LC6® FLEX Controller

Installation and Operation Guide

ON/OFF, Dimming, DMX/COM

Configurations

ENG

Important Safety Precautions

1. Read the full installation manual before proceeding to install the device. Retain all safety and operating instructions for future use.
2. Proper use of this device requires connecting the AC input GROUND terminal to earth.
3. Operate this device only from the type of power source indicated on the marking label. If you are not sure of the type of power source supplied consult your local power company.
4. The electrical connections of this device must be made by a qualified electrician.
5. Do not handle this unit with wet hands.
6. To reduce the risk of electric shock, never remove the cover of this unit. No user serviceable parts inside the unit.
7. Ensure that the electrical power outlet you are using to power this unit is easily accessible in case of fire or short circuit.
8. Make sure you provide adequate space, at least 4 inches (10cm), around the system for ventilation when you setup your work area. Never insert objects of any kind into the controller ventilation openings.
9. This device was designed to work for the purposes it was designed for. Connecting this device to other types of load rather than PDLC films may damage the device. Gauzy Ltd. will not be responsible for any damaged caused by inappropriate usage of this device.
10. If any smell of burning or smoke is detected from this unit during operation, the unit should be switched off and disconnected from the power source. The unit should be checked by a qualified technician before reuse.
11. This device is for indoors use only.
12. Do not install this device on wet surfaces or where contact with or immersion in water is a possibility.
13. This device is to be used in a permanent connection.

CHI

安全注意事项

1. 安装此设备前请认真阅读完安装手册，并妥善保管好所有安全操作说明以备将来使用。
2. 请确保接入的交流电地端接地。
3. 此设备只能在标签指示的电压电流下进行操作。 如果不确定电压电流，可以咨询当地的电力公司。
4. 此设备的安装连接必须由专业电工进行操作。
5. 请不要湿手操作。
6. 为减少触电的风险，请永远不要移除此设备的保护盖。没有可维修的零部件在里面。
7. 确保用于为此设备供电的电源插座在发生火灾或短路时易于触及。
8. 确保在设置工作区域时，在系统周围提供足够的空间，至少4英寸（10厘米） 以便通风。切勿将任何物体插入控制器的通风口。
9. 此设备是专项使用，如若将设备连接到其他类型的负载而不是液晶调光膜可能会损坏该设备。 Gauzy公司对由于不当使用本设备而造成的任何损坏不负责。
10. 如果在操作期间，闻到任何烧焦气味或烟味，应关闭本机并断开与电源的连接。 在重新使用前，应由专业技术人员检查设备。
11. 此设备仅适用于室内。
12. 请勿将本设备安装在潮湿的表面上，或任何可能与水接触或浸入水中的地方。
13. 此设备用于固定连接。

FRA

Consignes de sécurité importantes

1. Lisez le manuel d'installation complet avant de procéder à l'installation de l'appareil. Conservez toutes les consignes de sécurité et de fonctionnement pour un usage futur.
2. L'utilisation correcte de cet appareil nécessite la connexion de la prise entrée du secteur à la terre.
3. Veillez à utiliser uniquement le type de source d'alimentation indiqué sur l'étiquette. Si vous n'êtes pas sûr du type de source d'alimentation fourni, consultez votre compagnie d'électricité locale.
4. Les connexions électriques de cet appareil doivent être effectuées par un électricien qualifié.
5. Ne pas manipuler cet appareil avec les mains mouillées
6. Afin de réduire le risque d'électrocution, ne jamais retirer le couvercle de cet appareil. Aucune pièce réparable ne se trouve à l'intérieur de cette unité.
7. Assurez-vous que la prise d'alimentation électrique que vous utilisez pour alimenter cet appareil est facilement accessible en cas d'incendie ou de court-circuit.
8. Assurer un espace adéquat d'au moins 4 pouces (10 cm), autour du système de ventilation lorsque vous configurez votre zone de travail. Ne jamais insérer d'objets d'aucune sorte dans les ouvertures de ventilation du contrôleur.
9. Cet appareil a été conçu expressément pour le fonctionnement auquel il a été dédié. La connexion de cet appareil à un autre type de charge plutôt que de films PDLC peut endommager l'appareil. Gauzy Ltd ne sera pas responsable pour tout dégât causé par l'usage inapproprié de cet appareil.
10. Si une odeur de brûlure ou de fumée sont détectées de cet appareil durant le fonctionnement, il faut éteindre l'appareil et le débrancher de la source d'alimentation électrique. L'appareil doit être vérifié par un électricien qualifié avant le nouvel usage.
11. Cet instrument convient à un usage intérieur uniquement.
12. Ne pas installer cet appareil sur des surfaces humides ou sur des surfaces avec possibilité d'inondation.
13. Cet appareil doit être branché en permanence.

