

# Платы подключения HART H-System

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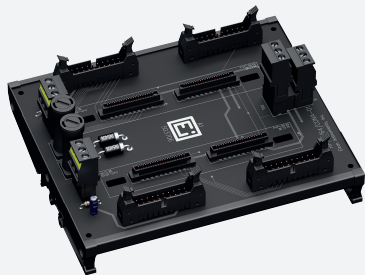
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# HART Termination Board

## HiSHPMM/64/CONA-01

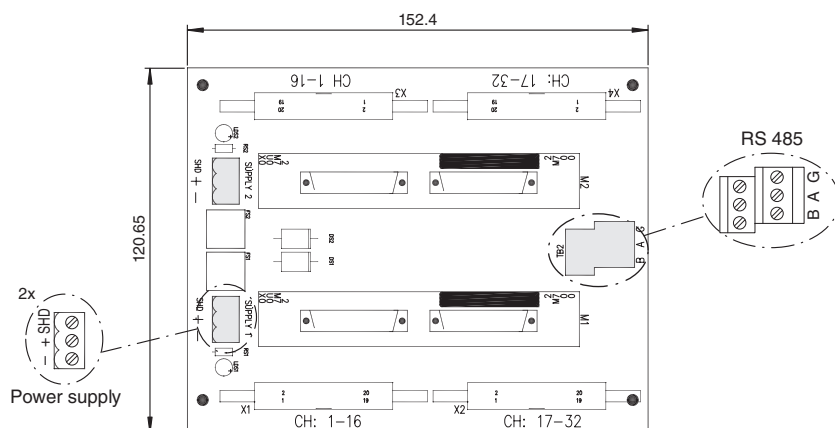
- 64-channel
- 24 V DC supply
- Connection of two Multiplexers to HART enabled Honeywell TDC 3000 FTA's
- Redundant power supply connections
- Dual RS 485 connections
- HART loop connection via four 20-pin flat ribbon connectors
- Compact design



## Function

The Termination Board is designed to complement the I/O termination panels and provide access to all HART information. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 64 field located HART devices, and it allows a connection to H-System Termination Boards. This is ideal for retrofitting existing installations and maintains all existing hardware and field wiring.

## Connection



## Technical Data

### Supply

Rated voltage	$U_r$	24 V DC
Fusing		2 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

### HART signal channels (intrinsically safe)

HART signal channels		
Number of channels		64 unbalanced signal loops

### Redundancy

Supply		yes
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### Galvanic isolation

HART signal channels		30 V DC
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## Technical Data

<b>Ambient conditions</b>		
Ambient temperature		-20 ... 55 °C (-4 ... 131 °F)
Relative humidity		5 ... 90 %, non-condensing
<b>Mechanical specifications</b>		
Core cross section		2.5 mm <sup>2</sup> (16 AWG)
Connection		HART loop interface: connectors depending on version RS-485 interface: removable screw terminals power: removable screw terminals
Mass		approx. 500 g
Dimensions		152 x 121 x 142 mm (6 x 4.75 x 5.6 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting		DIN rail mounting
<b>General information</b>		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Connection Assignment

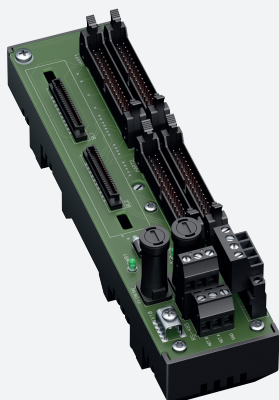
X1 (X3)			X2 (X4)		
Pin	Signal	Channel	Pin	Signal	Channel
A1	1+	1	A1	17+	17
B1	2+	2	B1	18+	18
A2	3+	3	A2	19+	19
B2	4+	4	B2	20+	20
A3	5+	5	A3	21+	21
B3	6+	6	B3	22+	22
A4	7+	7	A4	23+	23
B4	8+	8	B4	24+	24
A5	9+	9	A5	25+	25
B5	10+	10	B5	26+	26
A6	11+	11	A6	27+	27
B6	12+	12	B6	28+	28
A7	13+	13	A7	29+	29
B7	14+	14	B7	30+	30
A8	15+	15	A8	31+	31
B8	16+	16	B8	32+	32
A9	GND		A9	GND	
B9	GND		B9	GND	
A10	GND		A10	GND	
B10	GND		B10	GND	

### Versions

HiSHPMM/64/CONA-01	Version for wall mounting
HiSHPMM/64/CONA-01-DIN	Version for DIN rail mounting

### Accessories

CA-R20-R2-**	Connection cable, where ** equals length in foot
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# HART Communication Board

## HiATB01-HART-4X8

- 4 x 8-channel
- 24 V DC supply
- Suitable for HART communication
- Dual RS 485 connections
- Used with HiC Termination Boards
- LED indicator for supply status

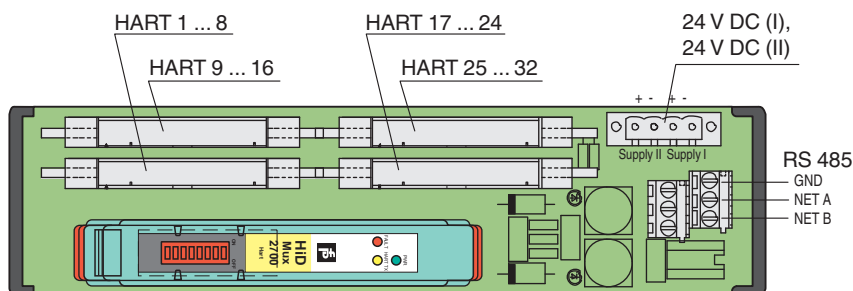
### HART Communication Board



### Function

This HART Communication Board can be connected with up to 32 channels of a H-System termination board. It contains one slot to mount the 32- channel HART multiplexer type HiDMux2700. HART interface cables provide easy connection between termination boards and the HART Communication Board. It offers fused redundant power supply connections with LED indication. RS 485 terminals are redundant and can be daisy chained.

### Connection



### Technical Data

#### Supply

Connection	X20: terminals 1, 3(+); 2, 4(-)
Nominal voltage	24 V DC SELV/PELV
Voltage drop	0.9 V , voltage drop across the series diode on the termination board must be considered
Ripple	≤ 10 %
Fusing	0.5 A
Power dissipation	≤ 500 mW , without modules
Reverse polarity protection	yes

#### Interface

Type/number	2 x RS-485
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#### Redundancy

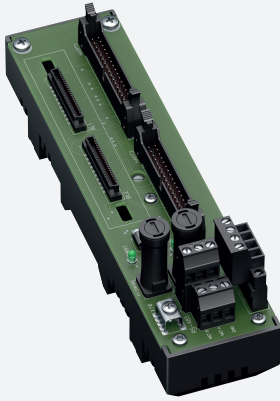


## Technical Data

Supply		Redundancy available. The supply is decoupled, monitored and fused.
Indicators/settings		
Display elements		LED PWR1 (termination board power supply), green LED LED PWR2 (termination board power supply), green LED
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (industrial locations)
Conformity		
Electromagnetic compatibility		NE 21:2012 For further information see system description.
Degree of protection		IEC 60529:2001
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Degree of protection		IP20
Connection		
Control side		RS-485 : 1 x screw terminal , black HART : 4 x IDC plug, 34-pin
Supply		pluggable screw terminals , black
Core cross section		screw terminals: 0.25 ... 1.5 mm² (24 ... 12 AWG)
Material		housing: polycarbonate, 10 % glass fiber reinforced
Mass		approx. 210 g
Dimensions		50 x 200 x 163 mm (1.97 x 7.9 x 6.42 inch) (W x H x D) , depth including module assembly
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Safety Information

We recommend that you do not connect the device supply to a DC supply network.  
If you connect the device supply to a DC supply network, make sure that appropriate protective measures are implemented to ensure that no transient overvoltages occur.



# HART Communication Board

## HiATB01-HART-2X16

- 2 x 16-channel
- 24 V DC supply
- Suitable for HART communication
- Dual RS 485 connections
- Used with HiC Termination Boards
- LED indicator for supply status

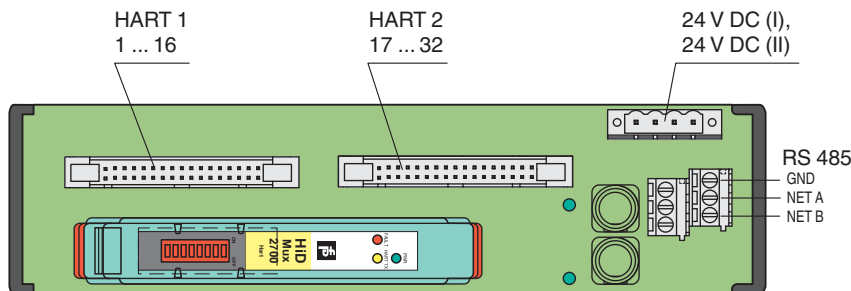
### HART Communication Board



### Function

This HART Communication Board can be connected with up to 32 channels of a H-System termination board. It contains one slot to mount the 32- channel HART multiplexer type HiDMux2700. HART interface cables provide easy connection between termination boards and the HART Communication Board. It offers fused redundant power supply connections with LED indication. RS 485 terminals are redundant and can be daisy chained.

### Connection



### Technical Data

#### Supply

Connection	X20: terminals 1, 3(+); 2, 4(-)
Nominal voltage	24 V DC SELV/PELV
Voltage drop	0.9 V , voltage drop across the series diode on the termination board must be considered
Ripple	≤ 10 %
Fusing	0.5 A
Power dissipation	≤ 500 mW , without modules
Reverse polarity protection	yes

#### Interface

Type/number	2 x RS-485
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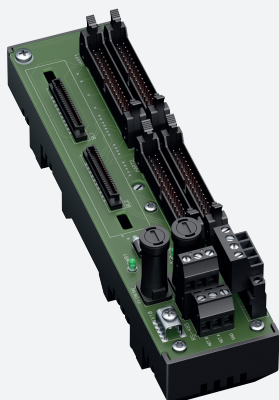
#### Redundancy

## Technical Data

Supply		Redundancy available. The supply is decoupled, monitored and fused.
Indicators/settings		
Display elements		LED PWR1 (termination board power supply), green LED LED PWR2 (termination board power supply), green LED
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (industrial locations)
Conformity		
Electromagnetic compatibility		NE 21:2012 For further information see system description.
Degree of protection		IEC 60529:2001
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Degree of protection		IP20
Connection		
Control side		RS-485 : 1 x screw terminal , black HART : 2 x IDC plug, 34-pin
Supply		pluggable screw terminals , black
Core cross section		screw terminals: 0.25 ... 1.5 mm² (24 ... 12 AWG)
Material		housing: polycarbonate, 10 % glass fiber reinforced
Mass		approx. 190 g
Dimensions		50 x 200 x 163 mm (1.97 x 7.9 x 6.42 inch) (W x H x D) , depth including module assembly
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Safety Information

We recommend that you do not connect the device supply to a DC supply network.  
If you connect the device supply to a DC supply network, make sure that appropriate protective measures are implemented to ensure that no transient overvoltages occur.



