8B0C0320HW00.002-1

1 General information

- Connections for supplying external 24 V devices
- Extensive protective measures

2 Order data

Model number	Short description	Figure
	Wall mounting	
8B0C0320HW00.002-1	ACOPOSmulti auxiliary supply module, 32 A, HV, wall mounting, 24VOut 1x 32 A, 1x 5 A	
	Required accessories	
	Terminal block sets	
8BZ0C032000.002-1A	Screw clamp set for ACOPOSmulti 8B0C0320Hx00.002-1 modules: 1x 8TB3104.201M-11, 1x 8TB2104.2010-00, 1x 8TB2106.2010-00	
	Optional accessories	
	Fan modules	
8BXF001.0000-00	ACOPOSmulti fan module, replacement fan for ACOPOSmulti modules (8BVP / 8B0C / 8BVI / 8BVE / 8B0K)	
	Terminal blocks	
8TB2104.2010-00	Screw clamp 4-pin, single row, spacing: 5.08 mm, label 1: numbered serially	
8TB2106.2010-00	Screw clamp 6-pin, single row, spacing: 5.08 mm, label 1: numbered serially	
8TB3104.201M-11	Screw clamp 4-pin, single-row, spacing: 7.62 mm, label 1: numbered serially, M keying: 1011	

Table 1: 8B0C0320HW00.002-1 - Order data

3 Technical data

Product ID	8B0C0320HW00.002-1
General information	
Cooling and mounting method	Wall mounting
Certification cULus	 Yes
DC link connection	
Voltage Nominal Operating range in continuous operation Full continuous power	 750 VDC 260 to 800 VDC 315 to 800 VDC
Continuous power consumption	Max. 880 W
Power loss with continuous power	80 W
DC link capacitance	220 nF
Design	ACOPOSmulti backplane
24 VDC output	
Continuous power [1)]	800 W
Output voltage DC link voltage (U_{DC}): 260 to 315 VDC DC link voltage (U_{DC}): 315 to 800 VDC	 25 VDC * (U_{DC} / 315) 24 VDC ±6%
Continuous current	32 ADC
Reduction of continuous power depending on an ambient temperature above 40°C	No reduction
Reduction of continuous power depending on the installation altitude Starting at 500 m above sea level	 80 W per 1000 m
Reduction of continuous power depending on the cooling method	In preparation
Startup delay	Max. 1 s
Startup time	Approx. 5 to 20 ms
Residual ripple	Typ. 50 mV_{SS}
24 VDC internal system supply voltage	
Output voltage	25 VDC ±1.6%

