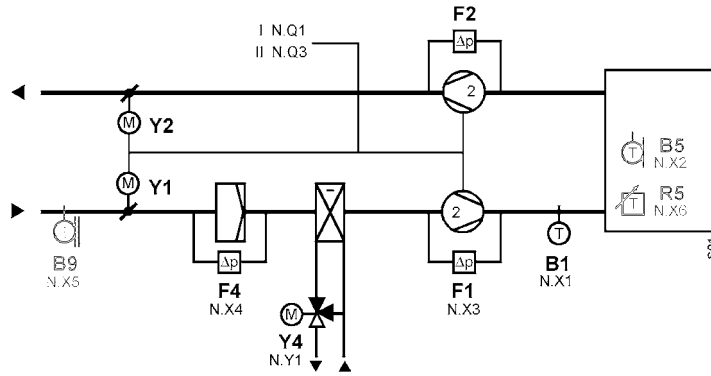


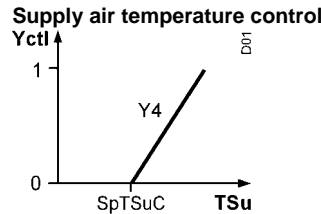
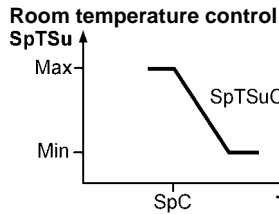
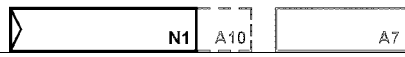


Ventilation plant with air cooling coil

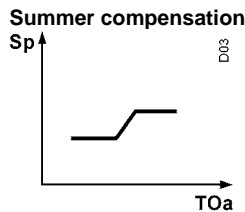
Plant diagram



Function diagram



- Max = Maximum
- Min = Minimum
- Sp = Setpoint
- SpC = Cooling setpoint
- SpT = Setpoint supply air temperature
- Su = Supply air setpoint for cooling
- SuT = Outside temperature
- TOa = Outside temperature
- TR = Room temperature
- TSu = Supply air temperature
- Yctl = Controller output



Description of functions

**Basic functions**

- 7-day time switch with holiday / special day program
- Control of a 2-speed fan
- Control of the supply air temperature via the cooling coil valve
- Supervision of the supply and extract air fans with differential pressure detectors
- Supervision of the supply air filter with a differential pressure detector

**Options**

- Fault relay 1 for urgent faults
- Fault relay 2 for faults that are not urgent
- 4 additional fault signal inputs

**Auxiliary functions**

- Unoccupied mod (room temperature required)
- Summer compensation (outside temperature required)
- Remote setpoint adjuster

**Variants**

- Room (extract air)-supply air temperature cascade control with minimum and maximum limitation of the supply air temperature