# HART Communication Board

## HiATB01-HART-4X8-Y1

- 4 x 8-channel
- 24 V DC supply
- Suitable for HART communication
- Dual RS 485 connections
- Used with HiC Termination Boards
- LED indicator for supply status

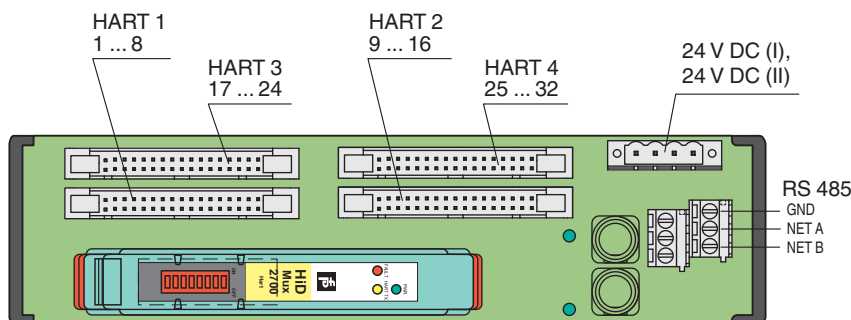
### HART Communication Board



### Function

This HART Communication Board can be connected with up to 32 channels of a H-System termination board. It contains one slot to mount the 32- channel HART multiplexer type HiDMux2700. HART interface cables provide easy connection between termination boards and the HART Communication Board. It offers fused redundant power supply connections with LED indication. RS 485 terminals are redundant and can be daisy chained.

### Connection



### Technical Data

#### Supply

Connection	X20: terminals 1, 3(+); 2, 4(-)
Nominal voltage	24 V DC SELV/PELV
Voltage drop	0.9 V , voltage drop across the series diode on the termination board must be considered
Ripple	≤ 10 %
Fusing	0.5 A
Power dissipation	≤ 500 mW , without modules
Reverse polarity protection	yes

#### Interface

Type/number	2 x RS-485
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#### Redundancy

## Technical Data

Supply		Redundancy available. The supply is decoupled, monitored and fused.
Indicators/settings		
Display elements		LED PWR1 (termination board power supply), green LED LED PWR2 (termination board power supply), green LED
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013 (industrial locations)
Conformity		
Electromagnetic compatibility		NE 21:2012 For further information see system description.
Degree of protection		IEC 60529:2001
Ambient conditions		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
Mechanical specifications		
Degree of protection		IP20
Connection		
Control side		RS-485 : 1 x screw terminal , black HART : 4 x IDC plug, 34-pin
Supply		pluggable screw terminals , black
Core cross section		screw terminals: 0.25 ... 1.5 mm² (24 ... 12 AWG)
Material		housing: polycarbonate, 10 % glass fiber reinforced
Mass		approx. 210 g
Dimensions		50 x 200 x 163 mm (1.97 x 7.9 x 6.42 inch) (W x H x D) , depth including module assembly
Mounting		on 35 mm DIN mounting rail acc. to EN 60715:2001
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Safety Information

We recommend that you do not connect the device supply to a DC supply network.  
If you connect the device supply to a DC supply network, make sure that appropriate protective measures are implemented to ensure that no transient overvoltages occur.

# HART Termination Board

## HiSHPTB/32/FOX2001C-02



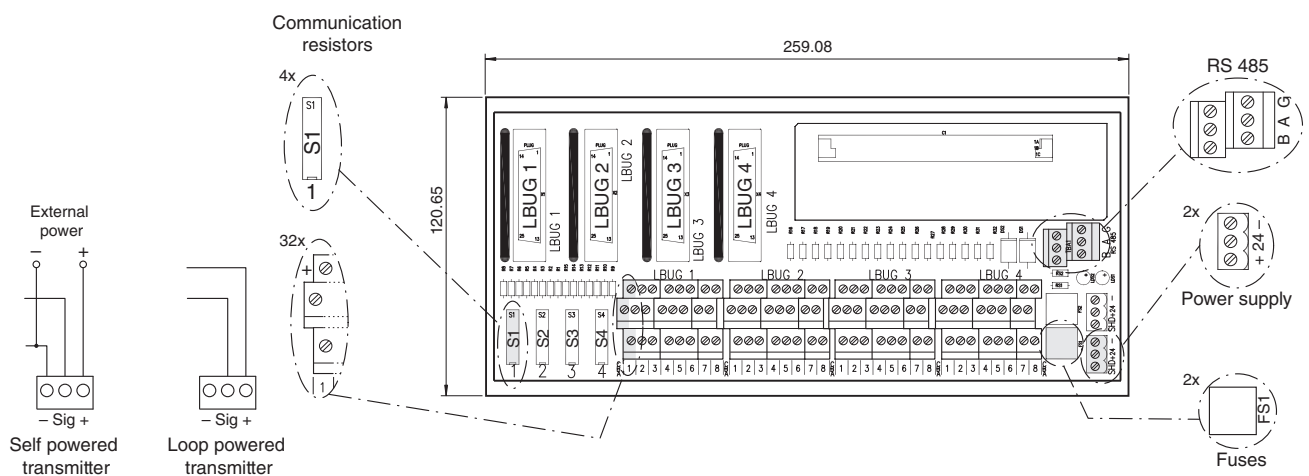
- IA 200 replacement FTA
- Designed for FBMs 201, 204, 215 and 237
- 25-pin Sub-D connectors, PCS wiring
- Redundant power supply connections
- Easy to add line impedance



### Function

The Termination Board is designed for easy HiDMux2700 Multiplexer integration with Foxboro IA 200 series controller. With the Multiplexer integrated into the board and plug-n-play options for the DCS equipment, this provides a clean and clear access to the HART signals, while reducing the need for marshalling cabinets and extra equipment that reduce cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	20 ... 30 V DC
Fusing		315 mA , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

#### HART signal channels (intrinsically safe)

HART signal channels	
Number of channels	32 unbalanced signal loops

#### Redundancy

Supply	yes
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#### Galvanic isolation

## Technical Data

HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: 2 x 37-pin Sub-D socket control side: 4 x 26-pin connectors RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	260 x 120 x 190 mm (10.2 x 4.7 x 7.5 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Connection Assignment

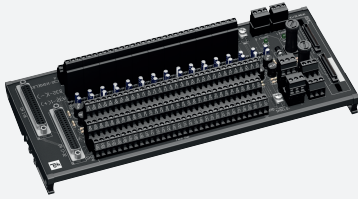
Terminal block	Channels
LBUG 1	1 ... 8
LBUG 2	9 ... 16
LBUG 3	17 ... 24
LBUG 4	25 ... 32

### Configuration

Channel	Switch		Communication resistor shorted (valve)	Communication resistor in series (transmitter)
1	S1	1	closed	opened
2		2	closed	opened
3		3	closed	opened
4		4	closed	opened
5		5	closed	opened
6		6	closed	opened
7		7	closed	opened
8		8	closed	opened
9	S2	1	closed	opened
10		2	closed	opened
11		3	closed	opened
12		4	closed	opened
13		5	closed	opened
14		6	closed	opened
15		7	closed	opened
16		8	closed	opened
17	S3	1	closed	opened
18		2	closed	opened
19		3	closed	opened
20		4	closed	opened
21		5	closed	opened
22		6	closed	opened
23		7	closed	opened
24		8	closed	opened
25	S4	1	closed	opened
26		2	closed	opened
27		3	closed	opened
28		4	closed	opened
29		5	closed	opened
30		6	closed	opened
31		7	closed	opened
32		8	closed	opened

# HART Termination Board

## HiSHPSM/32/TB-02



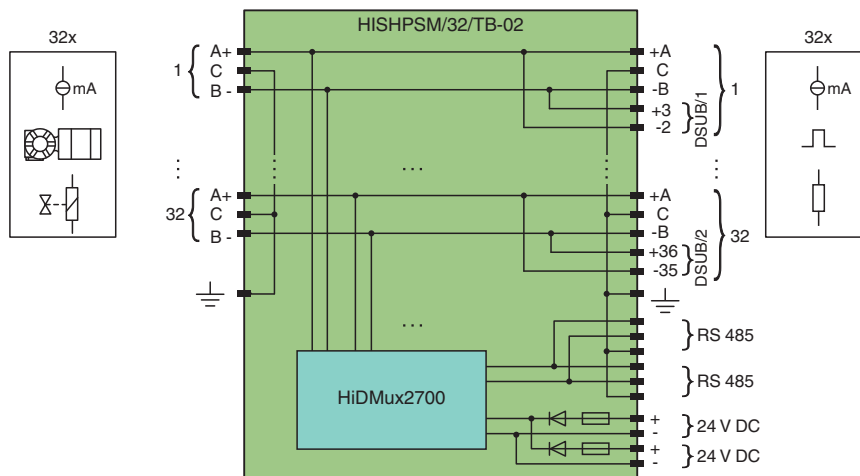
- 32-channel
- 24 V DC supply
- Interface for serial or parallel wiring options
- 37-pin Sub-D connectors
- Slot for HART Multiplexer



### Function

The Termination Board is designed to complement the I/O termination panels and provide access to all HART information. The Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and it allows the user to retain standard DCS field termination panels. This ideal for retrofitting existing installations and maintains all existing hardware and field wiring. The Termination Board offers analog output filters.

### Connection



### Technical Data

Supply	
Nominal voltage	24 V DC
Fusing	100 mA , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation	0.7 W , with Multiplexer
Reverse polarity protection	yes
HART signal channels (intrinsically safe)	
HART signal channels	
Number of channels	32 unbalanced signal loops
Interface	
Type/number	2 x RS-485
Redundancy	



## Technical Data

Supply	yes
<b>Galvanic isolation</b>	
HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 55 °C (-4 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: screw terminals control side: screw terminals/Sub-D socket 2 x 37-pin RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 700 g
Dimensions	300 x 127 x 186 mm (11.8 x 5 x 7.3 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Connection Assignment

