






WIRING DIAGRAM COMPO AIR HANDLING UNITS


 This wiring diagram is only an addition to our installation and operation manuals, available on our website for download.

 All internal components (fans, controls, sensors, actuators...) to the control board are pre-wired. The power supply must be connected to the safety isolating switch by a qualified electrician. Earthing is obligatory.

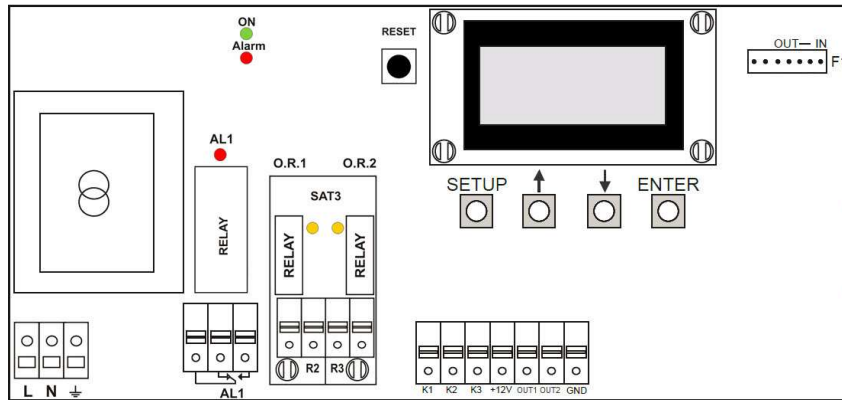
 All electrical connections must be made by a qualified electrician and in accordance with local rules and regulations.

 Residual current circuit breaker 300mA class B or B+

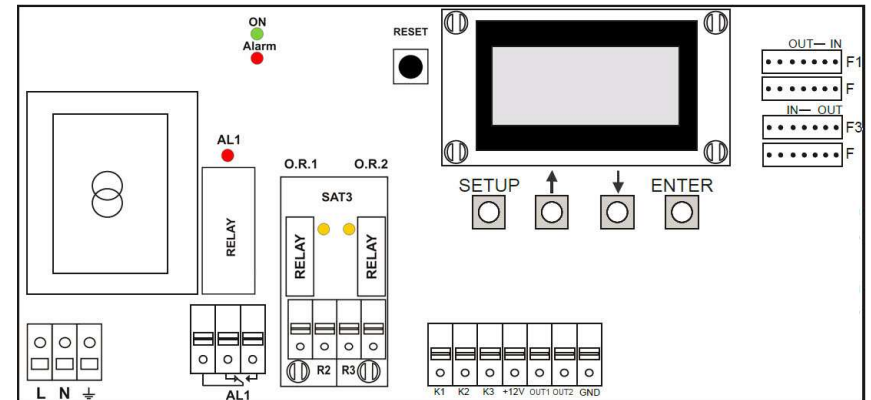
 Fuse protection (D-type, "slow")
D – 10.000 A – AC3

 The "SAT" circuits board must be plugged in correctly before the main circuit is powered. Wrong positioning can damage both circuits permanently.

Changes		Name	Date	Application: General	Page	
Name	Date	Draw.:	G. Beckers		31/05/2019	1
		check.:	M.Sgreccia			
		Norm:				
Subject:	Compo_20190715.spl7				of 15	



CBx TAC3 SC

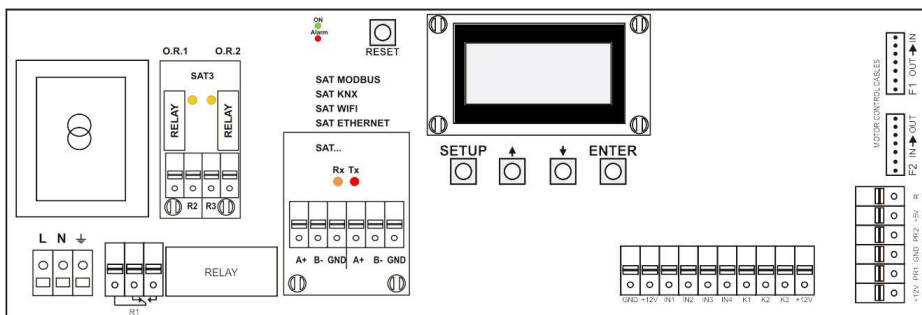


CBx TAC3 FULL

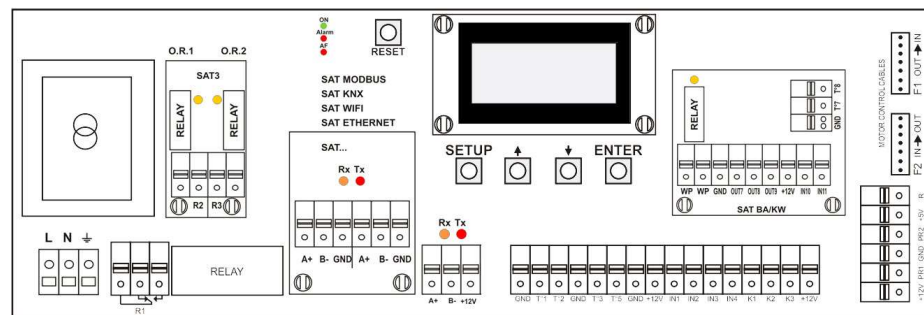
INPUT			OUTPUT		
K1	Airflow MODE	= Activate setpoint K1	O.R.1	Alarm pressure	(Max. 230V/ 4A)
	Demand/Pressure control ⁽¹⁾	= START/STOP	O.R.2	Fan on	(Max. 230V/ 4A)
K2	Airflow control	= Activate setpoint K2	OUT1	0-10V OUTPUT Airflow	(Max. 10mA, Rmax. 50Ω)
	Demand/Pressure control ⁽¹⁾	= 0-10V INPUT	OUT2	0-10V OUTPUT Pressure	(Max. 10mA, Rmax. 50Ω)
K3	Airflow control	= Activate setpoint K3	AL1	ALARM OUTPUT	(Max. 230V/ 5A)
	Demand/Pressure control ⁽¹⁾	= activate setpoint K3	F1	Fan 1 control cable	
IN1	External pressure alarm ⁽²⁾		F2 ⁽²⁾	Fan 2 control cable	
			F3 ⁽²⁾	Fan 3 control cable	
			F4 ⁽²⁾	Fan 4 control cable	

