

X: MAINSWITCH  
 PE: PROTECTIVE GROUND TERMINAL

T01: THERM./MAX. PROTECTION SYSTEM PUMP  
 C01: CONTACTOR SYSTEM PUMP  
 P01: SYSTEM PUMP

T02: THERM./MAX. PROTECTION FILLING PUMP  
 C02: CONTACTOR FILLING PUMP  
 P02: FILLING PUMP

Z1: CIRCUIT BREAKER

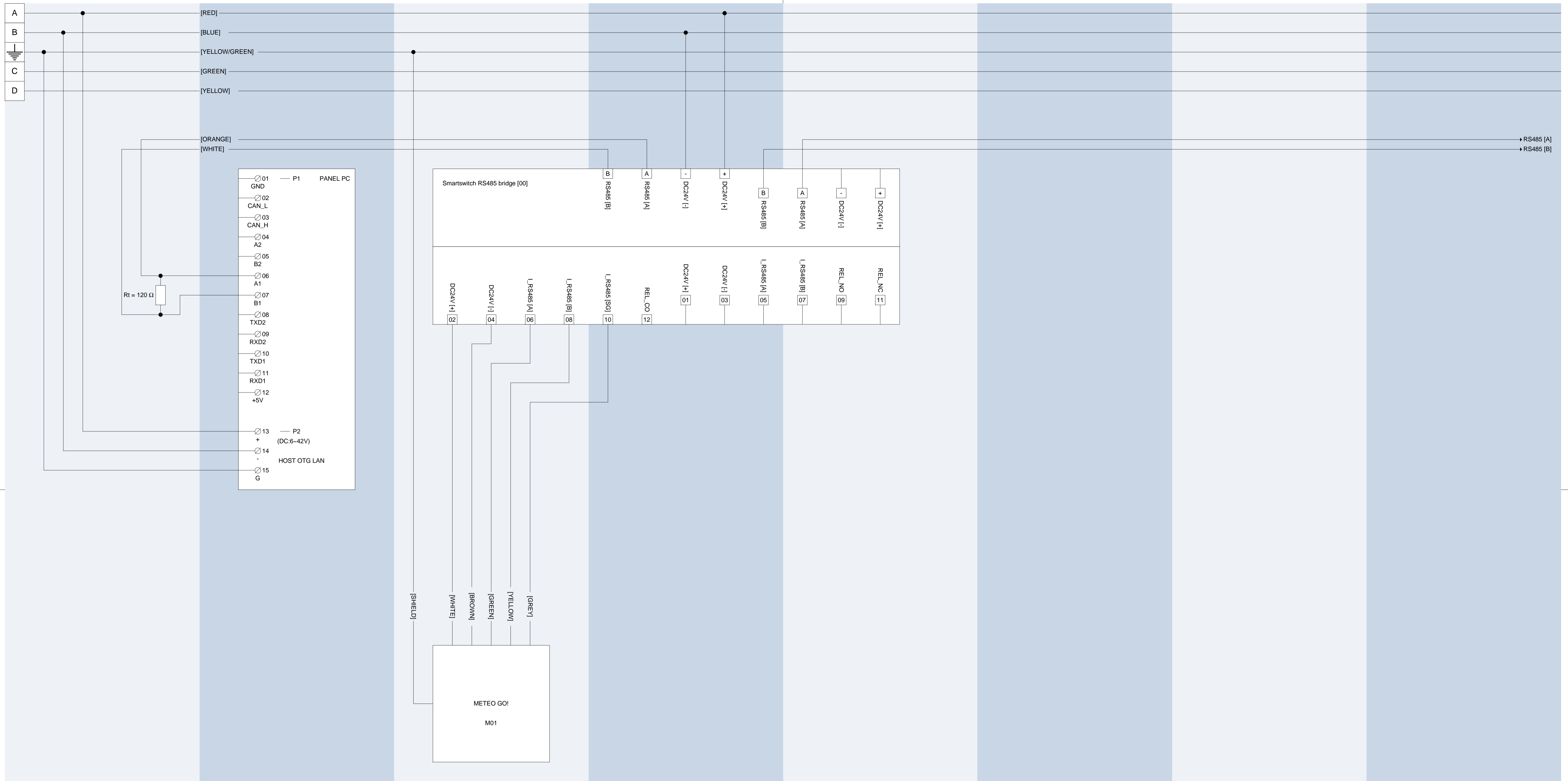
PS1: POWER SUPPLY AC110-240V / DC24V

PS2: POWER SUPPLY AC230-520V / AC24V

MAINS: 3P400V+N+PE 50Hz  
 FUSE MAX: 16 [A]



PROJECTNUMBER: <b>PD15.003</b>	DRAWINGSSCALE: <b>1 : 1</b>	DRAWINGUNITS: <b>mm</b>	AUTHOR: <b>MB</b>	CREATION DATE: <b>08/03/2016</b>
PROJECTNAME: <b>HortiMaX Go</b>	AUTHORISED: <b>AddK</b>	REVISION DATE: <b>09/12/2016</b>		
SUBJECT: <b>CIRCUIT DIAGRAM_1</b>	PAGE: <b>4 OF 12</b>	STATUS: <b>INTERNAL</b>		
FILENAME: <b>160055DRA020 044 HortiMaX Go-PRO aqua controller [3P400V+N+PE 50Hz] drawing.vsd</b>				

