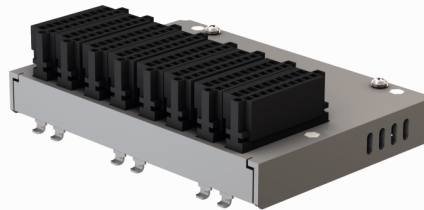


## TX HMI/PLC Series

### Plug-In Module

20 DI, 12 DO 0.5 A ,4 AI (U, I, RTD, TC), 4 AO (U, I)

TX-IO-XX03



- Plug-in expansion module for use with HMIs of the TX500 and TX700 product series
- I/O Modules
- 20 digital inputs, 24 VDC, PNP
- 12 digital outputs, 24 VDC, 0.5 A, PNP
- 4 analog inputs, U, I, RTD, TC
- 4 analog outputs, U, I

<b>Type</b>	TX-IO-XX03
ID	6828201
<b>Supply</b>	
Supply voltage	24 VDC
Admissible range	12...30 VDC
System power supply	From the HMI
Voltage supply connection	Pluggable strip with cage clamp terminals
Electrical isolation	optical, 1500 V <sub>ms</sub>
<b>Digital inputs</b>	
Number of channels	20
Connectivity inputs	3 pluggable strips with spring-type terminals 10-pin, 3.5-mm pattern (Weidmueller — Omnimate BLZF 3.5/180F)
Input type	PNP
Low level signal voltage	< 6 V
High level signal voltage	> 12 V
Low level signal current	< 1 mA
High level signal current	> 3 mA
Input delay	0.05 (on S inputs), 0.0002 (on E inputs) ms
Sensor supply	24 VDC
Electrical isolation	1500 V <sub>ms</sub>
<b>Analog inputs</b>	
Number of channels	4
Operating modes	Current, voltage, resistance, thermocouple
Resolution	12 Bit
Basic fault limit at 25 °C	0.1 %
<b>Operating mode voltage</b>	
Max. input voltage	15 V
Input signal types	4 differential (alternatively 8 AI single-ended, only in voltage mode)
Measuring range	+/-100 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V, 0 ... 1 V, 0 ... 10 V
Linearity	0.1 %
Basic error at 25 °C	0.1 %
Repeat accuracy	< 0.2 %
<b>Operating mode current</b>	
Max. Eingangsspannung	15 V
Max. input current	20 mA
Load resistance	200 Ω
Input signal types	4 differential inputs, externally powered
Measuring range	0...20 mA, 4...20 mA
Linearity	0.1 %
Basic error at 25 °C	0.1 %

## TX HMI/PLC Series

### Plug-In Module

20 DI, 12 DO 0.5 A ,4 AI (U, I, RTD, TC), 4 AO (U, I)

### TX-IO-XX03

#### Operating Mode RTD/Resistance

Temperature scale	°Degree Celsius, °Fahrenheit
Measuring range	-100 ... 850 °C
Connection type	2-, 3-, 4-wire
measurement current	1.2 mA
Repeat accuracy	< 0.1 %

#### Operating Mode Thermocouple

Temperature scale	µV
Measuring range	E (-270...1000 °C), J (-210...760 °C), K (-270...1370 °C), R (0...1768 °C), S (0...1768 °C), T (-270...400 °C)
Cold junction compensation	External via Pt100 comp. Input (CN4 Pin 1-5)
Basic error at 25 °C	0.1 %

#### Digital outputs

Number of channels	12
Connectivity outputs	2 pluggable strips with spring-type terminals 10-pin, 3.5-mm pattern (Weidmueller — Omnimate BLZF 3.5/180F)
Output type	PNP
Output voltage	24 VDC
Output current per channel	0.5 A
Simultaneity factor	0.23
Output delay	0.15 ms
Short-circuit protection	yes
Actuator power supply	24 VDC externally fed
Electrical isolation	1500 V <sub>ms</sub>

#### Analog outputs

Number of channels	4
Operating modes	+/-100 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V, 0 ... 1 V, 0 ... 10 V +/-2 mA, +/-10 mA, +/-20 mA
Resolution	12 bit

#### Operating mode voltage

Load resistor	>1 kΩ
Output signal type	Single-ended
Output signal range	+/-10 V
Linearity	0.15 %

#### Operating mode current

Load resistor	<470 Ω
Output signal type	Active
Output signal range	0...20 mA
Linearity	0.2 %

#### Standard/Directive conformity

Approvals and certificates	CE, cULus, Class 1, Div. 2, DNV-GL
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#### General Information

Dimensions (W x L x H)	125.2 x 89.3 x 33.7 mm
Ambient temperature	0...+50 °C
Protection class	IP20
Housing material	Metal
Housing color	Silver
Mounting	On HMIs of the TX500 and TX700 series

