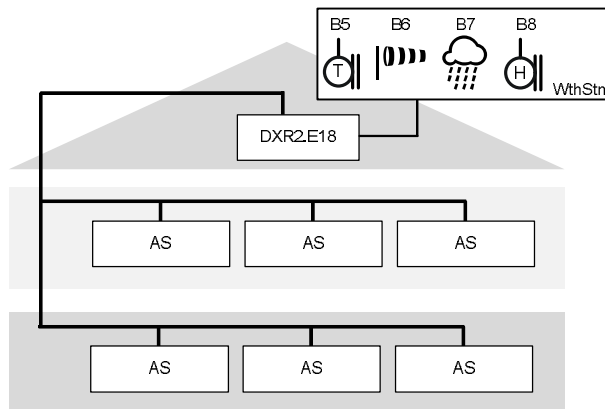




- Acquisition of present weather data with individual sensors or a central weather station
- Distribution of measured weather data to supply and room functions
- Measurement of:
 - Outside temperature for seasonal compensation of room temperature setpoints and display of room operating unit
 - Wind speed for protection function of blinds and awnings
 - Precipitation for protection function for awnings
 - Precipitation and outside temperature for frost protection of blinds
- Relative outside air humidity for display on room operator unit
- Delay function for control of large facades

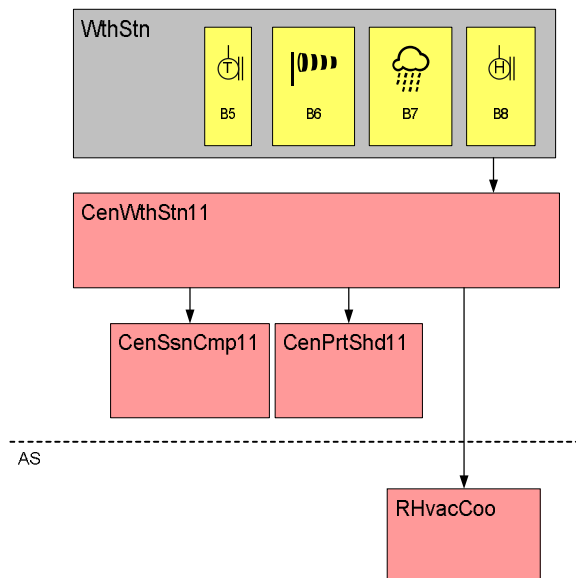
Plant diagram



DXR2.E18	Automation station for the weather station	B5	Outside air temperature sensor
		B6	Wind sensor
AS	Automation station in the room	B7	Precipitation detector
WthStn	Weather station	B8	Relative outside air humidity sensor

Function diagrams

DXR2.E18



CenPrtShd11	Facade protection function (wind&rain)	CenWthStn11	Weather station function
CenSsnCmp11	Function for seasonal compensation of room temperature setpoints (outside temperature)	RHvacCoo	HVAC room coordination function to control display of room operator units (outside temperature&outside air humidity)

Central function weather station

DXR2.E18-101A

DXR2.E18-102A

Description of functions

Basic function

- Measurement of present outside temperature.
- Function for setpoint shift of room temperature based on outside temperature.
- Distribution of weather data to other central functions or room functions.
- Display of outside temperature on room operator units QMX3.P34, QMX3.P74, or QMX3.P37.

Options

- Measurement of present weather data for:
 - Wind speed
 - Precipitation
 - Relative outside air humidity
- Central wind, precipitation, and/or frost protection function for installed blinds or awnings.
- Facade control can be enabled on 3 additional groups with a delay on large buildings.
- Display of relative air humidity on room operator units QMX3.P34, QMX3.P74, or QMX3.P37.

Variants

- The template settings for the facade protection function are set for use with blinds. The parameters for precipitation protection must be adapted to use awnings (see Engineering).