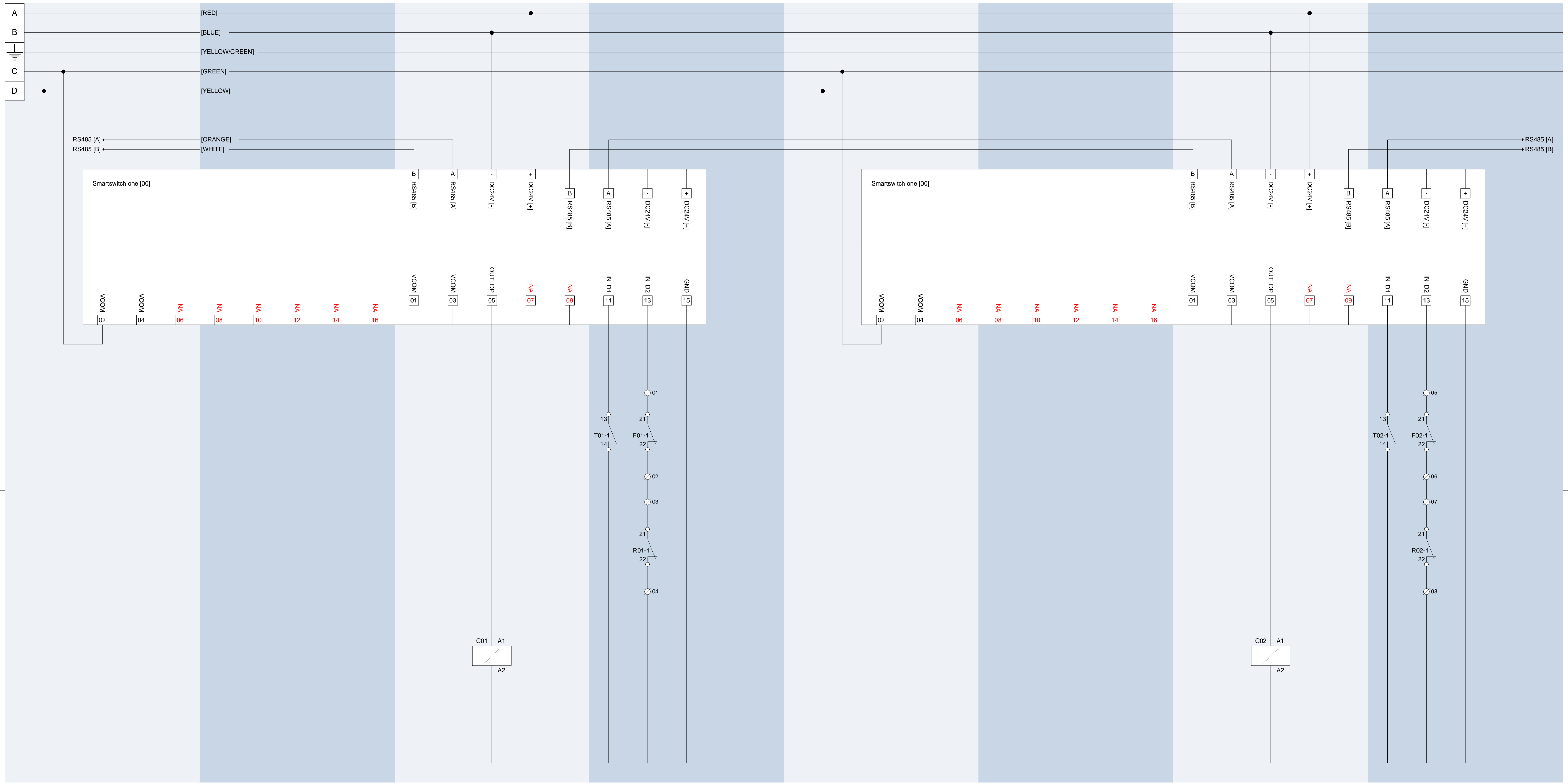


Rt: BUS TERMINATION RESISTOR

M01: METEO STATION



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PROJECTNAME: <b>HortiMaX Go</b>	AUTHORISED: <b>AddK</b>		REVISION DATE: <b>09/12/2016</b>	
SUBJECT: <b>CIRCUIT DIAGRAM_2</b>	PAGE: <b>5 OF 12</b>		STATUS: <b>INTERNAL</b>	
FILENAME: <b>160055DRA020 044 HortiMaX Go-PRO aqua controller [3P400V+N+PE 50Hz] drawing.vsd</b>				