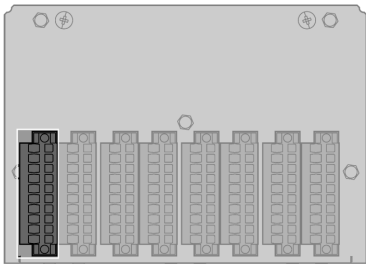
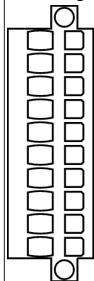
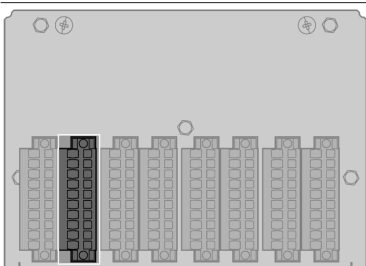
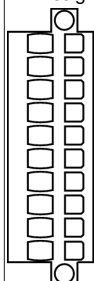
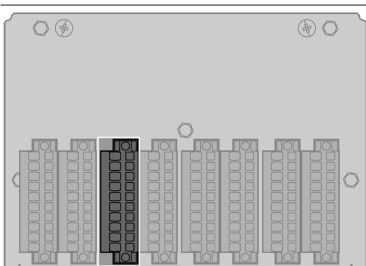
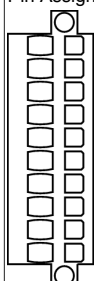
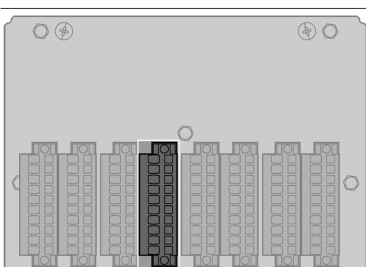
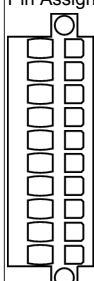
## TX HMI/PLC Series

### Plug-In Module

20 DI, 12 DO 0.5 A ,4 AI (U, I, RTD, TC), 4 AO (U, I)

TX-IO-XX03

#### Connection and pin assignment

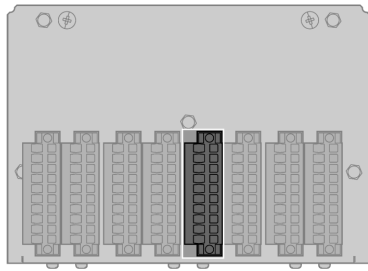
	Analog Inputs	<div>Pin Assignment CN1</div>  <table><tr><td>1</td><td>1 = Pt100_1 Vers.</td></tr><tr><td>2</td><td>2 = CH_1 + Input</td></tr><tr><td>3</td><td>3 = CH_1 – Input</td></tr><tr><td>4</td><td>4 = COM-AGND</td></tr><tr><td>5</td><td>5 = Shield (housing)</td></tr><tr><td>6</td><td>6 = Pt100_2 Vers.</td></tr><tr><td>7</td><td>7 = CH_2 + Input</td></tr><tr><td>8</td><td>8 = CH_2 – Input</td></tr><tr><td>9</td><td>9 = COM-AGND</td></tr><tr><td>10</td><td>10 = Shield (housing)</td></tr></table>	1	1 = Pt100_1 Vers.	2	2 = CH_1 + Input	3	3 = CH_1 – Input	4	4 = COM-AGND	5	5 = Shield (housing)	6	6 = Pt100_2 Vers.	7	7 = CH_2 + Input	8	8 = CH_2 – Input	9	9 = COM-AGND	10	10 = Shield (housing)
1	1 = Pt100_1 Vers.																					
2	2 = CH_1 + Input																					
3	3 = CH_1 – Input																					
4	4 = COM-AGND																					
5	5 = Shield (housing)																					
6	6 = Pt100_2 Vers.																					
7	7 = CH_2 + Input																					
8	8 = CH_2 – Input																					
9	9 = COM-AGND																					
10	10 = Shield (housing)																					
	Analog Inputs	<div>Pin Assignment CN2</div>  <table><tr><td>1</td><td>1 = Pt100_3 Vers.</td></tr><tr><td>2</td><td>2 = CH_3 + Input</td></tr><tr><td>3</td><td>3 = CH_3 – Input</td></tr><tr><td>4</td><td>4 = COM-AGND</td></tr><tr><td>5</td><td>5 = Shield (housing)</td></tr><tr><td>6</td><td>6 = Pt100_4 Vers.</td></tr><tr><td>7</td><td>7 = CH_4 + Input</td></tr><tr><td>8</td><td>8 = CH_4 – Input</td></tr><tr><td>9</td><td>9 = COM-AGND</td></tr><tr><td>10</td><td>10 = Shield (housing)</td></tr></table>	1	1 = Pt100_3 Vers.	2	2 = CH_3 + Input	3	3 = CH_3 – Input	4	4 = COM-AGND	5	5 = Shield (housing)	6	6 = Pt100_4 Vers.	7	7 = CH_4 + Input	8	8 = CH_4 – Input	9	9 = COM-AGND	10	10 = Shield (housing)
1	1 = Pt100_3 Vers.																					
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3	3 = CH_3 – Input																					
4	4 = COM-AGND																					
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6	6 = Pt100_4 Vers.																					
7	7 = CH_4 + Input																					
8	8 = CH_4 – Input																					
9	9 = COM-AGND																					
10	10 = Shield (housing)																					
	Analog Outputs	<div>Pin Assignment CN3</div>  <table><tr><td>1</td><td>1 = CH1</td></tr><tr><td>2</td><td>2 = COM-AGND</td></tr><tr><td>3</td><td>3 = CH2</td></tr><tr><td>4</td><td>4 = COM-AGND</td></tr><tr><td>5</td><td>5 = Shield (housing)</td></tr><tr><td>6</td><td>6 = CH3</td></tr><tr><td>7</td><td>7 = COM-AGND</td></tr><tr><td>8</td><td>8 = CH4</td></tr><tr><td>9</td><td>9 = COM-AGND</td></tr><tr><td>10</td><td>10 = Shield (housing)</td></tr></table>	1	1 = CH1	2	2 = COM-AGND	3	3 = CH2	4	4 = COM-AGND	5	5 = Shield (housing)	6	6 = CH3	7	7 = COM-AGND	8	8 = CH4	9	9 = COM-AGND	10	10 = Shield (housing)
1	1 = CH1																					
2	2 = COM-AGND																					
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7	7 = COM-AGND																					
8	8 = CH4																					
9	9 = COM-AGND																					
10	10 = Shield (housing)																					
	Cold Junction Compensation (Pt100) and Power Supply Digital I/O	<div>Pin Assignment CN4</div>  <table><tr><td>1</td><td>1 = Pt100_5 Vers.</td></tr><tr><td>2</td><td>2 = CH_5 + Input</td></tr><tr><td>3</td><td>3 = CH_5 – Input</td></tr><tr><td>4</td><td>4 = COM-AGND</td></tr><tr><td>5</td><td>5 = Shield (housing)</td></tr><tr><td>6</td><td>6 = n.c.</td></tr><tr><td>7</td><td>7 = + 24 VDC in</td></tr><tr><td>8</td><td>8 = + 24 VDC in</td></tr><tr><td>9</td><td>9 = GND in</td></tr><tr><td>10</td><td>10 = GND in</td></tr></table>	1	1 = Pt100_5 Vers.	2	2 = CH_5 + Input	3	3 = CH_5 – Input	4	4 = COM-AGND	5	5 = Shield (housing)	6	6 = n.c.	7	7 = + 24 VDC in	8	8 = + 24 VDC in	9	9 = GND in	10	10 = GND in
1	1 = Pt100_5 Vers.																					
2	2 = CH_5 + Input																					
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4	4 = COM-AGND																					
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6	6 = n.c.																					
7	7 = + 24 VDC in																					
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10	10 = GND in																					

