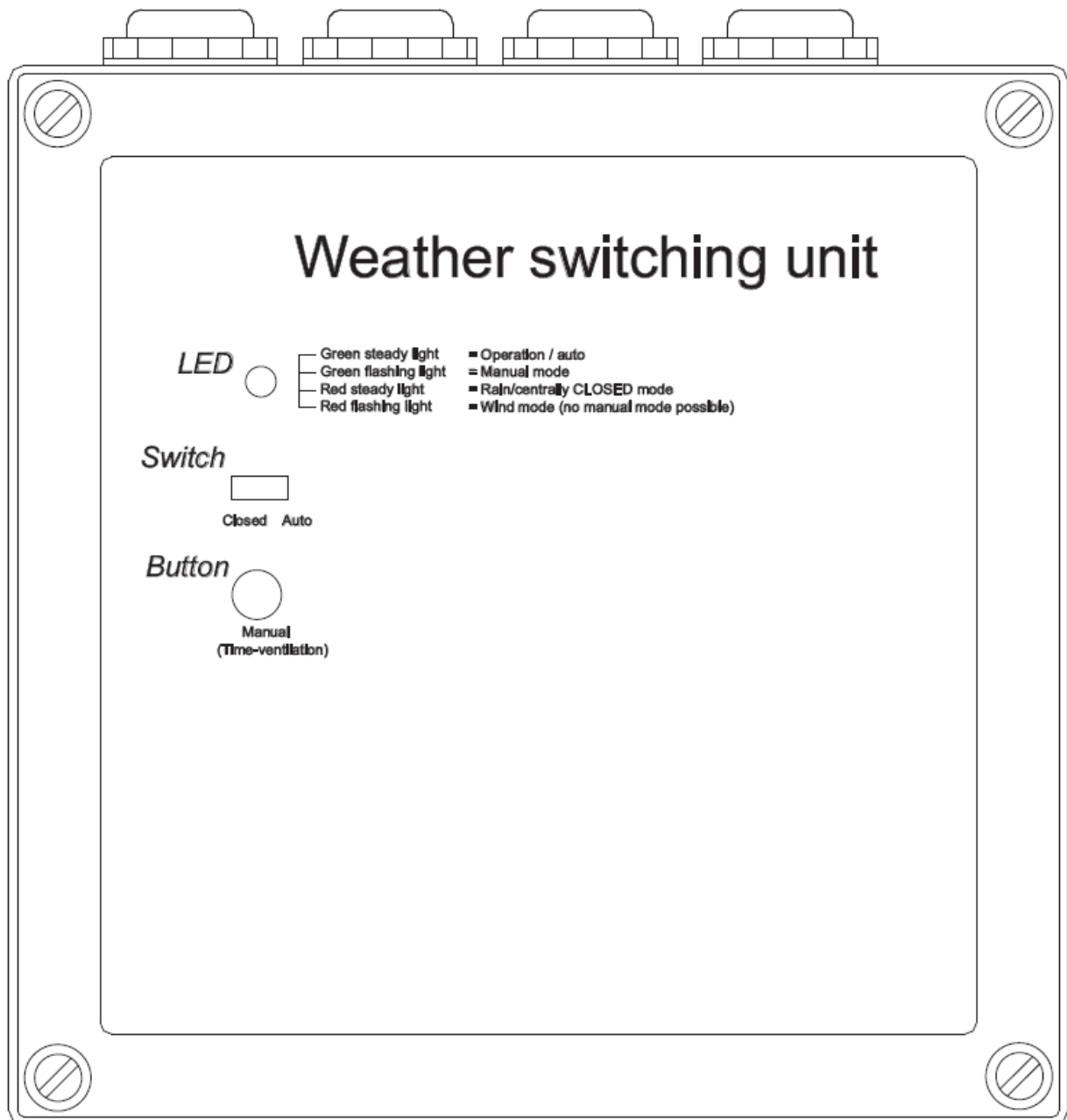


Wind & Rain Sensor

Type: W+RE B/4



Description:

The Wind and Rain unit consists of a control unit and a wind and rain sensor.

It is used for the automatic control of 230V actuators for windows, light domes and canopies as well as for ventilation controls.

The basic version of the electronic control system is equipped with 4 changeable contacts (for 4 motor groups) each with a contact rating of 230VAC / 5A / 50Hz.

In case of wind and / or rain, all 4 change over contacts switch over from the N/C contact to the N/O contact at the same time.

For example, the motors which are connected move to the 'closed' position or to their inactive state.

The settings for the wind trigger level, the wind release delay as well as the test position are made by a 4 pole DIP switch on the control board.

Operation / Function:

Change- over switch from the 'central CLOSE / Automatic' to the 'Automatic' position

The two colour diagnosis LED lights green (steady light).

All groups can be manually operated individually through the respective ventilation switch.