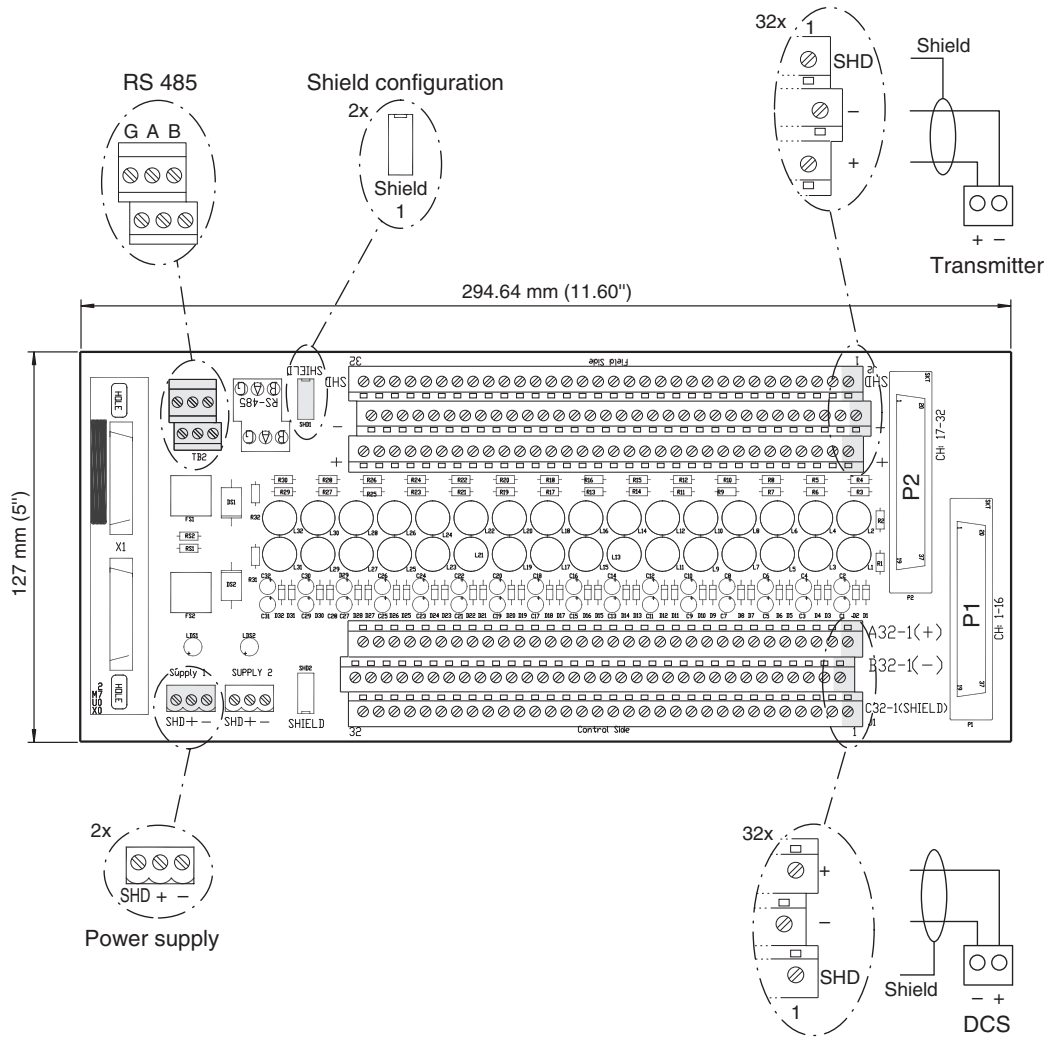
Sub-D connector, 37-pin, pin	Signal	P1	P2
1	NC	unused	unused
2	1-	Channel 1-	Channel 17-
3	1+	Channel 1+	Channel 17+
4	3-	Channel 3-	Channel 19-
5	3+	Channel 3+	Channel 19+
6	5-	Channel 5-	Channel 21-
7	5+	Channel 5+	Channel 21+
8	7-	Channel 7-	Channel 23-
9	7+	Channel 7+	Channel 23+
10	9-	Channel 9-	Channel 25-
11	9+	Channel 9+	Channel 25+
12	11-	Channel 11-	Channel 27-
13	11+	Channel 11+	Channel 27+
14	13-	Channel 13-	Channel 29-
15	13+	Channel 13+	Channel 29+
16	15-	Channel 15-	Channel 31-
17	15+	Channel 15+	Channel 31+
18	NC	unused	unused
19	NC	unused	unused
20	NC	unused	unused
21	2-	Channel 2-	Channel 18-
22	2+	Channel 2+	Channel 18+
23	4-	Channel 4-	Channel 20-
24	4+	Channel 4+	Channel 20+
25	6-	Channel 6-	Channel 22-
26	6+	Channel 6+	Channel 22+
27	8-	Channel 8-	Channel 24-
28	8+	Channel 8+	Channel 24+
29	10-	Channel 10-	Channel 26-
30	10+	Channel 10+	Channel 26+
31	12-	Channel 12-	Channel 28-
32	12+	Channel 12+	Channel 28+
33	14-	Channel 14-	Channel 30-
34	14+	Channel 14+	Channel 30+
35	16-	Channel 16-	Channel 32-
36	16+	Channel 16+	Channel 32+
37	NC	unused	unused

Additional Information

Versions

HISHPSM/32/TB-02-C	coated version
HISHPSM/32/TB-02-200R	with 200 Ω resistor
HISHPSM/32/TB-02/FUSE	with series fuses for each channel
HISHPSM/32/TB-02/HF16	16 channels with HART filter
HISHPSM/32/TB-02/HF16/FUSE	16 channels with HART filter and with series fuses for each channel
HISHPSM/32/TB-02/HF32	32 channels with HART filter
HISHPSM/32/TB-02/HF32-C	32 channels with HART filter, coated version

Connection



# HART Termination Board

## HiSHPSM/32/TB-02/HF32



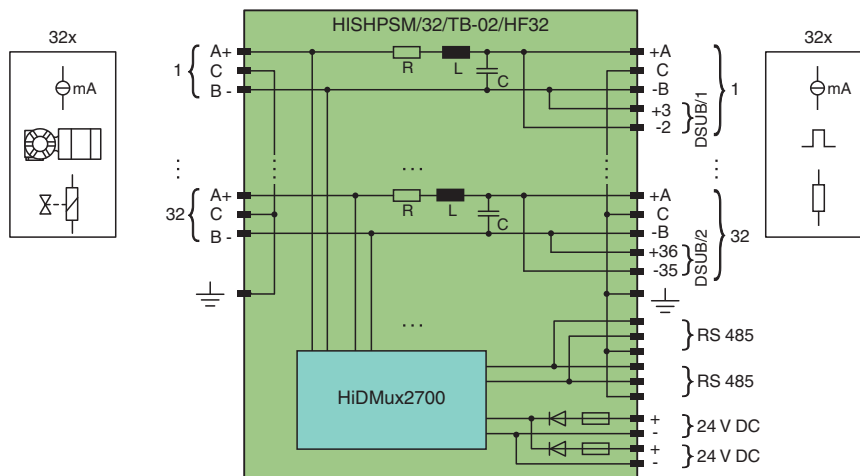
- 32-channel
- 24 V DC supply
- For analog output cards
- HART output filters
- Interface for serial or parallel wiring options
- 37-pin Sub-D connectors
- Slot for HART Multiplexer



### Function

The Termination Board is designed to complement the I/O termination panels and provide access to all HART information. The Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and it allows the user to retain standard DCS field termination panels. This ideal for retrofitting existing installations and maintains all existing hardware and field wiring. The Termination Board offers analog output filters.

### Connection



### Technical Data

#### Supply

Nominal voltage	24 V DC
Fusing	100 mA , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation	0.7 W , with Multiplexer
Reverse polarity protection	yes

#### HART signal channels (intrinsically safe)

HART signal channels	
Number of channels	32 unbalanced signal loops

#### Interface

Type/number	2 x RS-485
-------------	------------

#### Redundancy

## Technical Data

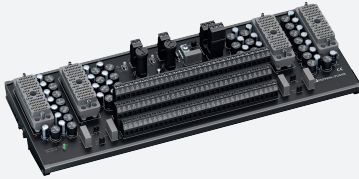
Supply	yes
<b>Galvanic isolation</b>	
HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 55 °C (-4 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: screw terminals control side: screw terminals/Sub-D socket 2 x 37-pin RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 700 g
Dimensions	300 x 127 x 186 mm (11.8 x 5 x 7.3 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Connection Assignment

Sub-D connector, 37-pin, pin	Signal	P1	P2
1	NC	unused	unused
2	1-	Channel 1-	Channel 17-
3	1+	Channel 1+	Channel 17+
4	3-	Channel 3-	Channel 19-
5	3+	Channel 3+	Channel 19+
6	5-	Channel 5-	Channel 21-
7	5+	Channel 5+	Channel 21+
8	7-	Channel 7-	Channel 23-
9	7+	Channel 7+	Channel 23+
10	9-	Channel 9-	Channel 25-
11	9+	Channel 9+	Channel 25+
12	11-	Channel 11-	Channel 27-
13	11+	Channel 11+	Channel 27+
14	13-	Channel 13-	Channel 29-
15	13+	Channel 13+	Channel 29+
16	15-	Channel 15-	Channel 31-
17	15+	Channel 15+	Channel 31+
18	NC	unused	unused
19	NC	unused	unused
20	NC	unused	unused
21	2-	Channel 2-	Channel 18-
22	2+	Channel 2+	Channel 18+
23	4-	Channel 4-	Channel 20-
24	4+	Channel 4+	Channel 20+
25	6-	Channel 6-	Channel 22-
26	6+	Channel 6+	Channel 22+
27	8-	Channel 8-	Channel 24-
28	8+	Channel 8+	Channel 24+
29	10-	Channel 10-	Channel 26-
30	10+	Channel 10+	Channel 26+
31	12-	Channel 12-	Channel 28-
32	12+	Channel 12+	Channel 28+
33	14-	Channel 14-	Channel 30-
34	14+	Channel 14+	Channel 30+
35	16-	Channel 16-	Channel 32-
36	16+	Channel 16+	Channel 32+
37	NC	unused	unused

# HART Termination Board

## HiSHPTB/32/TR-AO-01



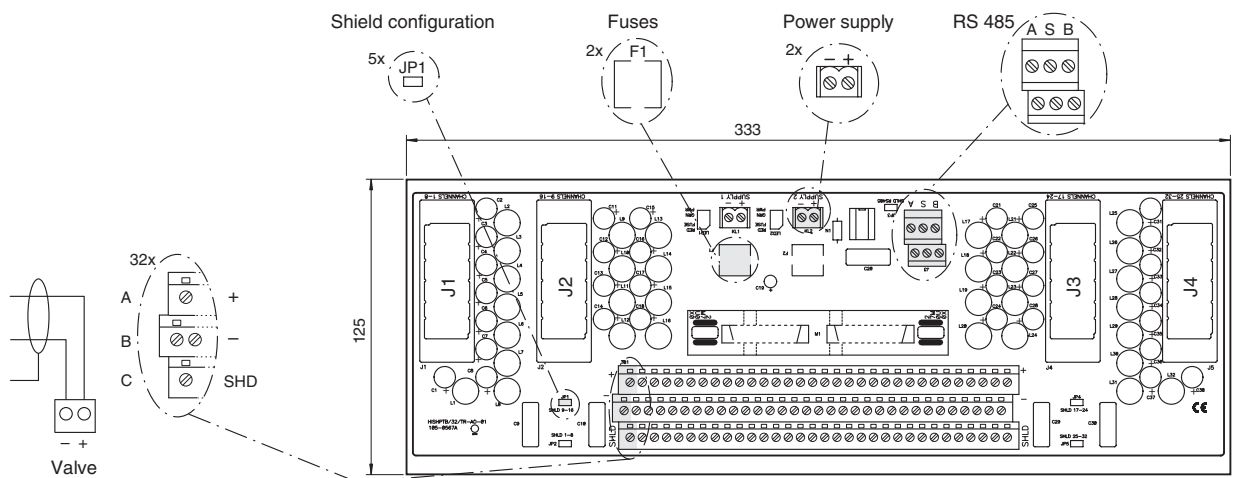
- Triconex 3805E replacement FTA
- 32 channels of I/O
- Outputs: 4 x 8 channels, 4 mA ... 20 mA current loop, DC coupled
- Short-circuit protected
- HART analog output filters



### Function

The Termination Board is designed for easy HiDMux2700 Multiplexer integration with the Tricon safety system. With the Multiplexer integrated into the board and plug-n-play option for the DCS equipment, this provides a very clean access to the HART signals, while reducing the need for marshalling cabinets and reducing equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

Supply		
Rated voltage	U <sub>r</sub>	20 ... 30 V DC
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes
HART signal channels (intrinsically safe)		
HART signal channels		
Number of channels		32 unbalanced signal loops
Redundancy		
Supply		yes
Galvanic isolation		

## Technical Data

HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: screw terminals control side: 56-pin Elco connector RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	333 x 125 x 208 mm (13.1 x 4.9 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Product Versions

HiSHPTB/32/TR-AO-01	Standard version
HiSHPTB/32/TR-AO-01-C	Coated version

### Connection Assignment

Terminal block	Channels
TB1	1 ... 32
J1	1 ... 8
J2	9 ... 16
J3	17 ... 24
J4	25 ... 32

### Configuration

Jumper	Output	Galvanic grounding	Capacitive grounding
JP1	Channels 1 ... 8	closed	opened
JP2	Channels 9 ... 16	closed	opened
JP3	RS-485	closed	opened
JP4	Channels 17 ... 24	closed	opened
JP5	Channels 25 ... 32	closed	opened

