Клеммные платы серии TB-D5016-BAI. Технические характеристики

General description:

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5000 / D6000 Series modules.
Intrinsically Safe protection and signal isolation between Safe and Hazardous Area are provided by D5000 Series Associated Apparatus.
24 Vdc Power Supply of the TB is connected to two plug-in terminal blocks, for a redundant power supply. Modules are supplied via TB power bus.

Termination Board general characteristics:

Termination Board Model	*Number of positions*	*Features*
TB-D5016-BAI-001	16	1) I/O Card redundancy; 2) Power Supply voltage redundancy; 3) HART multiplexing; 4) Abnormal supply voltage signaling; 5) Cumulative module fault signaling; 6) Voltage signals

Supported Bailey INFI90 I/O Cards:

I/O Card Model	*I/O Card Type*	*Number of channels per I/O Card*	*Number of I/O Cards per board*	*Number of channels per board*	*Supported GM Modules***
IMASI02 IMFEC12	Analog In	15	1+(1)*	15	D5011S D5014S D5072S D6011S D6014S D6072S
IMASI02 IMFEC12	Analog In	15	2+(2)*	30	D5011D D5014D D5072D D6011D D6014D D6072D

* with possibility of I/O Card redundancy.
** Do not mix D5000 Intrinsically Safe barriers with D5000 Relay modules or D6000 Isolators on same termination board.

Features:

- AI card type IMASI02, IMFEC12: 15 ch Analog Input board interfaces.
- 16 positions Terminal Board for up to 30 channels.
- IMASI02 (0)1-5 V signals.
- Lower cables installation and maintenance costs.
- Power supplies fault monitoring.
- Spare fuse provided.
- Mounting hardware provided for:
  - Wall mounting, M4 thread screw;
  - Wall mounting, M4 self tapping screw;
  - Single Din Rail mounting kit.

Ordering Information:

Model:	TB-D5016-BAI-001

Technical Data:

Supply:
24 Vdc nom (18 to 30 Vdc) reverse polarity protected, double terminal blocks for redundant power supply, with OR diodes to mix supply voltages.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.
2 LEDs indication: green color, one for supply 1 and one for supply 2.
Protection fuse: 2 A time lag (spare fuse provided on Termination Board).

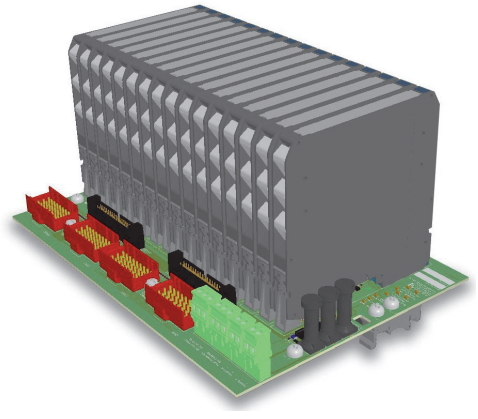
Fault detection:
1) Preventive - abnormal supply voltage: supply 1 or supply 2 is < 17 Vdc (Under Voltage, UV) or > 31 Vdc (Over Voltage, OV).
2) Critical - abnormal supply voltages or cumulative fault: both supplies are in under (< 17 Vdc) or over (> 31 Vdc) voltage condition *OR* cumulative fault indication (about presence of short or open field circuit for any DO channel).
LED fault signaling (for both case 1 and 2): 2 red LEDs (UV and OV of supply 1); 2 red LEDs (UV and OV of supply 2); a cumulative fault red LED.
Relay fault signaling (one for each case 1 or 2): a voltage free NE SPDT - 1 Form C relay contacts (de-energized in fault condition), with the following characteristics:
Contact material: AgCdO.
Contact rating: 4 A 36 Vac 72 VA, 2 A 48 Vdc 80 W (resistive load).
Mechanical / Electrical life: 30 * 10^6 / 1 * 10^5 operation, typical.
Coil status LED indication: yellow color, turn on when coil is energized.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.

I/O card interface:
Connection:
four 36 poles AMP640506 male connectors (requires female mating connector).

HART Multiplexing:
Connection: two 34 poles male connectors (requires female mating connector).