# Room-supply air temperature cascade control

## Synco™ 700 RMU710

ADB001 MU1 HQ a

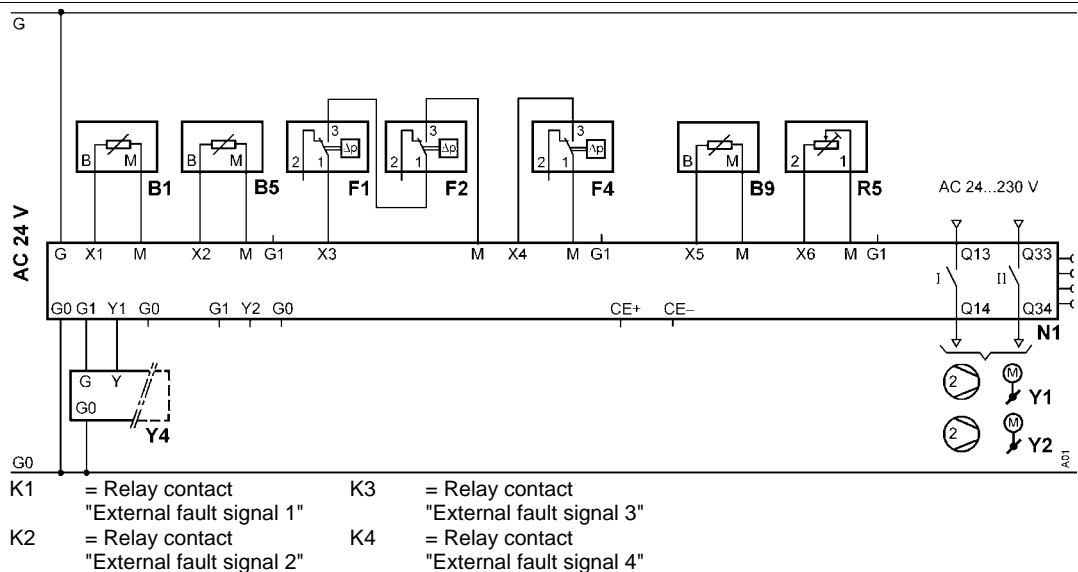
Standard configuration	Legend	Type of unit	See page	Data sheet	Type ref.	Qty.
	N1	Modular universal controller, 1 control loop		CE1N3144	RMU710	1
	B1	Duct temperature sensor		CM1N1771	QAM22	1
	F1	Differential pressure detectors		CA1N1552	QBM81...	1
	F2	Differential pressure detectors		CA1N1552	QBM81...	1
	F4	Differential pressure detectors		CA1N1552	QBM81...	1
	Y1	2-point damper actuators	+		G...2...E	1
	Y2	2-point damper actuators	+		G...2...E	1
	Y4	3-Port seat valve	*		VX...	1
		Modulating valve actuator, AC 24 V, DC 0...10 V			S..6...	1

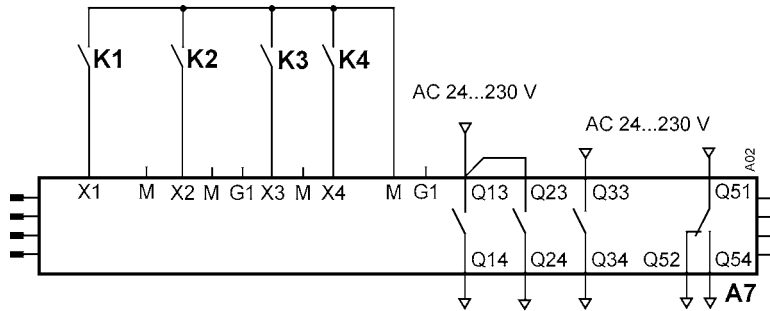
Optional configuration	Function legend	Type of unit	See page	Data sheet	Type ref.	Qty.
	A7	Universal module (4UI, 4D0)		CE1N3146	RMZ787	1
	A10	Plug-in user interface		CE1N3111	RMZ790	1
	B5	Room temperature sensor		CM1N1721	QAA24	1
	B9	Duct temperature sensor		CM1N1771	QAM22	1
	R5	Setpoint adjuster, passive, universal		CA1N1985	BSGN-U1	1

Variants	Legend	Type of unit	See page	Data sheet	Type ref.	Qty.
	A10a	Detached user interface		CE1N3112	RMZ791	1
	B5a	Duct temperature sensor		CM1N1771	QAM22	1
	B5/R5b	Room unit with room temperature sensor and setpoint readjuster		CM1N1721	QAA27	1
	B5/R5c	Room unit with Konnex interface			QAW740	1
	B9a	Outside sensor		CE1N1811	QAC22	1

+ For actuator sizing and selection refer to chapter ....  
 \* For valve sizing and selection refer to chapter .....

### Connection diagram





K1 = Relay contact "External fault signal 1"  
 K2 = Relay contact "External fault signal 2"  
 K3 = Relay contact "External fault signal 3"  
 K4 = Relay contact "External fault signal 4"

**Configuration and parameter settings**

Path: ... > Commissioning > Basic configuration

Parameter	Setting	Function	Remarks
Plant type	A02	Selection of application	
Position 1	RMZ787	Selection of auxiliary module	Activation of options on auxiliary module RMZ787

**Engineering**

- A number of settings are plant-specific and may need adjusting after the initial commissioning of the controller
- The connection diagram does not show all plant interlocks but only those directly connected to the controller or associated equipment