

Digital Input SM 221
DC 24V / DC 24V 0.2ms / DC 24V NPN / DC 24V Alarm



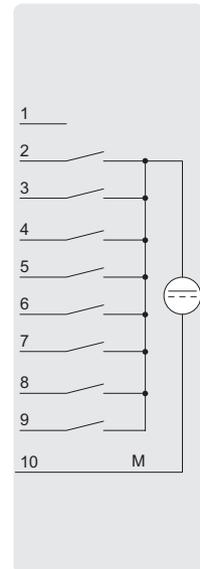
- SM 221-1BF00**
 - 8 digital inputs DC 24V
- SM 221-1BF10**
 - 8 High-Speed inputs
- SM 221-1BF20**
 - 8 alarm inputs
 - Rising edge
- SM 221-1BF50**
 - 8 NPN inputs



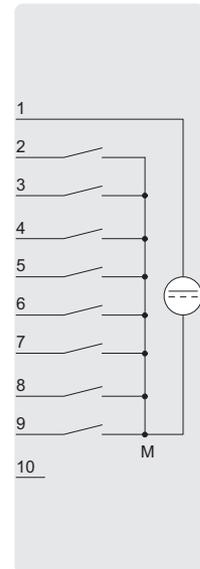
Order no.	Type
VIPA 221-1BF00	DI 8xDC 24V
VIPA 221-1BF10	DI 8xDC 24V 0,2ms
VIPA 221-1BF20	DI 8xDC 24V Alarm
VIPA 221-1BF30	DI 8xDC 24V for decentral periphery
VIPA 221-1BF50	DI 8xDC 24V NPN
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1BF00	-1BF10	-1BF20	-1BF30/50
Nominal input voltage	DC 24V		negative	
Number of inputs	8			
Alarm	--	--	yes	--
Input data	1Byte			
Input voltage at "1"	DC 15...30V		DC 0...5V	
Input voltage at "0"	DC 0...5V		DC 15...30V	
Delay time	3ms	0,2ms	3ms	3ms
Supply voltage int. bus	5V			
Current cons. int. bus	20mA	20mA	140mA	20mA
Input current	typ. 7mA			
Potential separation	yes			

-1BF00/-1BF10/-1BF20



-1BF50



Digital Input SM 221
 AC/DC 60/90...230V / AC/DC 24...48V



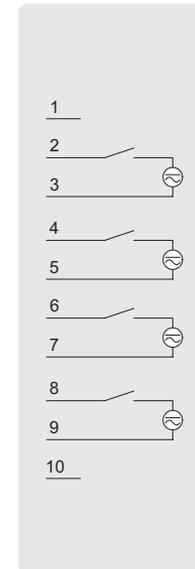
- 4 digital inputs
AC/DC 90...230V
- 8 digital inputs
AC/DC 60...230V
24...48V



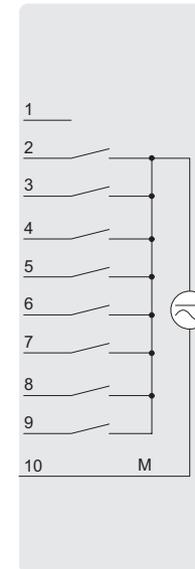
Order no.	Type
VIPA 221-1FD00	DI 4xAC/DC 90...230V floating
VIPA 221-1FF20	DI 8xAC/DC 60...230V
VIPA 221-1FF30	DI 8xAC/DC 24...48V
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1FD00	-1FF20	-1FF30
Nominal input voltage	AC/DC		
	90...230V	60...230V	24...48V
Number of inputs	4	8	8
Channels floating	yes	--	--
Input data	(Bit 0...3)	1Byte	
Input voltage at "1"	AC/DC		
	90...230V	60...230V	18...48V
Input voltage at "0"	AC/DC		
	0...35V	0...35V	0...8V
Frequency	50...60Hz		
Input resistance	136kΩ	136kΩ	16,4kΩ
Delay time	25ms		
Supply voltage int. bus	5V		
Current consumption int. bus	80mA		

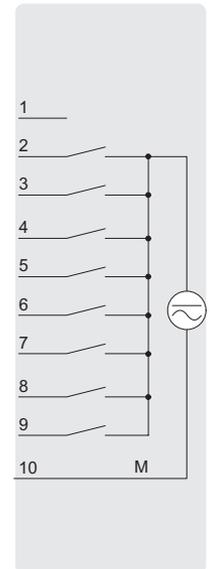
-1FD00



-1FF20



-1FF30



Digital Input SM 221
AC 230V Hysteresis / AC/DC 180...265V



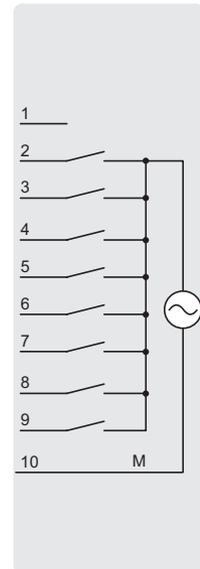
- 8 digital inputs
AC 230V with Hysteresis
- 8 digital inputs
AC/DC 180...265V