C01: CONTACTOR SYSTEM PUMP

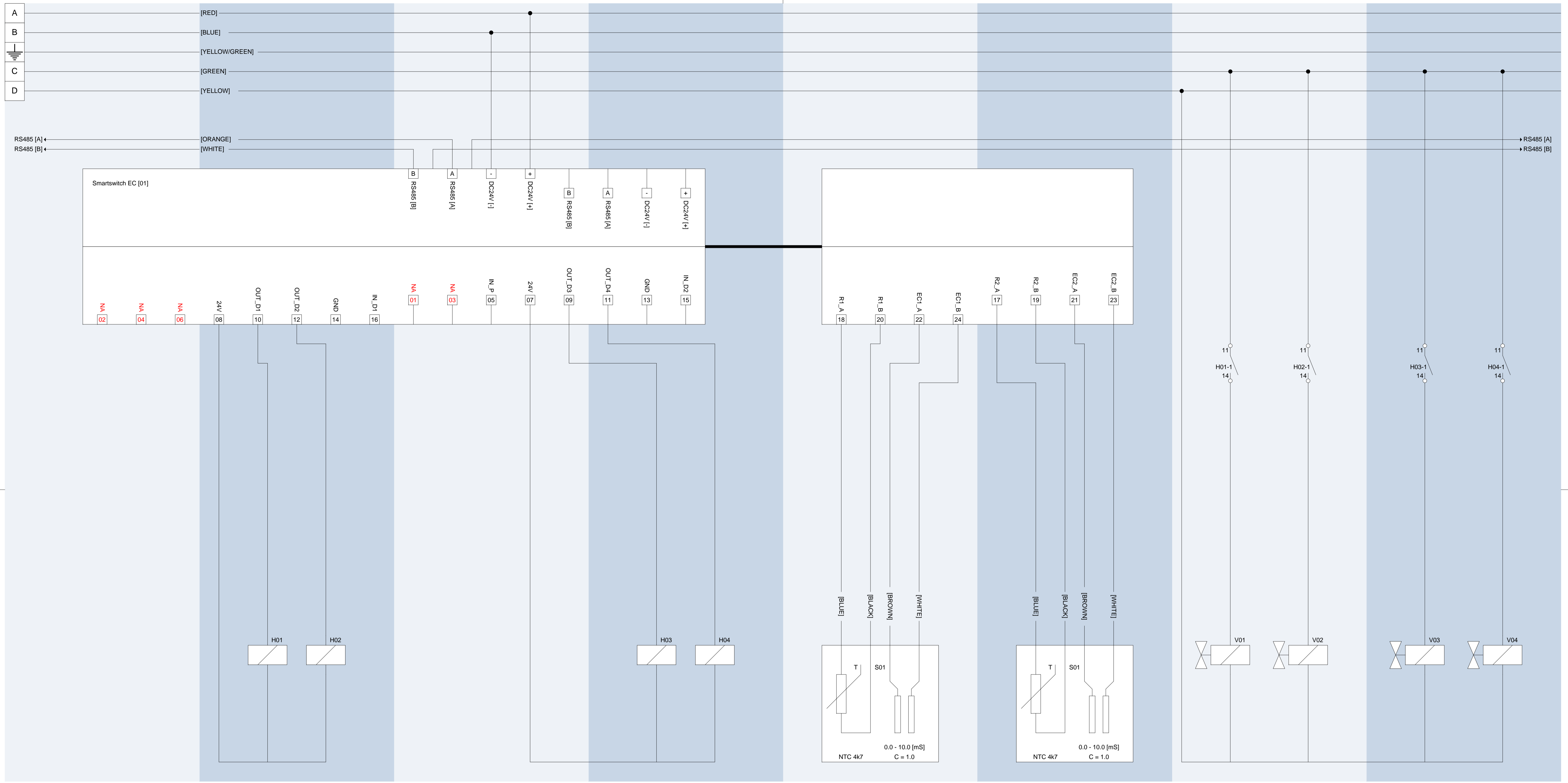
T01-1: THERM./MAX. PROTECTION SYSTEM PUMP  
 R01-1: THERMOSTAT SYSTEM PUMP  
 F01-1: MINIMUM LEVEL FLOAT SYSTEM PUMP

C02: CONTACTOR FILLING PUMP

T02-1: THERM./MAX. PROTECTION FILLING PUMP  
 R02-1: THERMOSTAT FILLING PUMP  
 F02-1: MAXIMUM LEVEL FLOAT FILLING PUMP



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PROJECTNAME: <b>HortiMax Go</b>	AUTHORISED: <b>AddK</b>		REVISION DATE: <b>09/12/2016</b>	
SUBJECT: <b>CIRCUIT DIAGRAM_3</b>	PAGE: <b>6 OF 12</b>		STATUS: <b>INTERNAL</b>	
FILENAME: <b>160055DRA020 044 HortiMax Go-PRO aqua controller [3P400V+N+PE 50Hz] drawing.vsd</b>				