Environmental conditions:
Operating: temperature limits – 40 to + 70 °C,
relative humidity max 90 % non condensing, up to 35 °C.
Storage: temperature limits – 45 to + 80 °C.

Mounting:
Hardware included for mounting on wall and single DIN rail.
Weight: about 400 g (excluding modules and mounting options).
Location: Safe Area / Ordinary locations.
Dimensions: Width 267 mm, Depth 176 mm, Height 125 mm.



TB-D5016 BAI-003

Termination Board 14 positions for Bailey INFI 90 with Analog Output cards IMASO01, IMASO11, SPASO11

Characteristics:

General description:

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5000 / D6000 Series modules.
Intrinsically Safe protection and signal isolation between Safe and Hazardous Area are provided by D5000 Series Associated Apparatus.
24 Vdc Power Supply of the TB is connected to two plug-in terminal blocks, for a redundant power supply. Modules are supplied via TB power bus.

Termination Board general characteristics:

Termination Board Model	*Number of positions*	*Features*
TB-D5016-BAI-003	14	1) Power Supply voltage redundancy; 2) HART multiplexing; 3) Abnormal supply voltage signaling; 4) Cumulative module fault signaling.

Supported Bailey INFI90 I/O Cards:

* with possibility of I/O Card redundancy.

I/O Card Model	*I/O Card Type*	*Number of channels per I/O Card*	*Number of I/O Cards per board*	*Number of channels per board*	*Supported GM Modules**
IMASO01 IMASO11 SPASO11	Analog Out	14	1+(1)*	14	D5020S D6020S
IMASO01 IMASO11 SPASO11	Analog Out	14	2+(2)*	28	D5020D D6020D

** Do not mix D5000 Intrinsically Safe barriers with D5000 Relay modules or D6000 Isolators on same termination board.

Technical Data:

Supply:

24 Vdc nom (20 to 30 Vdc) reverse polarity protected, double terminal blocks for redundant power supply, with OR diodes to mix supply voltages.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.
2 LEDs indication: green color, one for supply 1 and one for supply 2.
Protection fuse: 2 A time lag (spare fuse provided on Termination Board).

Fault detection:

1) Preventive - abnormal supply voltage: supply 1 or supply 2 is < 18 Vdc (Under Voltage, UV) or > 30 Vdc (Over Voltage, OV).
2) Critical - abnormal supply voltages or cumulative fault: both supplies are in under (< 18 Vdc) or over (> 30 Vdc) voltage condition *OR* cumulative fault indication (about presence of short or open field circuit for any DO channel).
LED fault signaling (for both case 1 and 2): 2 red LEDs (UV and OV of supply 1); 2 red LEDs (UV and OV of supply 2); a cumulative fault red LED.
Relay fault signaling (one for each case 1 or 2): a voltage free NE SPDT - 1 Form C relay contacts (de-energized in fault condition), with the following characteristics:
Contact material: AgCdO.
Contact rating: 2 A 36 Vac 72 VA, 2 A 48 Vdc 80 W (resistive load).
Mechanical / Electrical life: 30 * 10^6 / 1 * 10^5 operation, typical.
Coil status LED indication: yellow color, turn on when coil is energized.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.

I/O card interface:

Connection:
two 36 poles AMP640506 male connectors (requires female mating connector).

HART Multiplexing:

Connection: two 34 poles male connectors (requires female mating connector).

Environmental conditions:

Operating: temperature limits – 40 to + 70 °C,
relative humidity max 90 % non condensing, up to 35 °C.
Storage: temperature limits – 45 to + 80 °C.

Mounting:

Hardware included for mounting on wall and single DIN rail.
Weight: about 400 g (excluding modules and mounting options).
Location: Safe Area / Ordinary locations.
Dimensions: Width 267 mm, Depth 176 mm, Height 125 mm.

Features:

- AO cards type IMASO01, IMASO11, SPASO11: 14 channels Analog Output board interfaces.
- 14 positions Terminal Board for up to 28 channels.
- (0)4-20 mA signals.
- Lower cables installation and maintenance costs.
- Power supplies fault monitoring.
- Spare fuse provided.
- Mounting hardware provided for:
  Wall mounting, M4 thread screw;
  Wall mounting, M4 self tapping screw;
  Single Din Rail mounting kit.