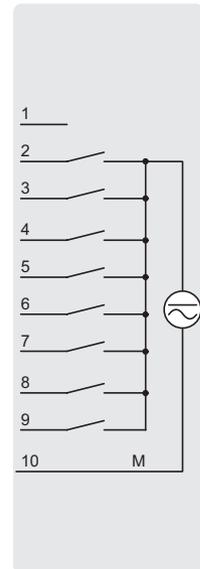
Order no.	Type
VIPA 221-1FF40	DI 8xAC 230V Hysteresis
VIPA 221-1FF50	DI 8xAC/DC 180...265V
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1FF40	-1FF50
Nominal input voltage	AC 230V	AC/DC 180...265V
Number of inputs	8	
Input data	1Byte	
Input voltage at "1"	AC 190...260V	AC/DC 180...265V
Hysteresis	AC 90...160V	--
Input voltage at "0"	AC 0...70V	AC/DC 0...150V
Frequency	50Hz	50...60Hz
Input resistance	136kΩ	
Delay time	25ms	
Supply voltage int. bus	5V	
Current consumption int. bus	80mA	30mA
Potential separation	yes	

-1FF40



-1FF50



Digital Input SM 221
DC 24V /DC 24V NPN



- 16 digital inputs DC 24V

SM 221-1BH00

- LEDs for status monitor at terminal module
- Connection to external terminal module (UB48, UB48D) via round cable for lengths up to 30m



Order no.	Type
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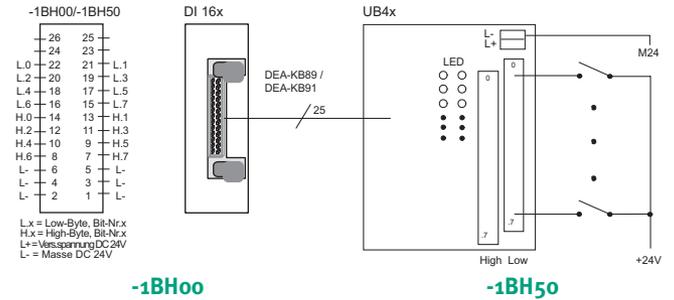
VIPA 221-1BH00	DI 16xDC 24V
VIPA 221-1BH50	DI 16xDC 24V NPN*

VIPA DEA-UB48	External terminal module 1pole
VIPA DEA-UB48D	External terminal module 3pole
VIPA DEA-KB91C	Round cable 2m (max. length 30m)

VIPA HB97E	Manual VIPA System 200V
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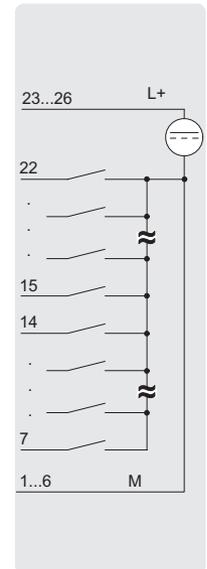
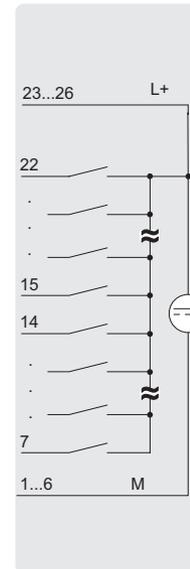
* not for DEA terminal modules

Technical Data	-1BH00	-1BH50
Nominal input voltage	DC 24V	DC 24V neg.
Number of inputs	16	
Input data	2Byte	
Input voltage at "1"	DC 15...30V	DC 0...5V
Input voltage at "0"	DC 0...5V	DC 15...30V
Delay time	3ms	
Supply voltage int. bus	5V	
Current consumption int. bus	20mA	
Input current	typ. 7mA	
Potential separation	yes	

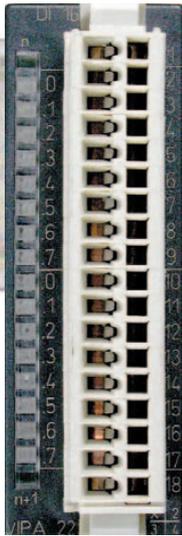


-1BH00

-1BH50



Digital Input SM 221
DC 24V / DC 24V counter



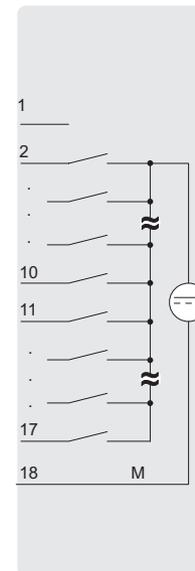
- 16 digital inputs DC 24V
- 16 digital inputs DC 24V and 2 inputs configurable as counter (100kHz/32Bit)



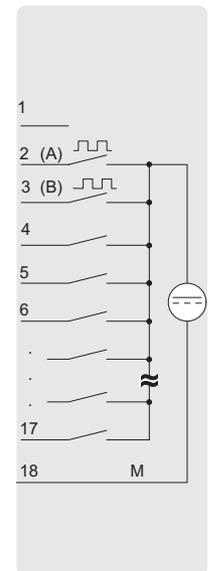
Order no.	Type
VIPA 221-1BH10	DI 16xDC 24V
VIPA 221-1BH20	DI 16xDC 24V, 1 counter
VIPA 221-1BH30	DI 16DC 24V, vor decentral peripherie
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1BH10	-1BH20
Nominal input voltage	DC 24V	
Number of inputs/counter	16/--	16/1
Input data	2Byte	6Byte
Output data	--	6Byte
Parameter data	--	1Byte
Input voltage at "1"	DC 15...30V	
Input voltage at "0"	DC 0...5V	
Delay time	3ms	
Operation mode	--	Up/Down counter
Supply voltage int. bus	5V	
Current consumption int. bus	30mA	100mA
Input current	typ. 7mA	
Potential separation	yes	