### Triconex I/O Interface

- 3805E

# HART Termination Board

## HiS1132/CON8-H-LTX-02



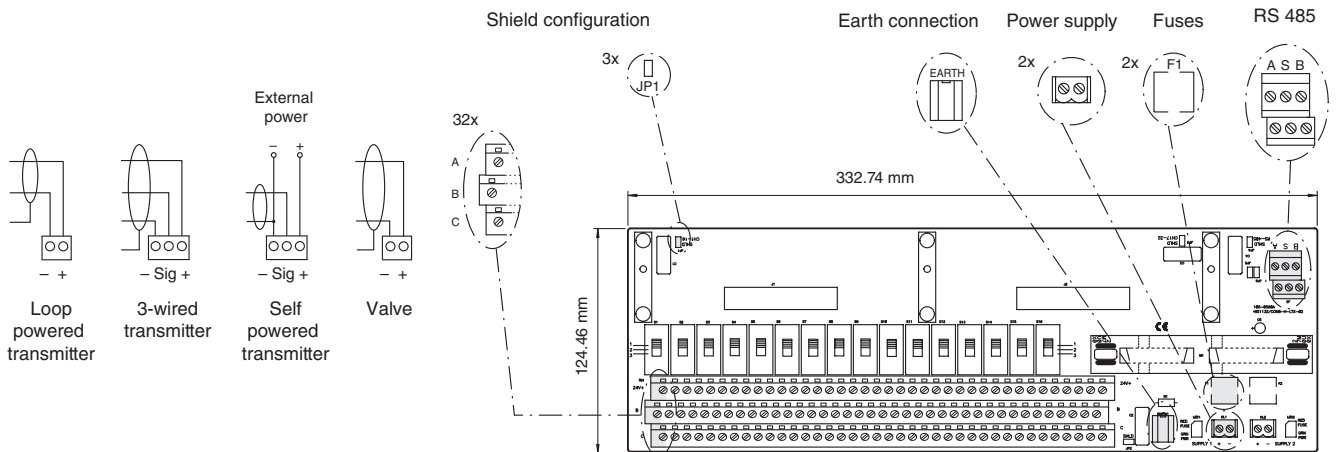
- APACS/QUADLOG replacement FTA
- Bailey Infi 90 replacement FTA
- Product connector; PCS wiring
- Easy switch selectable configurations for AO and AI



### Function

The Termination Board is designed for easy HiDMux2700 Multiplexer integration with the Siemens Moore APACS/Quadlog system or the Bailey Infi 90 system. With the Multiplexer integrated into the board and plug-n-play options for choosing the correct DCS connection through the Interface Adapter Card (IAC), this provides a clean and clear access to the HART signals, while reducing the need for marshalling cabinets and reduce equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

Supply		
Rated voltage	U <sub>r</sub>	20 ... 30 V DC
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes
HART signal channels (intrinsically safe)		
HART signal channels		
Number of channels		32 unbalanced signal loops
Redundancy		
Supply		yes

## Technical Data

<b>Galvanic isolation</b>		
HART signal channels		30 V DC
<b>Ambient conditions</b>		
Ambient temperature		0 ... 55 °C (32 ... 131 °F)
Relative humidity		5 ... 90 %, non-condensing
<b>Mechanical specifications</b>		
Core cross section		2.5 mm <sup>2</sup> (16 AWG)
Connection		field side: fixed screw terminals control side: PCS-specified connector RS 485 interface: removable screw terminals power: removable screw terminals
Mass		approx. 700 g
Dimensions		333 x 125 x 208 mm (13.1 x 4.9 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting		DIN rail mounting
<b>General information</b>		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Configuration

Jumper	Channels	Galvanic grounding	Capacitive grounding
1	DCS side channels 1 ... 16	closed	opened
2	Field side channels 1 ... 32	closed	opened
3	DCS side channels 17 ... 32	closed	opened
4	RS-485	closed	opened

Function	Switch position	Terminals
4 ... 20 mA mains powered current sources	1	B, C
4 ... 20 mA loop powered	2	24 V, C
1 ... 5 V DC	3	B, C

### Interface Adapter Cards

Type	Channels/function
Moore APACS/QUADLOG	
IA-MP-SAM-NIS (1 per 1132)	32 AI/AO inputs
IA-MP-VIM-ISI (2 per 1132)	32 AI inputs
IA-MP-EAM-ISI (2 per 1132)	32 AI inputs
IA-MP-HFM-ISI (2 per 1132)	32 AI inputs
Bailey Infi 90	
IA-BA-AI-01-I-R (2 per 1132)	32 AI inputs HART Boostin
IA-BA-AI-03-BC (2 per 1132)	32 redundant AI inputs
IA-BA-AO-HFT-01 (2 per 1132)	32 HART filtered AO inputs



# HART Termination Board

## HiSHPTB/32/YOK-AI-R-02



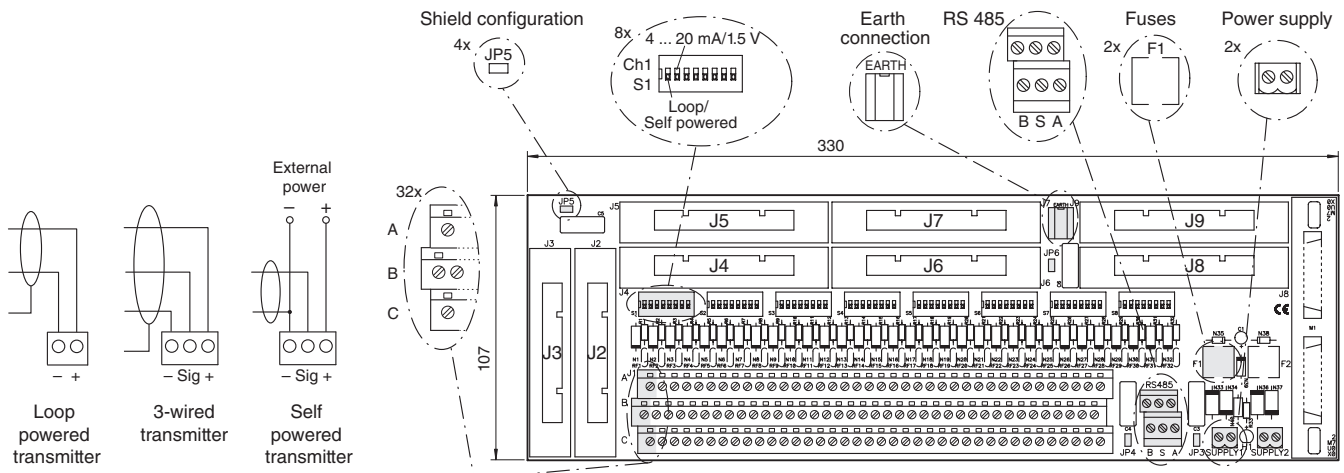
- Yokogawa Centum 3000 CS AAI135 replacement FTA
- 32 channels of I/O
- 2- or 3-wire or self powered transmitters
- Short-circuit protected
- Plug-n-play wiring capabilities



### Function

The Termination Board designed for easy HiDMux2700 Multiplexer integration with the Yokogawa Centum 3000 CS system. With the Multiplexer integrated into the board and plug-n-play option for the DCS equipment, this provides a very clean access to the HART signals, while reducing the need for marshalling cabinets and reducing equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

<b>Supply</b>			
Rated voltage	$U_r$	20 ... 30 V DC	
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)	
Power dissipation		0.7 W , with Multiplexer	
Reverse polarity protection		no	
<b>HART signal channels (intrinsically safe)</b>			
HART signal channels			
Number of channels		32 unbalanced signal loops	
<b>Redundancy</b>			
Supply		no	
<b>Galvanic isolation</b>			

## Technical Data

HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: screw terminals control side: KS connector (proprietary) RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	330 x 107 x 208 mm (12.9 x 4.2 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Connection Assignment

Connector	Channels
J1	1 ... 32
J2	1 ... 8, primary
J3	1 ... 8, secondary
J4	9 ... 16, primary
J5	9 ... 16, secondary
J6	17 ... 24, primary
J7	17 ... 24, secondary
J8	25 ... 32, primary
J9	25 ... 32, secondary

### Configuration

Switch	Channel	Switch	Field and DCS have the same signal (4 ... 20 mA or 1 ... 5 V)	Convert a 4 ... 20 mA signal from the field into the 1 ... 5 V signal for DCS	Switch	Self powered device	Loop powered device
S1	1	1	Off	On	2	Off	On
	2	3	Off	On	4	Off	On
	3	5	Off	On	6	Off	On
	4	7	Off	On	8	Off	On
S2	5	1	Off	On	2	Off	On
	6	3	Off	On	4	Off	On
	7	5	Off	On	6	Off	On
	8	7	Off	On	8	Off	On
S3	9	1	Off	On	2	Off	On
	10	3	Off	On	4	Off	On
	11	5	Off	On	6	Off	On
	12	7	Off	On	8	Off	On
S4	13	1	Off	On	2	Off	On
	14	3	Off	On	4	Off	On
	15	5	Off	On	6	Off	On
	16	7	Off	On	8	Off	On
S5	17	1	Off	On	2	Off	On
	18	3	Off	On	4	Off	On
	19	5	Off	On	6	Off	On
	20	7	Off	On	8	Off	On
S6	21	1	Off	On	2	Off	On
	22	3	Off	On	4	Off	On
	23	5	Off	On	6	Off	On
	24	7	Off	On	8	Off	On

## Additional Information

Switch	Channel	Switch	Field and DCS have the same signal (4 ... 20 mA or 1 ... 5 V)	Convert a 4 ... 20 mA signal from the field into the 1 ... 5 V signal for DCS	Switch	Self powered device	Loop powered device
S7	25	1	Off	On	2	Off	On
	26	3	Off	On	4	Off	On
	27	5	Off	On	6	Off	On
	28	7	Off	On	8	Off	On
S8	29	1	Off	On	2	Off	On
	30	3	Off	On	4	Off	On
	31	5	Off	On	6	Off	On
	32	7	Off	On	8	Off	On

Jumper	Analog input	Galvanic grounding	Capacitive grounding
JP3	RS-485	closed	opened
JP4	Field side channels 1 ... 32	closed	opened
JP5	DCS side channels 1 ... 16	closed	opened
JP6	DCS side channels 17 ... 32	closed	opened

## Yokogawa I/O Interface

- AAI135

# HART Termination Board

## HiSHPTB/32/YOK-AIO-R-02



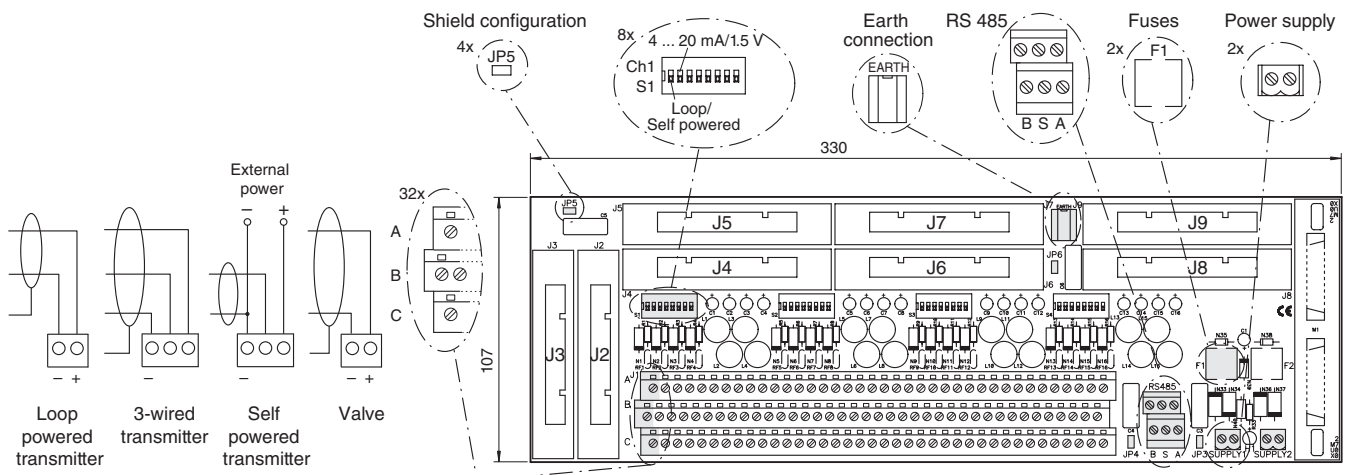
- Yokogawa Centum 3000 CS AAI835 replacement FTA
- 32 channels of I/O
- 16 channels AI and 16 channels AO
- 2- or 3-wire or self powered transmitters or valves
- Short-circuit protected
- Plug-n-play wiring capabilities