H01: EC DOSAGE VALVE 1  
H02: EC DOSAGE VALVE 2

H03: EC DOSAGE VALVE 3  
H04: EC DOSAGE VALVE 4

S01: EC SENSOR 1

S02: EC SENSOR 2

H01-1: EC DOSAGE VALVE 1  
H02-1: EC DOSAGE VALVE 2

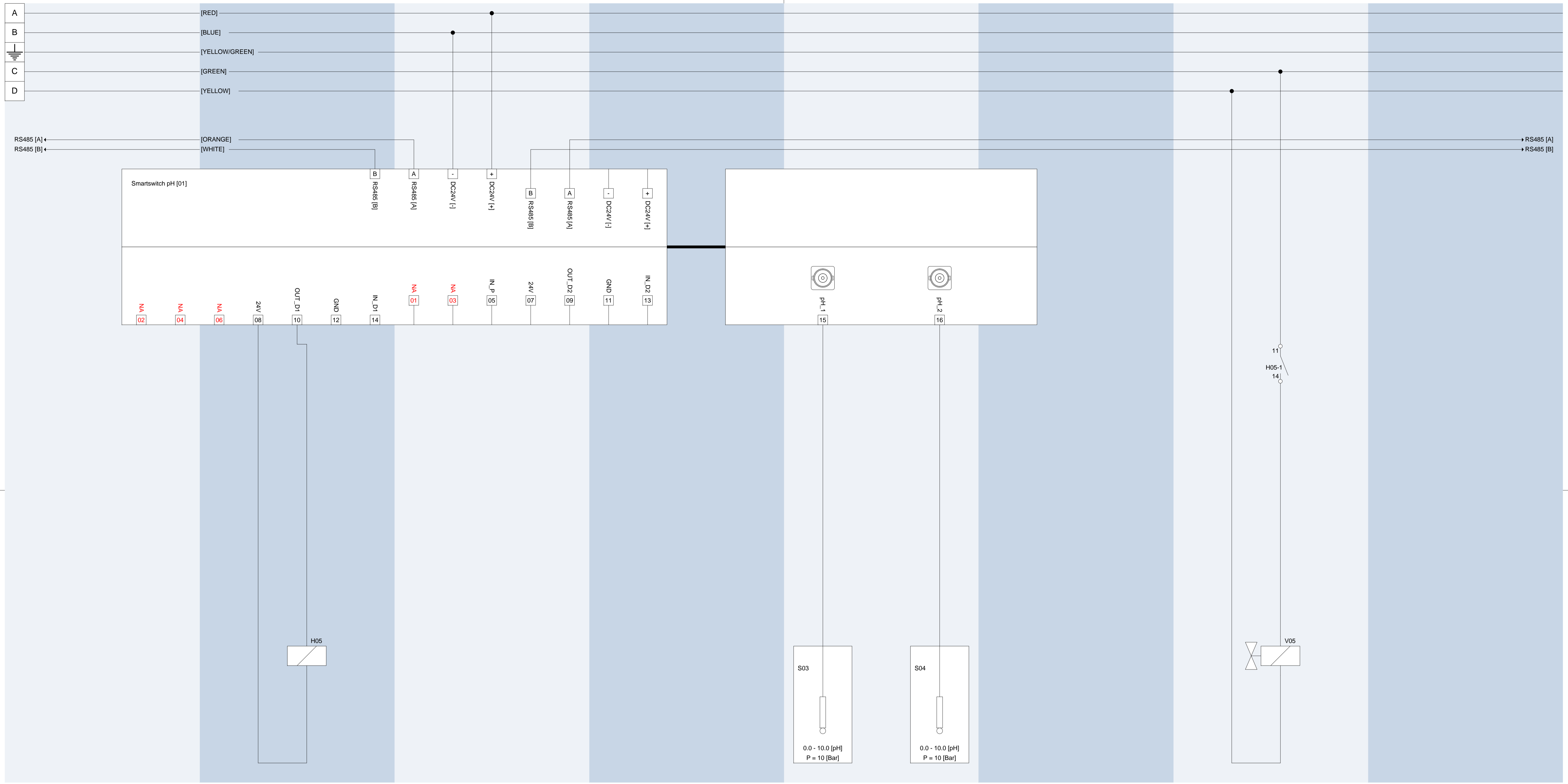
H03-1: EC DOSAGE VALVE 3  
H04-1: EC DOSAGE VALVE 4

V01: SOLENOID EC DOSAGE VALVE 1 [FERTILIZER 1]  
V02: SOLENOID EC DOSAGE VALVE 2 [FERTILIZER 2]

V03: SOLENOID EC DOSAGE VALVE 3 [FERTILIZER 3]  
V04: SOLENOID EC DOSAGE VALVE 4 [FERTILIZER 4]



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PROJECTNAME: <b>HortiMaX Go</b>	AUTHORISED: <b>AddK</b>	REVISION DATE: <b>09/12/2016</b>		
SUBJECT: <b>CIRCUIT DIAGRAM_4</b>	PAGE: <b>7 OF 12</b>	STATUS: <b>INTERNAL</b>		
FILENAME: <b>160055DRA020 044 HortiMaX Go-PRO aqua controller [3P400V+N+PE 50Hz] drawing.vsd</b>				