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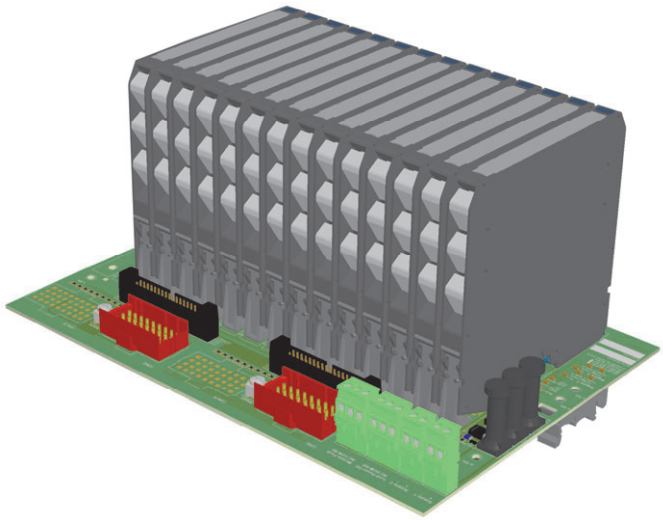

Ordering Information:

Model:	TB-D5016-BAI-003

gmi technology for safety

TB-D5016 BAI-004

Termination Board 16 positions for Bailey INFI 90 with cards IMDSI02, IMDSI12, IMDSI13, IMDSI22, SPDSI13, SPDSI22, IMDSO04, IMDSO14, SPDSO14

Characteristics:

General description:

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5000 / D6000 Series modules.
Intrinsically Safe protection and signal isolation between Safe and Hazardous Area are provided by D5000 Series Associated Apparatus.
24 Vdc Power Supply of the TB is connected to two plug-in terminal blocks, for a redundant power supply. Modules are supplied via TB power bus.

Termination Board general characteristics:

Termination Board Model	*Number of positions*	*Features*
TB-D5016-BAI-004	16	1) I/O Card redundancy; 2) Power Supply voltage redundancy; 3) Abnormal supply voltage signaling; 4) Cumulative module fault signaling.

Supported Bailey INFI90 I/O Cards:

I/O Card Model	*I/O Card Type*	*Number of channels per I/O Card*	*Number of I/O Cards per board*	*Number of channels per board*	*Supported GM Modules***
IMDSI02 IMDSI12 IMDSI13 IMDSI22 SPDSI13 SPDSI22	Digital In	16	1+(1)*	16	D5031S, D5032S, D5037S, D5093S, D6031S
			2+(2)*	32	D5031D, D5032D D5037D, D5093D, D6031D
IMDSO04 IMDSO14 SPDSO14	Digital Out	16	1+(1)*	16	D5040S, D5048S, D5049S D5090S, D5091S
			2+(2)*	32	D5040D

* with possibility of I/O Card redundancy.
** Do not mix D5000 Intrinsically Safe barriers with D5000 Relay modules or D6000 Isolators on same termination board.

Technical Data:

Supply:

24 Vdc nom (20 to 30 Vdc) reverse polarity protected, double terminal blocks for redundant power supply, with OR diodes to mix supply voltages.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.
2 LEDs indication: green color, one for supply 1 and one for supply 2.
Protection fuse: 2 A time lag (spare fuse provided on Termination Board).

Fault detection:

1) Preventive - abnormal supply voltage: supply 1 or supply 2 is < 18 Vdc (Under Voltage, UV) or > 30 Vdc (Over Voltage, OV).
2) Critical - abnormal supply voltages or cumulative fault: both supplies are in under (< 18 Vdc) or over (> 30 Vdc) voltage condition *OR* cumulative fault indication (about presence of short or open field circuit for any DO channel).
LED fault signaling (for both case 1 and 2): 2 red LEDs (UV and OV of supply 1); 2 red LEDs (UV and OV of supply 2); a cumulative fault red LED.
Relay fault signaling (one for each case 1 or 2): a voltage free NE SPDT - 1 Form C relay contacts (de-energized in fault condition), with the following characteristics:
Contact material: AgCdO.
Contact rating: 2 A 36 Vac 72 VA, 2 A 48 Vdc 80 W (resistive load).
Mechanical / Electrical life: 30 * 10^6 / 1 * 10^5 operation, typical.
Coil status LED indication: yellow color, turn on when coil is energized.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.

