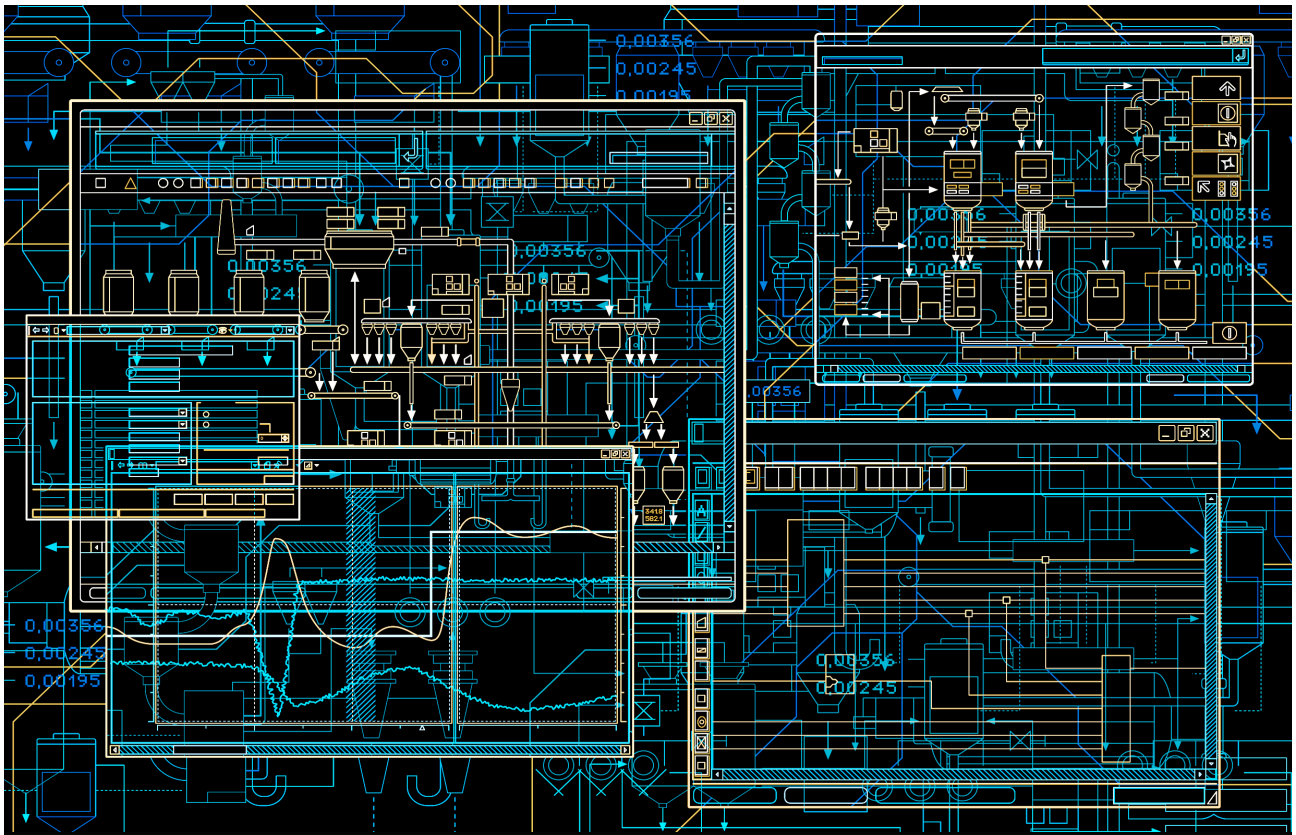


S200 I/O

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Digital Output Unit 200-OB32P 101
Functional Description 102
200-OB32P Connections 104
Digital Input/Output Combo Unit 200-IB16xOB16P 106
Front Panel 107
Functional Description 107
200-IB16xOB16P Connections 109
Pulse Counter Unit 200-IP2 111
Front Panel 111
Functional Description 112
200-IP2 Connections 124
Temperature Precautions 128
Frequency Counter Unit 200-IP4 130
Front Panel 130
Functional Description 132
200-IP4 Connections 138
Temperature Precautions 142
Analog Input Unit 200-IE8 143
Front Panel 143
Functional Description 143
200-IE8 Connections 145
Analog Output Unit 200-OE4 147
Front Panel 147
Functional Description 147
200-OE4 Connections 149
Input/Output Analog Combo Unit 200-IE4xOE2 151
Front Panel 151
Functional Description 151
200-IE4xOE2 Connections 153
Analog Input Unit 200-IF4I 155
Front Panel 155
Functional Description 156

200-IF4I Connections....158
Analog Output Unit 200-OF4I....160
Front Panel....160
Functional Description....161
200-OF4I Connections....162
RTD Input Unit 200-IR8....164
Front Panel....164
Sensor Types....165
Functional Description....165
Filter and Unit Throughput....167
Unit Calibration Overview....169
200-IR8 Connections....173
RTD Input Unit 200-IR8R....177
Front Panel....177
Functional Description....178
200-IR8R Connections....181
Thermocouple Input Unit 200-IT8....183
Front Panel....183
Sensor Types....184
Functional Description....184
Filter and Unit Throughput....185
Unit Calibration Overview....187
200-IT8 Connections....193
AC Input Unit 200-IA8....196
Front Panel....196
Functional Description....196
200-IA8 Connections....198
AC Output Unit 200-OA8....200
Front Panel....200
Functional Description....200
200-OA8 Connections....202
AC Input Unit 200-IM8....204

Functional Description 239
LED Indications 239