H05: pH DOSAGE VALVE 1

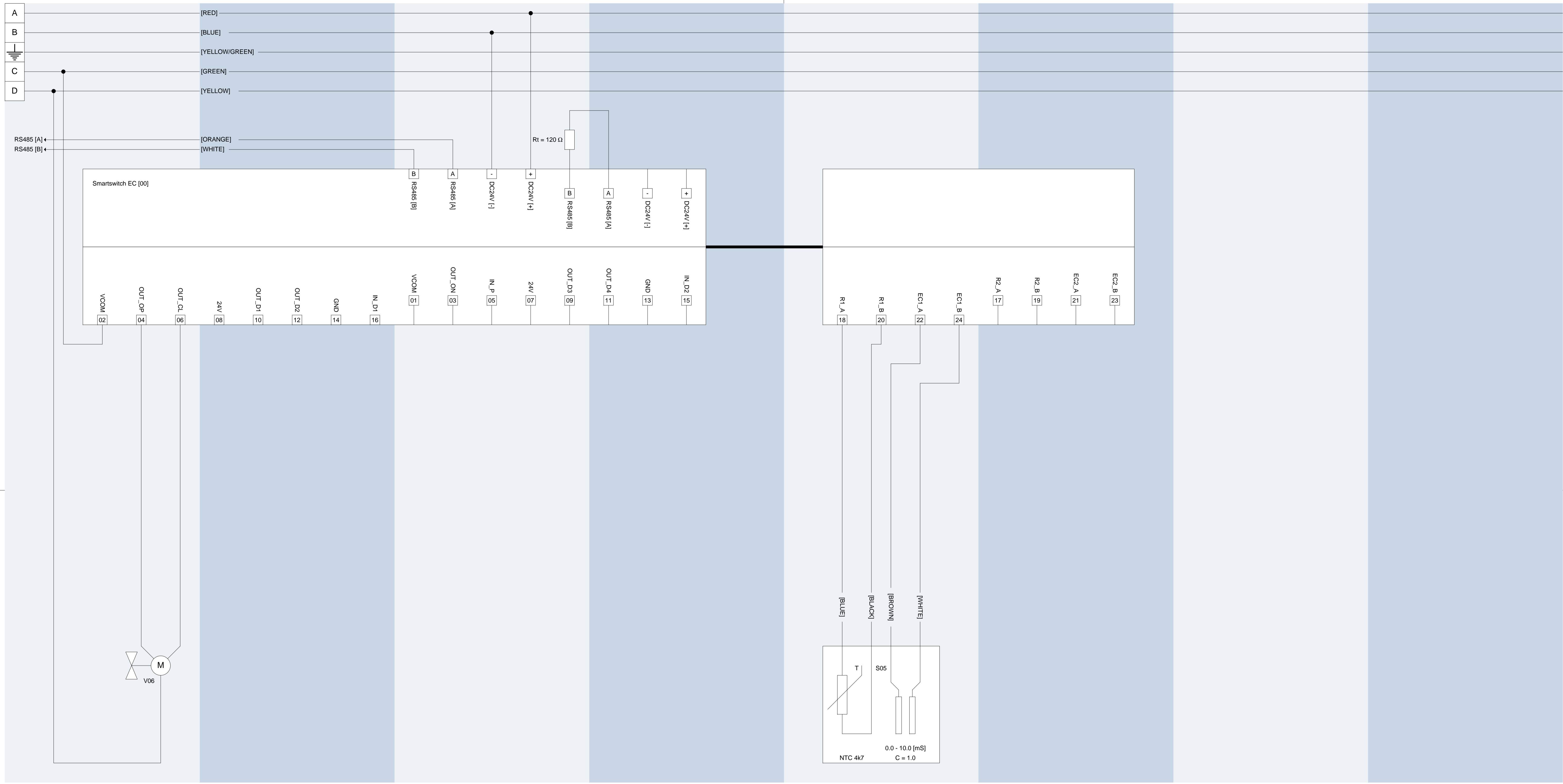
S03: pH SENSOR 1  
S04: pH SENSOR 2

H05-1: pH DOSAGE VALVE 1

V05: SOLENOID pH DOSAGE VALVE 1 [ACID]



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PROJECTNAME: <b>HortiMaX Go</b>	AUTHORISED: <b>AddK</b>		REVISION DATE: <b>09/12/2016</b>	
SUBJECT: <b>CIRCUIT DIAGRAM_4</b>	PAGE: <b>8 OF 12</b>		STATUS: <b>INTERNAL</b>	
FILENAME: <b>160055DRA020 044 HortiMaX Go-PRO aqua controller [3P400V+N+PE 50Hz] drawing.vsd</b>				