## TX HMI/PLC Series

### Plug-In Module

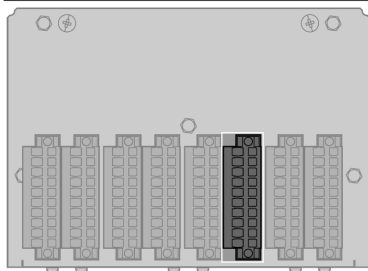
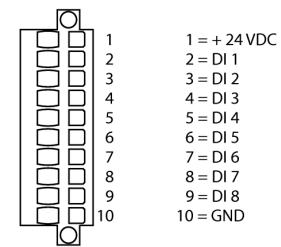
20 DI, 12 DO 0.5 A ,4 AI (U, I, RTD, TC), 4 AO (U, I)

TX-IO-XX03



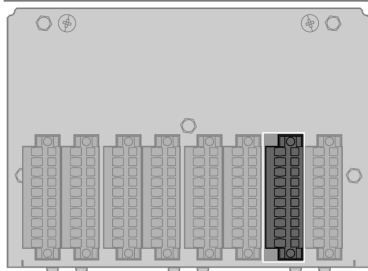
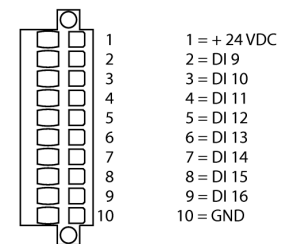
Digital Inputs

Pin Assignment CN5



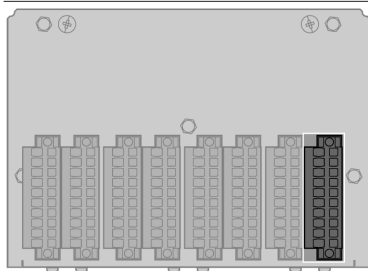
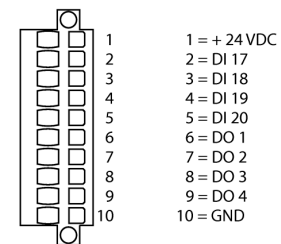
Digital Inputs

Pin Assignment CN6



Digital Inputs and Outputs

Pin Assignment CN7



Digital Outputs

Pin Assignment CN8

