VIEWEG

preeflow® *eco-CONTROL EC200-K / -B*

by ViscoTec

Interface description

Connections

|	Designation	Function, description
13	Pressure OUT	Output compressed air, connection to supply tank / cartridge / medium tank
14	Pressure IN	Input compressed air, hose connection, 4 mm (Quickstar)
15	System plugs	See the description above for the pin-outs
16	Motor 1 / 2	For dispensers 1 and 2
17	Sensor	Input level monitoring medium
18	Foot switch	Foot switch for hands-free operation
19	System plugs	See the description above for the pin-outs
20	RS 232	Data transfer with PC, interface. preparation
21	+24 V/DC 100 VA	Mains plug, connection for power supply
22	Chipcard (SD memory card)	Chipcard reader (SD memory card)
23	Connection to earth	Equipotential bonding, at connection 16
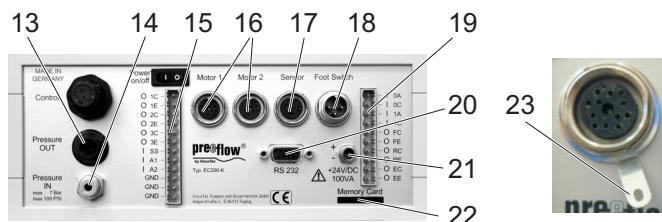
Brief overview of system plugs

System plugs (15)

O	1C	Dosing
O	1E	
O	2C	Remote mode
O	2E	
O	3C	not allocated yet
O	3E	
I	SS	ext. start
I	A1	Analog 1 0-10 V
I	A2	Analog 2 4-20 mA
	GND	GND analog
	GND	GND sensor
	GND	GND sensor

System plugs (19)

I	0A	Sensor fill level
I	0C	
I	1A	not allocated yet
I	1C	
O	FC	Level alarm
O	FE	
O	RC	Ready for operation
O	RE	
O	EC	Error output
O	EE	

I = input
O = output

Sensor (17)
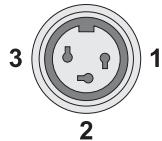
1 0 VDC (GND)
2 Switch output
3 +24 VDC internal
Matching plug Part No. 20056

Foot switch (18)
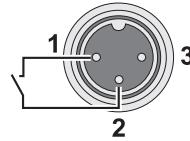
1 Contact via make contacts
2 Contact via make contacts
3 not set
Matching plug Part No. 20055

(view of rear of controller EC200)

Description

Analog inputs at terminals:
analog inputs, reference potential GND terminals.
SS=0/24 V digital input start/stop. (High=start process)
A1=analog input for 0-10 V
A2=analog input for 4-20 mA

Digital opto-coupled inputs at terminals:
The internal LED's of the opto-couplers are produced with anodes and cathodes. Max. current at 24 V approx.
10 mA. Low: 0..1.5V, High 12..24V

I	0A	function level sensor (digital input signal)
I	0C	

Digital opto-coupled outputs at terminals:
Max. permissible voltage 30 V, max. current 10 mA. The transistor (NPN) of each opto-coupler has a collector and emitter.

O	1C	Dosing (dosing process running=transistor switched through)
O	1E	
O	2C	Remote mode. Transistor low resistance = Control system in remote mode.
O	2E	Transistor high resistance = Control system in local mode or no ecoREMOTE connected.
O	FC	Level alarm (alarm blocks the transistor)
O	FE	
O	RC	EC200 ready for operation (no error=transistor switched through)
O	RE	
O	EC	Error output (pressure+overcurrent blocks the transistor)
O	EE	

Digital inputs at plug connectors:
Direct inputs without opto-couplers. Low: 0..1.5V, High 12..24V
Plug Sensor (17) 3-pole. Pin1= internal GND, Pin2=signal, Pin3=internal +24 V
Sensor function: Level monitoring digital
Foot switch function: Foot switch digital

Outputs at plug connectors:
Motor1 and Motor2: Function: Connection of eco-PEN450 or 600

Logical links of the outputs:

Ready for operation. The transistor is blocked in the switched-off state. It is switched through after switching on and successful initialization. It has a high ohm value if there is either an under-/overpressure or an overcurrent.