Activation by wind:

In case of activation by the wind sensor (wind speed is adjustable), all actuators close.

The two-colour diagnosis LED flashes red.

Remark:

The ventilation switches are locked for the period of the wind activation.

The activation resets 10 or 20 min (adjustable) after the last sensor actuation.

Beaufort scale:

Wind force in Beaufort	Speed in m/s	Speed in km/h	Wind intensity	Effects
0	0 – 0,2	< 1	calm	smoke rises straight
1	0,3 – 1,5	1 – 5	light air	only visible from smoke
2	1,6 – 3,3	6 – 11	light breeze	noticeable in the face
3	3,4 – 5,4	12 – 19	gentle breeze	small twigs are moving
4	5,5 – 7,9	20 – 28	moderate breeze	thin branches are moving
5	8 – 10,7	29 – 38	fresh breeze	small trees sway
6	10,8 – 13,8	39 – 49	strong breeze	large branches are moving
7	13,9 – 17,1	50 – 61	moderate gale	whole trees in motion
8	17,2 – 20,7	62 – 74	fresh gale	branches break off from trees
9	20,8 – 24,4	75 – 88	strong gale	minor damage on houses
10	24,5 – 28,4	89 – 102	whole gale	trees blown over
11	28,5 – 32,6	103 – 117	violent storm	serious storm damage
12	> 32,6	> 117	hurricane force	

Operation / Function

Change- over switch from the 'central CLOSE / Automatic' to the 'Automatic' position

Activation by rain:

In case of activation by the rain sensor all actuators close.
 The two-colour diagnosis LED lights red (steady light).

Remark:

The ventilation switches are locked for the period of the rain activation.
 The activation resets 10 or 20 min. (adjustable) after the last sensor actuation.
 A change over to ventilation switch mode is still possible in case of activation (see manual mode).

Manual mode (timed ventilation):

The rain activation can be deactivated by actuating the manual button (in front of the housing).
 Despite a rain activation the actuators can be 'OPENED' via the ventilation switches.
 The two-colour diagnosis LED flashes green.
 The rain activation is active again after the expiry of approx. 30 min. or after pressing the manual switch again.

Change-over switch from the 'central CLOSE / Automatic' to the 'central CLOSE' position

The two-colour diagnosis LED lights red (steady light).
 CLOSED mode is a steady signal with priority over all other operating modes.
 All functions are locked.

An external central CLOSE switch (potential-free N/O contact) can be closed.

Forwarding of a wind-rain activation

An external group extension or display (max. 60W) can be connected to the terminal X2.
 In case of activation, 230Volt with maximum amperage of 280mA will be switched.
 L1 = steady contact

Settings:

Various wind-rain parameters and operating modes can be set by means of the installed DIP switches.

DIP switch settings for the wind speed

	Test	approx. 3 m/s	approx. 4 m/s	approx. 6 m/s	approx. 8 m/s	approx. 10 m/s	approx. 12 m/s	approx. 14 m/s
Switch 1	off	on	off	on	off	on	off	on
Switch 2	off	off	off	off	on	on	on	on
Switch 3	off	off	on	on	off	off	on	on

Attention: After start-up make all necessary settings for wind speed
Factory setting = test setting. Recommended setting is 8 m/s

Remark: In the test setting, the activation and release delay is deactivated.

DIP switch settings for wind-rain release delay

The wind-rain signal is stored for approx. 10 or 20 minutes (adjustable).

	Switch position OFF	Switch position ON
Switch 4 = Wind-rain release delay	10 minutes	20 minutes

Display:

Via the two-color LED the respective operating state can be indicated.

LED-Diagnosis of operating status

green steady light	operation / automatic mode is ON
green flashing light	manual mode is ON
red steady light	rain activation, central CLOSE
red flashing light	wind activation

Connection:

Terminal X1 = power supply (230V / 50Hz)

Terminal X2 = external group extension or external display

Terminal X3 = 4 switching contacts (potential-free changer-over contact)

Terminal X4 = sensor connection (wind-/rain sensor, external central CLOSE)

Technical data:

Supply voltage:	230VAC / 50Hz
Fuse:	F1 = T 315mA
Power consumption:	75 VA at max. group extension
External group extension:	230VAC / 50Hz (max. 280mA)
Circuit outputs:	4 x potential-free change-over contact
Switching capacity:	4 x 230VAC / 5A (Note: max. 10 actuators per group)
Colour of the switch housing:	light grey / RAL 7035
Switch housing dimension (WxHxD):	180 x 180 x 75mm
Switch housing weight:	approx. 1kg
Sensor dimension (WxHxD):	80 x 160 x 55mm (without wind wheel)
Wind-rain sensor supply:	24V
Sensor weight:	approx. 0,7kg
Sensor protection class:	IP65
Setting of the wind mode:	approx. 3 to 14 m/s (\pm 20%)
Setting of the wind-rain release delay:	10 min. / 20 min.
CE- sign	conformity to european guidelines and the low voltage directive

