



Technical Manual
ROLLER BLIND ACTUATOR
BX-BLD2
BX-BLD4
BX-BLD6



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1 Introduction

The BX-BLD series is a line of KNX actuators for 2, 4, 6 roller blinds with 16 A 230V~ 50/60 Hz relay outputs for DIN-rail installation (60715TH35). They occupy a minimum of 4 and a maximum of 8 x 17.5 mm modules. The actuators control independent 230 V~ drives for the control and operation of roller blinds, Venetian blinds, shutters. The devices are bus-powered and do not require an external auxiliary voltage. The output contacts are interlocked and potential-free to protect the drives from damage.



2 Application

2.1 Functions associated with channels

Operation time setting

- Setting of all times required for roller blind or Venetian blind motor control

Slat adjustment

- Slat adjustment times in case of Venetian blind

Block function

- Load block activation value parameterization. Behaviour with block enabled and behaviour at block disabling

Scenarios

- Configuration up to 8 scenarios with any enabling at learning via bus

Alarms

- Weather alarm enabling (wind, rain, ice). Setting of execution priority among the various alarms and load position in case of alarm and alarm reset



3 “General” Menu

The General menu shows the application parameters that involve all the channels implemented on the device.

--- BX-BLDxx > Generale

Generale	Configurazione modulo	BX-BLD06 (6 canali)
	Tapparella 1 (A-A)	<input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Tapparella 2 (B-B)	<input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Tapparella 3 (C-C)	<input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Tapparella 4 (D-D)	<input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Tapparella 5 (E-E)	<input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Tapparella 6 (F-F)	<input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Gestione allarmi	<input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Posizioni tapparelle e lamelle al download dell'applicazione ETS	<input checked="" type="radio"/> Azzera <input type="radio"/> Mantieni
	Oggetti di movimento a tempo per taratura	<input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita

3.1 Parameters

3.1.1 Module configuration

The type of device must be selected. Depending on the model chosen, the ETS library will change the settings.

Selection must be consistent with the module actually installed.

--- BX-BLDxx > Generale

+ Generale	Configurazione modulo	BX-BLD06 (6 canali)
+ Tapparella 1 (A-A)	Tapparella 1 (A-A)	BX-BLD02 (2 canali)
	Tapparella 2 (B-B)	BX-BLD04 (4 canali)
		BX-BLD06 (6 canali) ✓



3.1.2 Roller blind x (x-x)

The outputs of the device can be enabled or disabled by making the communication objects corresponding to the individual channels appear. The values the parameter can take are:

Tapparella 1 (A-A) Disabilita Abilita

If **disable** is selected, the channels will not be used and will not be managed via the local button either. At first start-up and with factory settings, the local buttons are functional and interlocked with each other.

3.1.3 Alarm management

To prevent damage to the load connected to the actuator due to weather events, dedicated parameters can be enabled.

Gestione allarmi Disabilita Abilita

By enabling the parameter, dedicated menus will appear, both for general configuration and for the configuration of the individual channels.



3.1.4 Positions of blinds and slats when downloading ETS application

Within this parameter it is possible to decide the slat positions and how they are to be programmed once the ETS application has been downloaded.

Posizioni tapparelle e lamelle al download dell'applicazione ETS Azzera Mantieni

By selecting **Reset**, at each download of the application program the position will be reset to 0%.

If **Maintain** is selected, each time the application program is downloaded the device will retain the position values of the roller blinds and slats prior to the download.



3.1.5 Moving objects for calibration

With this parameter, a communication object is made available for each channel, which has the function of facilitating the detection of the roller blind runtimes and also of the slats if present. These commands are useful during the commissioning phase of the system, when it is necessary to measure up/down movement times, slat rotation and any dead times defined by the specific mechanics of the window. With the help of these commands it will be easier to determine the values of the functional parameters to be set.

Via the ETS bus monitor it is possible to give a movement command expressed in time (milliseconds). Positive values represent a movement command in the down direction (towards 100%) while negative values set a movement in the up direction (towards 0%). Movements made in response to these commands are not taken into account in the position calculation, so after commanding a movement with these communication objects, the physical position will have to be realigned with the position maintained by the module (see calibration commands).

This command has the same priority as a movement command; it will not be executed if the channel is in Block or Weather Alarm condition

Oggetti di movimento a tempo per taratura Disabilita Abilita

By selecting **Enable**, the communication object will appear for the respective channels and for movement tests.

14 Tapparella 1 (A-A) Test movimeno su/giù a tempo 2 bytes C - W - - time lag(10...Basso



4 General alarms

By enabling the Alarm Management function from the general menu, the following sub-menu will appear.

Four different alarm levels are available with the possibility of managing them individually. This function was created to prevent damage to the load connected to the individual device channel (e.g. awnings, roller blinds, Venetian blinds, shutters); alarm signals are normally a consequence of atmospheric events detected and sent on the bus by other devices connected to the system.

