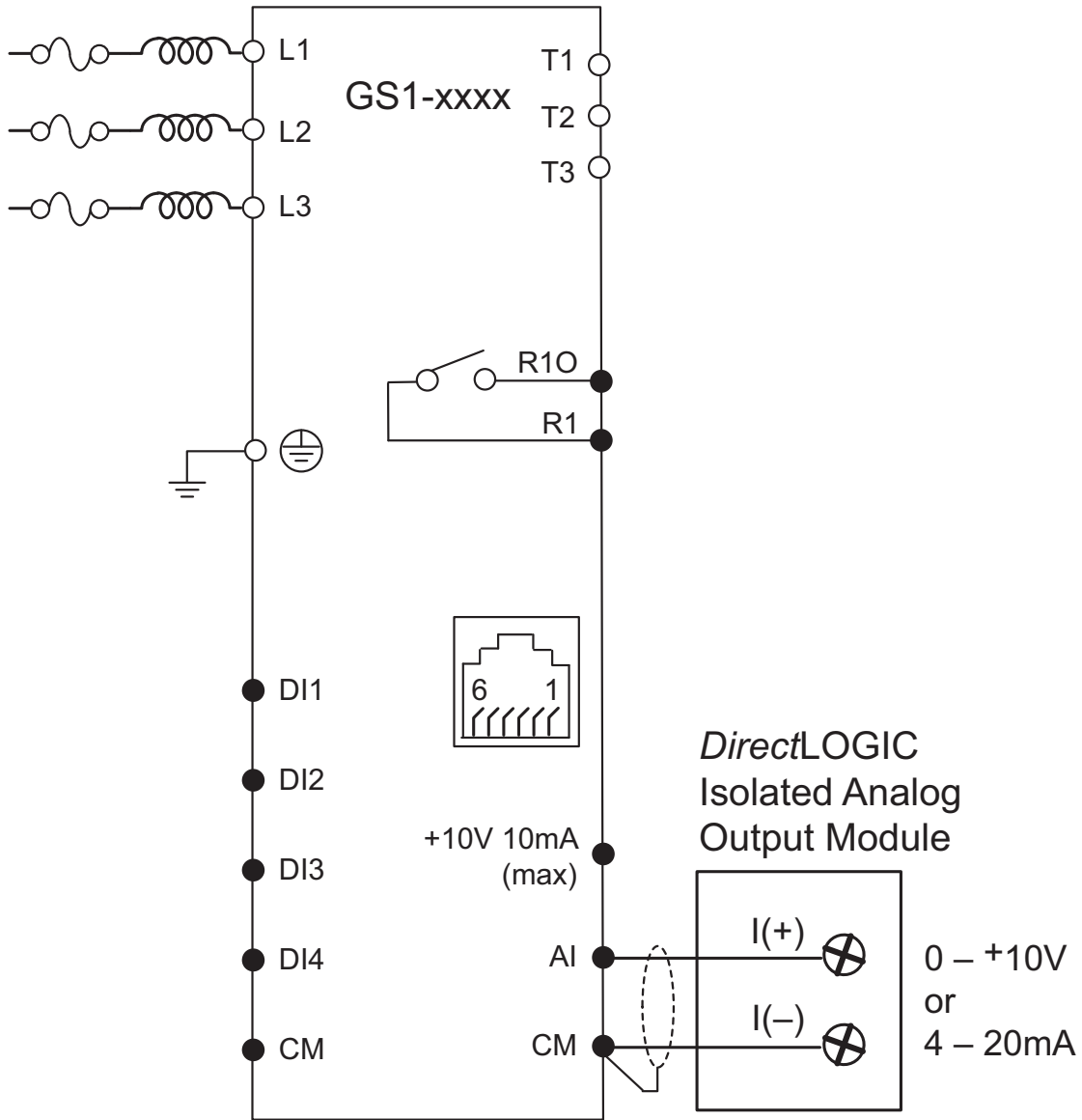


○ Main circuit (power) terminals ● Control circuit terminals Ⓢ Shielded leads

Typical PLC Connections to GS1 Series AC Drives (continued)