(1) Only for CBx TAC3 FULL
 (2) Only for CB4 TAC FULL

Changes		Name	Date	Application: CBx TAC3 SC/FULL	Page	
Name	Date	Draw.:	G. Beckers		April 2019	2
		check.:				
Subject:	Compo_20190715.spl7	Norm:			of 15	



CB2 TAC5 F




CB2 TAC5 CA

INPUT		OUTPUT	
B- /A+ /GND /+12V ⁽¹⁾ = connection to HMI RC		PR1	Not used
K1	Airflow control = Activate setpoint K1 Demand/Pressure control = START/STOP Torque control = Activate setpoint K1	PR3	Not used
K2	Airflow control = Activate setpoint K2 Demand/Pressure control = 0-10V INPUT Torque control = Activate setpoint K2	R1	Alarm Relay
K3	Airflow control = Activate setpoint K3 Demand/Pressure control = Activate setpoint K3 or 0-10 V Torque control = Setpoint K3	O.R.1	Pressure alarm /FAN ON/Motorised damper/MK3
T1 ⁽¹⁾	Not used	O.R.2	Pressure alarm /FAN ON/Motorised damper/MK3
T2 ⁽¹⁾	Room T° sensor (NTC10kΩ @25°C)	F1	Fan 1 control cable
T3 ⁽¹⁾	Not used	F2	Fan 2 control cable
T5 ⁽¹⁾	Supply T° sensor (NTC10kΩ @25°C)	SAT BA /KW ⁽¹⁾ (CBx TAC5 SC only)	
IN1	Master selection	WP/WP	Cooling and/or Heating (Max. 30V/2A)
IN2	Fire alarm /dPa/ MK3	OUT7	0-10 V output to control heating or change over capacity
IN3	Real time clock Auto/Manu	OUT8	0-10 V output to control cooling capacity
IN4	External Boost	OUT9	PWM output to control electrical coil
		T°7	Heating coil frost protection sensor (NTC10kΩ @25°C)
		T°8	Cooling coil frost protection sensor (NTC10kΩ @25°C)
		IN10	Cooling Off
		IN11	Input cooling/heating selection

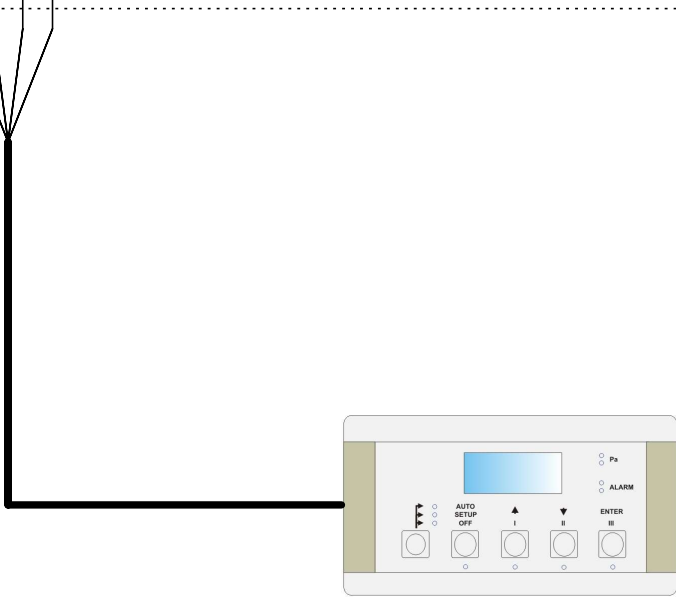
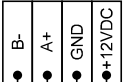
⁽¹⁾: Only for CB2 TAC5 SC

Changes		Name	Date	Application: CBx TAC5 CA/F	Page	
Name	Date	Draw.:	G. Beckers		April 2019	3
		check.:				
Subject:	Compo_20190715.spl7	Norm:			of 15	