Table 2: 8B0C0320HW00.002-1 - Technical data

Product ID	8B0C0320HW00.002-1
Peak current (<4 s)	
DC link voltage (U_{DC}): 350 to 800 VDC	42 ADC
Protective measures	
Open circuit protection	Yes
Overload protection	Yes
Short circuit protection	Yes
Feedback protection	Max. 26 VDC (also when turned off)
Overtemperature protection	Yes
Dielectric strength to ground	±50 VDC
Output/Input isolation	SELV / PELV requirements
Design	ACOPOSmulti backplane
24 VDC Out	
Output voltage	
DC link voltage (U_{DC}): 260 to 315 VDC	25 VDC * (U_{DC} / 315)
DC link voltage (U_{DC}): 315 to 800 VDC	24 VDC ±6%
Protection of 24 VDC Out 1 output	32 A (slow-blow) electronic, automatic reset
Protection of 24 VDC Out 2 output	5 A (slow-blow) electronic, automatic reset
Protective measures	
Open circuit protection	Yes
Overload protection	Yes
Short circuit protection	Yes
Feedback protection	Max. 35 VDC (also when turned off)
Overtemperature protection	Yes
Dielectric strength to ground	±50 VDC
Output/Input isolation	SELV / PELV requirements
Design	
24 VDC, COM	Connector
Terminal connection cross section of 24 VDC Out 1 output	
Flexible and fine wire lines	
With wire end sleeves	0.25 to 6 mm²
Approbation data	
UL/C-UL-US	22 to 10
CSA	22 to 10
Terminal connection cross section of 24 VDC Out 2 output	
Flexible and fine wire lines	
With wire end sleeves	0.25 to 2.5 mm²
Approbation data	
UL/C-UL-US	22 to 12
CSA	22 to 12
24 VDC Out 1 controller input	
Wiring	Sink
Electrical isolation	
Input - 24 VDC	Yes
Modulation compared to ground potential	Max. ±50 V
Input voltage	
Nominal	24 VDC
Maximum	30 VDC
Switching threshold	
Low (24 VDC Out 1 is switched on)	<5 V
High (24 VDC Out 1 is switched off) [2]	>15 V
Input current at nominal voltage	Approx. 10 mA
Switching delay	
ON (24 VDC Out 1 is switched on)	Max. 25 ms
OFF (24 VDC Out 1 is switched off)	Max. 0.25 ms
Design	Connector
Terminal connection cross sections	
Flexible and fine wire lines	
With wire end sleeves	0.25 to 2.5 mm²
Approbation data	
UL/C-UL-US	30 to 12
CSA	22 to 12
Operating conditions	
Permitted mounting orientations	
Hanging vertically	Yes
Lying horizontally	Yes
Standing horizontally	No
Installation at altitudes above sea level	
Nominal	0 to 500 m
Maximum [3]	4000 m
Degree of pollution in accordance with EN 60664-1	2 (non-conductive pollution)
Overvoltage category in accordance with IEC 60364-4-443:1999	III
Protection in accordance with EN 60529	IP20

Table 2: 8B0C0320HW00.002-1 - Technical data

Product ID	8B0C0320HW00.002-1
Environmental conditions	
Temperature	
Operation	
Nominal	5 to 40°C
Maximum	55°C
Storage	-25 to 55°C
Transport	-25 to 70°C
Relative humidity	
Operation	5 to 85%
Storage	5 to 95%
Transport	Max. 95% at 40°C
Mechanical characteristics	
Dimensions [4]	
Width	53 mm
Height	317 mm
Depth	
Wall mounting	263 mm
Weight	Approx. 3.2 kg
Module width	1

Table 2: 8B0C0320HW00.002-1 - Technical data

1) Valid in the following conditions: 750 VDC DC bus voltage, 55°C ambient temperature, installation altitude <500 m above sea level, no derating due to cooling type.
2) The output and any connected loads are not actively discharged when switched off.
3) Continuous operation at altitudes ranging from 500 m to 4000 m above sea level is possible (taking the specified continuous current reductions into consideration). Requirements that go above and beyond this must be arranged with B&R.
4) These dimensions refer to the actual device dimensions including the respective mounting plate. Make sure to leave additional space above and below the devices for mounting, connections and air circulation.

4 Status indicators

Status indicators are located on the black cover of each module.