The alarm priorities are as follows:

Alarm 4 has priority over 3
Alarm 3 has priority over 2
Alarm 2 has priority over 1
Alarm 1

The disabling behaviour of a lower priority alarm is actually implemented if and only if a lower priority alarm is not active.

It is possible to 'rename the alarm' within the respective field. The communication object will take the new name entered. The priority alarm logic will not change.

--- BX-BLDxx > Generale > Generale allarmi

– Generale	Allarme 1 (priorità minima)
– Generale allarmi	Nome: Ice alarm
+ Tapparella 1 (A-A)	Valore attivazione: <input type="radio"/> Attivo con 0 <input checked="" type="radio"/> Attivo con 1
+ Tapparella 2 (B-B)	Allarme 2
+ Tapparella 3 (C-C)	Nome: Rain alarm
+ Tapparella 4 (D-D)	Valore attivazione: <input type="radio"/> Attivo con 0 <input checked="" type="radio"/> Attivo con 1
+ Tapparella 5 (E-E)	Allarme 3
+ Tapparella 6 (F-F)	Nome: Wind alarm
	Valore attivazione: <input type="radio"/> Attivo con 0 <input checked="" type="radio"/> Attivo con 1
	Allarme 4 (priorità massima)
	Nome: Strong wind alarm
	Valore attivazione: <input type="radio"/> Attivo con 0 <input checked="" type="radio"/> Attivo con 1



4.1 General alarm parameters

4.1.1 Name (Alarm 1-2-3-4)

It is possible to amend the text inside the Name Field.

Nome

In the event of the Name field being renamed, the communication object will take the newly assigned name.

The communication objects made available are shown below:

130	Ice alarm	Attivazione	1 bit	C - W - - alarm	Basso
131	Rain alarm	Attivazione	1 bit	C - W - - alarm	Basso
132	Wind alarm	Attivazione	1 bit	C - W - - alarm	Basso
133	Strong wind alarm	Attivazione	1 bit	C - W - - alarm	Basso
134	Ice alarm	Stato	1 bit	C R - T - alarm	Basso
135	Rain alarm	Stato	1 bit	C R - T - alarm	Basso
136	Wind alarm	Stato	1 bit	C R - T - alarm	Basso
137	Strong wind alarm	Stato	1 bit	C R - T - alarm	Basso

By using the individual communication objects, it will be possible to interface with weather sensors (rain sensor, wind sensor, etc.), allowing preventive movements of the load to be automated to safeguard operation.

4.1.2 Activation value (Alarm 1-2-3-4)

The 'enabling value' item allows defining the enabling value of the communication object associated with alarm x; the settable values are: Enabled with "0" - the relative alarm is active with value 0. Enabled with "1" - the relative alarm is active with value 1 which is the default value.

Valore attivazione Attivo con 0 Attivo con 1

The behaviour in case of KNX bus control of individual alarms, such as the possibility to disable and enable individual channels, can be found within the parameters of each channel.



5 Menu – Blind x (X-X)

Individual channel roller blind settings are available and, according to the various versions, the channel availability will change as follows: Roller blind 1 (A-A), Roller blind 2 (B-B), Roller blind 3 (C-C), Roller blind 4 (D-D), Roller blind 5 (E-E), Roller blind 6 (F-F). The various chapters and sub-menus with the same items are described below.

The menu is composed as follows:

-.- BX-BLDxx > Tapparella 1 (A-A)	
Generale	Pulsanti frontali <input type="radio"/> Disabilita <input checked="" type="radio"/> Abilita
Tapparella 1 (A-A)	Considera il movimento del comando da pulsante <input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Tempo di corsa su (sec) <input type="text" value="30"/>
	Tempo di extra-corsa su (sec) <input type="text" value="3"/>
	Tempo attesa inversione su-giù <input type="text" value="500 ms"/>
	Tempo di corsa giù (sec) <input type="text" value="30"/>
	Tempo di extra-corsa giù (sec) <input type="text" value="3"/>
	Tempo attesa inversione giù-su <input type="text" value="500 ms"/>
	Posizione all'accensione <input type="text" value="Posizione precedente"/>
	Funzione blocco <input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Telegramma di movimento <input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Telegramma su finecorsa <input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Comandi generali <input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Scenari <input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Veneziana <input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita
	Funzione calibrazione <input checked="" type="radio"/> Disabilita <input type="radio"/> Abilita



5.1 Parameters

5.1.1 Front buttons

A button is located on the front of the device, which can be used to directly control the load pertaining to the relay of each channel. The command given using these buttons is separate from the commands received via the KNX Bus. The local buttons can be disabled or not. The available settings are:

Pulsanti frontali Disabilita Abilita

The local keys work with the KNX bus powered.