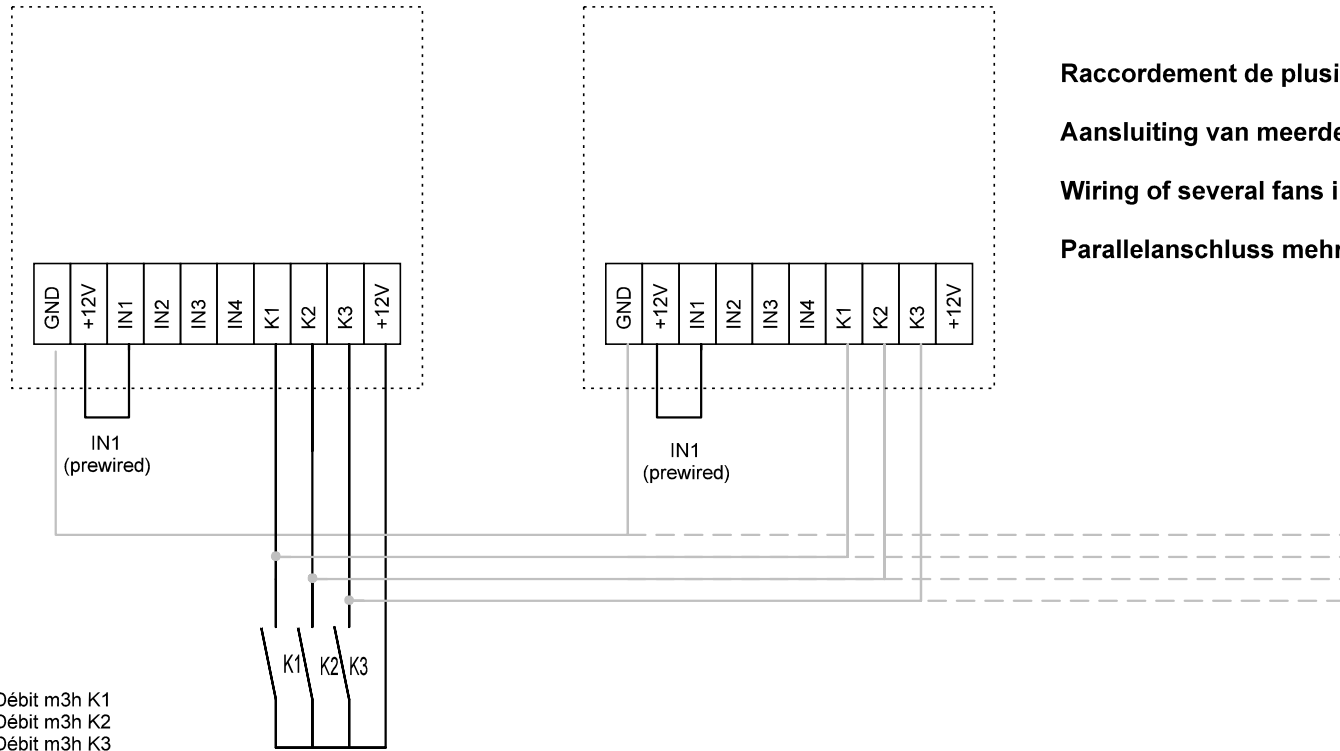

 Caution
 300mA B-Type
 Residual current
 circuit breaker

HMI Connection

Rx Tx
 LED  LED 



Changes			Name	Date	Application: KIT RC	Page
Name	Date	Draw.:	G. Beckers	April 2019		4
		check.:				
		Norm:				of
Subject:	Compo_20190715.spl7					15



Raccordement de plusieurs ventilateurs en parallèle - Mode CA
Aansluiting van meerdere ventiatoren in parallel - Mode CA
Wiring of several fans in parallel - Mode CA
Parallelanschluss mehrerer Ventilatoren - CA Modus

K1 fermé => Débit m3h K1
 K2 fermé => Débit m3h K2
 K3 fermé => Débit m3h K3
 K1/K2/K3 ouverts => softstop

K1 closed => Airflow m3h K1
 K2 closed => Airflow m3h K2
 K3 closed => Airflow m3h K3
 K1/K2/K3 open => softstop

K1 gesloten => Debiet m3h K1
 K2 gesloten => Debiet m3h K2
 K3 gesloten => Debiet m3h K3
 K1/K2/K3 open => softstop

K1 geschl. => Vol. m3h K1
 K2 geschl. => Vol. m3h K2
 K3 geschl. => Vol. m3h K3
 K1/K2/K3 offen => softstop

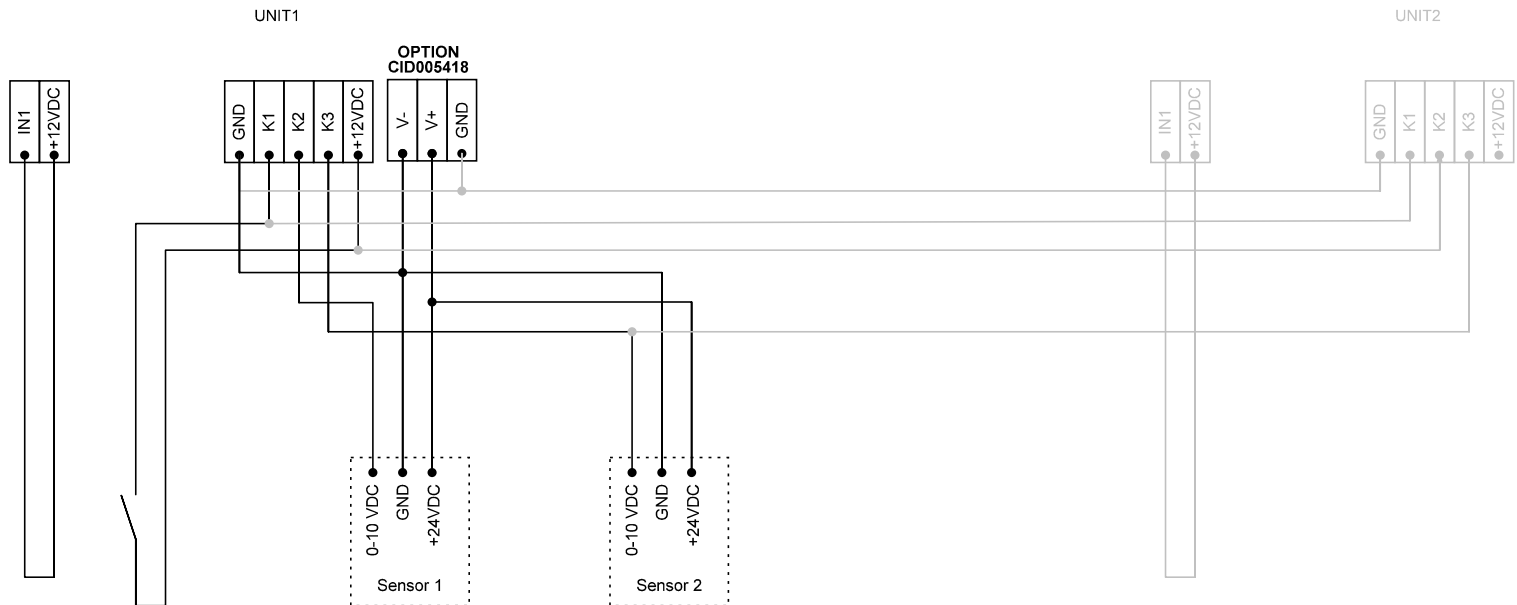
Attention. K1/K2/K3: Utilisez des contacts externes dorés.
 Impédance d'entrée minimum = 150k . Courant < 0,5 mA. Signaux externes: impédance maximum 1500 Ohm .