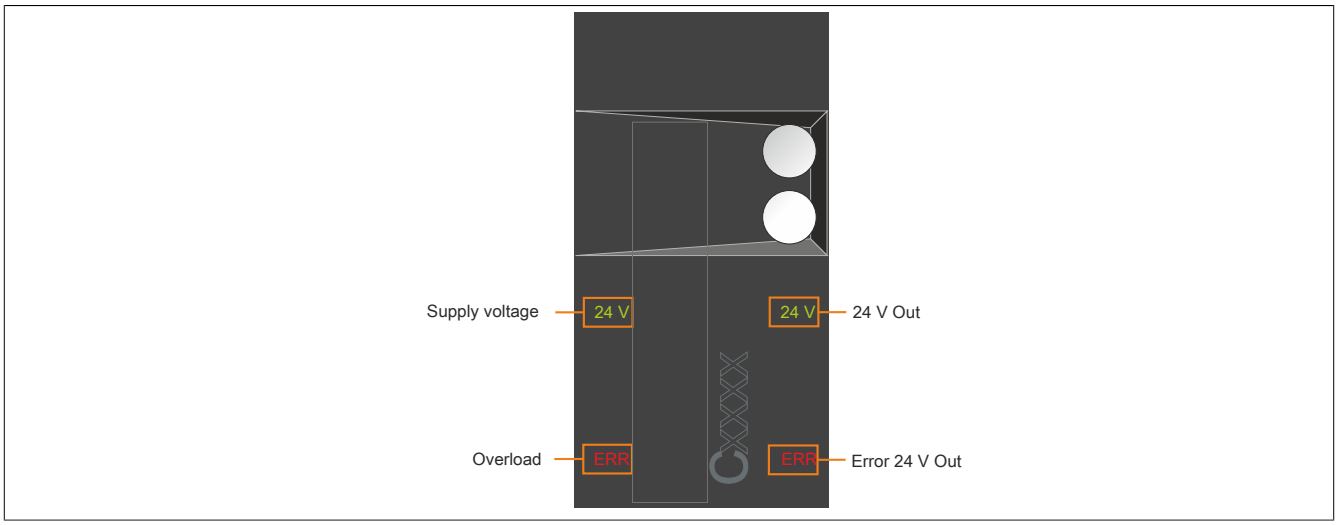


Figure 1: 8B0C0xx0Hx00.00x-1 auxiliary supply modules with 24 V Out - Status indicator groups

4.1 Auxiliary supply modules with 24 V Out - LED status indicators

Status indicator group	Labeling	Color	Function	Description
Supply voltage	24 V	Green	24 V OK	The 24 VDC internal system supply voltage is within the permissible tolerance.
Overload	ERR	Red	Overload	The module is not supplied via the DC bus voltage. [1] The 24 VDC internal system supply voltage is outside of the permissible tolerance (overload, overtemperature, short circuit, etc.).
24 V Out	24 V	Green	24 V Out OK	One of the switchable 24 VDC outputs is active, and the output voltage is within the permissible tolerance. The 24 VDC internal system supply voltage is within the permissible tolerance.
	ERR	Red	24 V Out error	The 24 VDC internal system supply voltage is outside of the permissible tolerance (overload, overtemperature, short circuit, etc.). At least one of the switchable outputs is active **and** the resettable fuse has been tripped for one or more switchable outputs.

Table 3: 8B0C auxiliary supply modules with 24 V Out - LED status indicators

1) The module is enabled via the CR_OK input. No electrical contact to the backplane module - check the bottom mounting screw.