SPA

Precauciones de seguridad importantes

1. Lea el manual de instalación completo antes de proceder a instalar esta unidad. Conserve todas las instrucciones de seguridad y funcionamiento para su uso futuro.
2. El uso adecuado de este dispositivo requiere conectar el terminal de tierra de la entrada de AC a tierra.
3. Utilice este dispositivo sólo con el tipo de corriente indicado en la etiqueta. Si no está seguro del tipo de alimentación suministrada, consulte a su compañía eléctrica local.
4. Las conexiones eléctricas de este dispositivo deben ser realizadas por un electricista calificado.
5. No toque esta unidad con las manos mojadas
6. Para reducir el riesgo de descarga eléctrica, no quite la cubierta de esta unidad. No hay piezas reparables por el usuario dentro de la unidad.
7. Asegúrese de que la toma de corriente eléctrica que se utiliza para alimentar esta unidad es de fácil acceso en caso de incendio o cortocircuito.
8. Asegúrese de proporcionar un espacio adecuado, por lo menos 4 pulgadas (10 cm), de todo el sistema de ventilación durante la configuración de su área de trabajo. Nunca introduzca objetos de ningún tipo en las aberturas de ventilación del controlador.
9. Este dispositivo fue diseñado para trabajar para los fines que fue diseñado. Conectando este dispositivo a otro tipo de carga en lugar de películas de PDLC puede dañar el dispositivo. Gauzy Ltd. no será responsable de cualquier daño causado por el uso inadecuado de este dispositivo.
10. Si algún olor a quemado o humo se detectan de esta unidad durante el funcionamiento, la unidad debe ser apagada y desconectada de la fuente de alimentación. La unidad debe ser revisada por un técnico cualificado antes de volver a utilizarla.
11. Este dispositivo es para uso en interiores solamente.
12. No instale este dispositivo sobre superficies mojadas o donde el contacto con o la inmersión en agua es posible.
13. Este dispositivo es para ser utilizado en una conexión permanente.

Scope

The purpose of this application note is to guide you through the process of successfully installing Gauzy's FLEX controller.

Overview

Gauzy's FLEX controller is a state of the art electronic device with many configuration options to fit in different installation scenarios. This installation manual will cover the ON/OFF, Dimming and DMX/COM functionalities.

Control over the device can be achieved in four different ways:

- High voltage control interface – where the control commands are performed by switching the AC net 110/220V LINE to the input terminals.
- Dry Contact control interface – This feature requires only external dry contacts or a regular wall switches for operation. The advantage of this approach is that the control wires do not carry any voltage.
- DMX Mode – The Flex controller is equipped with a DMX interface that complies with common DMX512 controllers. To control the Flex output, each Flex controller is mapped to 1 DMX address thus enabling up to 512 devices in a single DMX link. Each Flex can be switched individually using DMX commands.
- COM Mode – For single controller installations a simple API is defined to send commands directly via a RS-485 link between a PC and the controller. In COM mode, a single controller can be used per link.

Basic Technical Information

Universal Input Supply	110/220VAC 50/60Hz
Output Voltage	70VAC Square wave, 25/30/32/50/60Hz (according to country)
Power Consumption	1,360 mA
Supported LCG® Area	Up to 10m^2
Protection Circuits	Over voltage, short circuit, DC blocking
Safety	CE and UL certified
Dimensions	165mm(L) x 104mm(W) x 35mm(H)
Weight	Up to 0.7 Kg

General Installation Guidelines

- Before beginning, carefully read this installation guide. Please keep this booklet for future use and reference.
- After opening the product's package, make sure the device is in good condition, and there is no visible damage. If you have any doubt about the product's integrity, please contact Gauzy's support center immediately (support@gauzy.com).
- Before connecting the device for the first time, make sure the voltage and frequency of your AC network match the electrical specification of this unit.
- Before connecting this unit to the film, make sure the controller model matches the LC6® electrical specification requirements.