### Function

The Termination Board designed for easy HiDMux2700 Multiplexer integration with the Yokogawa Centum 3000 CS system. With the Multiplexer integrated into the board and plug-n-play option for the DCS equipment, this provides a very clean access to the HART signals, while reducing the need for marshalling cabinets and reducing equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	20 ... 30 V DC
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		no

#### HART signal channels (intrinsically safe)

HART signal channels		
Number of channels		32 unbalanced signal loops

#### Redundancy

Supply		no
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#### Galvanic isolation

## Technical Data

HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: screw terminals control side: KS connector (proprietary) RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	330 x 107 x 208 mm (12.9 x 4.2 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Connection Assignment

Connector	Channel
J1	1 ... 32
J2	1 ... 8, primary
J3	1 ... 8, secondary
J4	9 ... 16, primary
J5	9 ... 16, secondary
J6	17 ... 24, primary
J7	17 ... 24, secondary
J8	25 ... 32, primary
J9	25 ... 32, secondary

### Configuration

		Switch	Field and DCS have the same signal (4 ... 20 mA or 1 ... 5 V)	Converts a 4 ... 20 mA signal from the field into the 1 ... 5 V signal for DCS	Switch	Self powered device	Loop powered device
S1	Channel 1	1	Off	On	2	Off	On
	Channel 2	3	Off	On	4	Off	On
	Channel 3	5	Off	On	6	Off	On
	Channel 4	7	Off	On	8	Off	On
S2	Channel 5	1	Off	On	2	Off	On
	Channel 6	3	Off	On	4	Off	On
	Channel 7	5	Off	On	6	Off	On
	Channel 8	7	Off	On	8	Off	On
S3	Channel 9	1	Off	On	2	Off	On
	Channel 10	3	Off	On	4	Off	On
	Channel 11	5	Off	On	6	Off	On
	Channel 12	7	Off	On	8	Off	On
S4	Channel 13	1	Off	On	2	Off	On
	Channel 14	3	Off	On	4	Off	On
	Channel 15	5	Off	On	6	Off	On
	Channel 16	7	Off	On	8	Off	On
S5	Channel 17	1	Off	On	2	Off	On
	Channel 18	3	Off	On	4	Off	On
	Channel 19	5	Off	On	6	Off	On
	Channel 20	7	Off	On	8	Off	On
S6	Channel 21	1	Off	On	2	Off	On
	Channel 22	3	Off	On	4	Off	On
	Channel 23	5	Off	On	6	Off	On
	Channel 24	7	Off	On	8	Off	On

## Additional Information

		Switch	Field and DCS have the same signal (4 ... 20 mA or 1 ... 5 V)	Converts a 4 ... 20 mA signal from the field into the 1 ... 5 V signal for DCS	Switch	Self powered device	Loop powered device
S7	Channel 25	1	Off	On	2	Off	On
	Channel 26	3	Off	On	4	Off	On
	Channel 27	5	Off	On	6	Off	On
	Channel 28	7	Off	On	8	Off	On
S8	Channel 29	1	Off	On	2	Off	On
	Channel 30	3	Off	On	4	Off	On
	Channel 31	5	Off	On	6	Off	On
	Channel 32	7	Off	On	8	Off	On

Jumper	Analog input	Galvanic grounding	Capacitive grounding
JP3	RS-485	closed	opened
JP4	Field side channels 1 ... 32	closed	opened
JP5	DCS side channels 1 ... 16	closed	opened
JP6	DCS side channels 17 ... 32	closed	opened

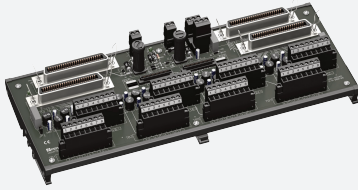
**Interface**

Yokogawa I/O interface

- AAI835

# HART Termination Board

## HiSHPTB/32/HONB-AO-R-01



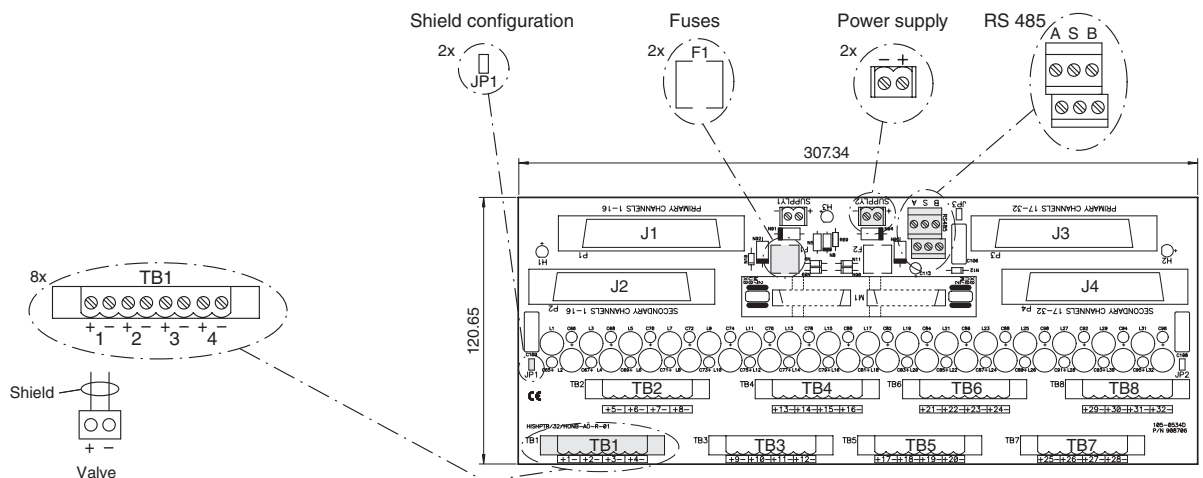
- TDC 3000 replacement FTA
- Short-circuit protected
- HART analog output filters
- Redundant PCS wirings
- Redundant power supply connections
- Field terminal blocks that are Honeywell FTA compatible
- Honeywell "B" size footprint



### Function

The Termination Board is a Field Termination Assembly (FTA) that is designed as a replacement for the TDC3000 redundant analog input FTA. The FTA in conjunction with a Multiplexer HiDMux2700 will extract the digital HART data from standard 4 mA ... 20 mA loops. The HART Termination Board interfaces up to 32 field located HART devices to a DCS.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	24 V DC
Fusing		315 mA , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

#### HART signal channels (intrinsically safe)

HART signal channels		
Number of channels		32 unbalanced signal loops

#### Redundancy

Supply		yes
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#### Galvanic isolation

HART signal channels		30 V DC
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#### Ambient conditions

### Technical Data

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm² (16 AWG)
Connection	field side: 5.08 mm removable screw terminals control side: 50-pin Centronics plug RS-485 interface: 5.08 mm removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	333 x 127 x 190 mm (13.1 x 5 x 7.5 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

### Additional Information

#### Product Versions

HiSHPTB/32/HONB-AO-R-01	Version for panel mounting
HiSHPTB/32/HONB-AO-R-01-DIN	Version for DIN rail mounting

#### Connection Assignment

Terminal block	Channels	Connection
TB1	1 ... 4	(+, -)
TB2	5 ... 8	(+, -)
TB3	9 ... 12	(+, -)
TB4	13 ... 16	(+, -)
TB5	17 ... 20	(+, -)
TB6	21 ... 24	(+, -)
TB7	25 ... 28	(+, -)
TB8	29 ... 32	(+, -)

#### Configuration

Connector	Channels
J1	1 ... 16, primary
J2	1 ... 16, sekundary
J3	17 ... 32, primary redundant
J4	17 ... 32, sekundary redundant

Jumper	Analog ouput redundant	Galvanic grounding	Capacitive grounding
JP1	DCS side channels 1 ... 16 (primary and secondary)	closed	opened
JP2	DCS side channels 17 ... 32 (primary and secondary)	closed	opened
JP3	RS-485	closed	opened

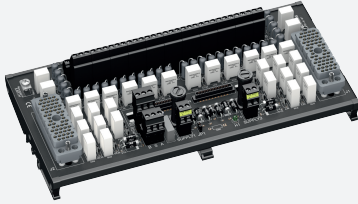
#### Honeywell IOP Interface

- MU-PAOY22



# HART Termination Board

## HiSHPTB/32/TR-AI-01



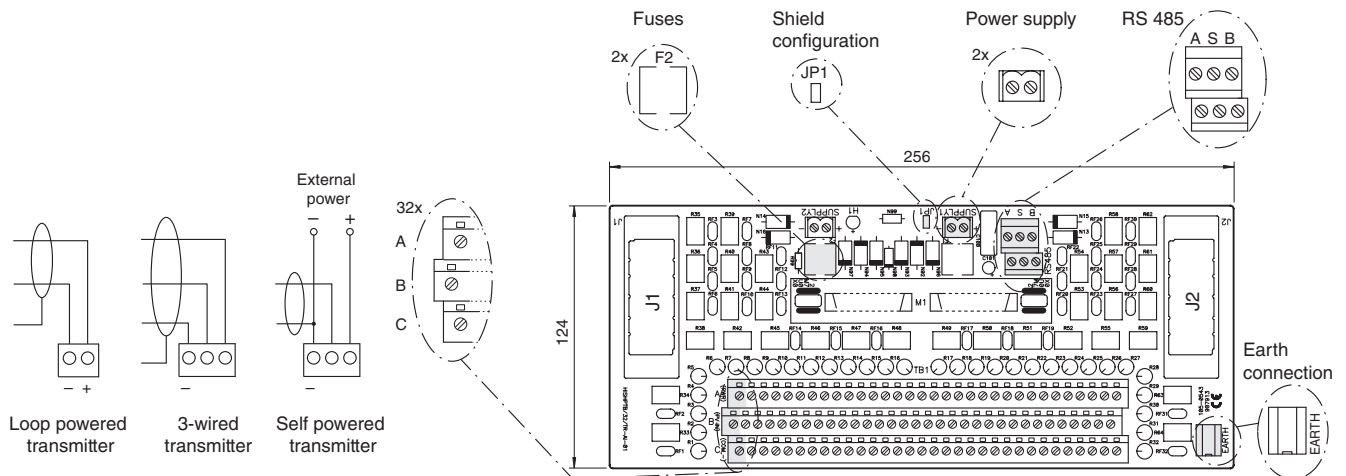
- Triconex 3700A and 3721 replacement FTA
- 2- or 3-wire or self powered transmitters
- Outputs: 2 x 16 channels, 0 V ... 10 V differential, DC coupled (makes 32 channels)
- Short-circuit protected
- Plug-n-play wiring capabilities



### Function

The Termination Board is designed for easy HiDMux2700 Multiplexer integration with the Tricon safety system. With the Multiplexer integrated into the board and plug-n-play option for the DCS equipment, this provides a very clean access to the HART signals, while reducing the need for marshalling cabinets and reducing equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	20 ... 30 V DC
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

#### HART signal channels (intrinsically safe)

HART signal channels		
Number of channels		32 unbalanced signal loops

#### Redundancy

Supply		yes
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#### Galvanic isolation