5.1.2 Consider movement of control from button

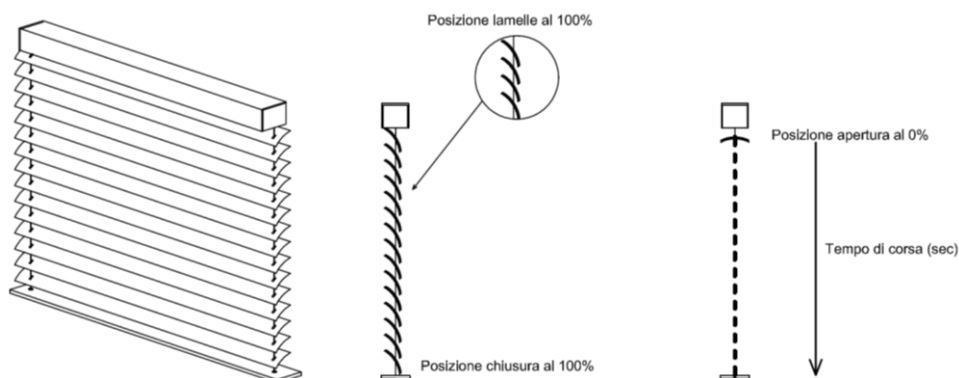
By enabling this parameter, it is possible to take into account the command given to the local keys on the basis of the settings dedicated to the individual channel and on the basis of the running time. Available settings are:

Considera il movimento del comando da pulsante Disabilita Abilita

By leaving the setting on disabled, the commands given by the local keys will not be taken into account by the device with respect to run time. It is specified that the alignment between the physical position and the logical position saved in the module's memory will be lost and that it will then be necessary to recalibrate.

5.1.3 Up run time (sec) – Down run time (sec)

This parameter makes it possible to establish, within the device, the calculation of the position as a percentage so as to be able to perform, on the proportion of total time base, its movement in proportion to the time measured in the actual field. With the Roller blind/Venetian blind raised the value will be 0%, while if it is lowered the value will be 100% and vice versa. If so required, different up and down times can be set. The settings themselves will give the proportion to the command from fully closed to fully open. The value to be indicated refers to the actual Roller blind/Venetian blind run time.



5.1.4 Up overrun time (sec) – Down overrun time (sec)

This parameter allows an additional control time value to be set for the channel relay. Over time, the Roller blind/Venetian blind could undergo a change in the movement run both upwards and downwards; a slowing of the movement due to wear of the mechanical parts or even particular weather conditions such as wind can change the mechanical behaviour. To ensure that the limit switch is always reached, it is possible to set a value (seconds) of overrun which is added to the run time.

5.1.5 Up-down reversal waiting time

This parameter allows setting a delay time (milliseconds) between the switching of the up and down relays. It will be necessary to have the manual with the technical specifications of the Roller blind/Venetian blind to be controlled. The delay time must then be indicated so as not to damage the Roller blind/Venetian blind motor during reversal. This parameter sets the time interval between the interruption of the command in one direction and the start of the command in the other direction.

5.1.6 Position at start

This parameter makes it possible to determine, when the device is switched on again, in which state the Roller blind/Venetian blind is to be placed. The cases that lead to possible reactivation are: in the absence of power supply from the KNX Bus, in the event of a fault on the Bus network and because of possible system restart. As with switching, it is possible to define the desired state at the end of device initialisation. The available choice is shown below.

Posizione all'accensione	Posizione precedente
_____	Posizione precedente ✓
_____	Vai alla posizione
	Su
	Giù

By selecting “**Go to position**”, a % value can be set of the desired roller blind/Venetian blind position. If the device is also used in the Venetian blind configuration, when programming the device in roller blind, the position of the slats can also be defined. If this is not used, the set value will not be taken into account.

Posizione all'accensione	Vai alla posizione
Tapparella va alla posizione	50 %
Lamelle in posizione	50 %



5.1.7 "Channel x" block function

By enabling the block function, two communication objects become visible – the first, command and the second, status. These feature on each individual actuator channel. The available communication objects are shown below:

8	Tapparella 1 (A-A)	Comando blocco	1 bit	C	-	W	-	-	enable	Basso
9	Tapparella 1 (A-A)	Stato blocco	1 bit	C	R	-	T	-	state	Basso

By writing a value via the KNX bus to the communication object 'Block command', the block function can be enabled or disabled. With this parameter it is possible to set and block the device in a certain condition. This condition is maintained until it is disabled. In this condition the device will not execute any commands received via the bus.

Following the block command, the device will respond with the corresponding 'Block status' communication object.