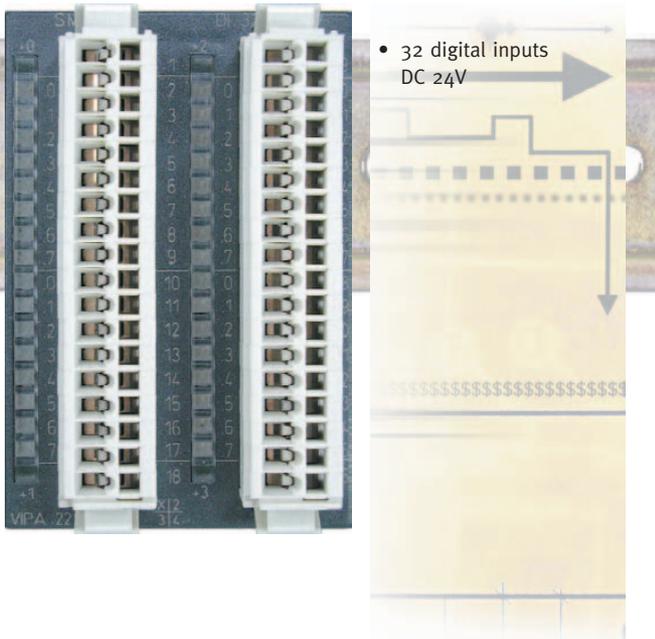
-1BH10



-1BH20



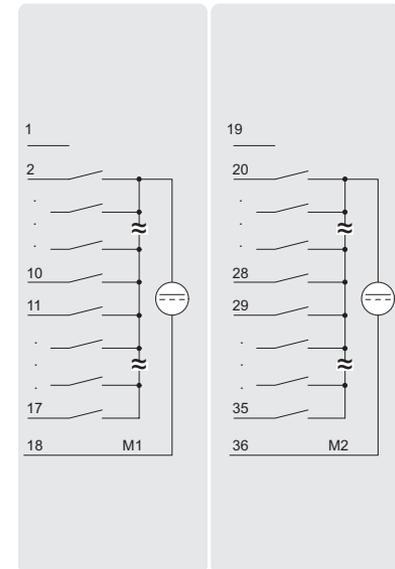
Digital Input SM 221
DC 24V



Order no.	Type
VIPA 221-2BL10	DI 32xDC 24V
VIPA HB97E	Manual VIPA System 200V

Technical Data	-2BL10
Nominal input voltage	DC 24V
Number of inputs	32
Input data	4Byte
Input voltage at "1"	DC 15...30V
Input voltage at "0"	DC 0...5V
Delay time	3ms
Supply voltage int. bus	5V
Current consumption int. bus	50mA
Input current	typ. 7mA
Potential separation	in 2 groups à 16

-2BL10



Digital Output SM 222 DC 24V 1A / 2A



- 8 digital outputs DC 24V
- Diagnostic LED for short circuit and overload
- Maintenance-free overload protection (thermic shutdown)

222-1BF20

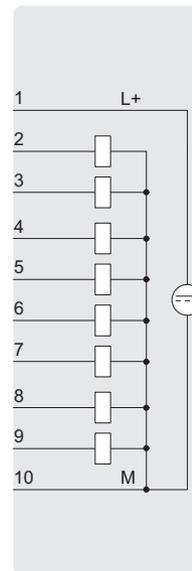
- Channels floating in groups à 2 channels



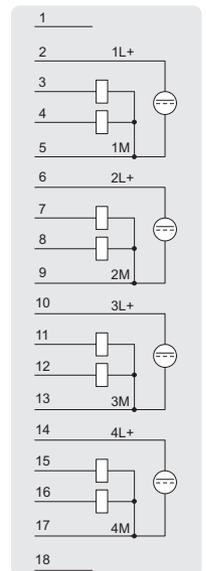
Order no.	Type
VIPA 222-1BF00	DO 8xDC 24V 1A
VIPA 222-1BF10	DO 8xDC 24V 2A
VIPA 222-1BF20	DO 8xDC 24V 2A, floating
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1BF00	-1BF10	-1BF20
Nominal load voltage	DC 24V		
Number of outputs	8		
Output data	1Byte		
Output current per channel	1A	2A	2A
Supply voltage int. bus	5V		
Current consumption int. bus	50mA		
Potential separation	yes	per 2	

-1BF00/-1BF10



-1BF20



Digital Output SM 222
DC 30V / AC 230V Relay



- Relay output with VDE certificate

- 4 or 8 digital relay outputs
AC 230V or DC 30V

SM 222-1HD20

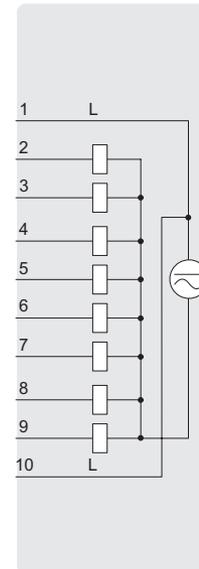
- 4 digital bistable relay outputs
- 16A output current