DirectLOGIC Isolated Analog Output Modules

- F2-02DAS-1
- F2-02DAS-2
- F4-04DAS-1
- F4-04DAS-2

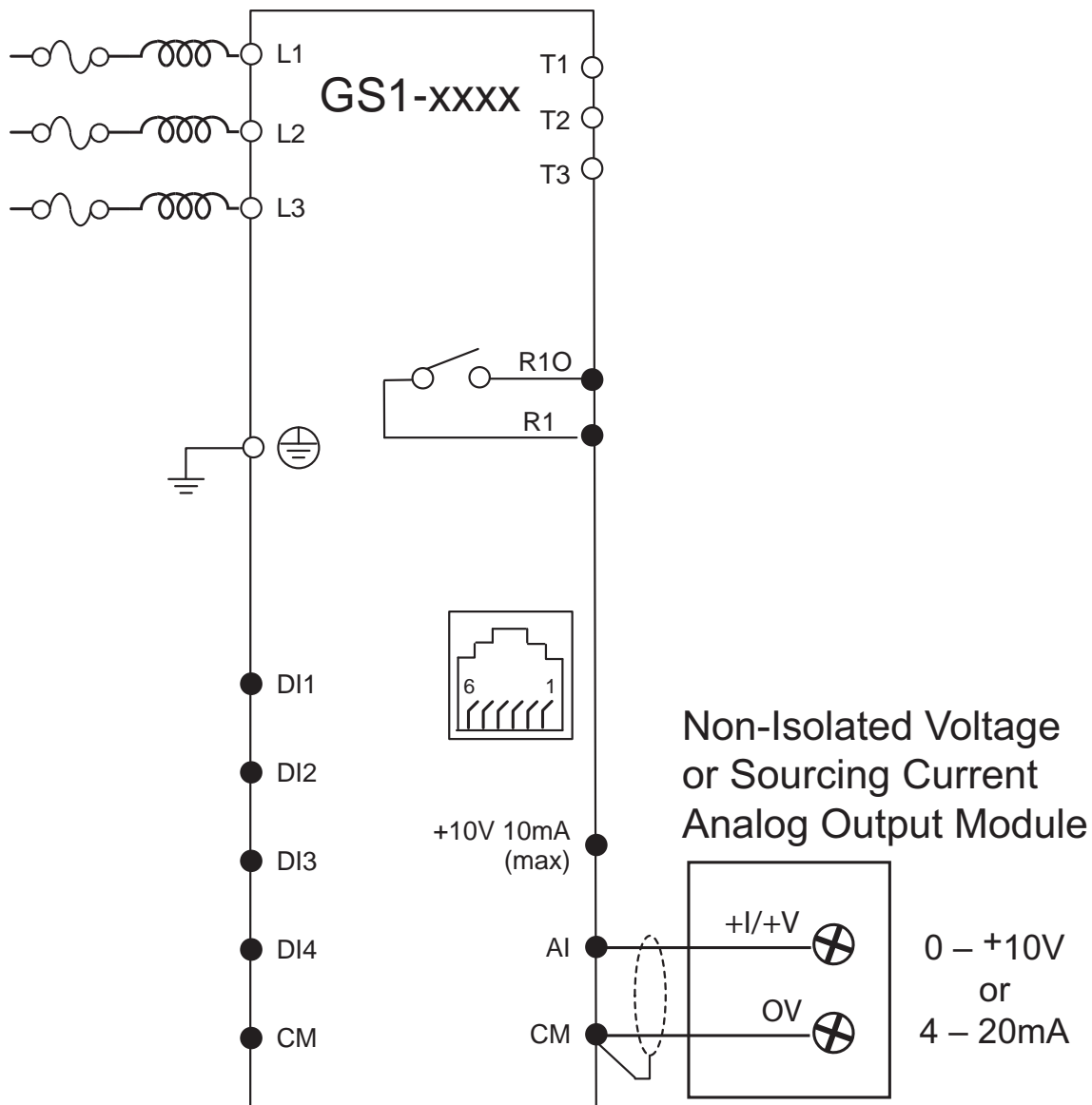


○ Main circuit (power) terminals ● Control circuit terminal ⊕ Shielded leads

Typical PLC Connections to GS1 Series AC Drives (continued)

DirectLOGIC Non-isolated Voltage or Sourcing Current Analog Output Modules

- F0-02AD2DA-2
- F0-04AD2DA-1
- F0-04AD2DA-2
- F2-02DAS-1
- F2-02DAS-2
- F2-08DA-1
- F2-02DA-2
- F2-08DA-2
- F4-08DA-2
- F4-16DA-2
- T1F-08DA-2
- T1F-16DA-2
- T1F-8AD4DA-1
- T1F-8AD4DA-2



○ Main circuit (power) terminals ● Control circuit terminal ⊕ Shielded leads