Opgelet. K1/K2/K3: Gebruikt vergulde contacten.
 Minimum input impedantie = 150k . Stroom < 0,5 mA. Externe signalen: maximum impedantie = 1500 Ohm .

Caution. K1/K2/K3: Use gold plated contacts.
 Minimum input impedance = 150k . Current < 0,5 mA. External signals: maximum impedance = 1500 Ohm .

Achtung K1/K2/K3 : Vergoldete Kontakte benutzen.
 Minimale Eingangsimpedanz = 150k . Strom < 0,5 mA. Aussen Signale : Maximum Impedanz 1500 Ohm .

Changes		Name	Date	Application: Modus CA	Page	
Name	Date	Draw.:	G. Beckers		January 2019	5
		check.:				
		Norm.:				
Subject:	Compo_20190715.spl7				of 15	



Start / Stop input

Active if IN1 = 1

Demand control input 1

CO2 wall sensor (CID370015)
CO2 duct sensor (CID370016)
RH sensor (CID370024)
BMS output etc...
Max. impedance: 1.500Ohm

Demand control input 2

CO2 wall sensor (CID370015)
CO2 duct sensor (CID370016)
RH sensor (CID370024)
BMS output etc...
Max. impedance: 1.500Ohm

K1 fermé => Softstart
K1 ouvert => Softstop
K2 => signal 0-10V
Pas signal sur K2 si mode CPf
K1+K3 fermé => % sur K3 actif
K3 ouvert => % sur K3 inactif

K1 gesloten => Softstart
K1 open => Softstop
K2 => 0-10V signal
Geen signal op K2 als CPf modus
K1+K3 gesloten => % op K3 actief
K3 open => % sur K3 inactief

K1 closed => Softstart
K1 open => Softstop
K2 => 0-10V signal
No signal on K2 if mode CPf
K1+K3 closed => % on K3 active
K3 open => % sur K3 inactive

K1 geschl. => Softstart
K1 offen => Softstop
K2 => 0-10V Signal
Keine Signal an K2 als CPf Modus
K1+K3 geschl. => % K3 aktiv
K3 offen => % sur K3 inaktiv

Optional sensor in extract duct OR additional in supply duct (max of input 1&2)

Raccordement de plusieurs ventilateurs en parallèle - Mode LS,CPs,CP

Aansluiting van meerdere ventiatoren in parallel - LS,CPs,CPs Modus

Wiring of several fans in parallel - LS,CPs,CPs Mode

Parallelanschluss mehrerer Ventilatoren - LS,CPs,CPs Modus

Attention. K1/K2/K3: Utilisez des contacts externes dorés.
Impédance d'entrée minimum = 150k . Courant < 0,5 mA. Signaux externes: impédance maximum 1500 Ohm .

Opgelet. K1/K2/K3: Gebruikt vergulde contacten.
Minimum input impedantie = 150k . Stroom < 0,5 mA. Externe signalen: maximum impedantie = 1500 Ohm .

Caution. K1/K2/K3: Use gold plated contacts.
Minimum input impedance = 150k . Current < 0,5 mA. External signals: maximum impedance = 1500 Ohm .

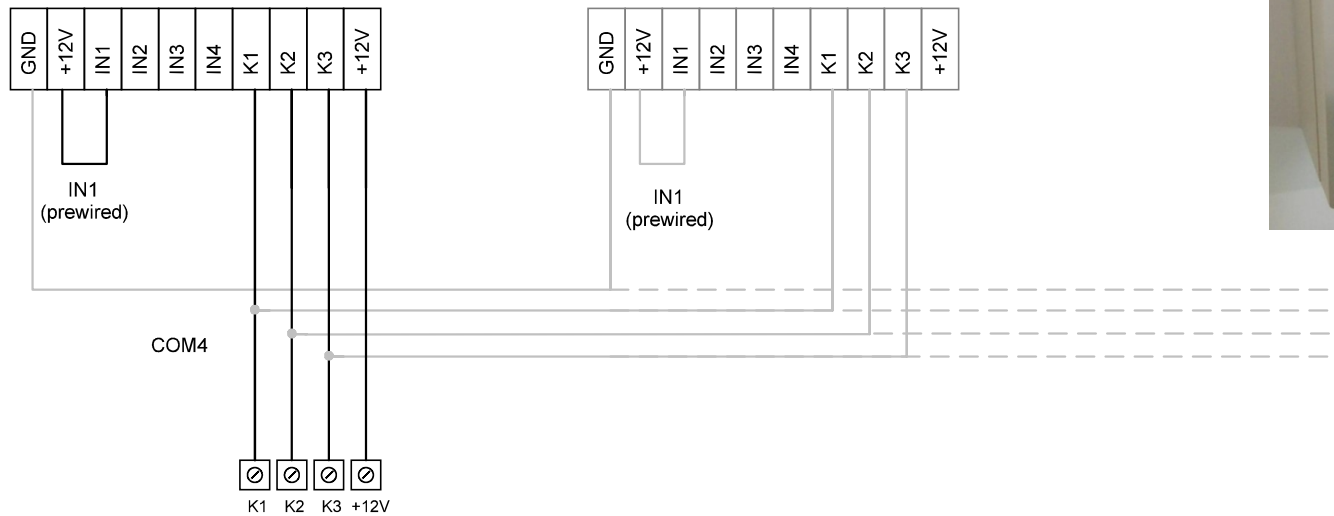
Achtung K1/K2/K3 : Vergoldete Kontakte benutzen.
Minimale Eingangsimpedanz = 150k . Strom < 0,5 mA. Aussen Signale : Maximum Impedanz 1500 Ohm .