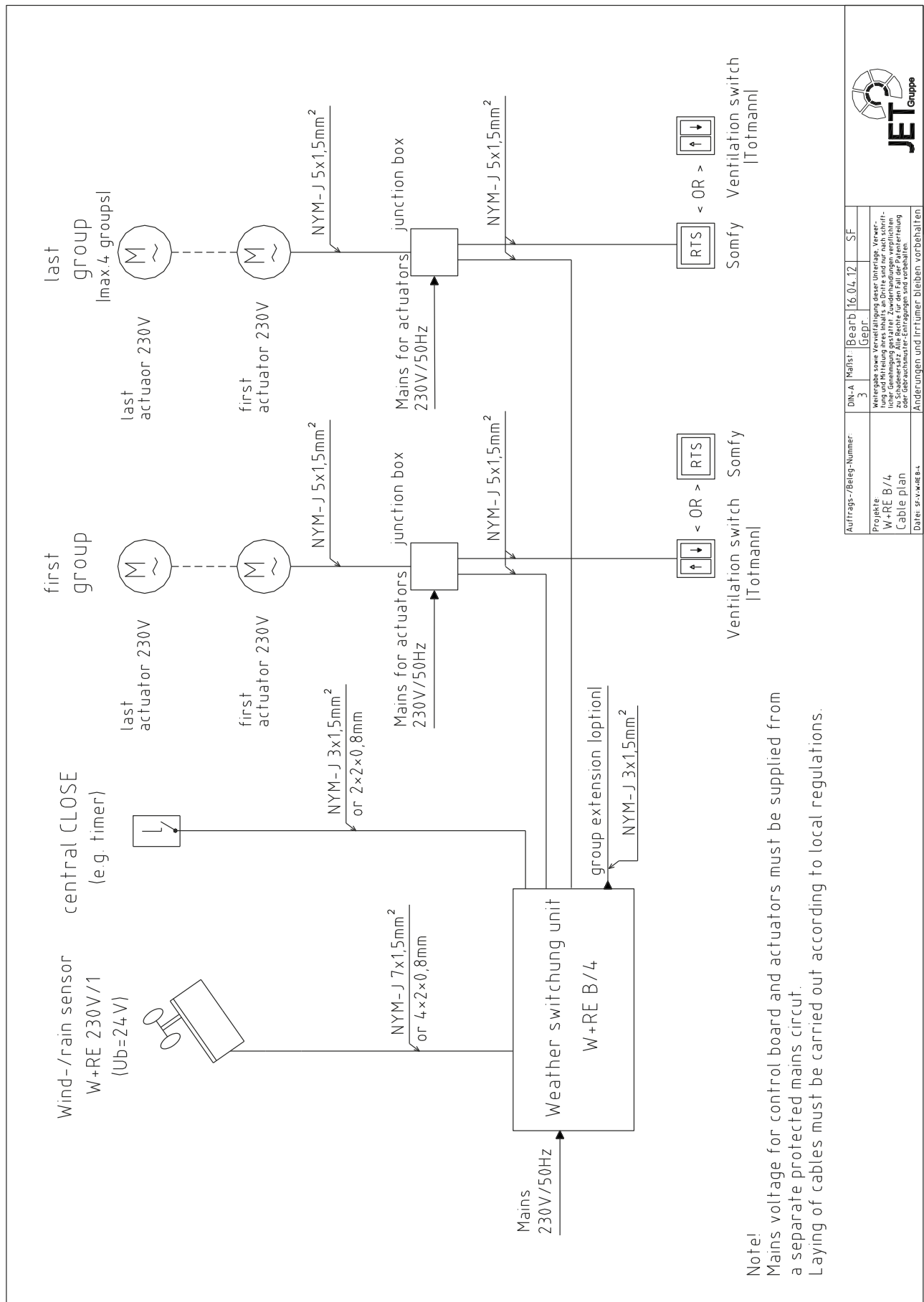
Miscellaneous:

Only qualified personnel are allowed to connect the control system.

Electrical installation must be made according to local regulations.