Node Address Selection 239
Screw Terminals 240
Adapter for Serial I/O Bus 200-AIO 241
Power Supply for the Remote I/O System 200-PS1.3 242
Front Panel 242
Functional Description 243
I/O System Accessories 244
Cables 244
Clips 245

Section 6 - Maintenance and Service

Replacing I/O System Units 247
Changing Fuses 248
Troubleshooting the I/O System 249
General 249
Troubleshooting 200-PS1.3 249
Troubleshooting 200-IB16 249
Troubleshooting 200-OB16 or 200-OB16P 250
Troubleshooting 200-IB10xOB6 251
Troubleshooting 200-IB32 251
Troubleshooting 200-OB32P 252
Troubleshooting 200-IB16xOB16P 253
Troubleshooting 200-IP2 253
Troubleshooting 200-IP4 254
Troubleshooting 200-IE8 255
Troubleshooting 200-OE4 256
Troubleshooting 200-IE4xOE2 256
Troubleshooting 200-IF4I 257
Troubleshooting 200-OF4I 258
Troubleshooting 200-IR8 259
Troubleshooting 200-IR8R 260

Troubleshooting 200-IT8 260
Troubleshooting 200-IM8 261
Troubleshooting 200-OM8 261
Troubleshooting 200-IA8 262
Troubleshooting 200-OA8 263
Troubleshooting 200-OW8 264
Troubleshooting 200-OB8EP 265
Troubleshooting 200-ANN 266
Troubleshooting 200-ACN 268
Troubleshooting 200-AENTR 270
Troubleshooting 200-APB12 272

Appendix A - Technical Specifications

General Specifications 275
Terminal Base Unit 200-TB2 276
Terminal Base Unit 200-TB3 277
Terminal Base Unit 200-TB3S 278
Terminal Base Unit 200-TB32 279
Terminal Base Unit 200-TB3T 280
Terminal Base Unit 200-TBN 281
Terminal Base Unit 200-TBNF 282
Digital Input Unit 200-IB16 283
Digital Output Unit 200-OB16 285
Digital Output Unit 200-OB16P 287
Digital Input/Output Combo Unit 200-IB10xOB6 289
Digital Input Unit 200-IB32 291
Digital Output Unit 200-OB32P 293
Digital Input/Output Combo Unit 200-IB16xOB16P 295
Pulse Counter Unit 200-IP2 298
Frequency Counter Unit 200-IP4 300
Analog Input Unit 200-IE8 302
Analog Output Unit 200-OE4 304
Input/Output Analog Combo Unit 200-IE4xOE2 306