I/O card interface:

Connection:
four 36 poles AMP640506 male connectors (requires female mating connector).

Environmental conditions:

Operating: temperature limits – 40 to + 70 °C,
relative humidity max 90 % non condensing, up to 35 °C.
Storage: temperature limits – 45 to + 80 °C.

Mounting:

Hardware included for mounting on wall and single DIN rail.
Weight: about 400 g (excluding modules and mounting options).
Location: Safe Area / Ordinary locations.
Dimensions: Width 267 mm, Depth 176 mm, Height 125 mm.

Features:

- DI cards type IMDSI02, IMDSI12, IMDSI13, IMDSI22, SPDSI13, SPDSI22: 16 channels Digital Input board interfaces.
- DO cards type IMDSO04, IMDSO14, SPDSO14: 16 channels Digital Output board interfaces.
- 16 positions Terminal Board for up to 32 channels.
- Lower cables installation and maintenance costs.
- Power supplies fault monitoring.
- Spare fuse provided.
- Mounting hardware provided for:
  Wall mounting, M4 thread screw;
  Wall mounting, M4 self tapping screw;
  Single Din Rail mounting kit.

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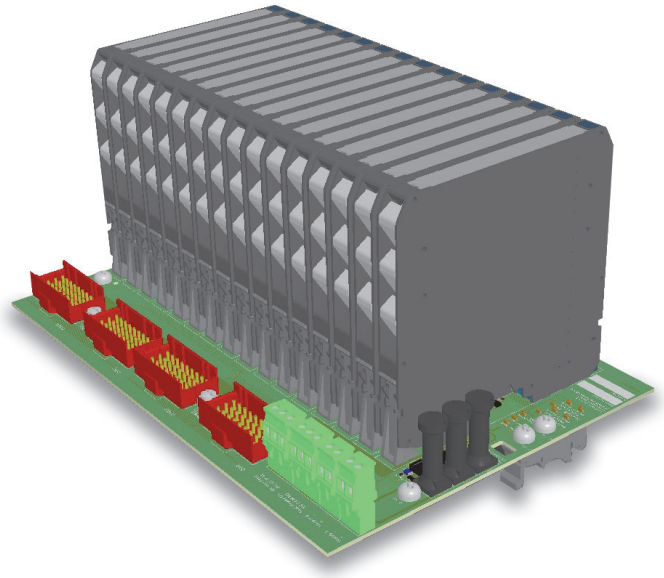

Ordering Information:

Model:	TB-D5016-BAI-004

TB-D5016 BAI-005

Termination Board 14 positions for Bailey INFI 90 with Analog Output cards IMASO01, IMASO11, SPASO11

Characteristics:

General description:

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5000 / D6000 Series modules.
Intrinsically Safe protection and signal isolation between Safe and Hazardous Area are provided by D5000 Series Associated Apparatus.
24 Vdc Power Supply of the TB is connected to two plug-in terminal blocks, for a redundant power supply. Modules are supplied via TB power bus.

Termination Board general characteristics:

Termination Board Model	*Number of positions*	*Features*
TB-D5016-BAI-005	14	1) I/O Card redundancy; 2) Power Supply voltage redundancy; 3) HART multiplexing; 4) Abnormal supply voltage signaling; 5) Cumulative module fault signaling.

Supported Bailey INFI90 I/O Cards:

I/O Card Model	*I/O Card Type*	*Number of channels per I/O Card*	*Number of I/O Cards per board*	*Number of channels per board*	*Supported GM Modules***
IMASO01 IMASO11 SPASO11	Analog Out	14	1+(1)*	14	D5020S D6020S

* with possibility of I/O Card redundancy.
** Do not mix D5000 Intrinsically Safe barriers with D5000 Relay modules or D6000 Isolators on same termination board.

Technical Data:

Supply:

24 Vdc nom (20 to 30 Vdc) reverse polarity protected, double terminal blocks for redundant power supply, with OR diodes to mix supply voltages.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.
2 LEDs indication: green color, one for supply 1 and one for supply 2.
Protection fuse: 2 A time lag (spare fuse provided on Termination Board).