--- BX-BLDxx > Tapparella 1 (A-A) > Funzione blocco

Generale

Valore messaggio di blocco Blocca con 0 Blocca con 1

Tapparella 1 (A-A)

Funzione blocco

Comportamento al blocco

Comportamento allo sblocco

5.1.8 Behaviour on "channel x" block

This parameter permits setting the channel during the block of a certain condition. The available settings are:

Comportamento al blocco

Comportamento allo sblocco

- Nessuna azione
- Nessuna azione
- Stop movimento
- Vai alla posizione

No action – When the block is enabled, this setting results in no action on the channel.

Stop movement – When the block is enabled, this setting causes channel stop

Go to position – By selecting this parameter, a new setting appears – if the Venetian blind function is enabled.

Tapparella va alla posizione

Lamelle in posizione



This setting can be made according to the roller blind/Venetian blind % position value to be achieved. If the device is also used in Venetian blind configuration, when the device is in roller blind configuration, the position of the slats can also be defined. If this is not used, the set value will not be taken into account.

5.1.9 “Channel x” movement telegram

Enabling this parameter permits receiving from the device a value which is determined during the movement of the Roller blind/Venetian blind.

Telegramma di movimento Disabilita Abilita

If enabled, it will send a telegram with value 0 or 1 (see parameter description below). This communication object has a 1-bit value and will be sent when the relay changes status/switching either up or down with values of 0 open and 1 closed or vice versa. Below are the available communication objects:

10	Tapparella 1 (A-A)	Movimento su	1 bit	C	R	-	T	-	boolean	Basso
11	Tapparella 1 (A-A)	Movimento giù	1 bit	C	R	-	T	-	boolean	Basso

Two distinct Movement communication objects are available, so that both up (Movement up) and down (Movement down) can be distinctly identified.

The above values can be "reversed" as per the "Movement up/down telegram type" parameter. This can facilitate KNX bus transmissions for statuses with different and easily customisable values.

Tipo telegramma di movimento su Telegramma 0 durante il movimento
 Telegramma 1 durante il movimento

Tipo telegramma di movimento giù Telegramma 0 durante il movimento
 Telegramma 1 durante il movimento

5.1.10 “Channel x” limit switch telegram

Enabling this parameter permits receiving a value which is determined and sent only once the Roller blind/Venetian blind has reached the upper or lower limit switch. If enabled, it will send a telegram with value 0 or 1. This communication object has a value of 1 bit.

Telegramma su finecorsa Disabilita Abilita

The values of the 1-bit communication objects can be defined inside the “Type of upper/lower end-of-run telegram” parameter. This will facilitate KNX bus transmissions for statuses with different and easily customisable values.

Tipo telegramma finecorsa superiore Telegramma 0 sul finecorsa
 Telegramma 1 sul finecorsa

Tipo telegramma finecorsa inferiore Telegramma 0 sul finecorsa
 Telegramma 1 sul finecorsa



The available communication objects are shown below:

12	Tapparella 1 (A-A)	Finecorsa su	1 bit	C	R	-	T	-	boolean	Basso
13	Tapparella 1 (A-A)	Finecorsa giù	1 bit	C	R	-	T	-	boolean	Basso

Two distinct objects are available, so as to be able to identify both the reaching of the upper and the lower limit switch.

5.1.11 "Channel x" general controls

By enabling this parameter, the channel will be part of the general controls. General controls have the same group object for all channels in the device. This permits greater simplicity during configuration on the ETS software for the general controls to be sent to those channels enabled in this function. The communication objects to be used are as follows:

120	Tutte le tapparelle	Comando su/giù	1 bit	C	-	W	-	-	up/down	Basso
121	Tutte le tapparelle	Comando posizione %	1 byte	C	-	W	-	-	percentag...	Basso
122	Tutte le tapparelle/lamelle	Comando stop/step	1 bit	C	-	W	-	-	step	Basso
123	Tutte le lamelle	Comando posizione %	1 byte	C	-	W	-	-	percentag...	Basso

General up/down commands, % position commands, stop/step commands, slat position % commands can be sent via the KNX bus to the device (if the device is also used in the Venetian blind configuration).

5.1.12 "Channel x" scenario

By enabling this parameter, the roller blind menu will be applied in the window dedicated to the scenarios. See relevant Scenarios chapter.

5.1.13 "Channel x" Venetian blind

Enabling this parameter makes it possible to determine the presence of a Venetian blind and to add further criteria and communication objects to the device within the Roller blind menu. Some of these 'values' will take on different commands/statuses. See relevant Venetian blind chapter.

5.1.14 "Channel x" calibration function

This parameter makes a communication object available for each channel, which has the function of realigning the physical position of the frame with the logical position held in memory by the actuator module. The calibration command object triggers an up or down movement with an activation time equal to the sum of all times set in the parameters for the direction chosen by the command. The set times for run, overrun, slats (if any) and any dead times are taken into account.

This command ensures that the mechanical position and the logical position maintained by the actuator module are consistent.