Changes

Changes		Name	Date
Name	Date	Draw.:	G. Beckers
		check.:	
		Norm:	
Subject:	Compo_20190715.spl7		

Application:
Modus LS-CPf-CPs

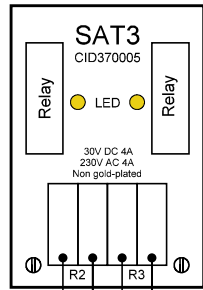
Raccordement de plusieurs circuits à un COM4 (commutateur 4 positions)
Aansluiting van meerdere controlcircuits aan 1 COM 4 (4 positie schakelaar)
Wiring of several boards on 1 COM4 (4 position switch)
Anschluss von Mehr Platine ann 1 COM4 (4 Positionen Schalter)



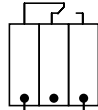
Changes		Name	Date	Application: COM 4 Switch	Page	
Name	Date	Draw.:	G. Beckers		January 2019	7
		check.:				
		Norm:				
Subject:	Compo_20190715.spl7				of 15	

O.R.1
Configurable
output

O.R.2
Configurable
output



LED



Alarm output
Closes when an alarm
is active

Configurable output **Configurable output**

Alarm Pa : filter alarm (default value)
MK3 : Recirculation dampers
CTin : motorized damper
Fan ON : running status contact

Marche ventilateur

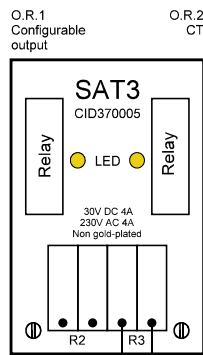
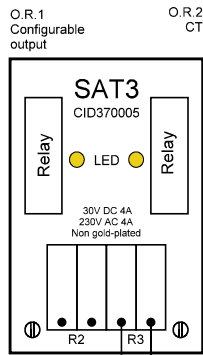
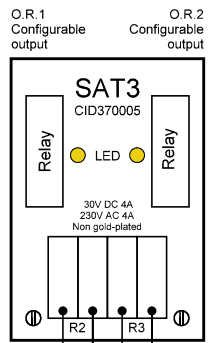
Werking van de ventilator

Fan ON

Betriebszustand des Ventilators

Peut aussi être configuré comme étant connecté sur OR1 (voir mode d'emploi)
 Kan ook worden geconfigureerd als verbonden op OR1 (zie aanleiding instructies)
 Can also be configured as being connected to OR1 (see instructions manual)
 Kann auch als auf OR1 verbunden konfiguriert werden (siehe Gebrauchsanweisung)

Changes		Name	Date	Application: Alarms	Page	
Name	Date	Draw.:	G. Beckers		31/05/2019	8
		check.:	M.Sgreccia			
		Norm:			of	
Subject:	Compo_20190715.spl7				15	



Ouverture/fermeture des clapets CT
Openen/sluiten van de CT kleppen
Opening/closing of CT dampers
Öffnen/Schliessen der Jalousieklappen

V+ V- : 24VDC
 L N : 230V

V+ V- : 24VDC
 L N : 230V

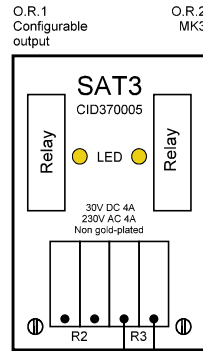
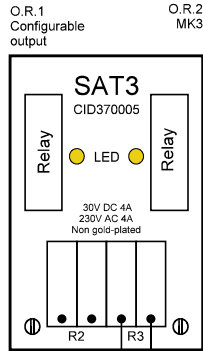
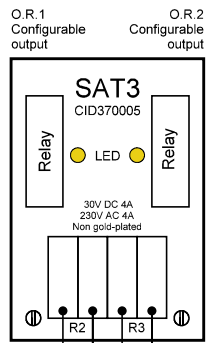
Configurable output **Configurable output**

230VAC / 24VDC
Spring return

230VAC / 24VDC
3-point

Alarm Pa : filter alarm (default value)
 MK3 : Recirculation dampers
 CTin : motorized damper
 Fan ON : running status contact

Changes		Name	Date	Configuration of function: Basic setup / Air flow regulation / Constant pressure	Page	
Name	Date	Draw.:	G.Beckers		31/05/2019	9
		check.:	M.Sgreccia			
		Norm:		Application: Control CT	of 15	
Subject:	Compo_20190715.sp17					



Caisson mélange MK3
Mengkast MK3
Mixing cabinet MK3
Mischkammer MK3

V+ V- : 24VDC
 L N : 230V

V+ V- : 24VDC
 L N : 230V

Configurable output **Configurable output**

230VAC / 24VDC
Spring return

230VAC / 24VDC
3-point

Alarm Pa : filter alarm (default value)
 MK3 : Recirculation dampers
 CTin : motorized damper
 Fan ON : running status contact

IN2 fermé=> MK3 actif
 IN2 ouvert=> MK3 inactif

IN2 gesloten=> MK3 actief
 IN2 open=> MK3 inactief

IN2 closed=> MK3 active
 IN2 open=> MK3 inactive

IN2 geschl.=> MK3 aktiv
 IN2 offen=> MK3 inaktiv

Peut aussi être configuré comme étant connecté sur OR1 (voir mode d'emploi)