Fault detection:

1) Preventive - abnormal supply voltage: supply 1 or supply 2 is < 18 Vdc (Under Voltage, UV) or > 30 Vdc (Over Voltage, OV).
2) Critical - abnormal supply voltages or cumulative fault: both supplies are in under (< 18 Vdc) or over (> 30 Vdc) voltage condition *OR* cumulative fault indication (about presence of short or open field circuit for any DO channel).
LED fault signaling (for both case 1 and 2): 2 red LEDs (UV and OV of supply 1); 2 red LEDs (UV and OV of supply 2); a cumulative fault red LED.
Relay fault signaling (one for each case 1 or 2): a voltage free NE SPDT - 1 Form C relay contacts (de-energized in fault condition), with the following characteristics:
Contact material: AgCdO.
Contact rating: 2 A 36 Vac 72 VA, 2 A 48 Vdc 80 W (resistive load).
Mechanical / Electrical life: 30 * 10^6 / 1 * 10^5 operation, typical.
Coil status LED indication: yellow color, turn on when coil is energized.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.

I/O card interface:

Connection:
two 36 poles AMP640506 male connectors (requires female mating connector).

HART Multiplexing:

Connection: one 34 poles male connectors (requires female mating connector).

Environmental conditions:

Operating: temperature limits – 40 to + 70 °C,
relative humidity max 90 % non condensing, up to 35 °C.
Storage: temperature limits – 45 to + 80 °C.

Mounting:

Hardware included for mounting on wall and single DIN rail.
Weight: about 400 g (excluding modules and mounting options).
Location: Safe Area / Ordinary locations.
Dimensions: Width 267 mm, Depth 176 mm, Height 125 mm.

Features:

- AO cards type IMASO01, IMASO11, SPASO11: 14 channels Analog Output board interfaces.
- 14 positions Terminal Board for up to 14 channels.
- (0)4-20 mA signals.
- Lower cables installation and maintenance costs.
- Power supplies fault monitoring.
- Spare fuse provided.
- Mounting hardware provided for:
  Wall mounting, M4 thread screw;
  Wall mounting, M4 self tapping screw;
  Single Din Rail mounting kit.

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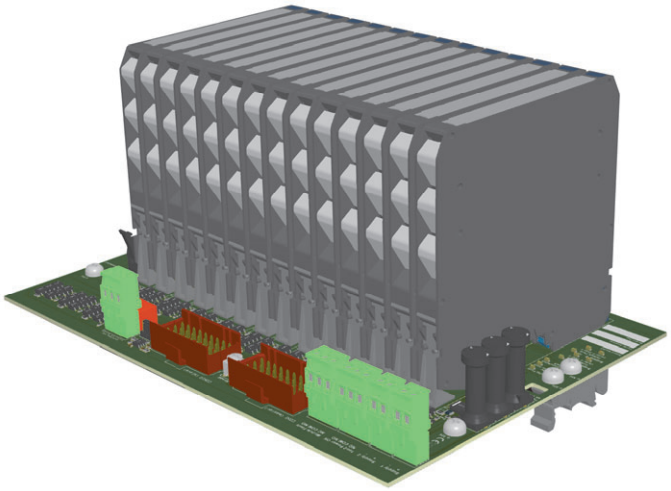

Ordering Information:

Model:	TB-D5016-BAI-005

TB-D5016 BAI-006

Termination Board 14 positions for Bailey INFI 90 with Analog Output cards IMASO01, IMASO11, SPASO11

Characteristics:

General description:

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5000 / D6000 Series modules.
Intrinsically Safe protection and signal isolation between Safe and Hazardous Area are provided by D5000 Series Associated Apparatus.
24 Vdc Power Supply of the TB is connected to two plug-in terminal blocks, for a redundant power supply. Modules are supplied via TB power bus.

Termination Board general characteristics:

Termination Board Model	*Number of positions*	*Features*
TB-D5016-BAI-006	14	1) I/O Card redundancy; 2) Power Supply voltage redundancy; 3) Abnormal supply voltage signaling; 4) Cumulative module fault signaling.