- Proper use of this device requires connecting the AC input GROUND terminal to earth.
- The electrical connections of this device must be made by a qualified electrician.
- This device was designed to control Gauzy films. Connecting this device to other types of loads rather than Gauzy films may damage the device. Gauzy Ltd. will not be responsible for any damage caused by inappropriate use of this device.
- This device is for indoor use only.
- This device is to be used in a permanent connection.

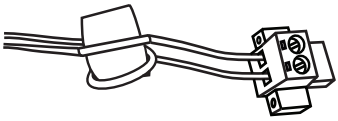
The following table describes the wires and conductors that must be used for the installation:

AC Input & HV Controls	At least 1mm^2/16AWG Conductors rated for 110/220 VAC
Dry Contacts LV Controls	18 - 24AWG wires. Preferred solid conductors
AC OUT (Connection to Gauzy film)	At least 0.2mm^2 /24AWG conductors (*)

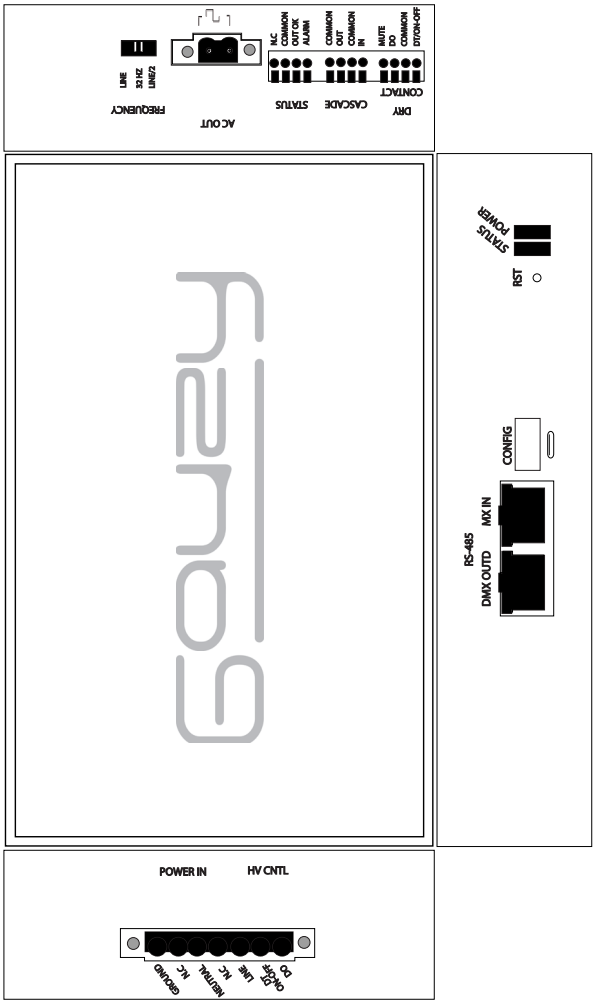
(*) – Conductor thickness depends on the total area of Gauzy film connected and the distance of the Gauzy film to the controller.

- The connection of the controller to the electrical cabinet should always be done through a circuit breaker with a rating of 6-10A type B.
- This device can be installed inside an electrical cabinet or mounted on a wall.
- The installation should always allow enough space for natural ventilation of the unit.
- Never leave wire conductors exposed. If needed, use isolation tape to cover the unit's terminals.

In order to comply with electromagnetic regulations, the use of the ferrite ring included in this package is needed.
Please wind the output cable 2 turns around the ring near the output connector as shown in the illustration below:



Pinout



Note: Some features may be available only on specific models. Refer to the table on the following page.