Error output. The transistor is blocked in the switched-off state. It is switched through after switching on and successful initialization. It has a high ohm value if there is either an under-/overpressure or an overcurrent. If one of the two errors applies, it is not possible to initiate a dosing operation.

Level alarm. The transistor is blocked in the switched-off state. It is switched through after switching on and successful initialization. It has a high ohm value if the level sensor connected to 10A and 10C does not allow any current to flow through the opto-coupler.

Dosing. The transistor has a high ohm value in the switched-off state and after initialization. It is only switched through during a dosing operation.

Connections of the level sensor
The device must be informed at which connection the level sensor has been connected. This is necessary because the sensor supplies a high signal if there is no level warning. The selection of the connection is done via system and error messages via the level monitoring function. There it can be set as follows:

External level sensor	Monitored sensor input
OFF	3-pole socket, plug 17
ON	Terminals I0A I0C, system plug 19

Dosing-Control   eco-CONTROL EC200   Art.-Nr.: 20120

Inputs

Input SS   Input A1   Input A2   Inputs I0, I1

0 or 24VDC   0 to 10V   4 to 20mA

+O SS   +O A1   +O A2   +24V ——O IxA +24V ——+O IxA
                                                      ext. switch
−O GND   −O GND   −O GND   GND ——O IxC   GND —o⁄o——−O IxC
                                                                    ext. switch

Outputs

                                      External Load

+24V ——————+O 0xC   +24V ————▷|—Rx 4K7——+O 0xC
                                         D /\/\/\

GND ——————−O 0xE   GND ————————————————−O 0xE

      Rx 4K7 D
      /\/\/\ —▷|
Exteral Load
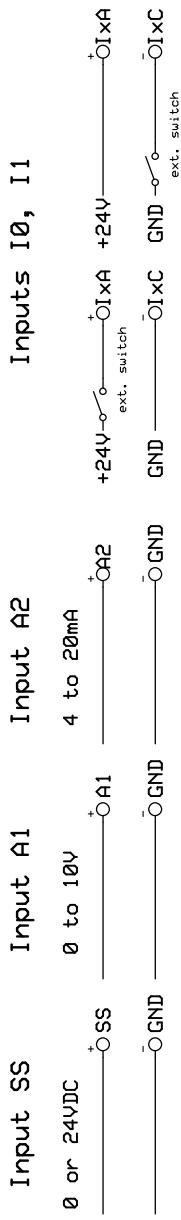
            External switch + load are examples!

Digital Outputs: max 30VDC / 10mA, NPN-Transistor
Digital Inputs (Opto-coupler): max 10mA at 24VDC, <1,5V = 0; >12...24V = 1
                                integrated Resistor 2K2
Digital Inputs (without Opto-coupler): <1,5V = 0; >12...24V = 1
Inputs (I0., I1.): C = Cathode; A = Anode
Outputs (O1..3; 0F, 0R, 0E): C = Collektor; E = Emitter

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Inputs, related to ground (Gnd)