Supported Bailey INFI90 I/O Cards:

I/O Card Model	*I/O Card Type*	*Number of channels per I/O Card*	*Number of I/O Cards per board*	*Number of channels per board*	*Supported GM Modules***
IMASO01 IMASO11 SPASO11	Analog Out	14	1+(1)*	14	D5020S, D6020S,
			2+(2)*	28	D5020D, D6020D

* with possibility of I/O Card redundancy.
** Do not mix D5000 Intrinsically Safe barriers with D5000 Relay modules or D6000 Isolators on same termination board.

Technical Data:

Supply:

24 Vdc nom (20 to 30 Vdc) reverse polarity protected, double terminal blocks for redundant power supply, with OR diodes to mix supply voltages.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.
2 LEDs indication: green color, one for supply 1 and one for supply 2.
Protection fuse: 4 A time lag (spare fuse provided on Termination Board).

Fault detection:

1) Preventive - abnormal supply voltage: supply 1 or supply 2 is < 18 Vdc (Under Voltage, UV) or > 30 Vdc (Over Voltage, OV).
2) Critical - abnormal supply voltages or cumulative fault: both supplies are in under (< 18 Vdc) or over (> 30 Vdc) voltage condition *OR* cumulative fault indication (about presence of short or open field circuit for any DO channel).
LED fault signaling (for both case 1 and 2): 2 red LEDs (UV and OV of supply 1); 2 red LEDs (UV and OV of supply 2); a cumulative fault red LED.
Relay fault signaling (one for each case 1 or 2): a voltage free NE SPDT - 1 Form C relay contacts (de-energized in fault condition), with the following characteristics:
Contact material: AgCdO.
Contact rating: 2 A 36 Vac 72 VA, 2 A 48 Vdc 80 W (resistive load).
Mechanical / Electrical life: 30 * 10^6 / 1 * 10^5 operation, typical.
Coil status LED indication: yellow color, turn on when coil is energized.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.

I/O card interface:

Connection:
four 36 poles AMP640506 male connectors (requires female mating connector).

Environmental conditions:

Operating: temperature limits – 40 to + 70 °C,
relative humidity max 90 % non condensing, up to 35 °C.
Storage: temperature limits – 45 to + 80 °C.

Mounting:

Hardware included for mounting on wall and single DIN rail.
Weight: about 400 g (excluding modules and mounting options).
Location: Safe Area / Ordinary locations.
Dimensions: Width 267 mm, Depth 176 mm, Height 125 mm.

Features:

- AO cards type IMASO01, IMASO11, SPASO11: 14 channels Analog Output board interfaces.
- 14 positions Terminal Board for up to 28 channels.
- 4-20 mA signals.
- Lower cables installation and maintenance costs.
- Power supplies fault monitoring.
- Spare fuse provided.
- Mounting hardware provided for:
  - Wall mounting, M4 thread screw;
  - Wall mounting, M4 self tapping screw;
  - Single Din Rail mounting kit.

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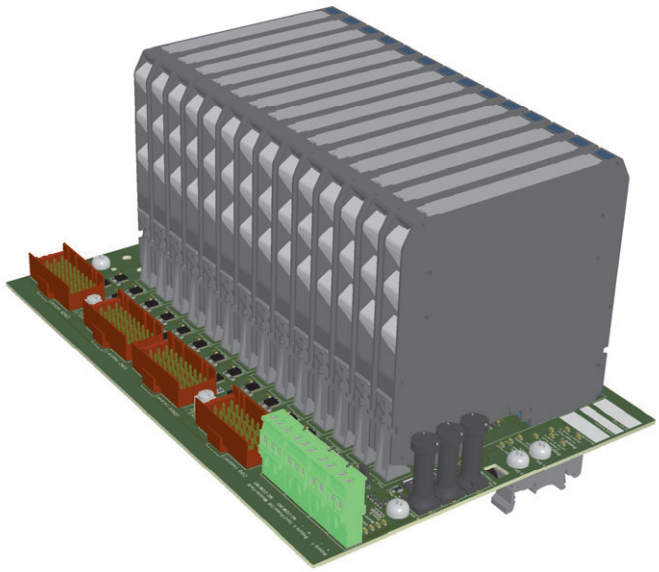