Technical Data

HART signal channels		30 V DC
<b>Ambient conditions</b>		
Ambient temperature		0 ... 55 °C (32 ... 131 °F)
Relative humidity		5 ... 90 %, non-condensing
<b>Mechanical specifications</b>		
Core cross section		2.5 mm <sup>2</sup> (16 AWG)
Connection		field side: screw terminals control side: 56-pin Elco connector RS 485 interface: removable screw terminals power: removable screw terminals
Mass		approx. 500 g
Dimensions		256 x 125 x 208 mm (10 x 4.9 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting		DIN rail mounting
<b>General information</b>		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

Additional Information

Connection Assignment

Connector	Channel
J1	1 ... 16
J2	17 ... 32

Configuration

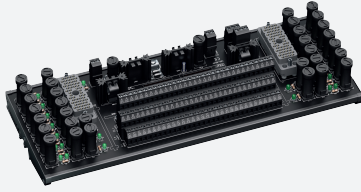
Jumper	Analog input	Galvanic grounding	Capacitive grounding
JP1	RS-485	closed	opened

**Interface**  
Triconex I/O interface

- 3700A
- 3721

# HART Termination Board

## HiSHPTB/32/TR-DO-01



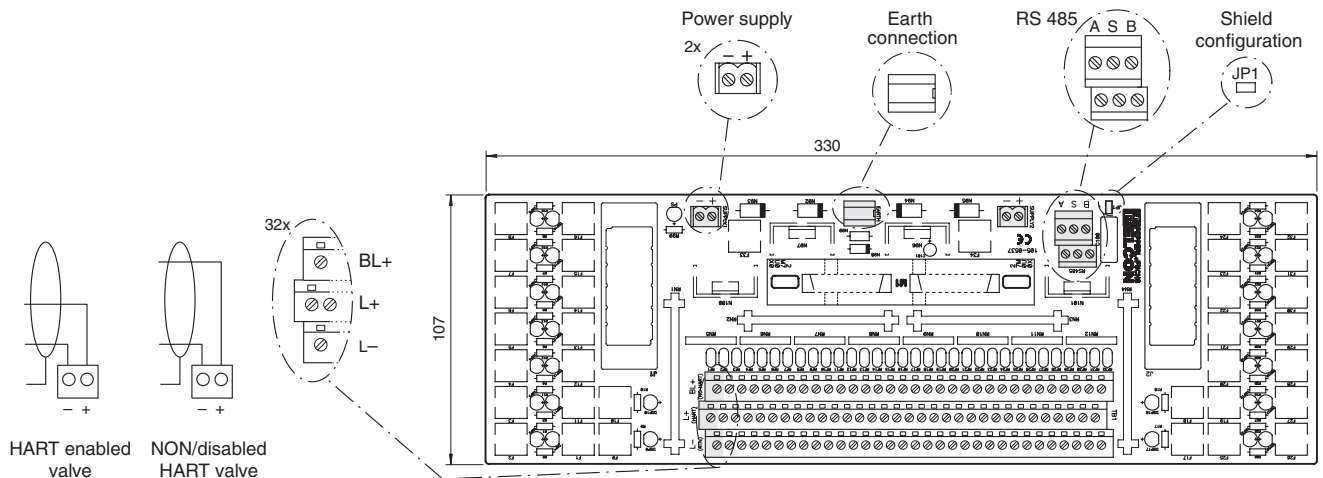
- Triconex 3604E replacement FTA
- Outputs: 2 x 16 channels, 24 V DC, opto-isolated, non commoned
- Short-circuit protected
- Plug-n-play wiring capabilities



### Function

The Termination Board is designed for easy HiDMux2700 Multiplexer integration with the Tricon safety system. With the Multiplexer integrated into the board and plug-n-play option for the DCS equipment, this provides a very clean access to the HART signals, while reducing the need for marshalling cabinets and reducing equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	20 ... 30 V DC
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

#### HART signal channels (intrinsically safe)

HART signal channels	
Number of channels	32 unbalanced signal loops

#### Redundancy

Supply	yes
--------	-----

#### Galvanic isolation

## Technical Data

HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: screw terminals control side: 56-pin Elco connector RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	333 x 125 x 208 mm (13.1 x 4.9 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Connection Assignment

Connector	Channel
J1	1 ... 16
J2	17 ... 32

### Configuration

Jumper	Analog input	Galvanic grounding	Capacitive grounding
JP1	RS-485	closed	opened

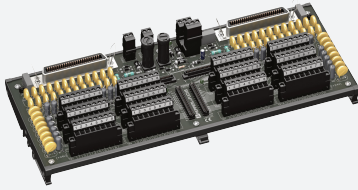
### Interface

Triconex I/O interface

- 3604E

# HART Termination Board

## HiSHPTB/32/HONB-AI-01



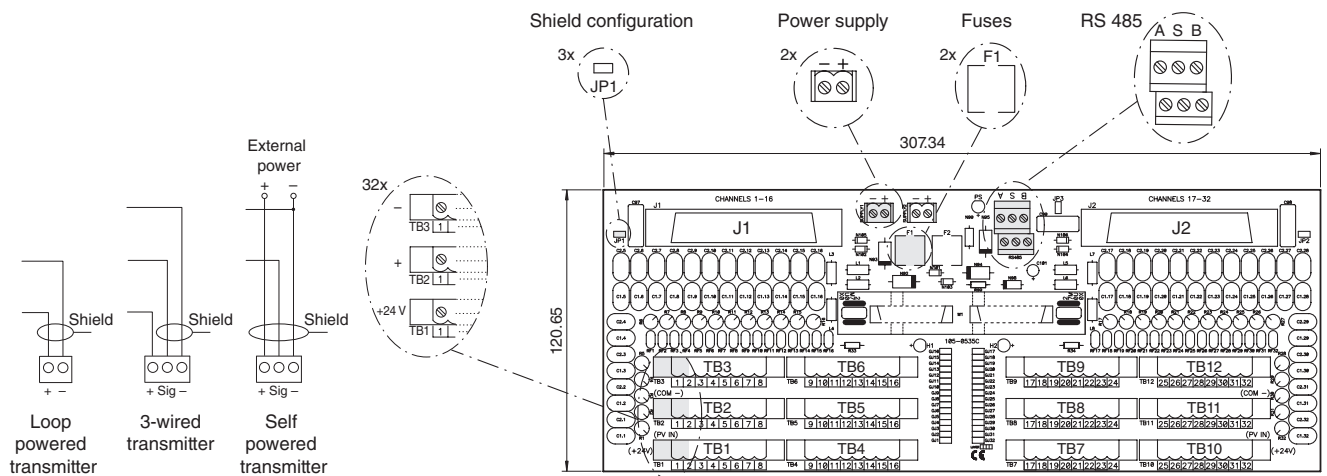
- TDC 3000 replacement FTA
- Short-circuit protected
- Process control system wirings
- Redundant power supply connections
- Field terminal blocks that are Honeywell FTA compatible
- Honeywell "B" size footprint



### Function

The Termination Board is a Field Termination Assembly (FTA) that is designed as a replacement for the TDC3000 simplex analog input FTA. The FTA in conjunction with a Multiplexer HiDMux2700 will extract the digital HART data from standard 4 mA ... 20 mA loops. The HART Termination Board interfaces up to 32 field located HART devices to a DCS.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	20 ... 30 V DC
Fusing		315 mA , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

#### HART signal channels (intrinsically safe)

HART signal channels		
Number of channels		32 unbalanced signal loops

#### Redundancy

Supply		yes
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#### Galvanic isolation

HART signal channels		30 V DC
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#### Ambient conditions

## Technical Data

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: 5.08 mm removable screw terminals control side: 50-pin Centronics plug RS-485 interface: 5.08 mm removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	333 x 127 x 190 mm (13.1 x 5 x 7.5 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Product Versions

HiSHPTB/32/HONB-AI-01	Version for panel mounting
HiSHPTB/32/HONB-AI-01-DIN	Version for DIN rail mounting

### Connection Assignment

Terminal block	Channels	Connection
TB1	1 ... 8	(P)
TB2	1 ... 8	(+)
TB3	1 ... 8	(-)
TB4	9 ... 16	(P)
TB5	9 ... 16	(+)
TB6	9 ... 16	(-)
TB7	17 ... 24	(P)
TB8	17 ... 24	(+)
TB9	17 ... 24	(-)
TB10	25 ... 32	(P)
TB11	25 ... 32	(+)
TB12	25 ... 32	(-)

### Configuration

Connector	Channels
J1	1 ... 16
J2	17 ... 32

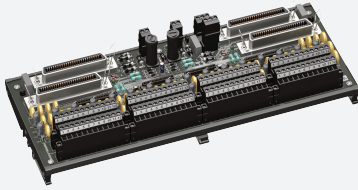
Jumper	Analog input simplex	Galvanic grounding	Capacitive grounding
JP1	DCS side channels 1 ... 16	closed	opened
JP2	DCS side channels 17 ... 32	closed	opened
JP3	RS-485	closed	opened

### Honeywell IOP Interfaces

- MU-PAIH01
- MU-PAIH02
- MC-PAIH02
- MU-PAIH03

# HART Termination Board

## HiSHPTB/32/HONB-AI-R-01



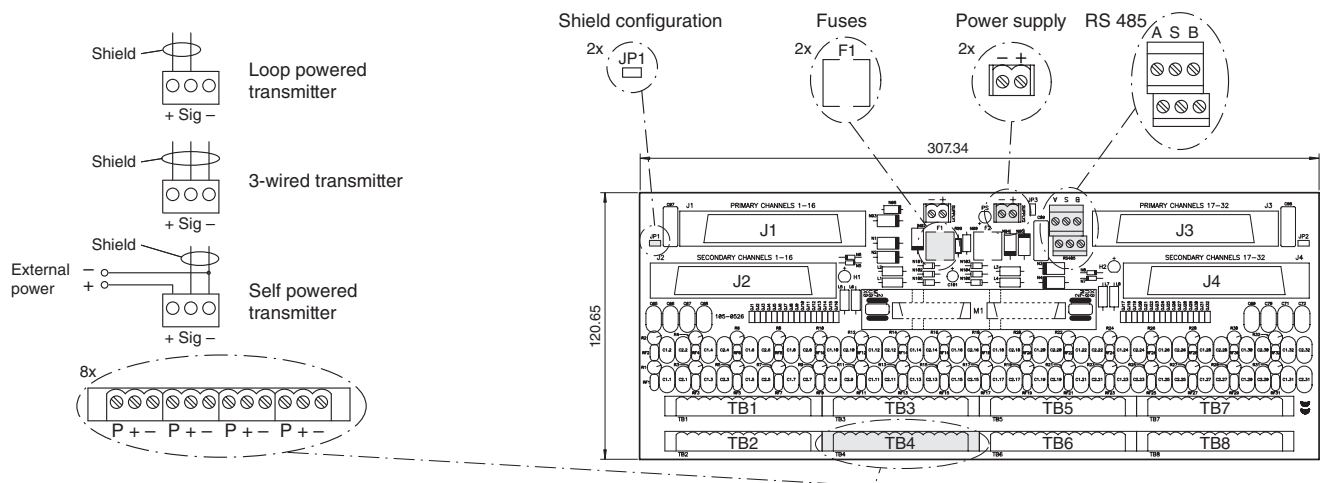
- TDC 3000 replacement FTA
- Short-circuit protected
- Redundant PCS wirings
- Redundant power supply connections
- Field terminal blocks that are Honeywell FTA compatible
- Honeywell "B" size footprint