AC Mains & High Voltage Control

Terminal Name	Terminal Number	Description
Ground	7	AC mains input. Connect to the input 110/220 VAC Ground.
Neutral	5	AC mains input. Connect to the input 110/220 VAC Neutral.
Line	3	AC mains input. Connect to the input 110/220 VAC Line.
DT - ON/OFF	2	High voltage dimmer up / ON-OFF. When the unit operates in dimmer mode, applying AC mains LINE on this terminal causes the LC6® film to gradually change from a translucent to a transparent state. When the unit operates in ON/OFF mode, applying AC mains LINE on this terminal causes the LC6® film to fully change from a translucent to a transparent state. When disconnected the shutter is in a translucent state.
DO	1	High voltage dimmer down. (Available only on Dimmer Models). When the unit operates in dimmer mode, applying AC mains LINE on this terminal causes the LC6® film to gradually change from a transparent to a translucent state.
N.C.	4, 6	Not connected.

Dry Contact Control

Terminal Name	Terminal Number	Description
DT - ON/OFF	8	Dry contact dimmer up / ON-OFF. When the unit operates in dimmer mode, connecting this terminal with the adjacent COMMON terminal through an external dry contact causes the LC6® film to gradually change from a translucent to a transparent state. When the unit operates in ON/OFF mode, connecting this terminal with the adjacent COMMON terminal through an external dry contact causes the LC6® film to fully change from a translucent to transparent state. When disconnected the shutter is in a translucent state.
DO	10	Dry contact dimmer down. (Available only on Dimmer Models). When the unit operates in dimmer mode, connecting this terminal with the adjacent COMMON terminal through an external dry contact causes the LC6® film to gradually change from a transparent to a translucent state.
MUTE	11	Dry contact dimmer mute. (Available only on Dimmer Models). When the unit operates in dimmer mode, connecting this terminal with the adjacent COMMON terminal through an external dry contact causes the LC6® system to instantly shut down. By disconnecting this terminal again the LC6® system will return to the previous state before mute was applied.
COMMON	9	Common GND terminal. Connect through an external dry contact to the mating function terminal.

RS485/DMX/COM Control (available on specific models)

Terminal Name	Terminal Number	Description
DMX - IN	D-Type Pin 2	DMX input connector / RS485 interface. When installed in a DMX system this is the input connector in the DMX chain.
DMX - OUT	D-Type Pin 3	When installed in a DMX system this is the output connector in the DMX chain and should be connected to the next device in-line.

Cascade Interface

Terminal Name	Terminal Number	Description
IN	12	Module cascade input. Connect to CASCADE OUT of the MASTER unit to cascade multiple devices with a single control.
OUT	14	Module cascade output. Connect to CASCADE IN of the SLAVE unit to cascade multiple devices with a single control.
COMMON	13, 15	Common GND terminal. Connect between two cascaded units.

Status Interface

Terminal Name	Terminal Number	Description
ALARM	21	Alarm output.
OUT OK	20	Output OK Signal.
COMMON	23	Common GND terminal.
N.C.	24	Not Connected.

LC6® Film Interface

Terminal Name	Terminal Number	Description
AC OUT1 AC OUT2	18, 19	Film output voltage. These two terminals should be connected to the LC6® film.

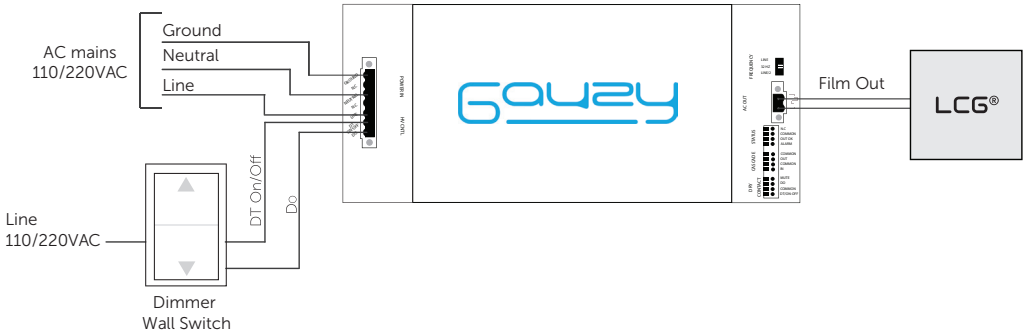
DIMMER

Gauzy's smart LCG® **FLEX Dimming Controller** is a state of the art electronic appliance that allows dimming of Gauzy LCG® films. This manual covers the installation of the **FLEX Dimming Controller**.