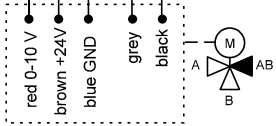
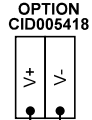
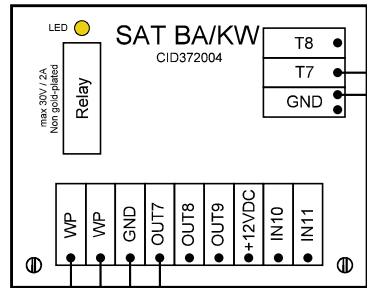
Kan ook worden geconfigureerd als verbonden op OR1 (zie aanleiding instructies)

Can also be configured as being connected to OR1 (see instructions manual)

Kann auch als auf OR1 verbunden konfiguriert werden (siehe Gebrauchsanweisung)

Changes		Name		Date		Configuration of function: Basic setup / Air flow regulation / Constant pressure	Page
Name	Date	Draw.:	G.Beckers	31/05/2019			10
		check.:	M.Sgreccia				
Subject:	Compo_20190715.sp17			Application: Control MK3			of 15

WP Heating demand
 Caution! The SAT circuits must be plugged in before the circuit is powered. The SAT must be plugged in correctly, wrong positioning can damage both circuits permanently.

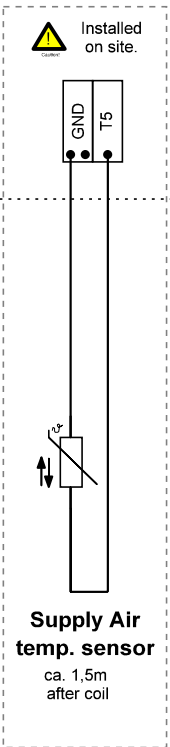


Caution!
To be insulated!

Heating demand output
Closes on heating load

Heating Valve
Heating coil
I_{max} OUT7=10mA

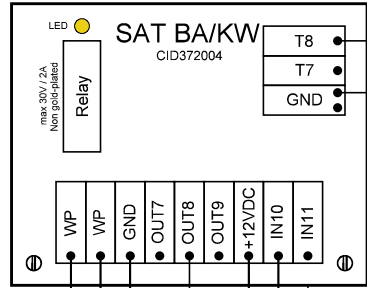
Frost sensor
Heating coil
(Surface mounted)



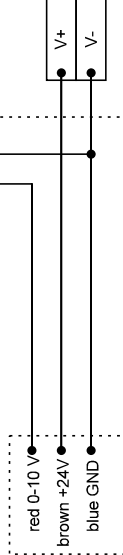
Changes		Name	Date	Configuration of function: Basic setup / Air flow regulation	Page	
Name	Date	Draw.:	G. Beckers		31/05/2019	11
		check.:	M.Sgreccia			
Subject:	Compo_20190715.sp17	Norm:		Application: Heating Coil BA+	of 15	

WP Cooling demand

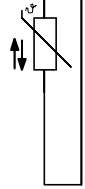
Caution! The SAT circuits must be plugged in before the circuit is powered. The SAT must be plugged in correctly, wrong positioning can damage both circuits permanently.



OPTION CID005418



Caution!
To be insulated!



Cooling output
Closes on cooling load

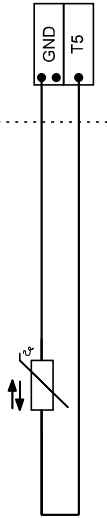
Cooling input
Close to deactivate cooling
(Only for manual change over)

Heat/Cool selection
1=Cooling
0=Heating
(Only for manual change over)

Cooling Valve
External cooling coil
Imax OUT8=10mA

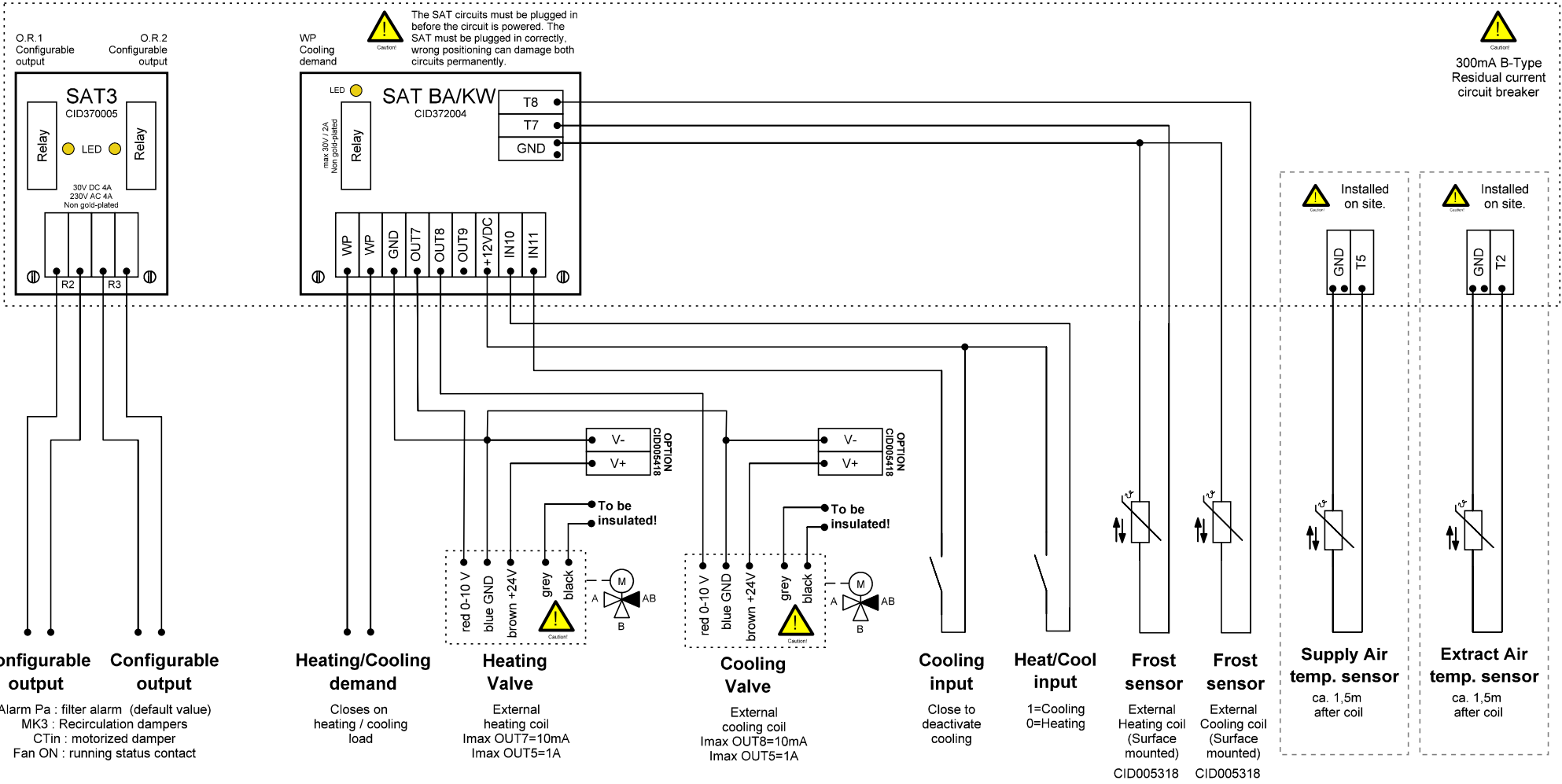
Frost sensor
Cooling coil
(Surface mounted)