Funzione calibrazione

Disabilita Abilita



If the **Enable** value is selected, the single communication objects will appear for the respective channels. The available communication objects are shown below:

 15 Tapparella 1 (A-A) Movimento di calibrazione su/giù 1 bit C - W - - up/down Basso

5.1.15 Behaviour at end of “channel x” calibration

With this parameter, after enabling the calibration Function, the position of the slats at the end of the calibration test can be defined.

Remains in reference position Means the Roller blind/Venetian blind will stay fully up or down depending on the command given on the communication object (Up/down calibration movements).

Go to previous position Means that after being moved fully up or down, the Roller blind/Venetian blind, will then return to the position it started from.

Comportamento a fine calibrazione

Rimane in posizione di riferimento
 Vai a posizione precedente



6 Scenarios

Enabling this parameter will extend the roller blind menu in the Scenario window. The operating principle of the scenario is based on the recall of a status, which can be pre-set with % values or stored on the enable scenario memo X. The device is programmed to store and execute a maximum of 8 scenarios. The parameters are visible and settable, so that their status can be determined - whether fixed or stored. Available settings are:

The screenshot shows a configuration window for 'Tapparella 1 (A-A) > Scenari'. It features a sidebar with navigation options: 'Generale', 'Tapparella 1 (A-A)', 'Veneziana', and 'Scenari'. The main area displays three scenario configurations:

- Scenario 1:** Numero: 1, Valore: 10 %, Valore lamelle: 10 %, Memo: Disabilita Abilita
- Scenario 2:** Numero: 2, Valore: 20 %, Valore lamelle: 20 %, Memo: Disabilita Abilita
- Scenario 3:** Numero: 3, Valore: 30 %

6.1 Parameters

6.1.1 "Channel x" X scenario

This parameter allows the setting of the numerical value identifying the scenario. At recall, it is possible to define a fixed value for status or possible learning. The value can be set from 1 to..... 64. The factory-set value is in ascending order.

The following communication objects per single channel are available to be used for recalling the scenario with a 1-byte value.

7	Tapparella 1 (A-A)	Scenario	1 byte	C	-	W	-	-	scene cont...Basso
---	--------------------	----------	--------	---	---	---	---	---	--------------------

6.1.2 "Scenario x - channel x" value

This parameter defines the position towards which the Roller blind will be commanded upon giving the scenario enabling command.

The parameter can be set in an interval between 0% and 100%, with minimum 5% steps. The predefined settings are:

10 % _"default" value scenario 1	30 % _"default" value scenario 3	50 % _"default" value scenario 5	70 % _"default" value scenario 7
20 % _"default" value scenario 2	40 % _"default" value scenario 4	60 % _"default" value scenario 6	80 % _"default" value scenario 8



6.1.3 "Scenario x - channel x" slat value

Same as previous paragraph (6.1.2) but referred to the position of the Venetian blind slats.

10 % "_default" value scenario 1 slat	30 % "_default" value scenario 3 slats	50 % "_default" value scenario 5 slats	70 % "_default" value scenario 7 slats
20 % "_default" value scenario 2 slats	40 % "_default" value scenario 4 slats	60 % "_default" value scenario 6 slats	80 % "_default" value scenario 8 slats

6.1.4 "Scenario x - channel x" memo

This parameter enables or disables the storing/learning of the channel status through the use of the same communication object. When the scenario is recalled, the value in % learnt at the time of its storage will be recalled. This parameter can only be set when using the ETS program. Factory setting is Disable.

Learning the scenario includes storing the percentage position of the slats (if operation is in Venetian blind). Therefore, scenario execution must also include reproduction of the previously stored slats position where required.



7 Venetian blind

The Venetian blind menu contains all the parameters which will enable the device to control the Venetian blinds with the various operation times of the slats and of the load connected to the related channels. The following settings are available:

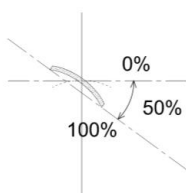
--> BX-BLDxx > Tapparella 1 (A-A) > Veneziana		
Generale	Tempo corsa lamelle su (msec)	5000
- Tapparella 1 (A-A)	Tempo corsa lamelle su con tapp. chiusa (msec)	5000
Veneziana	Numero di passi di regolazione, direzione su	10
Scenari	Tempo morto da chiuse (100%) fino a inizio movimento su (tapp. non chiusa, msec)	0
	Tempo morto da chiuse (100%) fino a inizio movimento su (tapp. chiusa, msec)	0
	Tempo corsa lamelle giù (msec)	5000
	Tempo corsa lamelle giù con tapp. chiusa (msec)	5000
	Numero di passi di regolazione, direzione giù	10
	Tempo morto da aperte (0%) fino a inizio movimento giù (tapp. non chiusa, msec)	0
	Tempo morto da aperte (0%) fino a inizio movimento giù (tapp. chiusa, msec)	0
	Posizione lamelle a fine comando	50 %