The Dimming functionality of the controller can be achieved in two different ways:

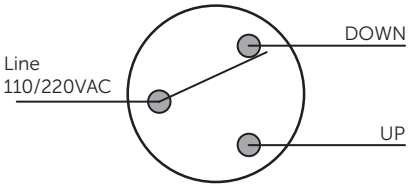
- High voltage control interface – the control commands are performed by switching the AC net 110/220V LINE to the input DT and DO terminals.
- Dry contact control interface – this feature requires two external dry contacts or a regular wall switch for operation. The advantage of this approach is that the control wires do not carry any voltage.

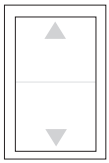
High Voltage Control Interface



High Voltage Dimming Control

1. Before proceeding make sure the main AC voltage is disconnected. Any electrical connection should be done by a qualified electrician.
2. Connect AC mains to the LINE, NEUTRAL and GROUND terminals respectively.
3. Connect AC mains LINE to DT-ON/OFF & DO terminals through a regular 3-way switch. This switch is commonly used for electrical curtains. The next page follows with some examples:

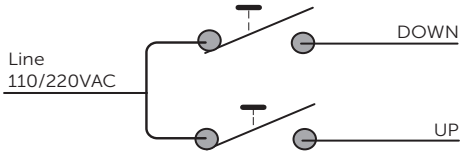




Dimmer
Wall Switch

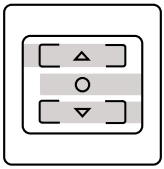
4. Connect output terminals AC OUT 1, AC OUT 2 to the LCG® film.
5. Turn the AC mains ON again.
   During this step please make sure the switch is in the neutral position, otherwise the unit can enter into a latched up state. If something like this happens remove the AC mains, move the switch to the neutral position and restore the power supply to the unit.
6. Toggling the switch to the UP position will dim the LCG® film to a transparent state. When releasing the switch, the current transparent state will be preserved.
7. To dim the LCG® film to translucent, toggle the switch to the DOWN state.

Note: The same functionality can be achieved by connecting the DT & DO terminals to the AC LINE through relays.



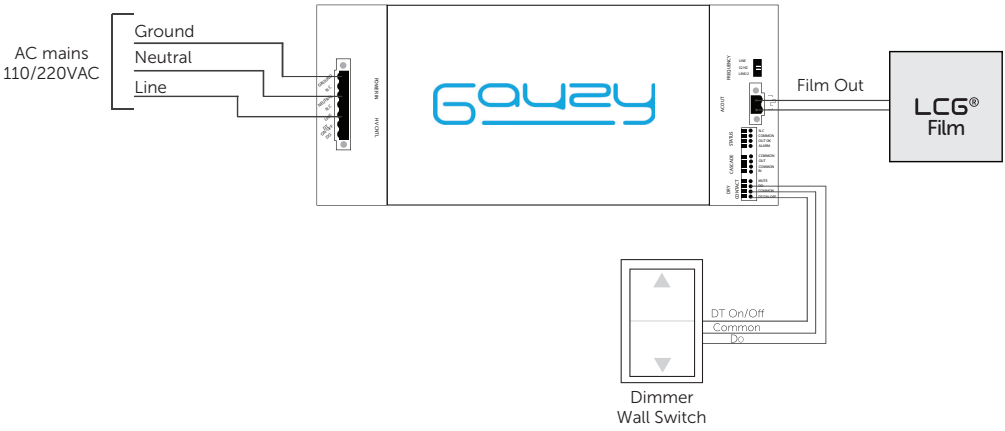
Note: Do not close simultaneously more than one dry contact. Operation under this condition is not guaranteed.

Note: You can also use Gauzy's Controller Dimming Touch Panel for this configuration.