Caution! Installed on site.



Supply Air temp. sensor
ca. 1,5m after coil

Changes			Name	Date	Configuration of function:	Page
Name	Date	Draw.:	G. Beckers	31/05/2019		12
		check.:	M.Sgreccia			
Subject:	Compo_20190715.spl7	Norm:			Application: Cooling coil BA-	of 15



Configurable output
Configurable output
 Alarm Pa : filter alarm (default value)
 MK3 : Recirculation dampers
 CTin : motorized damper
 Fan ON : running status contact

Heating/Cooling demand
 Closes on heating / cooling load

Heating Valve
 External heating coil
 I_{max} OUT7=10mA
 I_{max} OUT5=1A

Cooling Valve
 External cooling coil
 I_{max} OUT8=10mA
 I_{max} OUT5=1A

Cooling input
 Close to deactivate cooling

Heat/Cool input
 1=Cooling
 0=Heating

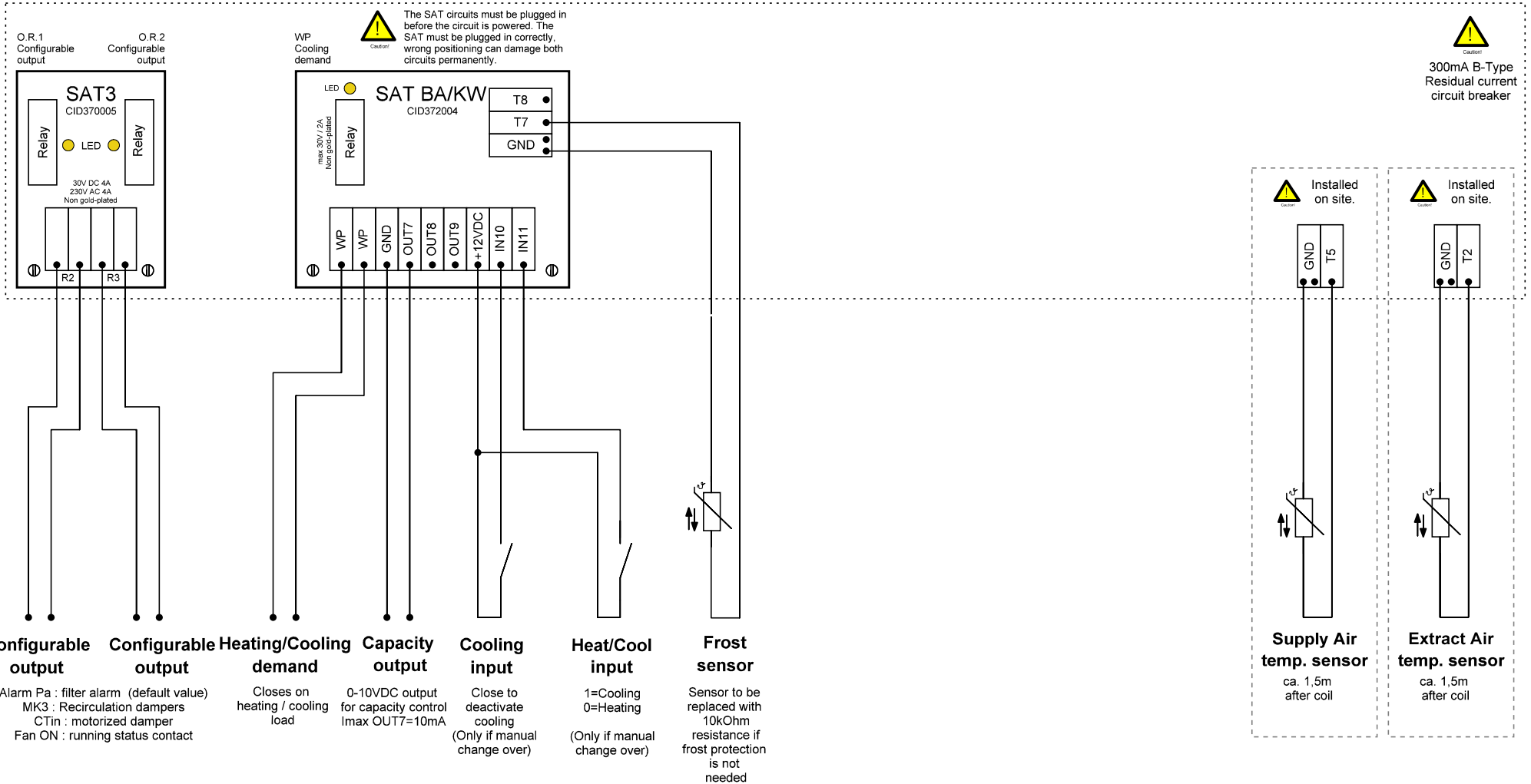
Frost sensor
 External Heating coil (Surface mounted)
 CID005318