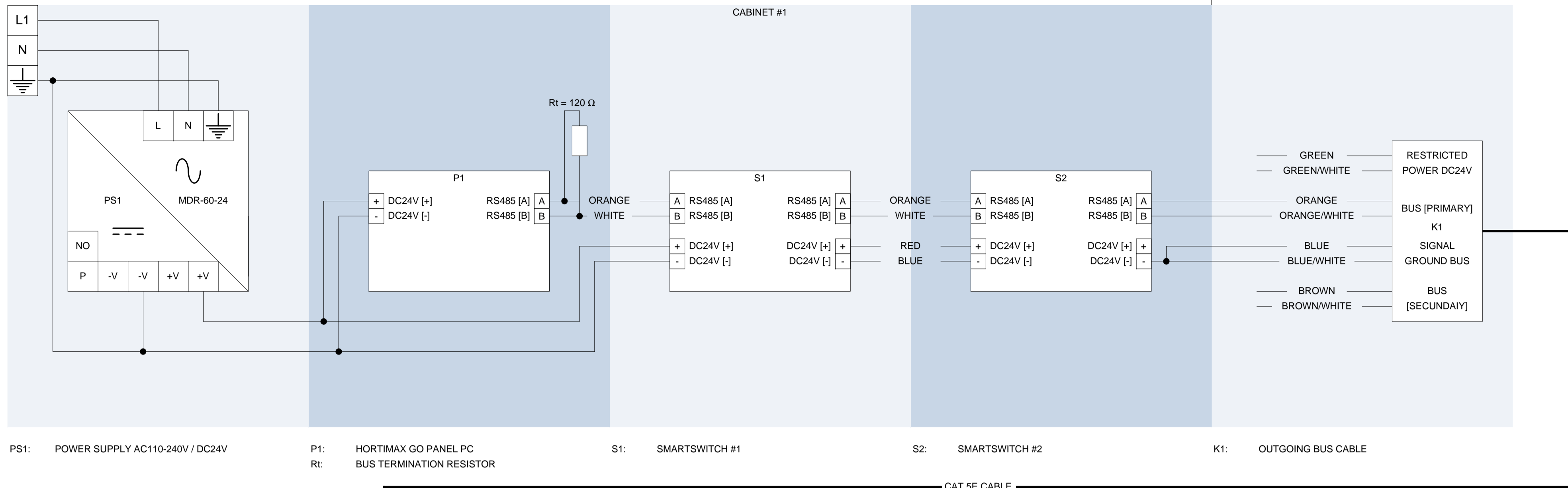
V06: SUPPLY EC MOTOR VALVE

Rt: BUS TERMINATION RESISTOR

S05: EC SENSOR 3

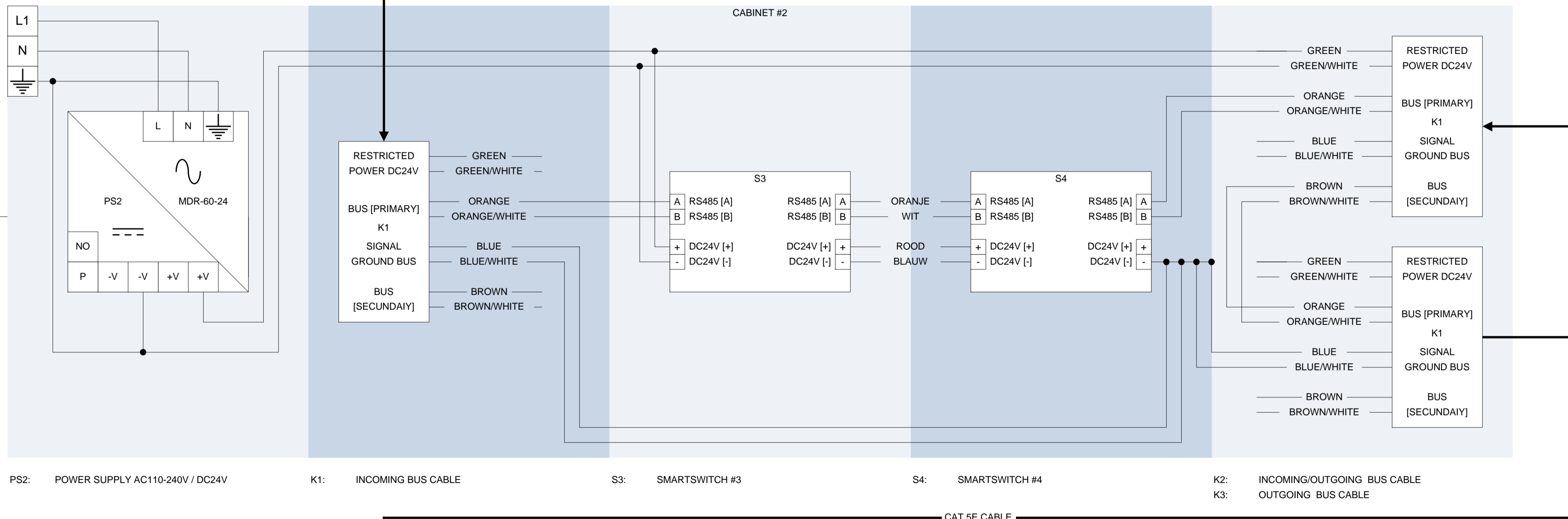


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PROJECTNAME: <b>HortiMaX Go</b>	AUTHORISED: <b>AddK</b>		REVISION DATE: <b>09/12/2016</b>	
SUBJECT: <b>CIRCUIT DIAGRAM_4</b>	PAGE: <b>9 OF 12</b>		STATUS: <b>INTERNAL</b>	
FILENAME: <b>160055DRA020 044 HortiMaX Go-PRO aqua controller [3P400V+N+PE 50Hz] drawing.vsd</b>				