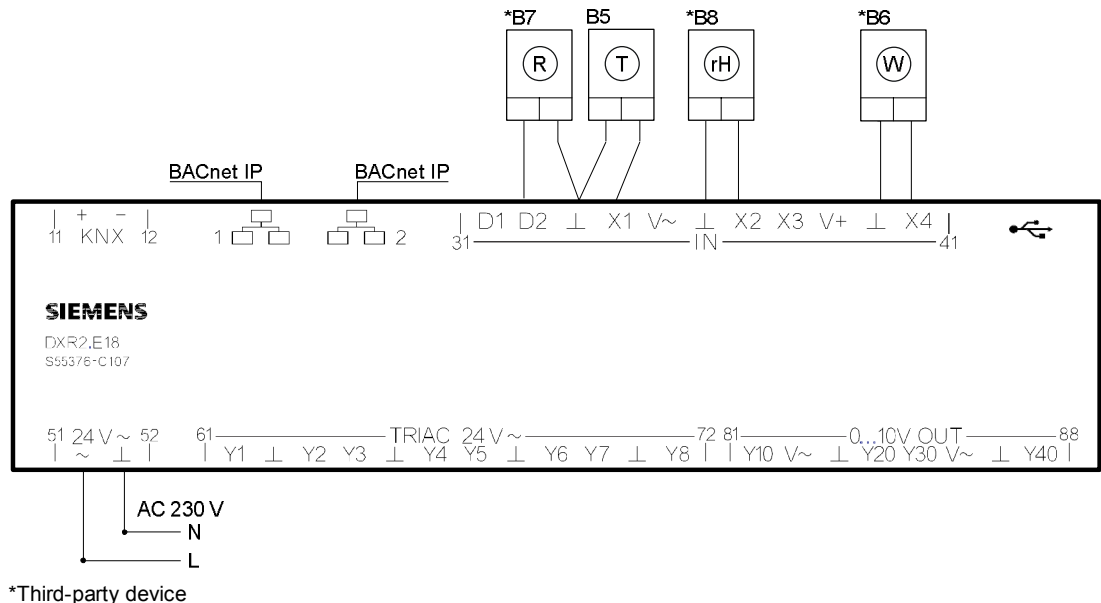
Siemens devices

Key	Device	Datasheet	Product no.	No.
DXR2...	Compact room automation station, BACnet/IP, 24 V, DIN housing, 2 DI, 4 UI, 8 DO Triacs, 4 AO 0...10 V	N9205	DXR2.E18-101A/ DXR2.E18-102A	1
B5	Weather sensor LG-Ni 1000, -50...+70 °C	N1811	QAC22	1

Optional third-party device

Key	Device	No.
B6	Wind sensor, 0...10 V	1
B7	Rain sensor, digital input, NO contact	1
B8	Humidity sensor, 0...10 V	1

Connection diagram



Application configuration

	Equipment	Values/range	Template settings
On-board input	Outside air temperature	None X1; LG-Ni1000 X2; LG-Ni1000 X1; 0... 10 V X2; 0... 10 V X1; NTC 100k X2; NTC 100k X1; NTC 10k X2; NTC 10k X1; T1 (PTC) X2; T1 (PTC) X1; Pt1000 (EU) X2; Pt1000 (EU) X1; Pt1000 (NA) X2; Pt1000 (NA)	X1; LG-Ni1000

Optional configuration

	Equipment	Values/range	Template settings
On-board input	Relative outside air humidity	None X2; 0... 10 V	X2; 0... 10 V
	Atmospheric pressure	None X3; 0... 10 V	X3; 0... 10 V
	Wind speed	None X2; 0... 10 V X3; 0... 10 V X4; 0... 10 V	X4; 0... 10 V
	Precipitation detector	None D2; Normally open X4; Normally open	D2; Normally open
Central shading function	Precipitation protection	None Active	Active
	Frost protection	None Active	Active
	Protection function Switch-on delay 1	None Active	None
	Protection function Switch-on delay 2	None Active	None
	Protection function Switch-on delay 3	None Active	None

Standard values

	Parameter	Values/range	Template settings
Central seasonal compensation	Low outside temperature for heating	-70 °C ... 70 °C	25 °C
	Low setpoint for heating comfort	-70 °C ... 70 °C	22 °C
	High outside temperature for heating	-70 °C ... 70 °C	31 °C
	High setpoint heating comfort	-70 °C ... 70 °C	23 °C
	Low outside temperature cooling	-70 °C ... 70 °C	26 °C
	Low setpoint for cooling comfort	-70 °C ... 70 °C	24 °C
	High outside temperature cooling	-70 °C ... 70 °C	32 °C
	High cooling setpoint for comfort	-70 °C ... 70 °C	26 °C
Wind protection	Switch-on point	0 ... 1000 m/s	7 m/s
	Switch-on delay protection	0 ... 1000 min	0 min
	Switch-off point	0 ... 1000 m/s	5 m/s
	Switch-off delay protection	0 ... 1000 min	20 min

Standard values

	Parameter	Values/range	Template settings
Wind protection	Command when exceeding limit	None Open Height 25 %, angle undefined Height 50 %, angle undefined Height 75 %, angle undefined Height 100 %, angle 0 % Height 100 %, angle 25 % Height 100 %, angle 50 % Closed	Open
Precipitation protection	Command when exceeding limit	None Open Height 25 %, angle undefined Height 50 %, angle undefined Height 75 %, angle undefined Height 100 %, angle 0 % Height 100 %, angle 25 % Height 100 %, angle 50 % Closed	None
Frost protection	Command when exceeding limit	None Open Height 25 %, angle undefined Height 50 %, angle undefined Height 75 %, angle undefined Height 100 %, angle 0 % Height 100 %, angle 25 % Height 100 %, angle 50 % Closed	Open

Engineering

- The ABT Site engineering tool is required to engineer DXR2 automation stations.
- See the Siemens Download Center www.siemens.com/bt/download for the latest application configurations and workflow tutorials.
- The outside sensor can also be used together with the weather station with analog and digital signals.
- Protection settings for facade products:

Parameter	Awnings	Blinds (template settings)
Precipitation protection; command for exceeding limit	Closed	None
Frost protection; command for exceeding limit	None	Open