5 Dimension diagram and installation dimensions

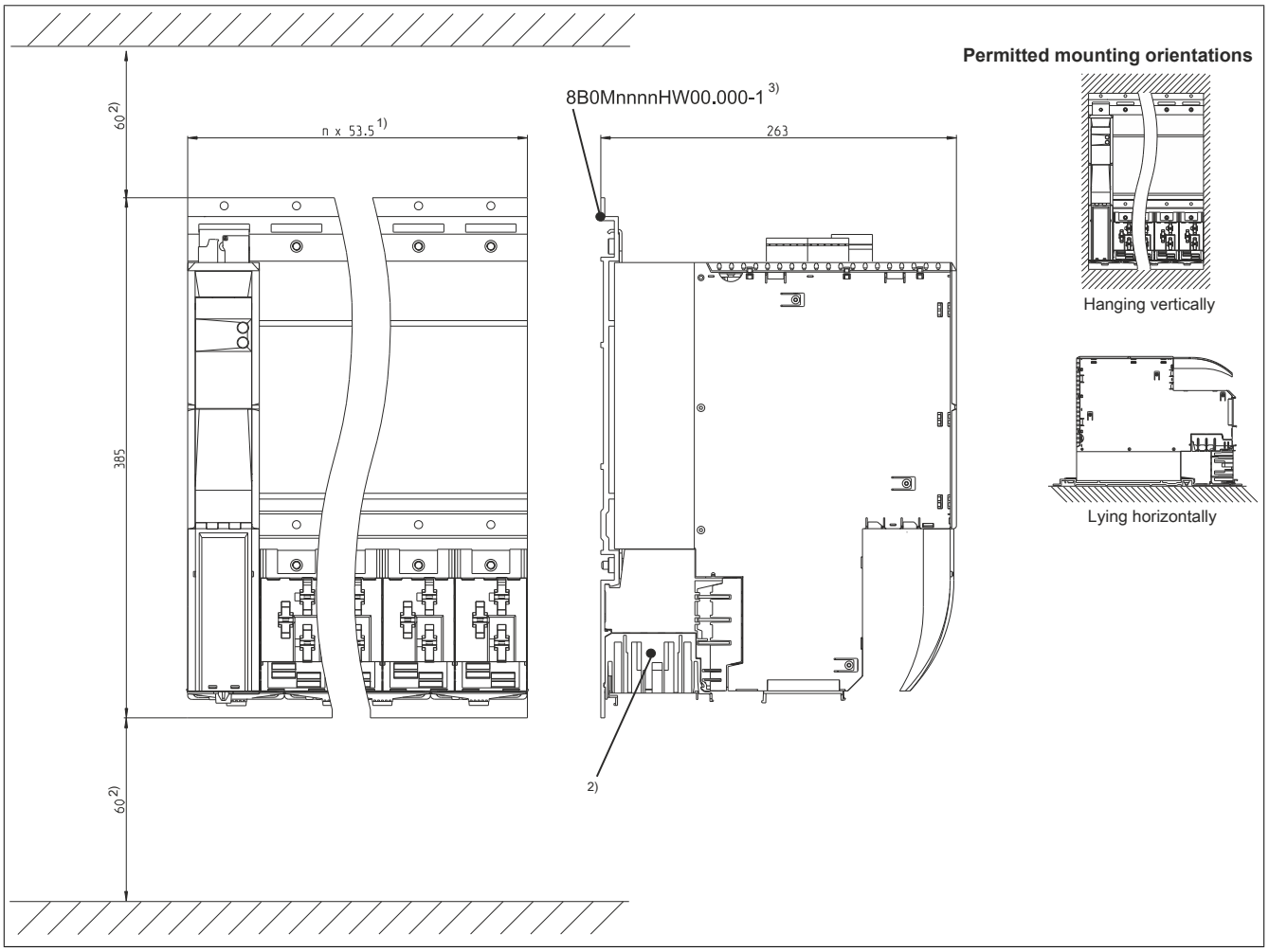


Figure 2: Dimension diagram and installation dimensions

1) n... Necessary width (slots) of the mounting plate.
2) For proper air circulation, at least 60 mm clearance must be available above and below the module.
To ensure that the fan modules in the mounting plate can be replaced easily, at least 250 mm clearance must be available below the module.
3) nnnn indicates the number of slots (e.g. 0160 refers to 16 slots).