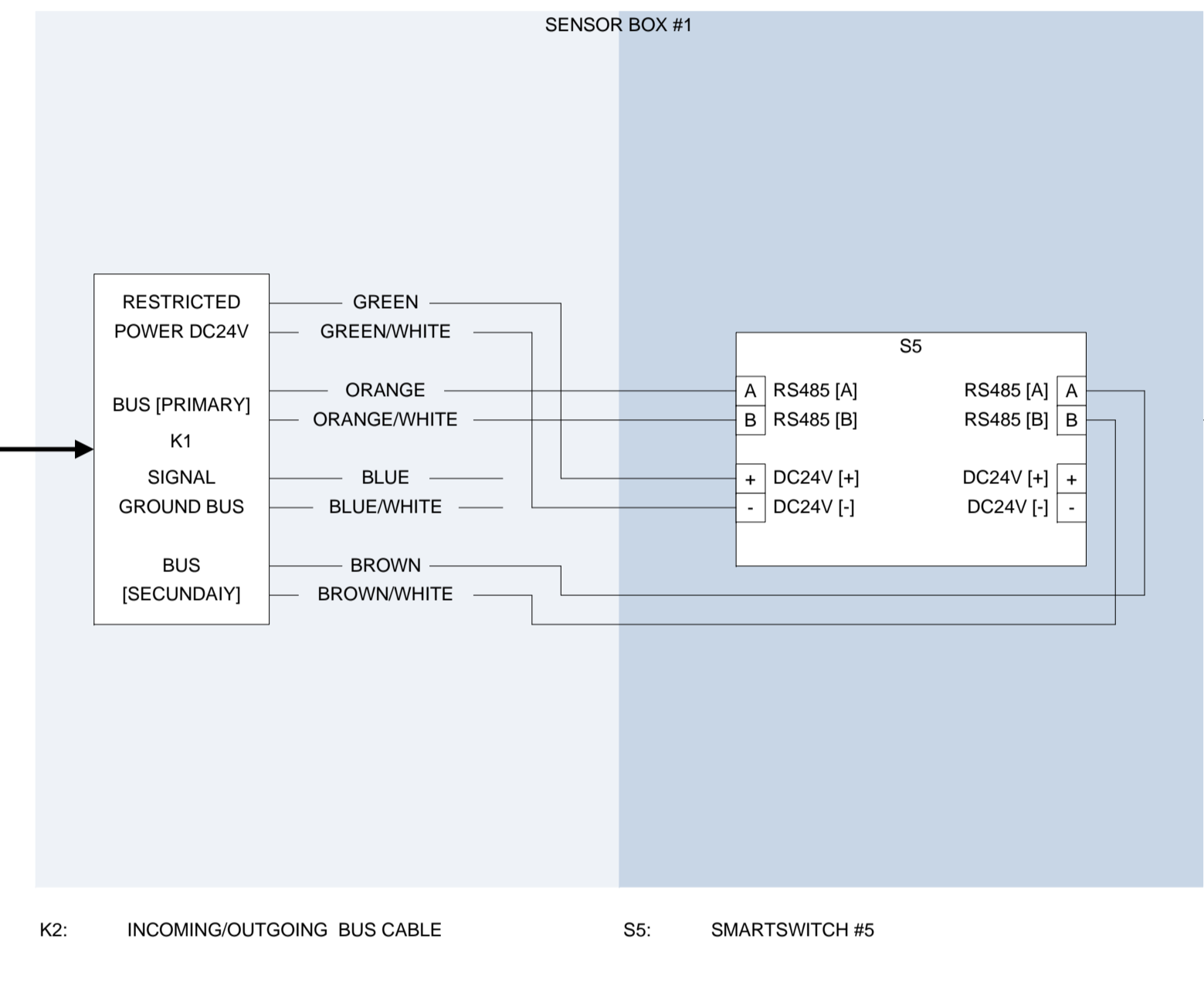


PS1: POWER SUPPLY AC110-240V / DC24V  
 P1: HORTIMAX GO PANEL PC  
 Rt: BUS TERMINATION RESISTOR  
 S1: SMARTSWITCH #1  
 S2: SMARTSWITCH #2  
 K1: OUTGOING BUS CABLE

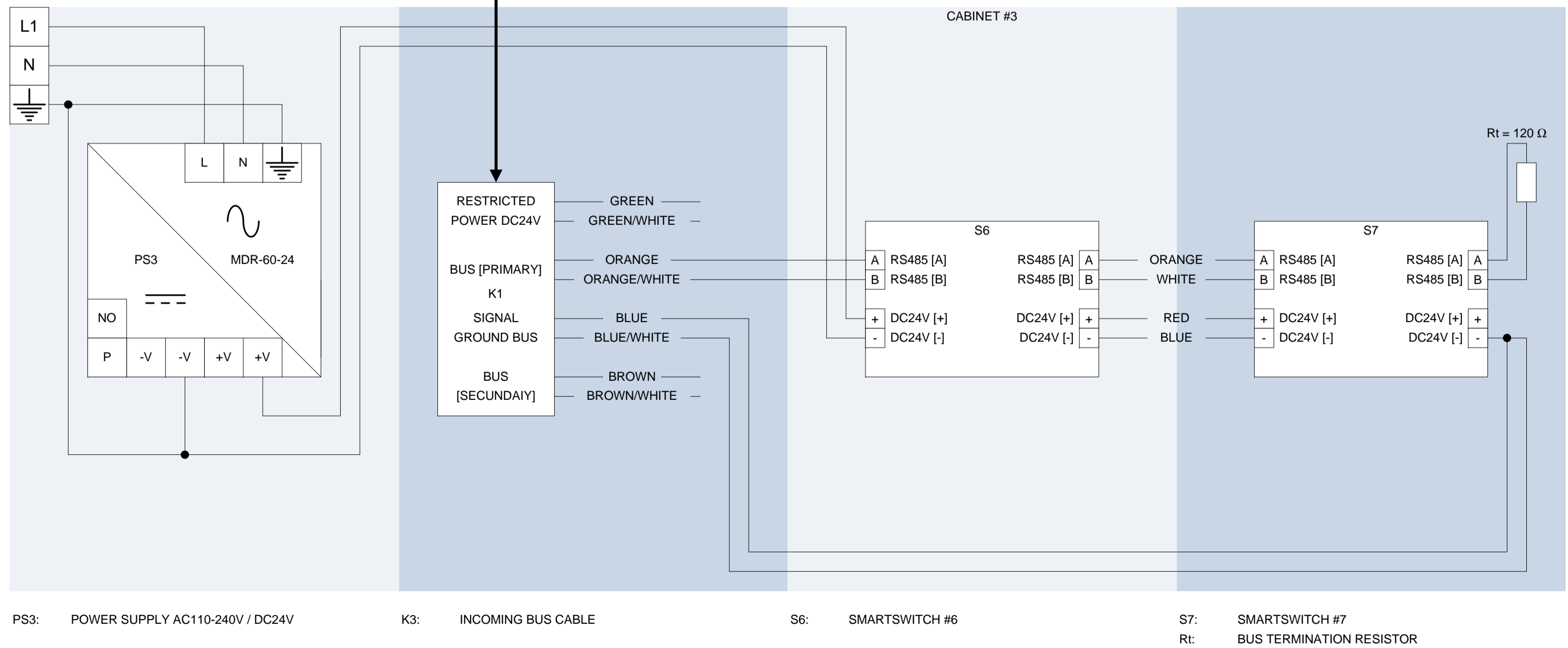
- The applied bus cable has to be CAT 5E or better.
- The applied bus cable has a specific impedance,  $Z_0$ , of 100 [Ω]
- It is preferable that the applied bus cable is mechanically enhanced.
- On the bus cable no stubs should occur.
- The maximum number of Smartswitches on the RS485 bus is 32, that are 33 devices including the Touchscreen Panel PC.
- The bus cable has to be terminated on both outer ends by means of a bus termination resistor of 120 [Ω].
- The maximum bus cable length is 500 [m].