Analog Input Unit 200-IF4I....308
Analog Output Unit 200-OF4I....310
RTD Input Unit 200-IR8....312
RTD Input Unit 200-IR8R....315
Thermocouple Input Unit 200-IT8....318
AC Input Unit 200-IA8....321
AC Output Unit 200-OA8....323
AC Input Unit 200-IM8....325
AC Output Unit 200-OM8....328
Relay Output Unit 200-OW8....330
Short-Circuit-Proof Output Unit 200-OB8EP....333
Dummy Unit 200-DUTB....335
Adapter for Central I/O System 200-ANN....336
Adapter for Remote I/O System 200-ACN....337
Adapter for EtherNet/IP I/O System 200-AENTR....338
Adapter for ProfiBus 200-APB12....339
Adapter for Serial I/O bus 200-AIO....340
Power Supply Unit 200-PS1.3....341
I/O Accessories....343
- Cable 200-CE1....343
- Cable 200-CE3....343
- Cable TK210V005....344
- Cable TK210V010....344
- Cable TK210V025....344
- Mounting Profile MP990....345
- Mounting Profile MP890....345
- Mounting Profile MP590....345
- Clips....346

Appendix B - Recommended Components

- Power-Line Filters....347
- Grounding Devices....348
- Devices for Extended Noise Suppression....348

I/O unit	Order code	Preferred terminal base	Compatible terminal base(s)
Counters			
24 V DC	200-IP2	200-TB3	200-TB3S 200-TB2
	200-IP4	200-TB3	200-TB3S 200-TB2
Analog			
24 V DC	200-IE8	200-TB3	200-TB3S
	200-OE4	200-TB3	200-TB3S 200-TBN 200-TBNF
	200-IE4xOE2	200-TB3	200-TB3S
Isolated analog			
24 V DC	200-IF4I	200-TB3	200-TB3S 200-TB3T 200-TBN
	200-OF4I	200-TB3	200-TB3S 200-TB3T 200-TBN
Speciality			
RTD Input unit	200-IR8	200-TB3	200-TB3S 200-TB3T
	200-IR8R	200-TB3T	200-TB3T
Thermocouple/mV Input unit	200-IT8	200-TB3T(1)	

(1) You can use a 200-TB3 for mV inputs only

Terminal Base Unit 200-TB2

This terminal base unit is intended for connecting an I/O unit and a number of two wire devices to the I/O system.