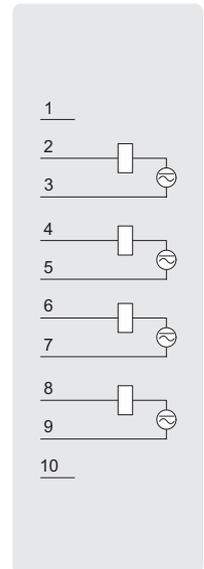
Order no.	Type
VIPA 222-1HF00	DO 8xRelay COM 5A
VIPA 222-1HD10	DO 4xRelay floating 5A
VIPA 222-1HD20	DO 4xRelay floating, bistable 16A
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1HF00	-1HD10	-1HD20
Nominal load voltage	AC 230V / DC 30V		
Number of outputs	8	4	4 (bistable)
Output data	1Byte		
Potential separation	--	yes	yes
Output current per channel	5A	5A	16A
Toggle frequency	100Hz		
Supply voltage int. bus	5V		
Current consumption int. bus	270mA	150mA	40mA

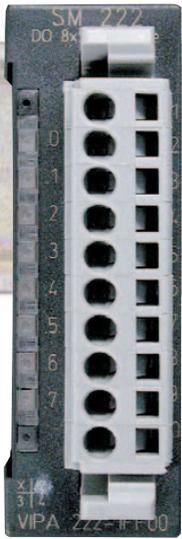
-1HF00



-1HD10/-1HD20



Digital Solid-State Relay Output SM 222 AC 230V / DC 400V



- 4 or 8 digital Solid-State Relay outputs AC 230V or DC 400V

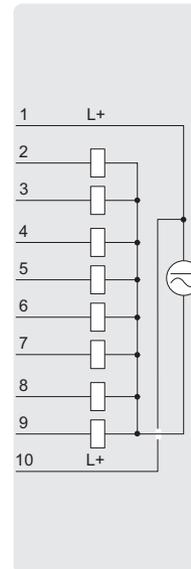


Order no.	Type
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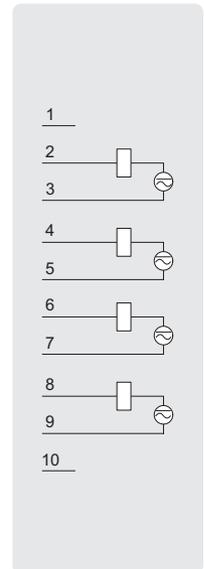
VIPA 222-1FF00	DO 8xSolid-State Relay COM 0,5A
VIPA 222-1FD10	DO 4xSolid-State Relay floating 0,5A
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1FF00	-1FD10
Nominal load voltage	AC 230V / DC 400V	
Number of outputs	8	4
Output data	1Byte	
Potential separation	no	yes
Output current per channel	0,5A	
Toggle frequency	100Hz	
Supply voltage int. bus	5V	
Current consumption int. bus	140mA	100mA

-1FF00



-1FD10



Digital Output SM 222
DC 24V /DC 24V NPN



- 16 digital outputs DC 24V

222-1BH00

- LEDs for status monitor at terminal module
- Connection to external terminal module (UB48, UB48D) via round cable for lengths up to 30m



Order no.	Type
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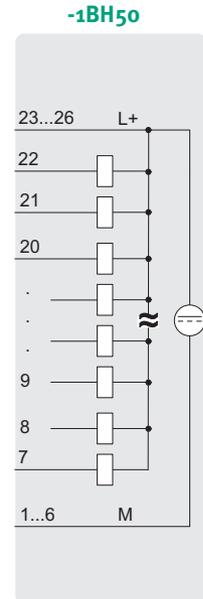
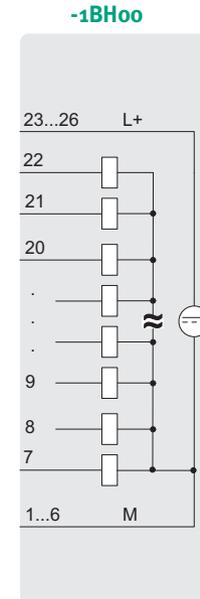
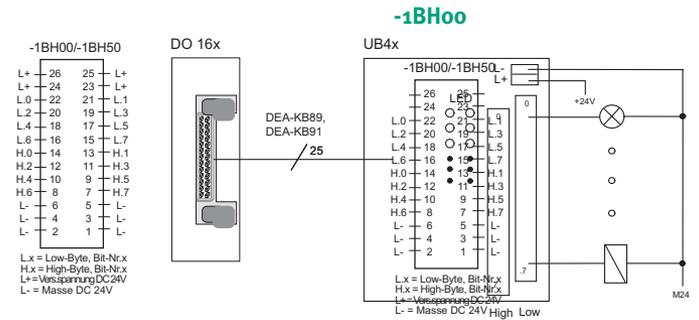
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|----------------|------------------------|
| VIPA 222-1BH00 | DO 16xDC 24V 0,5A |
| VIPA 222-1BH50 | DO 16xDC 24V NPN 0,5A* |

- | | |
|----------------|---|
| VIPA DEA-UB47 | External terminal module 1pole, 2A active |
| VIPA DEA-UB48 | External terminal module 1pole |
| VIPA DEA-UB48D | External terminal module 3pole |
| VIPA DEA-KB91C | Round cable 2m (max. length 30m) |