7.1 Parameters

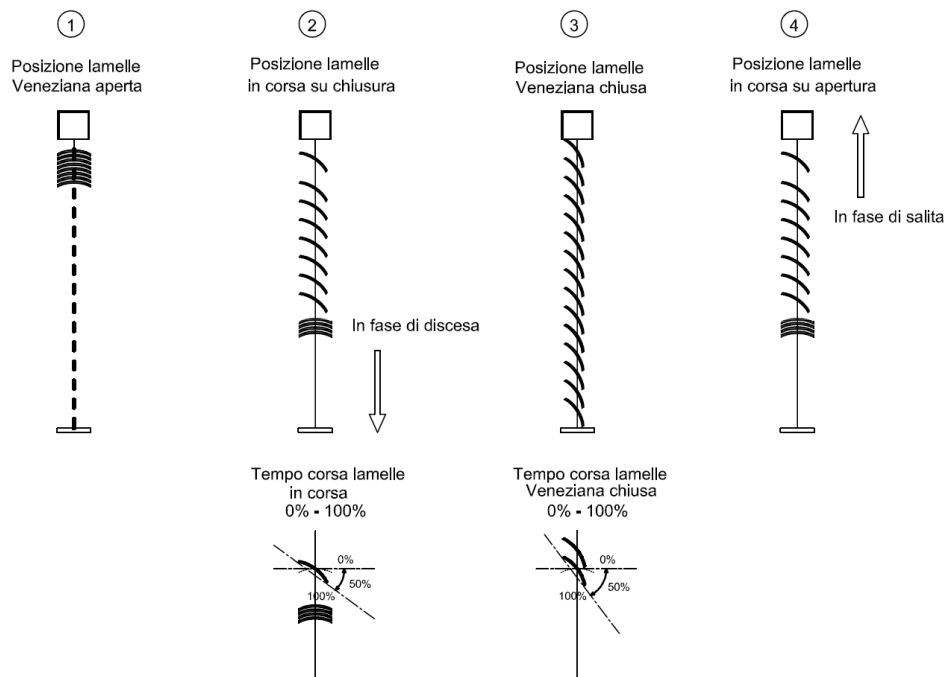
7.1.1. Slats up run time (milliseconds) "channel x"

This parameter allows the total time of slat movement to be set to the running position (as shown in the image below) in the upward movement phase. Hence, it is defined that the slat movement be identified with a separate value from that defined as "Roller blind/Venetian blind up-down run time". Therefore, a second measurement to be identified in the field is that of the rotation time taken between the 0% to 100% position of the slat itself. Once this value has been identified, it must be entered in the 'slats run time' parameter. This time can be very fast and is expressed in milliseconds.

Tempo corsa lamelle
0% - 100%



It should be noted hereunder how, as regards some types of Venetian blinds, the position of the slats during the down time ② is different from the position at the end of run ③, as is shown in the illustration.



Inside this parameter, the value ② must be entered.

7.1.2 Slats up run time with blind closed (msec) "channel x"

This parameter permits setting the total slat movement time on % closed position ③ (as shown in the illustration). It is defined that this slat movement be identified with a separate value from the one defined as "Total run time and in closed position".

7.1.3 Number of adjustment steps, up direction "channel x"

This parameter permits setting the number of steps calculated as the total rotation time divided by the number of steps required.

7.1.4 Dead time from closed (100%) to start of up movement (blind not closed, msec) "channel x"

This parameter permits setting what are known as 'dead' times. These are periods in which the motor is controlled by the actuator but mechanically does not produce any movement. These times can be taken into account if the manufacturer of the automation in question gives instructions, or by testing the device and taking the times directly in the "movement" phase."

Venetian blind position	Slats position	Send command	t	Start of movement
Roller blind not closed "picture 1"	Rotation of slats from fully closed (100%) to fully open (0%)	Up =>	Dead Time	Start of roller blind upward movement



7.1.5 Dead time from closed (100%) to start of up movement (blind closed, msec) "channel x"

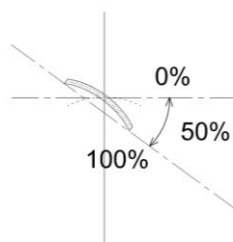
This parameter permits the setting of what are known as 'dead' times. These are periods in which the motor is controlled by the actuator but mechanically does not produce any movement. These times can be taken into account if the manufacturer of the automation in question gives instructions or by testing the device and taking the times directly in the "movement" phase."