Gauzy Dimming
Touch Panel

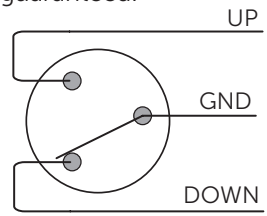
Dry Contact Dimmer Control



1. Before proceeding make sure the main AC voltage is disconnected. Any electrical connection should be done by a qualified electrician.
2. Connect AC mains to the LINE, NEUTRAL and GROUND terminals respectively.
3. Connect terminals DT-ON/OFF & DO to COMMON through a dry contact or a 3-way switch. The dry contact might be controlled from a computer or a smart home system. Refer to the figure above.
4. Connect output terminals AC OUT 1, AC OUT 2 to the LCG® **film**.
5. Connect the AC mains ON again.
   During this step please make sure the switch is in the neutral position, otherwise the unit can enter into a latched up state. If something like this happens remove the AC mains, move the switch to the neutral position and restore the power supply to the unit.
6. Toggling the switch to the UP position will dim the LCG® film to a transparent state. When releasing the switch, the current transparent state will be preserved.
7. To dim the LCG® film to translucent, toggle the switch to the DOWN state.

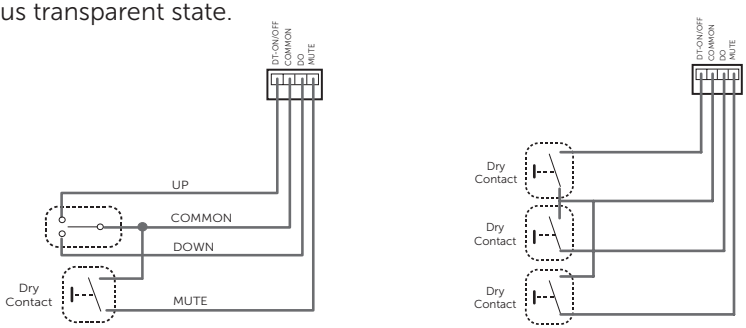
Note: The same functionality can be achieved by connecting terminals DT-ON/OFF & DO to COMMON through a 3-way switch as shown in the picture above.

Note: Do not close simultaneously more than one dry contact. Operation under this condition is not guaranteed.



MUTE Interface

When activating the MUTE interface, the LC6® film will instantaneously toggle into a translucent state. When deactivated, the LC6® film will return to the previous transparent state.



Frequency Switching

Gauzy's LC6® controllers have the capability to adjust the operating frequency of the LC6® system to adapt itself and prevent flickering effects under certain lighting conditions. In addition to that, the lower the frequency used, the less power is consumed by the LC6® system.

The LC6® system can work at the following settings:

1. LINE – LC6® system operates at the line frequency and is synchronized to Line frequency (50/60 HZ depending on country of use).
2. 32HZ – LC6® system operates at a frequency of 32 Hz, and is not synchronized to the line.
3. LINE/2 – LC6® system operates at half the line frequency and is synchronized to the line frequency (25/30 HZ depending on country of use).

In order to define the operating frequency of the LC6® system, use the switch located on the side panel of the controller.

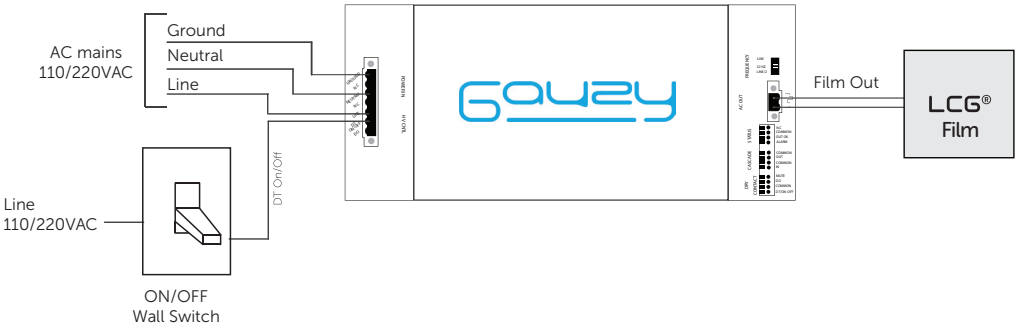
ON/OFF

Gauzy's Smart LCG® **FLEX ON/OFF Controller** is a state of the art electronic appliance that allows Gauzy LCG® films to turn on and off. This manual covers the installation of the **FLEX ON/OFF Controller**.