### Function

The Termination Board is a Field Termination Assembly (FTA) that is designed as a replacement for the TDC3000 redundant analog input FTA. The FTA in conjunction with a Multiplexer HiDMux2700 will extract the digital HART data from standard 4 mA ... 20 mA loops. The HART Termination Board interfaces up to 32 field located HART devices to a DCS.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	20 ... 30 V DC
Fusing		315 mA , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

#### HART signal channels (intrinsically safe)

HART signal channels		
Number of channels		32 unbalanced signal loops

#### Redundancy

Supply		yes
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#### Galvanic isolation

HART signal channels		30 V DC
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#### Ambient conditions

## Technical Data

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: 5.08 mm removable screw terminals control side: 50-pin Centronics plug RS-485 interface: 5.08 mm removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	307 x 120 x 190 mm (12.1 x 4.7 x 7.5 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Product Versions

HiSHPTB/32/HONB-AI-R-01	Version for panel mounting
HiSHPTB/32/HONB-AI-R-01-DIN	Version for DIN rail mounting

### Connection Assignment

Terminal block	Channels	Connection
TB1	1 ... 4	(P, +, -)
TB2	5 ... 8	(P, +, -)
TB3	9 ... 12	(P, +, -)
TB4	13 ... 16	(P, +, -)
TB5	17 ... 20	(P, +, -)
TB6	21 ... 24	(P, +, -)
TB7	25 ... 28	(P, +, -)
TB8	29 ... 32	(P, +, -)

### Configuration

Connector	Channels
J1	1 ... 16, primary
J2	1 ... 16, sekundary
J3	17 ... 32, primary redundant
J4	17 ... 32, sekundary redundant

Jumper	Analog input redundant	Galvanic grounding	Capacitive grounding
JP1	DCS side channels 1 ... 16 (primary and secondary)	closed	opened
JP2	DCS side channels 17 ... 32 (primary and secondary)	closed	opened
JP3	RS-485	closed	opened

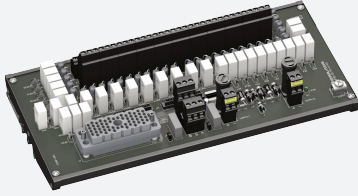
### Honeywell IOP Interfaces

- MC-PAIH03
- MU-PSTX01
- MU-PSTX02
- MC-PSXT02
- MU-PSTX03
- MC-PSTX03



# HART Termination Board

## HiSHPTB/32/TR-AI-03



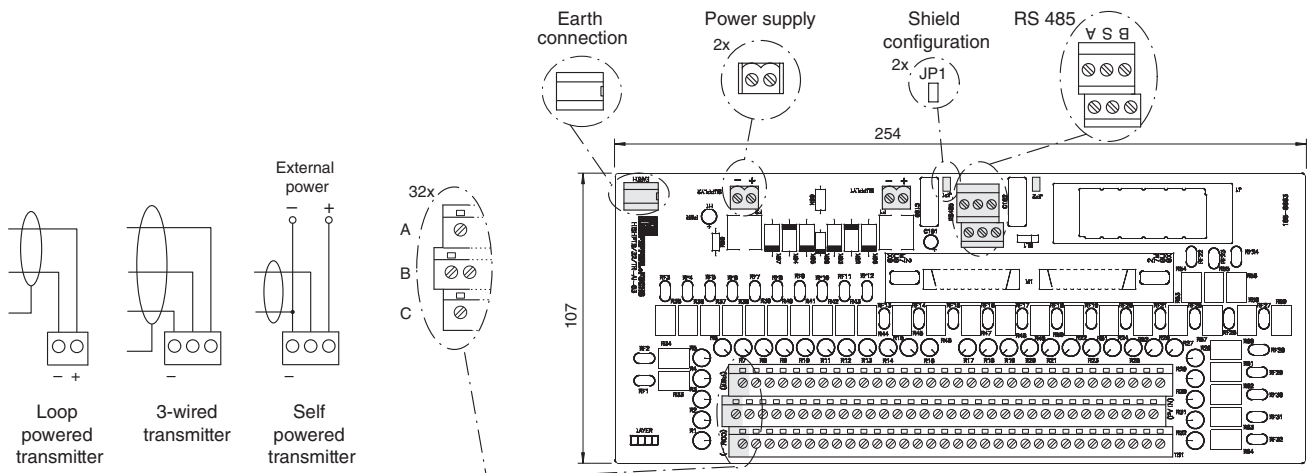
- Triconex 3704E and 3720 replacement FTA
- 2- or 3-wire or self powered transmitters
- Outputs: 1 x 32 channels, 0 V ... 5 V differential, DC coupled
- Short-circuit protected
- Plug-n-play wiring capabilities



### Function

The Termination Board is designed for easy HiDMux2700 Multiplexer integration with the Tricon safety system. With the Multiplexer integrated into the board and plug-n-play option for the DCS equipment, this provides a very clean access to the HART signals, while reducing the need for marshalling cabinets and reducing equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	20 ... 30 V DC
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

#### HART signal channels (intrinsically safe)

HART signal channels		
Number of channels		32 unbalanced signal loops

#### Redundancy

Supply		yes
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#### Galvanic isolation

## Technical Data

HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: screw terminals control side: 56-pin Elco connector RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	254 x 107 x 208 mm (10 x 4.2 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

## Additional Information

### Connection Assignment

Connector	Channel
J1	1 ... 16
J2	17 ... 32

### Configuration

Jumper	Analog input	Galvanic grounding	Capacitive grounding
JP1	RS-485	closed	opened

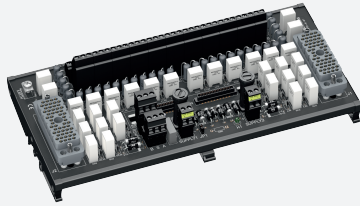
### Interface

Triconex I/O interface

- 3704E, requires 2 pieces of the HiSHPTB/32/TR-AI-03 for every 3721 input card
- 3720, requires 2 pieces of the HiSHPTB/32/TR-AI-03 for every 3721 input card

# HART Termination Board

## HiSHPTB/32/TR-AI-02



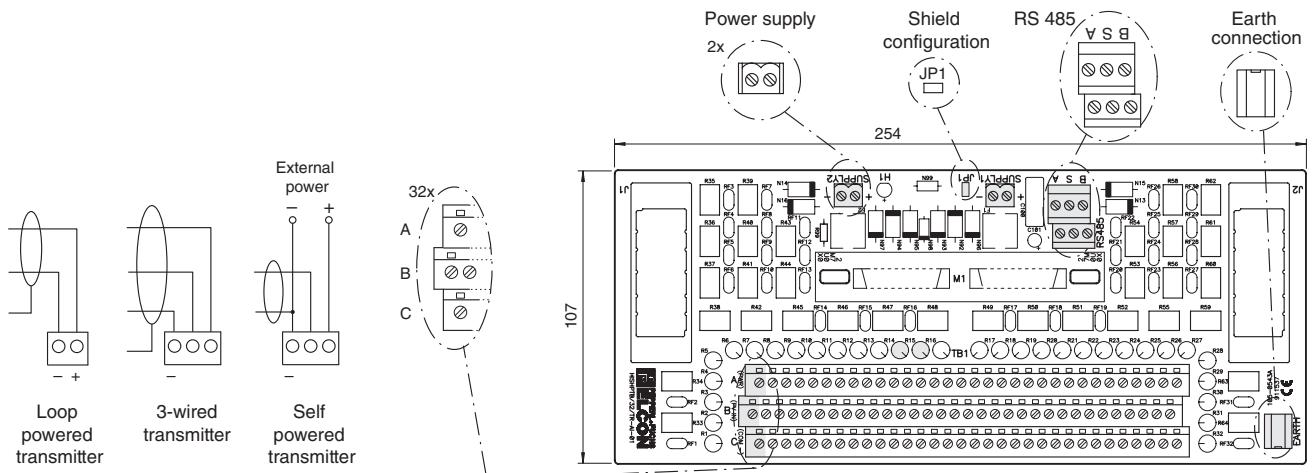
- Triconex 3701 replacement FTA
- 2- or 3-wire or self powered transmitters
- Outputs: 2 x 16 channels, 0 V ... 10 V differential, DC coupled (makes 32 channels)
- Short-circuit protected
- Plug-n-play wiring capabilities



### Function

The Termination Board is designed for easy HiDMux2700 Multiplexer integration with the Tricon safety system. With the Multiplexer integrated into the board and plug-n-play option for the DCS equipment, this provides a very clean access to the HART signals, while reducing the need for marshalling cabinets and reducing equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and, it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

#### Supply

Rated voltage	$U_r$	20 ... 30 V DC
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation		0.7 W , with Multiplexer
Reverse polarity protection		yes

#### HART signal channels (intrinsically safe)

HART signal channels		
Number of channels		32 unbalanced signal loops

#### Redundancy

Supply		yes
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#### Galvanic isolation

Technical Data

HART signal channels		30 V DC
<b>Ambient conditions</b>		
Ambient temperature		0 ... 55 °C (32 ... 131 °F)
Relative humidity		5 ... 90 %, non-condensing
<b>Mechanical specifications</b>		
Core cross section		2.5 mm <sup>2</sup> (16 AWG)
Connection		field side: screw terminals control side: 56-pin Elco connector RS 485 interface: removable screw terminals power: removable screw terminals
Mass		approx. 500 g
Dimensions		256 x 125 x 208 mm (10 x 4.9 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting		DIN rail mounting
<b>General information</b>		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

Additional Information

Connection Assignment

Connector	Channel
J1	1 ... 16
J2	17 ... 32

Configuration

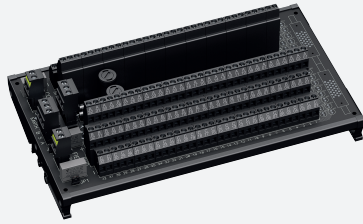
Jumper	Analog input	Galvanic grounding	Capacitive grounding
JP1	RS-485	closed	opened

**Interface**  
Triconex I/O interface

- 3701

# HART Termination Board

## HiSHPSM/32/MM-01



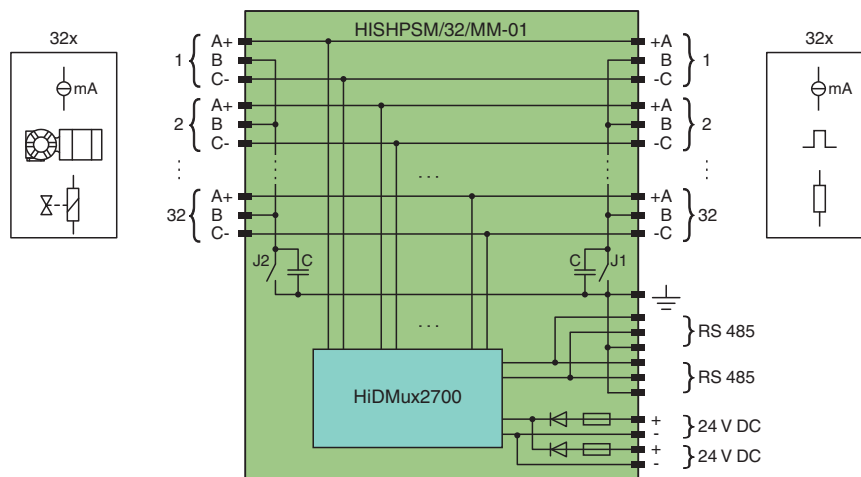
- 32-channel
- 24 V DC supply
- Interface for serial or parallel wiring options
- Dual RS 485 connections
- Slot for HART Multiplexer



### Function

This HART Termination Board has 32 terminal blocks to connect up to 32 HART field devices. It contains one slot to mount the 32-channel HART Multiplexer Master type HiDMux2700. The Termination Board can be used for general-purpose applications or in conjunction with intrinsic safety barriers for hazardous applications. It offers fused redundant power supply connections. RS 485 terminals are redundant and can be daisy chained.