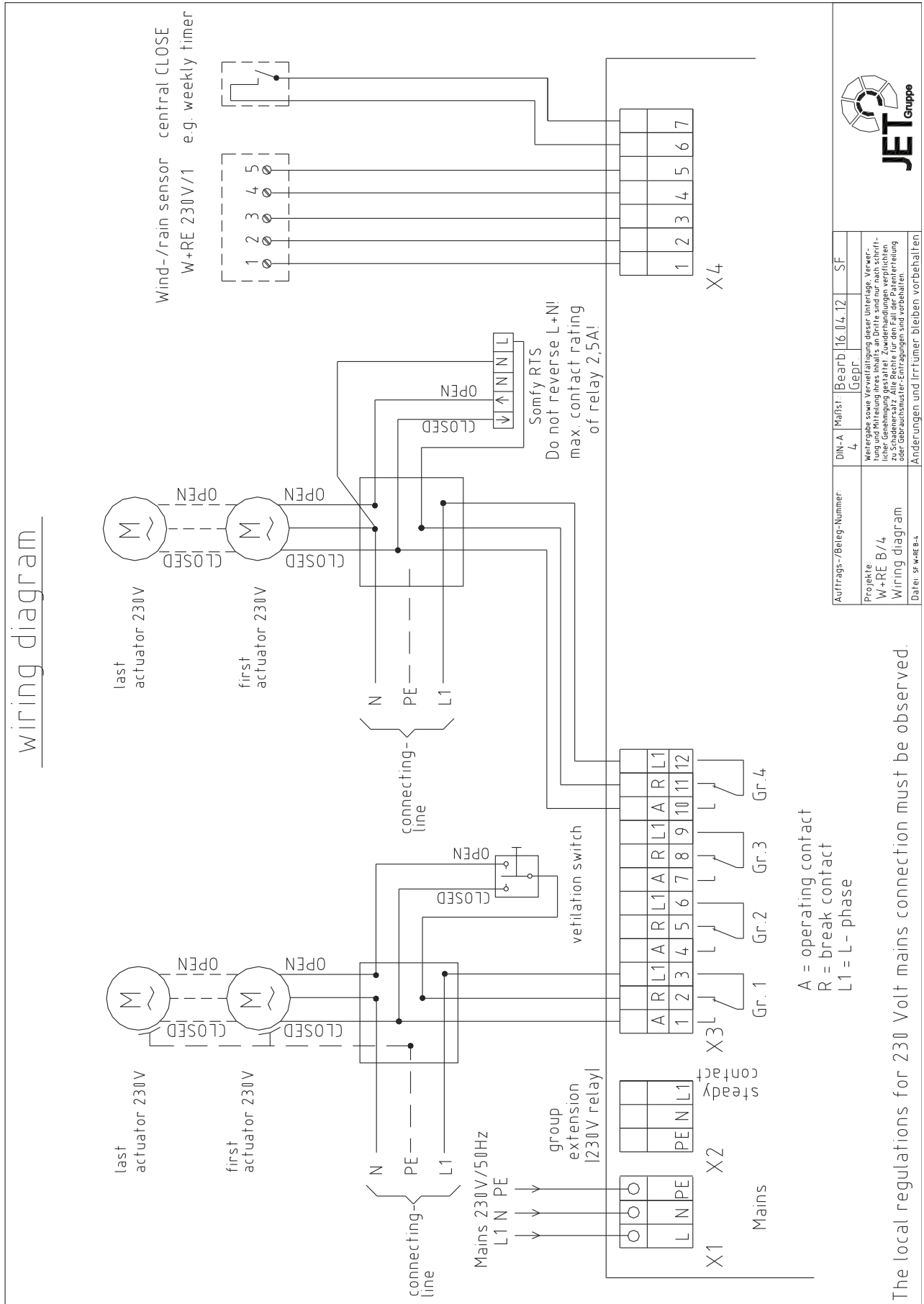
Observe regulations as for aerial systems like mechanical stability, electrical safety and lightning protection.

Clean the sensor regularly depending on the degree of soiling.



Auftrags-/Beleg-Nummer:	DIN-A	Maßst:	Bearb	16.04.12	SF
Projekte	3		GEDF		
W+RE B/4	Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts, an Dritte sind nur nach schriftlicher Genehmigung der JET Gruppe zulässig. Alle Rechte für den Fall der Patenterteilung oder Gebrauchsmuster-Eintragungen sind vorbehalten.				
Cable plan	Änderungen und Irrtümer bleiben vorbehalten.				
W+RE B/4	Datei: SF-V-WRE B-4				

wiring diagram



The local regulations for 230 Volt mains connection must be observed.

- A = operating contact
- R = break contact
- L1 = L - phase

Auftrags-/Beleg-Nummer:		DIN-A	Maßstab	Bearb.	16	11.4	12	SF
Projekte		4	GEDF					
W+RE B/4		Wichtigste Voraussetzung für die Ausführung dieses Unterlages: Versorg- ung und Mithilfe des Herstellers. Die Rechte sind nur nach schrift- licher Genehmigung gestattet. Zweckenhandlungen verpflichten zu Schadensersatz. Alle Rechte für den Fall der Patenterteilung oder der automatisierten Eintragungen sind vorbehalten.						
Wiring diagram		Änderungen und Irrtümer bleiben vorbehalten						
Datei: SF.W+RE-B-4								