The ON/OFF functionality of the controller can be achieved in two different ways:

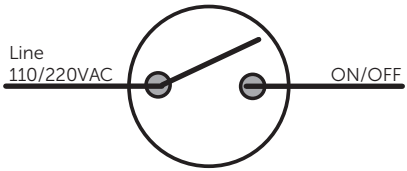
- High voltage control interface – where the control commands are performed by switching the AC net 110/220V LINE to the input ON/OFF terminal.
- Dry contact control interface – This feature requires one external dry contact or a regular wall switch for operation. The advantage of this approach is that the control wires do not carry any voltage.

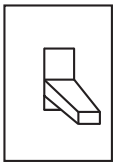
High Voltage Control Interface



High Voltage ON/OFF Control

1. Before proceeding make sure the main AC voltage is disconnected. Any electrical connection should be done by a qualified electrician.
2. Connect AC mains to the LINE, NEUTRAL and GROUND terminals respectively.
3. Connect AC mains LINE to DT-ON/OFF terminal through a regular switch. This switch is commonly used for lights. The next page follows with some examples:

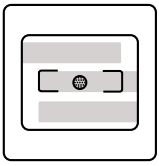



ON/OFF
Wall Switch

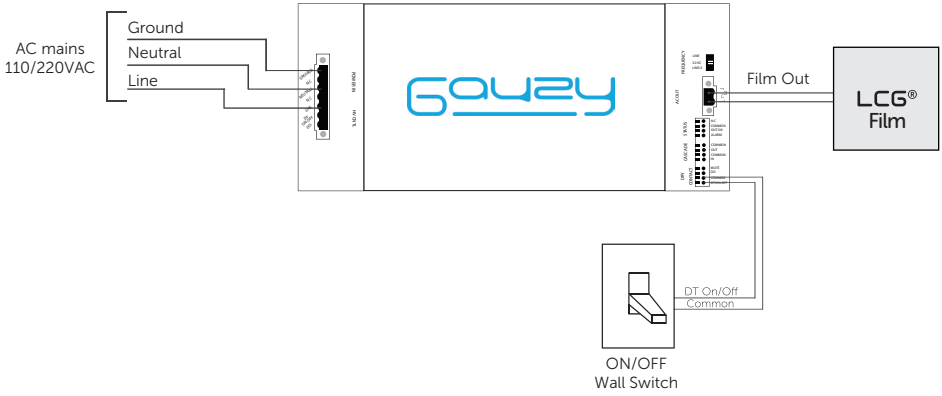
4. Connect output terminals AC OUT 1, AC OUT 2 to the LCG® film.
5. Turn the AC mains ON again. During this step, make sure the ON/OFF switch is in the OFF position, otherwise the unit can enter into a latched up state. If something like this happens remove the AC mains, move the switch to the OFF position and restore the power supply to the unit.
6. Toggling the switch to the ON position will turn the LCG® film to a transparent state.
7. To turn the LCG® film translucent, toggle the switch to the OFF state.

Note: The same functionality can be achieved by connecting the ON/OFF terminal to the AC LINE through a relay.

Note: You can also use Gauzy's ON/OFF Touch Panel for this configuration.


Gauzy ON/OFF
Touch Panel

Dry Contact Control Interface



Dry contact ON/OFF control

1. Before proceeding make sure the main AC voltage is disconnected. Any electrical connection should be done by a qualified electrician.
2. Connect AC mains to the LINE, NEUTRAL and GROUND terminals respectively.
3. Connect terminals DT-ON/OFF & COMMON through a dry contact. The dry contact might be controlled from a computer or a smart home system. Refer to the figure above.
4. Connect output terminals AC OUT 1, AC OUT 2 to the LC6® film.
5. Connect the AC mains ON again.
   During this step please make sure the ON/OFF switch is in the OFF position, otherwise the unit can enter into a latched up state. If something like this happens remove the AC mains, move the switch to the OFF position and restore the power supply to the unit.
6. When the dry contact is closed the LC6® film changes to a transparent state. When the dry contact is opened the LC6® film returns to a translucent state.