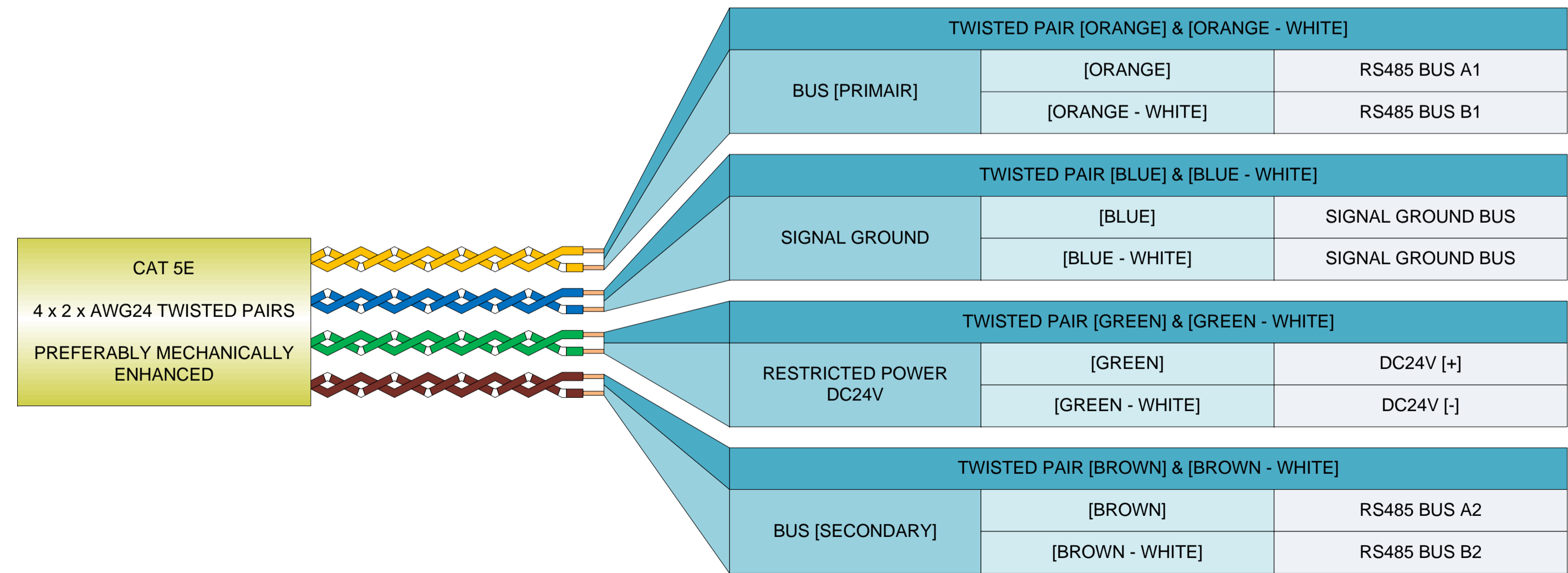
PS2: POWER SUPPLY AC110-240V / DC24V  
 K1: INCOMING BUS CABLE  
 S3: SMARTSWITCH #3  
 S4: SMARTSWITCH #4  
 K2: INCOMING/OUTGOING BUS CABLE  
 K3: OUTGOING BUS CABLE



K2: INCOMING/OUTGOING BUS CABLE  
 S5: SMARTSWITCH #5



PS3: POWER SUPPLY AC110-240V / DC24V  
 K3: INCOMING BUS CABLE  
 S6: SMARTSWITCH #6  
 S7: SMARTSWITCH #7  
 Rt: BUS TERMINATION RESISTOR



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PROJECTNAME: <b>HortiMaX Go</b>	AUTHORISED: <b>AddK</b>	REVISION DATE: <b>09/12/2016</b>		
SUBJECT: <b>NETWORK TOPOLOGY</b>	PAGE: <b>10 OF 12</b>	STATUS: <b>INTERNAL</b>		
FILENAME: <b>160055DRA020 044 HortiMaX Go-PRO aqua controller [3P400V+N+PE 50Hz] drawing.vsd</b>				