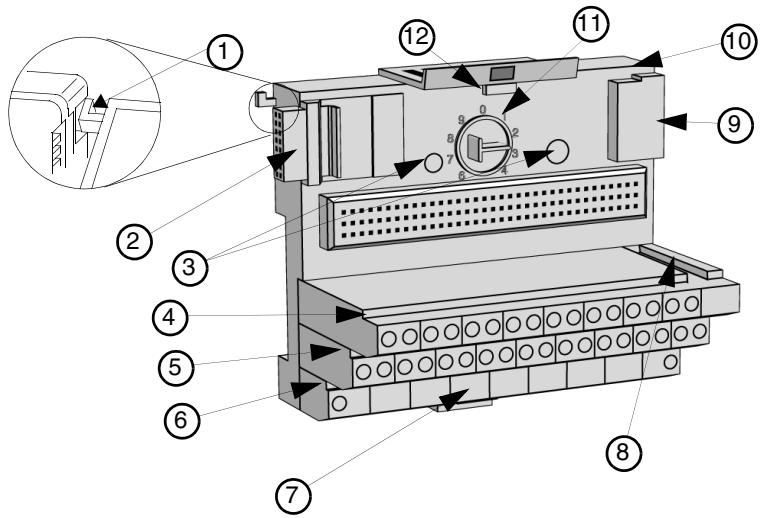


Figure 22. Terminal base unit 200-TB2

Component identification

1	Hook
2	Female I/O bus connector
3	Screw holes for panel mounting (Ø 4.5 mm), not used
4	Screw terminals for input/output connections
5	Screw terminals for input/output commons (0V DC)
6	Screw terminals for power connections (+24 V DC)
7	Locking tab for DIN rail mounting
8	Groove where the I/O unit guide rail fits
9	Male I/O bus connector
10	Slot for connection of an adjacent terminal base unit
11	Code key – set to the position required for the installed I/O unit

Pulse Counter Unit 200-IP2

The Pulse Counter Unit, 200-IP2, is an I/O unit with 2 pulse transmitter interfaces, each with 4 optocoupled inputs. The maximum pulse frequency is 100 kHz. The I/O unit is configured using the control system program.

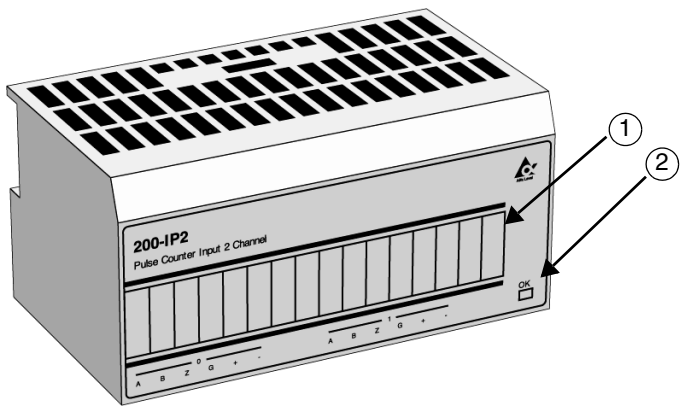
200-IP2 can be adapted for a wide range of applications, for example, for counting pulses from pulse transmitters or incremental encoders with 1 pulse train or with 2 pulse trains. Quantity counting, positioning and speed calculation are examples of other applications.

200-IP2 has two 16-bit up/down counters, which are individually programmable. The number of edges to be counted in a pulse train can be specified to x1, x2 or x4.

Complementary or non-complementary pulse transmitters can be connected.

200-IP2 can be used with the version B or later of Adapter 200-ANN.

Front Panel



1 = Insertable label for labelling individual input designations
2 = Status indicators

Figure 64. Pulse counter unit 200-IP2.

Indicators

The table below shows the LEDs for one of the two identical pulse transmitter interfaces.

Indication	Function
A	Yellow LED, lit when input A is active
B	Yellow LED, lit when input B is active
Z	Yellow LED, lit when input Z is active
G	Yellow LED, lit when input G is active
+	Yellow LED, lit when a positive count pulse is detected. It is turned off by a negative pulse.
–	Yellow LED, lit when a negative count pulse is detected. It is turned off by a positive pulse.
OK	Red LED, lit during the initialization phase, after the power has been switched on. Green LED, lit when the initialization of the 200-IP2 internal logic is complete.

Functional Description

200-IP2 has 2 identical pulse transmitter interfaces (12–24 V DC), each with four inputs (A, B, Z and G). Each input has +/– inputs for connection to pulse transmitters with complementary or non-complementary signals. The counter can count one or two pulse trains.

200-IP2 handles up/down counting and detection of a selectable number of edges (x1, x2 or x4) for incremental encoders with two pulse trains, nominal 90 degrees out of phase (minimum stable signal condition: 2 µs). Each of the two counters has a 16-bit counter register, a preset register and a latch register.

Built-in programmable low-pass filters can be connected to the A inputs. The selected filter constant is common for both A inputs.

The unit can be configured for a number of applications. This is done via parameters accessible from the control system program.