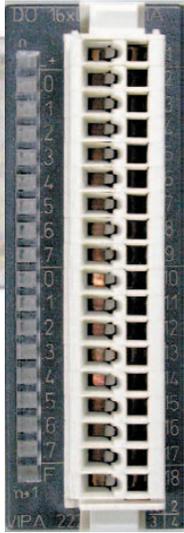
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| VIPA HB97E | Manual VIPA System 200V |
|------------|-------------------------|

* not for DEA terminal modules

Technical Data	-1BH00	-1BH50
Nominal load voltage	DC 24V	DC 24V neg.
Number of outputs	16	
Output data	2Byte	
Output current per channel	0,5A	
Supply voltage int. bus	5V	
Current consumption int. bus	100mA	



Digital Output SM 222 DC 24V



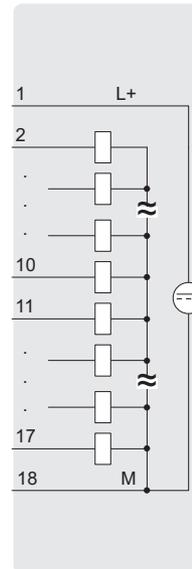
- 16 digital outputs DC 24V
- Diagnostic LED for short circuit and overload
- Maintenance-free overload protection (thermic shutdown)



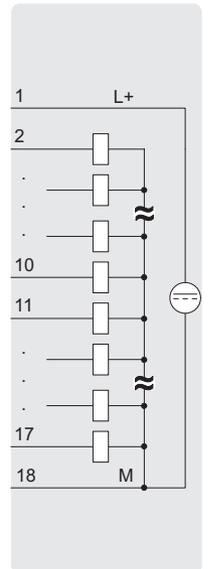
Order no.	Type
VIPA 222-1BH10	DO 16xDC 24V 1A
VIPA 222-1BH20	DO 16xDC 24V 2A
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1BH10	-1BH20
Nominal load voltage	DC 24V	
Number of outputs	16	
Output data	2Byte	
Output current per channel	1A	2A
Max. sum current of L+	10A	
Supply voltage int. bus	5V	
Current consumption int. bus	80mA	100mA
Potential separation in groups à	yes	

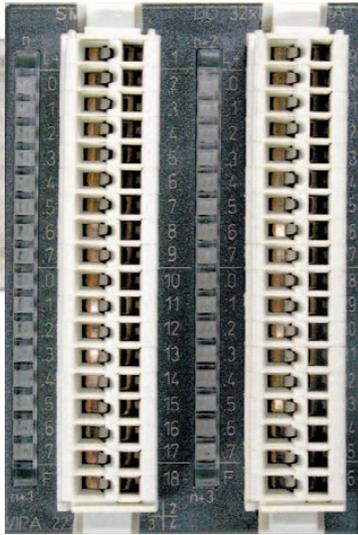
-1BH10



-1BH20



Digital Output SM 222 DC 24V



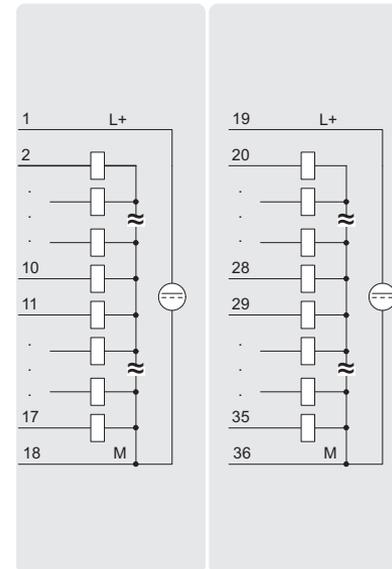
- 32 digital outputs DC 24V
- Diagnostic LED for short circuit and overload
- Maintenance-free overload protection (thermic shutdown)



Order no.	Type
VIPA 222-2BL10	DO 32xDC 24V 1A
VIPA HB97E	Manual VIPA System 200V

Technical Data	-2BL10
Nominal load voltage	DC 24V
Number of outputs	32
Output data	4Byte
Output current per channel	1A
Max. sum current per group	10A
Supply voltage int. bus	5V
Current consumption int. bus	140mA
Potential separation in groups à	16

-2BL10



Digital In-/Output SM 223
DC 24V



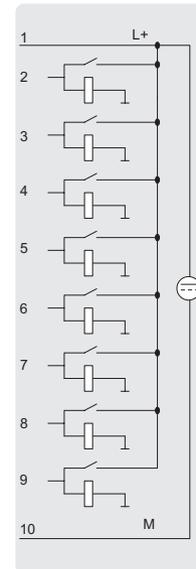
- 8 freely configurable in- and/or outputs DC 24V



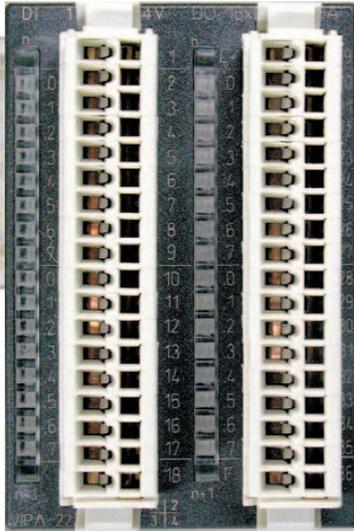
Order no.	Type
VIPA 223-1BF00	DIO 8xDC 24V 1A
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1BF00
Nominal input voltage	DC 24V
Nominal load voltage	DC 24V
Number of inputs	0...8
Number of outputs	0...8
Input data	1Byte
Output data	1Byte
Input voltage at "1"	DC 15...30V
Input voltage at "0"	DC 0...5V
Delay time	3ms
Output current per channel	1A
Supply voltage int. bus	5V
Current consumption int. bus	65mA