Venetian blind position	Slats position	Send command	t	Start of movement
Roller blind closed "picture 3"	Rotation of slats from fully closed (100%) to fully open (0%)	Up =>	Dead Time	Start of roller blind upward movement

7.1.6 Slats down run time (msec) "channel x"

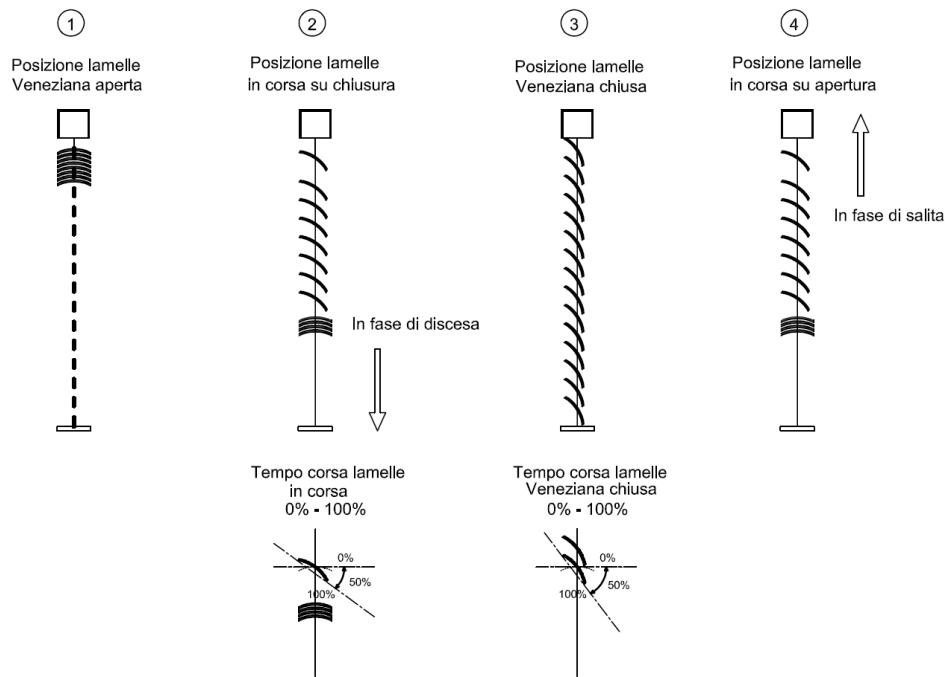
This parameter permits setting the total time of slat movement on the running position (as shown in the illustration below) when moving down. It is defined that the slat movement be identified with a separate value from that defined as "Roller blind/Venetian blind up-down run time". Therefore, a second measurement to be identified in the field is the time taken between the 100% to 0% position of the slat itself. Once this value has been identified, it must be entered in the 'slats run time' parameter. This time can be very fast and the scale value is in msec. The factory setting is 5000msec.

Tempo corsa lamelle
0% - 100%



Hereunder, it should be noted that with regard to some types of Venetian blinds, the position of the slats during the down phase ② is different from the position at the end of run ③, as can be seen in the illustration.





Within this parameter, the value ② must be entered.

7.1.7 Slats down run time with blind closed (msec) "channel x"

This parameter permits setting the total slats movement time on 100% closed position ③ (as in the illustration). It is then defined that this slats movement be identified with a value separate from that defined as total run Time and in open position.

7.1.8 Number of adjustment steps, down direction "channel x"

This parameter permits setting the number of steps calculated by dividing the total rotation time with respect to the number of required steps.

7.1.9 Dead time from open (100%) to start of down movement (blind not closed, msec) "channel x"

This parameter permits the setting of what are known as 'dead' times. These are periods in which the motor is controlled by the actuator but mechanically does not produce any movement. These times can be taken into account if the manufacturer of the automation in question gives instructions or by testing the device and taking times directly in the "movement" phase."

Venetian blind position	Slats position	Send command	t	Start of movement
Roller blind not open "picture 1"	Rotation of slats from fully closed (100%) to fully open (0%)	Up =>	Dead Time	Start of roller blind upward movement



7.1.10 Dead time from open (100%) to start of down movement (blind closed, msec) "channel x"

This parameter permits the setting of what are known as 'dead' times. These are periods in which the motor is controlled by the actuator but mechanically does not produce any movement. These times can be taken into account if the manufacturer of the automation in question gives instructions or by testing the device and taking the times directly in the "movement" phase."

Venetian blind position	Slats position	Send command	t	Start of movement
Roller blind open "picture 3"	Rotation of slats from fully closed (100%) to fully open (0%)	Up =>	Dead Time	Start of roller blind upward movement

7.1.11 Position of slats at end of command "channel x"

This parameter permits setting the position of the slats at the end of movement (value in %).