Ordering Information:

Model:	TB-D5016-BAI-006

TB-D5016 BAI-002

Termination Board 16 positions for Bailey INFI 90 with Analog Input cards IMASI02, IMFEC12 (current signals)

Characteristics:

General description:

This Termination Board (TB) provides direct connection between the I/O Card of the system and D5000 / D6000 Series modules.
Intrinsically Safe protection and signal isolation between Safe and Hazardous Area are provided by D5000 Series Associated Apparatus.
24 Vdc Power Supply of the TB is connected to two plug-in terminal blocks, for a redundant power supply. Modules are supplied via TB power bus.

Termination Board general characteristics:

Termination Board Model	*Number of positions*	*Features*
TB-D5016-BAI-002	16	1) I/O Card redundancy; 2) Power Supply voltage redundancy; 3) HART multiplexing; 4) Abnormal supply voltage signaling; 5) Cumulative module fault signaling; 6) Current signals.

Supported Bailey INFI90 I/O Cards:

I/O Card Model	*I/O Card Type*	*Number of channels per I/O Card*	*Number of I/O Cards per board*	*Number of channels per board*	*Supported GM Modules***
IMASI02 IMFEC12	Analog In	15	1+(1)*	15	D5011S D5014S D5072S D6011S D6014S D6072S
IMASI02 IMFEC12	Analog In	15	2+(2)*	30	D5011D D5014D D5072D D6011D D6014D D6072D

* with possibility of I/O Card redundancy.
** Do not mix D5000 Intrinsically Safe barriers with D5000 Relay modules or D6000 Isolators on same termination board.

Features:

- AI card type IMASI02, IMFEC12: 15 ch Analog Input board interfaces.
- 16 positions Terminal Board for up to 30 channels.
- (0)4-20 mA signals.
- Lower cables installation and maintenance costs.
- Power supplies fault monitoring.
- Spare fuse provided.
- Mounting hardware provided for:
  - Wall mounting, M4 thread screw;
  - Wall mounting, M4 self tapping screw;
  - Single Din Rail mounting kit.

Technical Data:

Supply:
24 Vdc nom (20 to 30 Vdc) reverse polarity protected, double terminal blocks for redundant power supply, with OR diodes to mix supply voltages.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.
2 LEDs indication: green color, one for supply 1 and one for supply 2.
Protection fuse: 2 A time lag (spare fuse provided on Termination Board).

Fault detection:
1) Preventive - abnormal supply voltage: supply 1 or supply 2 is < 18 Vdc (Under Voltage, UV) or > 30 Vdc (Over Voltage, OV).
2) Critical - abnormal supply voltages <u>or</u> cumulative fault: both supplies are in under (< 18 Vdc) or over (> 30 Vdc) voltage condition <u>*OR*</u> cumulative fault indication (about presence of short or open field circuit for any DO channel).
LED fault signaling (for both case 1 and 2): 2 red LEDs (UV and OV of supply 1); 2 red LEDs (UV and OV of supply 2); a cumulative fault red LED.
Relay fault signaling (one for each case 1 or 2): a voltage free NE SPDT - 1 Form C relay contacts (de-energized in fault condition), with the following characteristics:
Contact material: AgCdO.
Contact rating: 2 A 36 Vac 72 VA, 2 A 48 Vdc 80 W (resistive load).
Mechanical / Electrical life: 30 * 10^6 / 1 * 10^5 operation, typical.
Coil status LED indication: yellow color, turn on when coil is energized.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.

I/O card interface:
Connection:
four 36 poles AMP640506 male connectors (requires female mating connector).

HART Multiplexing:
Connection: two 34 poles male connectors (requires female mating connector).

Environmental conditions:
Operating: temperature limits – 40 to + 70 °C,
relative humidity max 90 % non condensing, up to 35 °C.
Storage: temperature limits – 45 to + 80 °C.

Mounting:
Hardware included for mounting on wall and single DIN rail.
Weight: about 400 g (excluding modules and mounting options).
Location: Safe Area / Ordinary locations.
Dimensions: Width 267 mm, Depth 176 mm, Height 125 mm.

Ordering Information:

Model:	TB-D5016-BAI-002