Opto-coupler Inputs

Opto-coupler Outputs

SS
A1
A2
GND
GND
GND
IxA
IxC
OxC
OxE
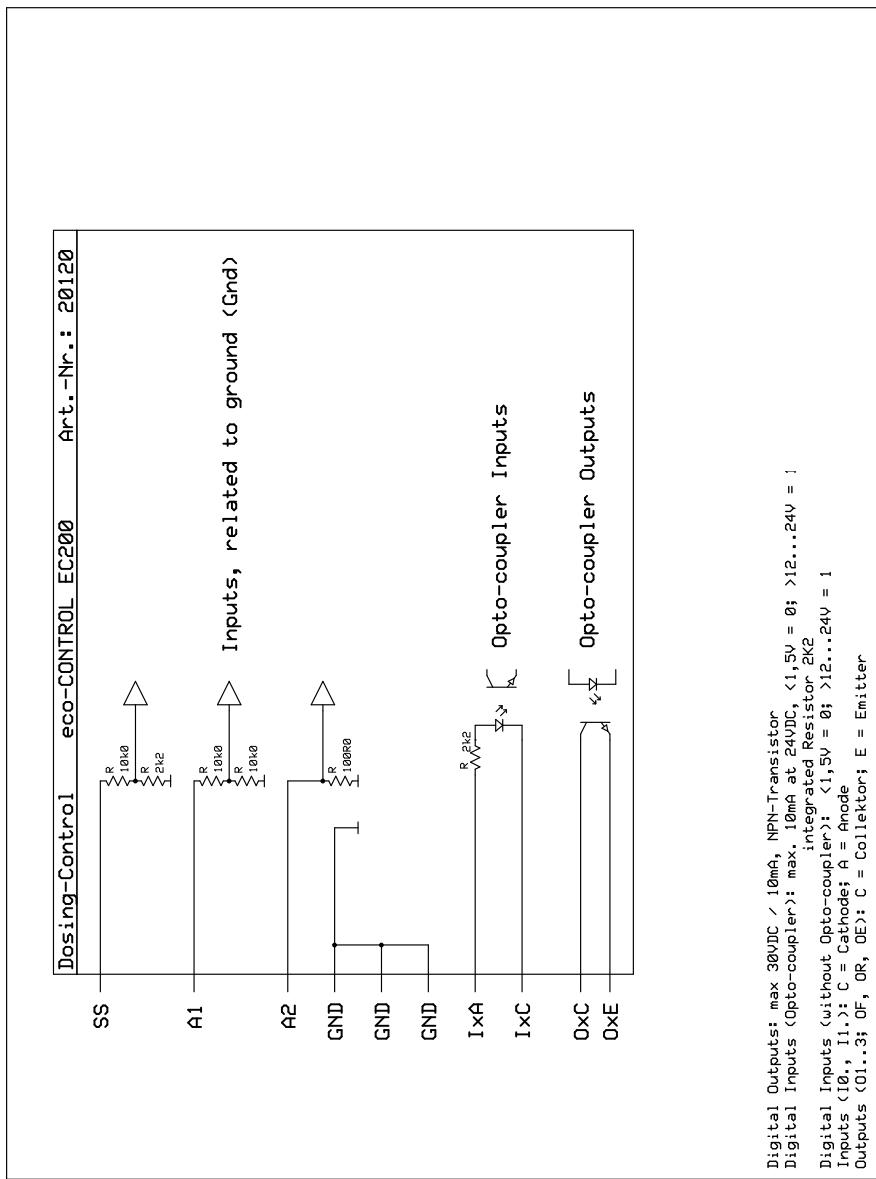
Digital Outputs: max 30VDC / 10mA, NPN-Transistor
Digital Inputs (Opto-coupler): max. 10mA at 24VDC, <1,5V = 0; >12...24V = 1
                                            integrated Resistor 2K2
Digital Inputs (without Opto-coupler): <1,5V = 0; >12...24V = 1
Inputs (I0., I1.): C = Cathode; A = Anode
Outputs (O1..3; OF, OR, OE): C = Collektor; E = Emitter

Überreicht durch:

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Dosier- und Mischtechnik
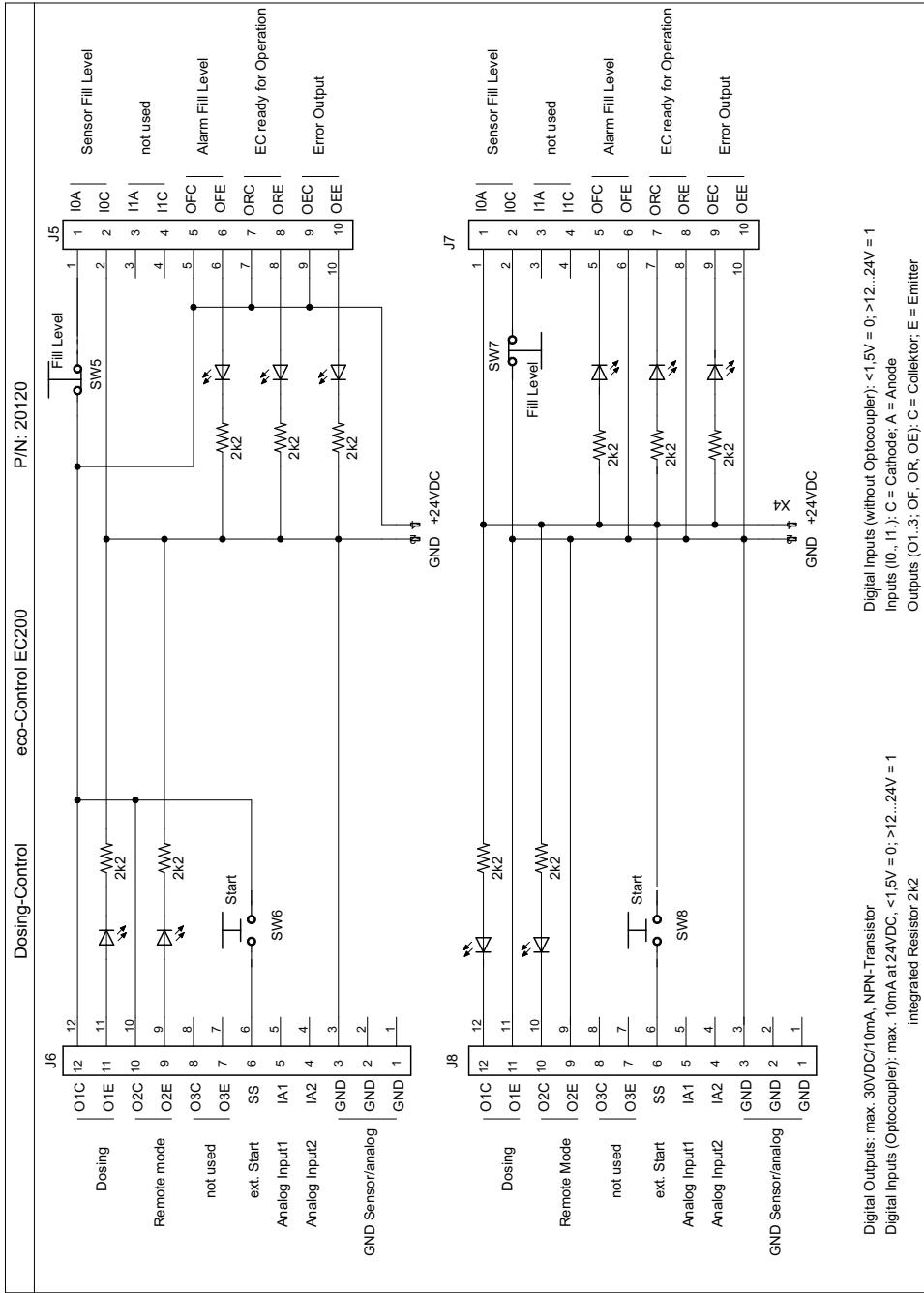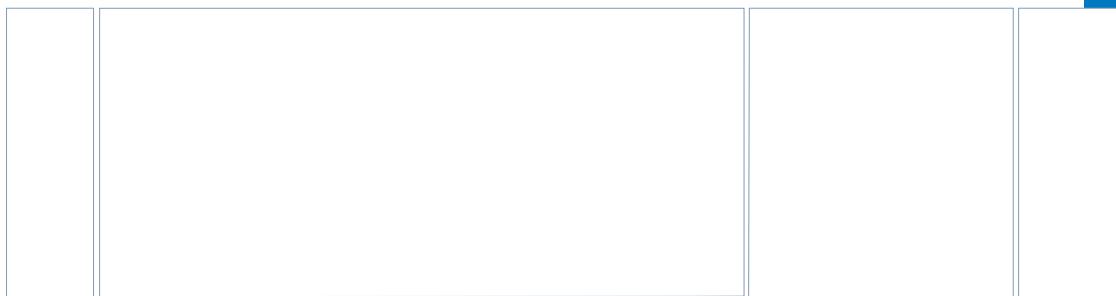
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