-1BF00



Digital In-/Output SM 223 DC 24V



- 16 digital inputs, 16 digital outputs DC 24V
- Diagnostic LED for short circuit and overload
- Maintenance-free overload protection (thermic shutdown)



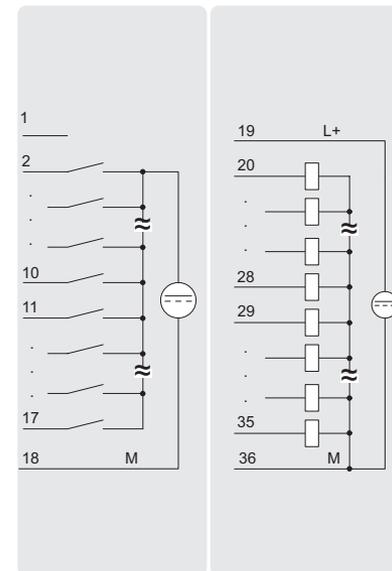
Order no.	Type
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VIPA 223-2BL10	DI 16xDC 24V DO 16xDC 24V 1A
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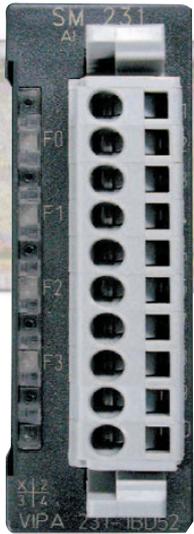
VIPA HB97E	Manual VIPA System 200V
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Technical Data	-2BL10
Nominal input voltage	DC 24V
Nominal load voltage	DC 24V
Number of inputs	16
Number of outputs	16
Input data	2Byte
Output data	2Byte
Input voltage at "1"	DC 15...30V
Input voltage at "0"	DC 0...5V
Delay time	3ms
Output current per channel	1A
Max. sum output current	10A
Supply voltage int. bus	5V
Current consumption int. bus	100mA

-2BL10



Analog Input SM 231 Multiinput



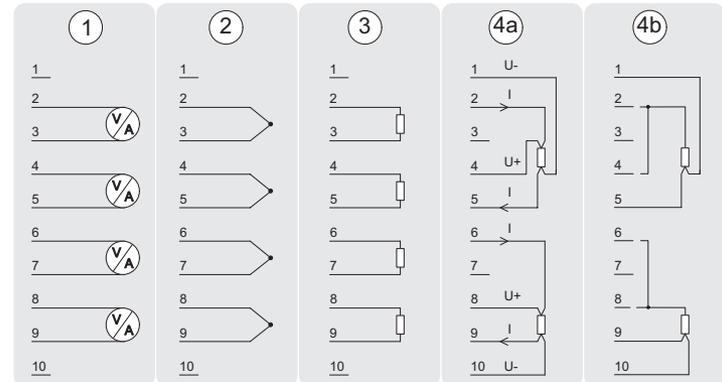
- 2 or 4 freely configurable analog inputs
- Parameterizable mean value generation over several measuring cycles
- Parameterizable integration time
- Internal or external temperature compensation



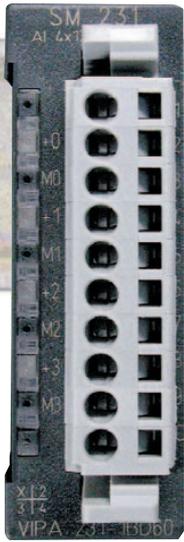
Order no.	Type
VIPA 231-1BD52	AI 4x16Bit Multiinput
VIPA 231-1BD53	AI 4x16Bit Multiinput
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1BD52/1BD53
Number of inputs	4 or 2 (with 4-wire)
Input data	8Byte
Resolution	10-16Bit
Input resistance	Voltage >100kΩ, Current >30Ω
Integration time	5...266ms/channel/15...266ms/channel
Supply voltage int. bus	5V
Current consumption int. bus	240mA
Input ranges	
Voltage	±10V, ±4V, ±400mV
Current	0...20mA, 4...20mA, ±20mA
Thermo coupler	J, K, N, R, S, T
2- or 4-wire connection:	
Temperature	Pt100, Pt1000, Ni100, Ni1000
Resistance	60Ω, 600Ω, 3000Ω, 6000Ω

-1BD52/-1BD53



Analog Input SM 231
0/4...20mA floating



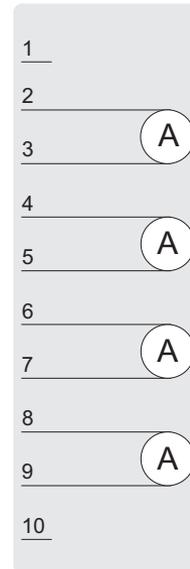
- 4 analog inputs 4...20mA
- 4 analog inputs ±10V
- Channels single floating