Frost sensor
 External Cooling coil (Surface mounted)
 CID005318

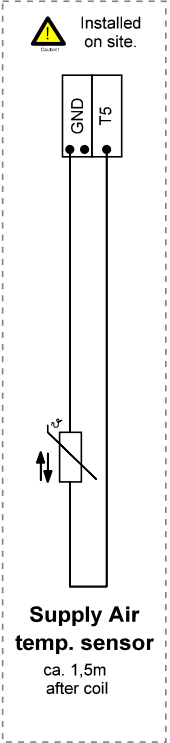
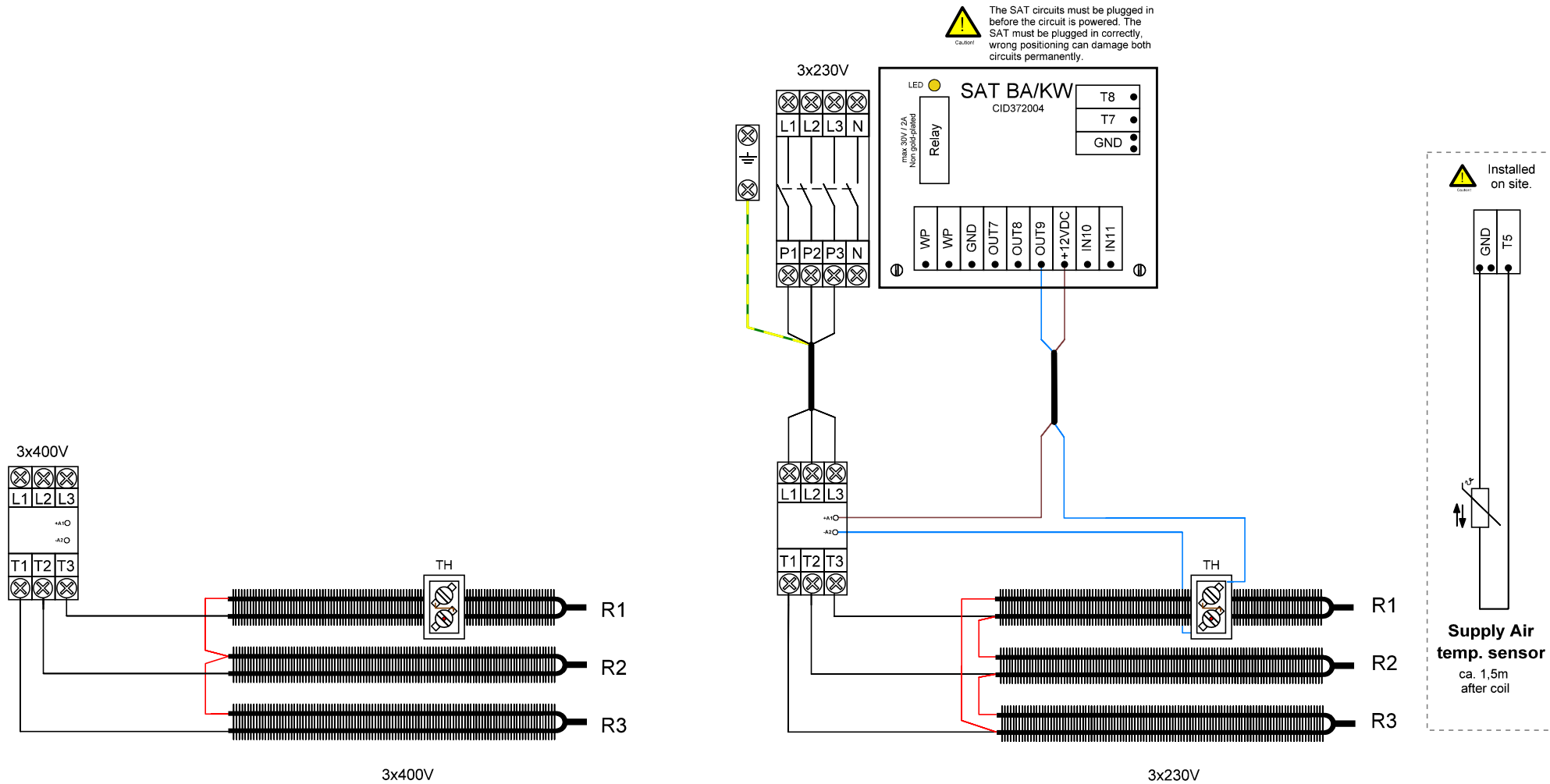
Supply Air temp. sensor
 ca. 1,5m after coil

Extract Air temp. sensor
 ca. 1,5m after coil

Changes		Name	Date	Configuration of function:	Page	
Name	Date	Draw.:	G. Beckers		31/05/2019	13
		check.:	M.Sgreccia			
Subject:	Compo_20190715.spl7	Norm:		Application: Heating & Cooling coils	of 15	



Changes		Name		Date		Configuration of function:	Page
Name	Date	Draw.:	G. Beckers	31/05/2019			14
		check.:	M.Sgreccia				
Subject:	Compo_20190715.spl7	Norm:				Application: Change over coil	of 15



Changes			Name	Date	Configuration of function:	Page
Name	Date	Draw.:	G. Beckers	16/01/2019		15
		check.:				
Subject:	Compo_20190715.sp17		Norm:		Application: Heating Coil KW	of 15