6 Wiring

6.1 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1 - Pinout overview

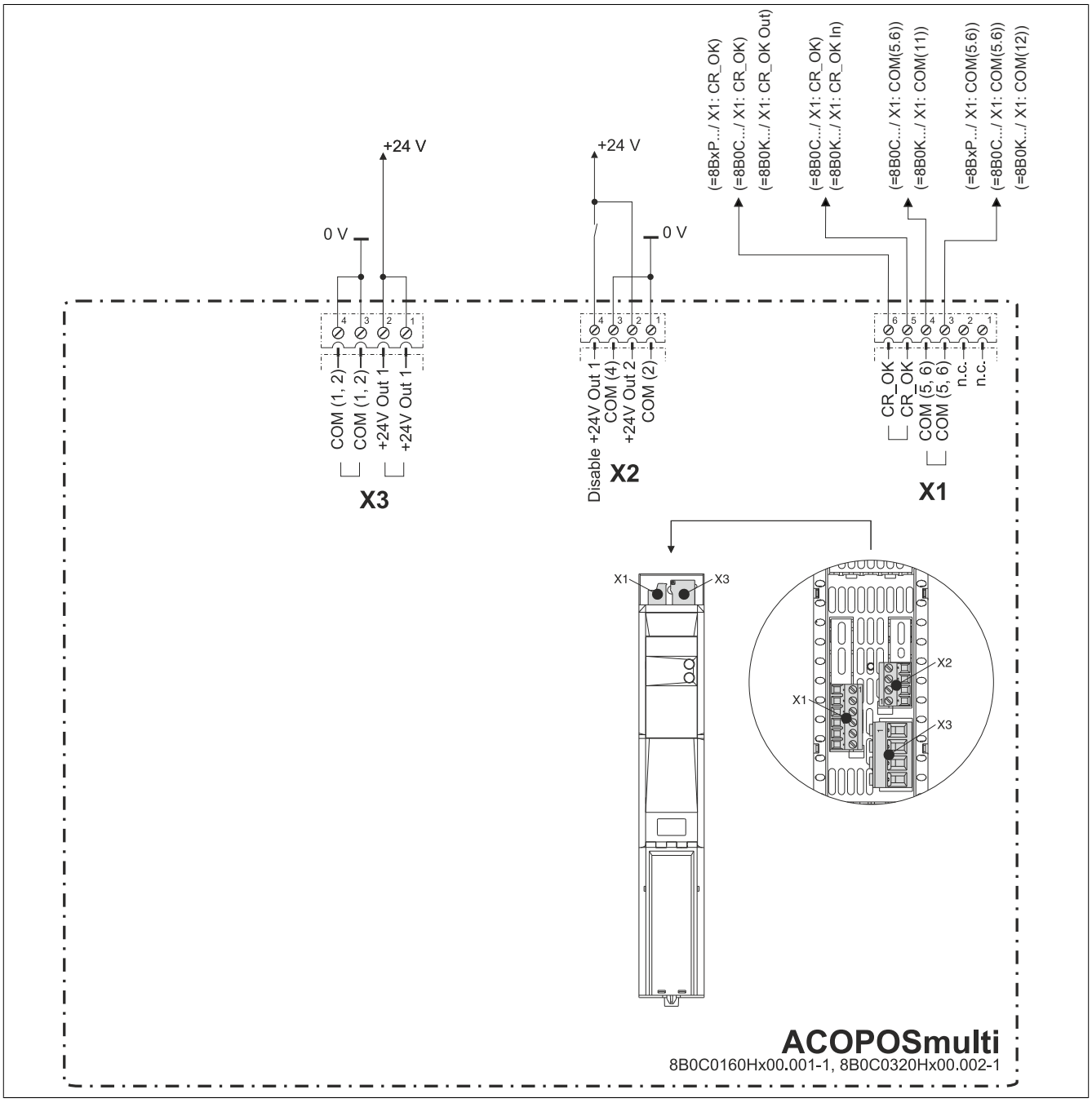


Figure 3: 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1 - Pinout overview

6.2 X1 connector - Pinout

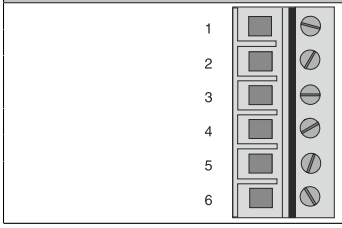
X1	Pin	Name	Function
	1	---	---
	2	---	---
	3	COM (5, 6)	DC bus ready 0 V
	4	COM (5, 6)	DC bus ready 0 V
	5	CR_OK	DC bus ready
	6	CR_OK	DC bus ready

Table 4: X1 connector - Pinout

6.3 X2 connector - Pinout

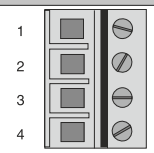
X2	Pin	Name	Function
	1	COM (2)	+24 V output 2 0 V
	2	+24V Out 2	+24 V output 2
	3	COM (4)	Disable +24 V output 1 0 V
	4	Disable +24V Out 1	Disable +24 V output 1