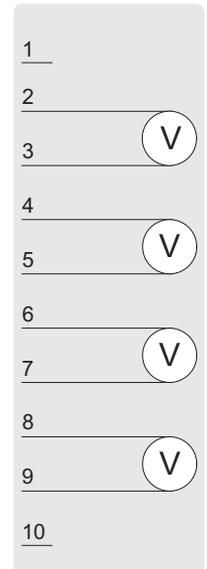
Order no.	Type
VIPA 231-1BD60	AI 4x12Bit 4...20mA floating
VIPA 231-1BD70	AI 4x12Bit 0...10V floating
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1BD60	-1BD70
Number of inputs	4	
Input data	8Byte	
Resolution	12Bit	
Input resistance	20Ω	83,5kΩ
Integration time	8.6ms	
Supply voltage int. bus	5V	
Current consumption int. bus	280mA	3000mA
Input range	4...20mA	±10V
Channel separation	yes	

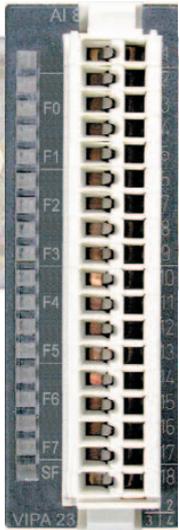
-1BD60



-1BD70



Analog Input SM 231
Fast Multiinput



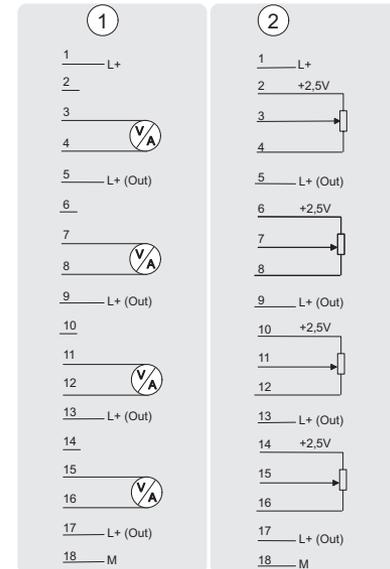
- 4 independent analog inputs
- Parameterizable mean value generation over several measuring cycles
- Parameterizable integration time
- Cycle time via all channels <1ms



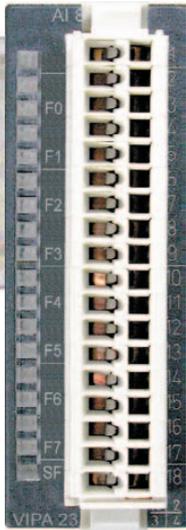
Order no.	Type
VIPA 231-1FD00	AI 4x16Bit Fast Multiinput
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1FD00
Number of inputs	4
Input data	8Byte
Cycle time	<1ms
Input resistance	Voltage >2MΩ, Current >57Ω
Supply voltage int. bus	5V
Current consumption int. bus	300mA
Input ranges	
Voltage	±10V, ±4V, ±400mV
Current	4...20mA, ±20mA
Potentiometer	1k...100kΩ

-1FD00



Analog Input SM 231
Pt100, Thermo coupler, 0...60mV



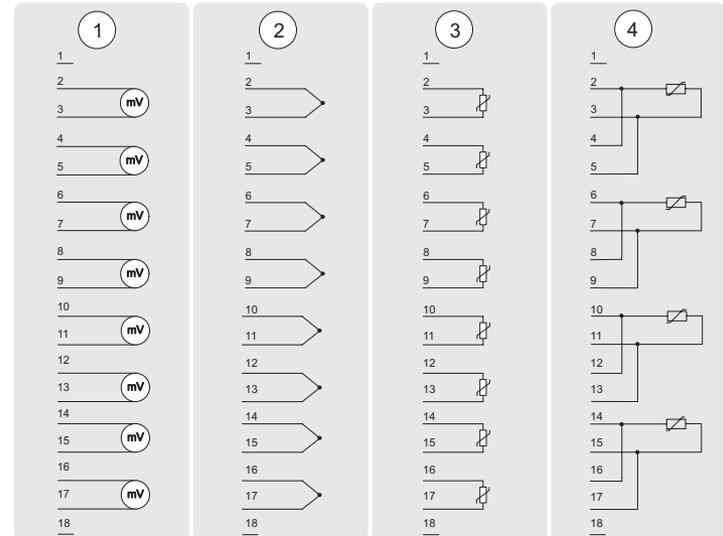
- 8 or 4 configurable inputs
- Parameterizable integration time
- Internal or external temperature compensation



Order no.	Type
VIPA 231-1BF00	AI 8x16Bit
VIPA HB97E	Manual VIPA System 200V

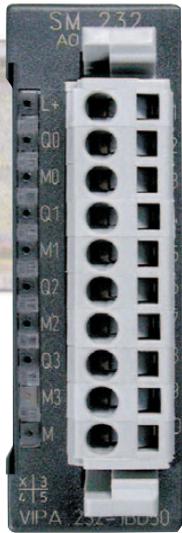
Technical Data	-1BF00
Number of inputs	8 or 4 (with 4-wire)
Input data	16Byte
Resolution	10-16Bit
Input resistance	> 1MΩ
Integration time	5...266ms/channel
Supply voltage int. bus	5V
Current consumption int. bus	280mA
Input range	Thermo coupler J, K, T Temperature Pt100 Voltage 0...60mV