8 Alarms

Enabling the 'Alarm Management' function from the general menu will enable a sub-menu on each individual actuator channel. Four different alarm levels with different priorities and dedicated communication objects are identified (see General Alarms chapter). The possibility exists of individual alarm management and alarm behaviour per channel. Available settings are:

--- BX-BLDxx > Tapparella 1 (A-A) > Allarmi

+ Generale	Allarme 1	<input type="radio"/> Disabilita <input checked="" type="radio"/> Abilita
- Tapparella 1 (A-A)	Comportamento su attivazione allarme	Nessuna azione
Veneziana	Allarme 2	<input type="radio"/> Disabilita <input checked="" type="radio"/> Abilita
Scenari	Comportamento su attivazione allarme	Nessuna azione
Allarmi	Allarme 3	<input type="radio"/> Disabilita <input checked="" type="radio"/> Abilita
	Comportamento su attivazione allarme	Nessuna azione
	Allarme 4	<input type="radio"/> Disabilita <input checked="" type="radio"/> Abilita
	Comportamento su attivazione allarme	Nessuna azione
	Comportamento alla disattivazione allarmi	Nessuna azione

8.1 Alarm x "channel x"

This parameter allows enabling or disabling or the association of the individual channel to the alarm of reference. If not enabled in case of recall of that alarm channel, it will not execute the command.

8.2 Behaviours on alarm activation "channel x"

Upon receiving the command via KNX bus, this parameter permits establishing an activation value of the alarm X on the respective communication object. It will therefore be possible to define in which status to position the Roller blind/Venetian blind at the time of activation. The available choice is shown in the illustration below.

Comportamento su attivazione allarme

- Nessuna azione
- Nessuna azione
- Stop movimento
- Vai alla posizione

By selecting "Go to position", a % value of the Roller blind/Venetian blind of the required position can be set. If the device is also used in Venetian blind configuration, the position of the slats can also be defined. If this is not used, the set value will not be taken into account.

Posizione all'accensione: Vai alla posizione

Tapparella va alla posizione: 50 %

Lamelle in posizione: 50 %



9 Communication objects dedicated to the individual channel

9.1. Communication objects dedicated to Groups

The objects available for each single Channel are activated in the "General" menu.

5 Communication Objects are available with various values. These are available for the chosen number of channels. Shown below with Venetian blind configuration.

0	Tapparella 1 (A-A)	Comando su/giù	1 bit	C	-	W	-	-	up/down	Basso
1	Tapparella 1 (A-A)	Stato movimeno su/giù	1 bit	C	R	-	T	-	up/down	Basso
2	Tapparella 1 (A-A)	Comando posizione %	1 byte	C	-	W	-	-	percentage (0..100%)	Basso
3	Tapparella 1 (A-A)	Stato posizione %	1 byte	C	R	-	T	-	percentage (0..100%)	Basso
4	Lamelle 1 (A-A)	Comando posizione %	1 byte	C	-	W	-	-	percentage (0..100%)	Basso
5	Lamelle 1 (A-A)	Stato posizione %	1 byte	C	R	-	T	-	percentage (0..100%)	Basso
6	Tapparella 1 (A-A)	Stop/step lamelle	1 bit	C	-	W	-	-	step	Basso
120	Tutte le tapparelle	Comando su/giù	1 bit	C	-	W	-	-	up/down	Basso
121	Tutte le tapparelle	Comando posizione %	1 byte	C	-	W	-	-	percentage (0..100%)	Basso
122	Tutte le tapparelle/lamelle	Comando stop/step	1 bit	C	-	W	-	-	step	Basso
123	Tutte le lamelle	Comando posizione %	1 byte	C	-	W	-	-	percentage (0..100%)	Basso

9.2 Up/down command (Blind/Venetian blind)

This communication object is used to move the actuator channel in up/down commands for roller blinds and Venetian blinds.

9.3 Up/down movement status (Blind/Venetian blind)

This communication object is used to be able to receive the type of command given to the device channel.

9.4 % position command (Blind/Venetian blind)

This communication object is used to set the roller blinds and Venetian blinds to a certain % position via KNX bus.

9.5 % position status (Blind/Venetian blind)

This communication object is used to receive from the device the % value of the status which the run position of the motor is in. This value is sent at the end of each run or after reading via KNX bus.

9.6 % position command (Slats)

This communication object is used to set the slats (Venetian blind setting only) at a certain % position via KNX bus.



9.7 % position status (Slats)

This communication object is used to receive from the device the % value of the status which the slats run position is in. This value is sent at the end of each run or after reading via KNX bus.

9.8 Slat step stop (Blind/Venetian blind) -/- Stop up/down movement (Venetian blind-Slats)

This communication object is used to stop the ongoing motor movement of the Venetian blind actuator channel. If the device is configured as Venetian blind, this communication object is also used to adjust the slats. Below is the communication object in the Roller blind configuration:

6	Tapparella 1 (A-A)	Comando stop	1 bit	C	-	W	-	-	step	Basso
---	--------------------	--------------	-------	---	---	---	---	---	------	-------

This communication object is used to stop the ongoing motor movement of the actuator channel for the roller blind.