Table 5: X2 connector - Pinout

6.4 X3 connector - Pinout

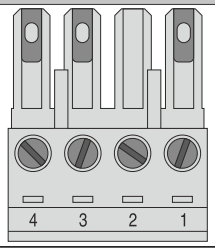
X3	Pin	Name	Function
	1	+24V Out 1	+24 V output 1
	2	+24V Out 1	+24 V output 1
	3	COM (1, 2)	+24 V output 1 0 V
	4	COM (1, 2)	+24 V output 1 0 V

Table 6: X3 connector - Pinout

Information:

B&R recommends grounding both COM connections (1, 2) on the X3 connector to achieve a defined relationship between the signal ground and ground potential. Alternatively, the COM (2) connection can also be grounded on the X2 connector.

6.5 Input/Output circuit diagram

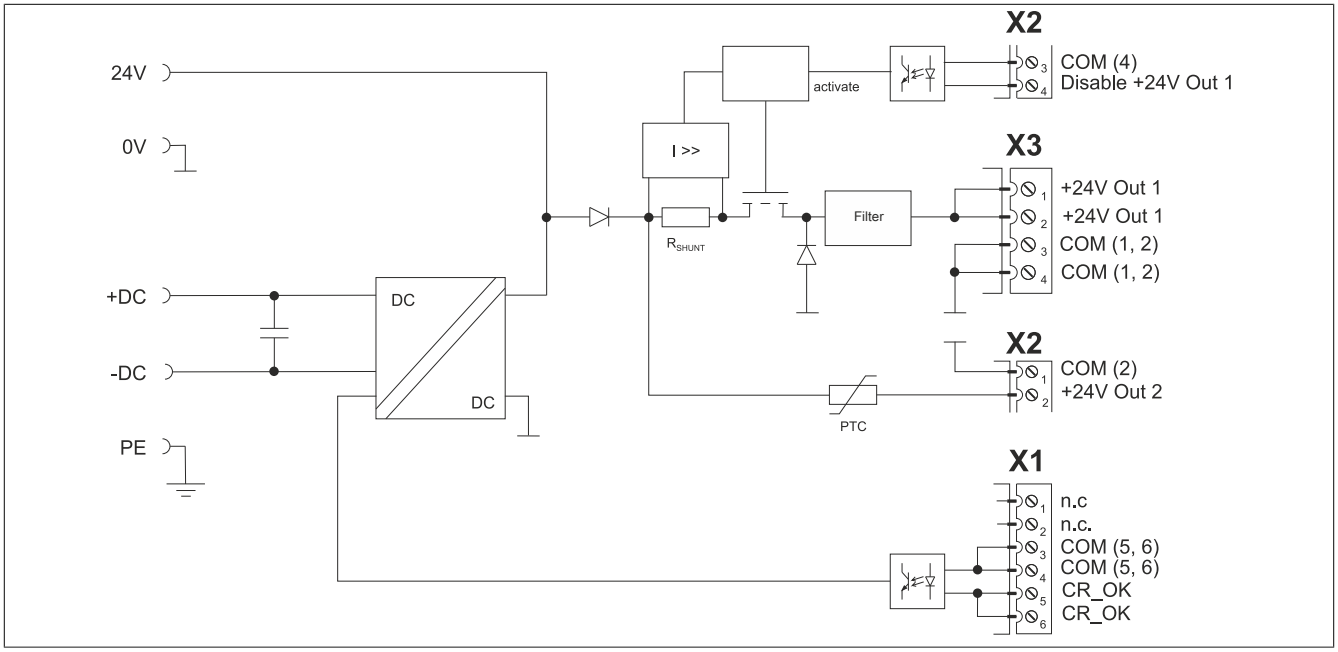


Figure 4: 8B0C0160Hx00.001-1, 8B0C0320Hx00.002-1 - Input/Output circuit diagram