-1BF00



combinations possible

Analog Output SM 232 Multioutput



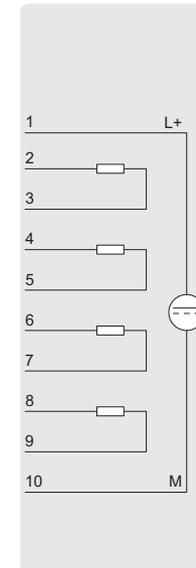
- 4 free configurable analog outputs
- Sum diagnosis for diagnosis alarms



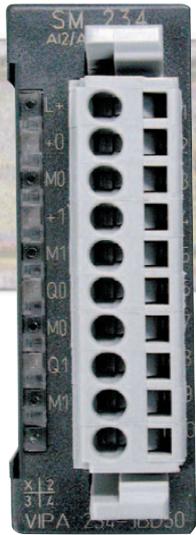
Order no.	Type
VIPA 232-1BD50	AO 4x12Bit Multioutput
VIPA 232-1BD51	AO 4x12Bit Multioutput
VIPA HB97E	Manual VIPA System 200V

Technical Data	-1BD50/-1BD51
Number of outputs	4
Output data	8Byte
Output ranges	
Voltage	0...10V, 1...5V, ±10V
Current	4...20mA, ±20mA, 0...20mA
Resolution	12Bit
Usage error limit	0,2% at ±10V
Actuator resistance	
Voltage	min. 1kΩ
Current	max. 500Ω
Supply voltage L+	DC 24V
Current consumption L+	60mA
Supply voltage int. bus	5V
Current consumption int. bus	70mA / 30mA

-1BD50



Analog In-/Output SM 234 Multiinput - Multioutput



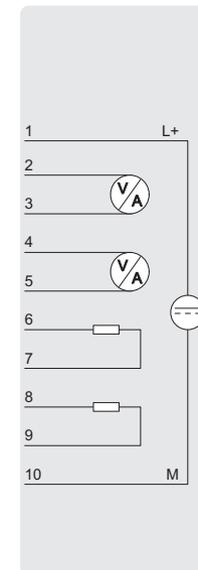
- 2 freely configurable inputs
- AI: diagnostic alarms for wire break, parameterization error, measuring range over- or underrun
- 2 freely configurable outputs
- AO: diagnostic alarms for wire break (current), short circuit (voltage) and parameterization errors
- Parameterizable integration time



Order no.	Type
VIPA 234-1BD50	AIO 2x12Bit Multiinput 2x12Bit Multioutput
VIPA 234-1BD60	3xAI U/I, 1xPT100 12bit, 2x12bit 40 U/I
VIPA HB97E	Manual VIP A System 200V

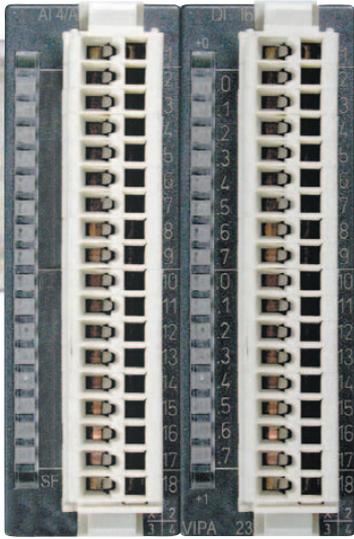
Technical Data	-1BD50	-1BD60
Number of inputs	2	4
Number of outputs	2	2
Input data	4Byte	8Byte
Output data	4Byte	4Byte
Resolution	11Bit+Vorzeichen	12Bit
Input resistance		
Voltage	100kΩ	100kΩ
Current	50Ω	33Ω
Actuator resistance		
Voltage	min. 1kΩ	min. 1kΩ
Current	max. 500Ω	max. 500Ω
Integration time	7...270ms	
Supply voltage L+	DC 24V	DC 24V
Supply voltage int. bus	5V	5V
Current consumption int. bus	110mA	600mA
Input/Output range		±10V, ±4V, ±400mV
Voltage	0...10V, ±10V, 1...5V	±10V, ±1...5V, 0...10V
Current	0...20mA, 4...20mA, ±20mA	±20mA, 4...20mA 0...20mA

-1BD50/-1BD60



Digital Input Analog In-/Output

Digital Input / Analog In- / Output SM 238



- 2 freely configurable inputs
- AI: diagnostic alarms for wire break, parameterization error, measuring range over- or underrun
- 2 freely configurable outputs
- AO: diagnostic alarms for wire break (current), short circuit (voltage) and parameterization errors
- Parameterizable integration time



Order no.	Type
VIPA 238-2BCoo	DI 16xDC 24V with counter, AI 3x12Bit U/I, AI 1x12Bit Pt100 AO 2x12Bit U/I COM
VIPA HB97E	Manual VIPA System 200V

Technical Data	-2BCoo
Number of inputs digital/analog	16/4
Number of outputs	2
Input data	
Output data	
Resolution	11Bit+sign
Input resistance	
Voltage	120kΩ
Current	18Ω
Integration time	9ms/channel
Actuator resistance	
Voltage	min. 1kΩ
Current	max. 500Ω
Supply voltage L+	DC 24V
Supply voltage int. bus	5V
Current consumption int. bus	100mA
Input/Output range	
Voltage	0...10V, ±10V
Current	0...20mA, 4...20mA, ±20mA
Temperature	Pt100