### Connection



### Technical Data

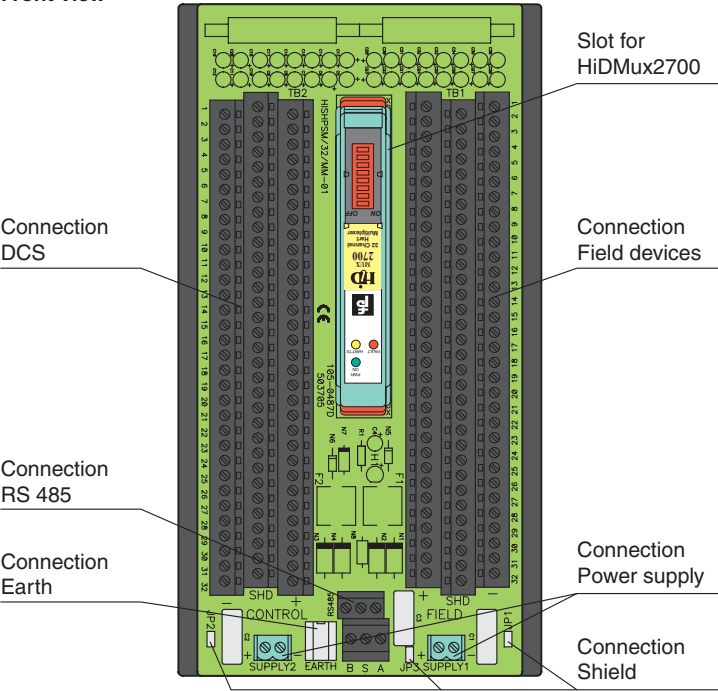
<b>Supply</b>	
Nominal voltage	24 V DC
Fusing	3.15 A , 5 x 20 mm (0.2 x 0.8 inch)
Power dissipation	0.7 W , with Multiplexer
Reverse polarity protection	yes
<b>HART signal channels (intrinsically safe)</b>	
HART signal channels	
Number of channels	32 unbalanced signal loops
<b>Interface</b>	
Type/number	2 x RS-485
<b>Redundancy</b>	
Supply	yes

Technical Data

<b>Galvanic isolation</b>	
HART signal channels	30 V DC
<b>Ambient conditions</b>	
Ambient temperature	-20 ... 55 °C (-4 ... 131 °F)
Relative humidity	5 ... 90 %, non-condensing
<b>Mechanical specifications</b>	
Core cross section	2.5 mm <sup>2</sup> (16 AWG)
Connection	field side: fixed screw terminals control side: fixed screw terminals RS 485 interface: removable screw terminals power: removable screw terminals
Mass	approx. 500 g
Dimensions	222 x 122 x 208 mm (8.7 x 4.8 x 8.2 inch) (W x H x D) , depth including module assembly with HiDMux2700
Mounting	DIN rail mounting
<b>Data for application in connection with hazardous areas</b>	
Certificate	CML 17ATEX3337X II 3 G Ex ec IIC T4 Gc
Certificate	IECEX CML 17.0178X Ex ec IIC T4 Gc
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable.

Assembly

Front view

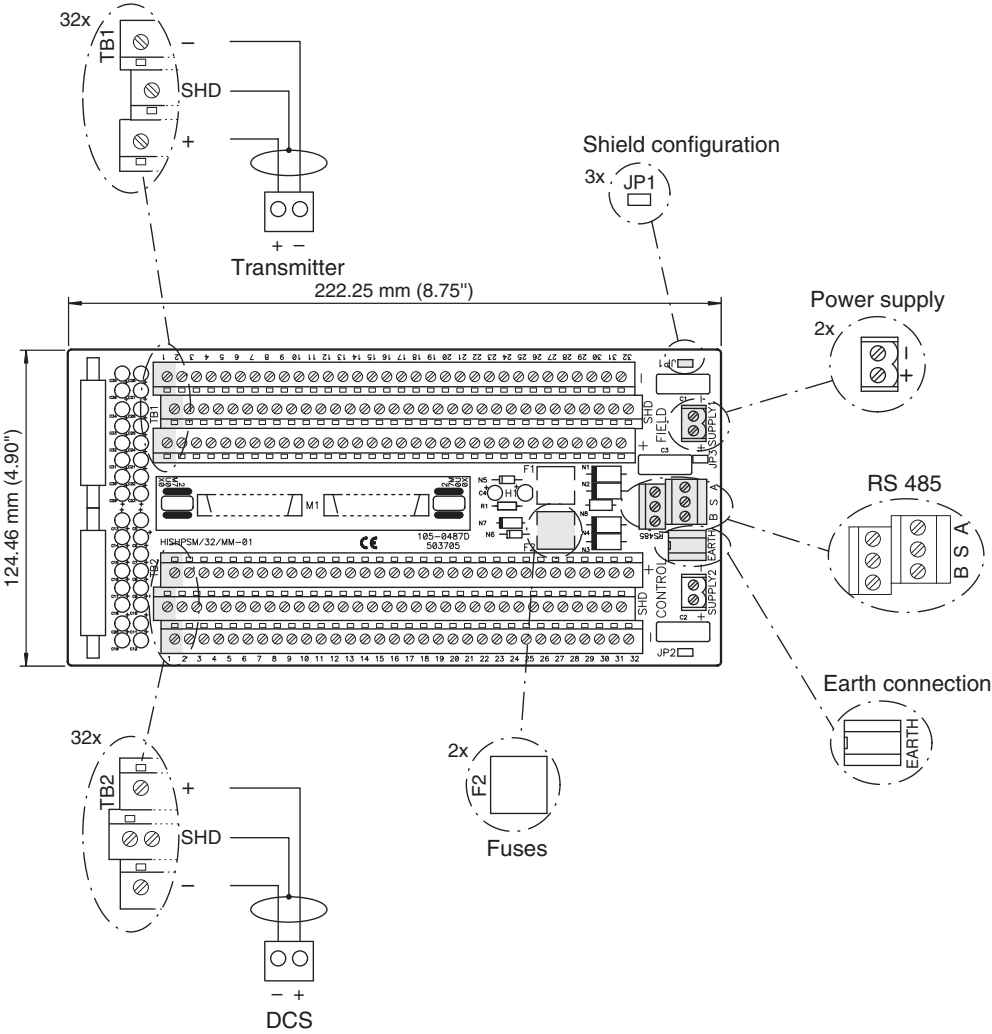


Additional Information

Versions

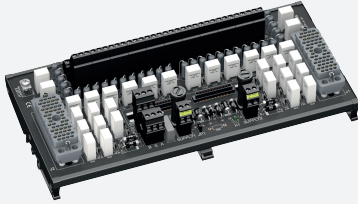
HISHPSM/32/MM-01-C	coated version
HISHPSM/32/MM-01/MODV	special version for Dow Chemical

Connection



# HART Termination Board

## HiSHPTB/32/TR-AI-01-Y1



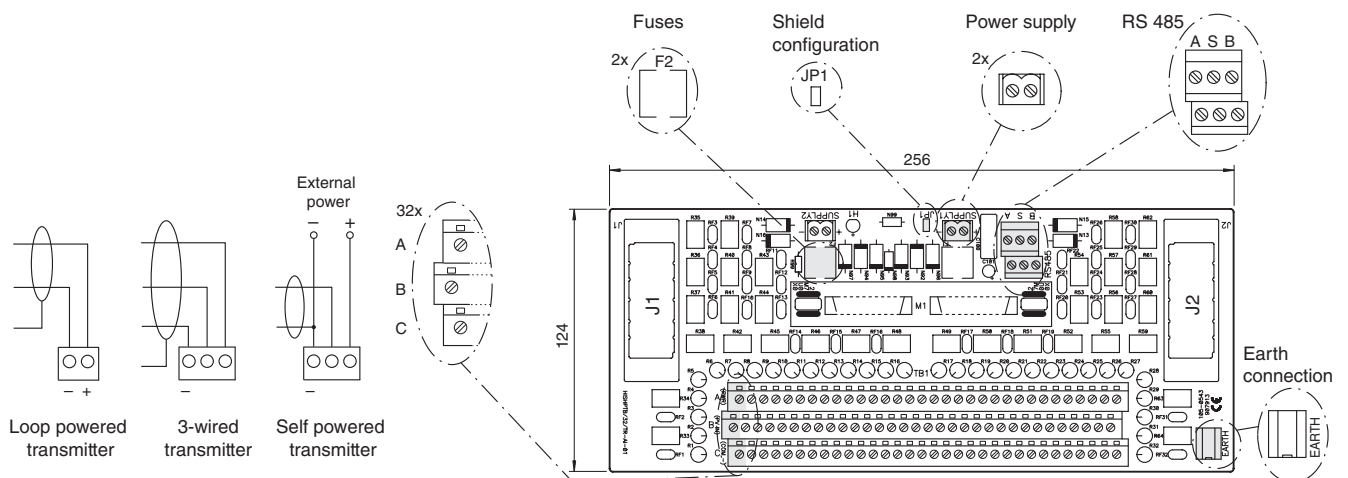
- Triconex 3700A and 3721 replacement FTA
- 2- or 3-wire or self powered transmitters
- Outputs: 2 x 16 channels, 0 V ... 10 V differential, DC coupled (makes 32 channels)
- Short-circuit protected
- Plug-n-play wiring capabilities
- Optimized for use in floating power configurations



### Function

The Termination Board is designed for easy HiDMux2700 Multiplexer integration with the Tricon safety system. This version is a modification of the standard AI termination board (HiSHPTB/32/TR-AI-01) and is specially designed for systems using a floating field power configuration. With the Multiplexer integrated into the board and plug-n-play option for the DCS equipment, this provides a very clean access to the HART signals, while reducing the need for marshalling cabinets and reducing equipment that require extra cabinet space. The HART Termination Board provides a robust solution for on-line HART communications, interfaces up to 32 field located HART devices, and it allows the user to replace standard DCS field termination panels.

### Connection



### Technical Data

<b>Supply</b>			
Rated voltage	U <sub>r</sub>	20 ... 30 V DC	
Fusing		3.15 A , 5 x 20 mm (0.2 x 0.8 inch)	
Power dissipation		0.7 W , with Multiplexer	
Reverse polarity protection		yes	
<b>HART signal channels (intrinsically safe)</b>			
HART signal channels			
Number of channels		32 unbalanced signal loops	
<b>Redundancy</b>			
Supply		yes	
<b>Galvanic isolation</b>			



Technical Data

HART signal channels		30 V DC
<b>Ambient conditions</b>		
Ambient temperature		0 ... 55 °C (32 ... 131 °F)
Relative humidity		5 ... 90 %, non-condensing
<b>Mechanical specifications</b>		
Core cross section		2.5 mm <sup>2</sup> (16 AWG)
Connection		field side: screw terminals control side: 56-pin Elco connector RS 485 interface: removable screw terminals power: removable screw terminals
Mass		approx. 500 g
Dimensions		without HiDMux2700: 256 x 125 x 79 mm (10 x 4.9 x 3.1 inch) (W x H x D) with HiDMux2700: 256 x 125 x 208 mm (10 x 4.9 x 8.2 inch) (W x H x D)
Height		125 mm
Width		256 mm
Depth		208 mm
Mounting		DIN rail mounting
<b>General information</b>		
Supplementary information		Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable.

Additional Information

Connection Assignment

Connector	Channel
J1	1 ... 16
J2	17 ... 32

Configuration

Jumper	Analog input	Galvanic grounding	Capacitive grounding
JP1	RS-485	closed	opened

- Interface**  
Triconex I/O interface
- 3700A
  - 3721

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