Note: The same functionality can be achieved by connecting terminals DT-ON/OFF & COMMON through a regular ON/OFF wall switch as shown in the picture above.

Frequency Switching

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In order to define the operating frequency of the LC6® system, use the switch located on the side panel of the controller.

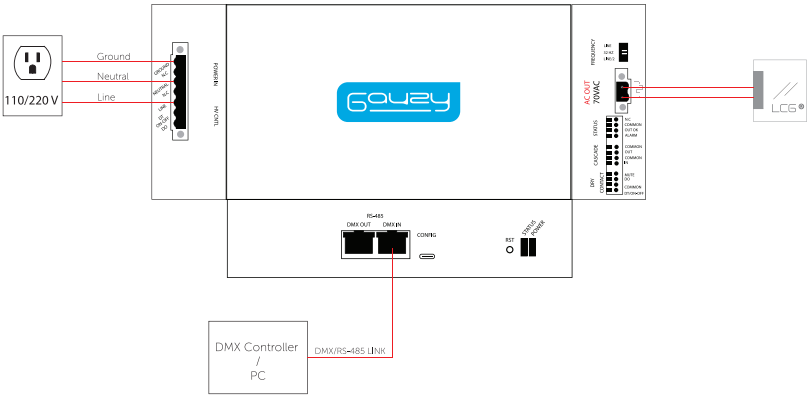
DMX/COM

Gauzy's Smart LC6® Flex controller is a state of the art electronic device with many configuration options to fit in different installation scenarios. This application note will only cover the digital interface functionality comprising DMX protocol and a proprietary easy to use COM API.

The DMX/COM functionality of the controller can be achieved in three different ways:

- ON/OFF control - allows Gauzy LC6® and films to turn on and off.
- DIMMER control - allows dimming of Gauzy LC6® and films.
- OPEN INTERFACE control - allows to control the Gauzy LC6® and films by setting the transparency percentages.

Connecting the Flex for DMX/COM interface



1. Before proceeding, make sure the main AC voltage is disconnected. Any electrical connection should be done by a qualified electrician.
2. Connect AC mains to the LINE, NEUTRAL and GROUND terminals respectively.
3. Connect output terminals AC OUT 1, AC OUT 2 to the film.
4. Connect the DMX IN port of the Flex to the DMX controller or a PC using a RS-485 half-duplex link according to the preferred operation mode. Use the following pinout for the cable:
   - 1 DATA +
   - 2 DATA –
   - 7 GND

Configuring the Flex for DMX/COM Operating Mode

The Flex can work in one of the two modes: (1) DMX or (2) COM API using RS-485 link. The selection and configuration between these two modes is done via a HyperTerminal. In order to configure the desired working mode, execute the following steps:

1. Connect AC mains to the LINE, NEUTRAL and GROUND terminals respectively.
2. Connect output terminals AC OUT 1, AC OUT 2 to the film.
3. Connect the DMX IN port on the Flex to a PC or laptop. A USB-RS485 converter can be used for this purpose.
4. Open a hyper terminal application and establish connection with the specific COM port. Use the following link parameters:
   - Baud rate 9600
   - Data bits 8
   - Parity NONE
   - Stop bits 1
5. Turn the AC mains ON by plugging the power cord to the power outlet or press the reset button on the controller.
6. A configuration menu should be displayed. (If not – Send the command "P" and Menu will display) The menu displays the software version and the current configuration mode.
7. The Flex can work in one of two modes: (1) DMX , (2) COM API using RS-485 link. The selection and configuration between these two modes is done via a HyperTerminal:
   - G0 – DMX Mode
   - G1 – COM Mode
8. After configuration is complete, press the reset button on the Flex controller and verify the configuration is done.
9. For DMX interface, switch the cable from the PC to the External DMX controller. After 40 seconds, the device should sync to the DMX link and the status LED should blink.

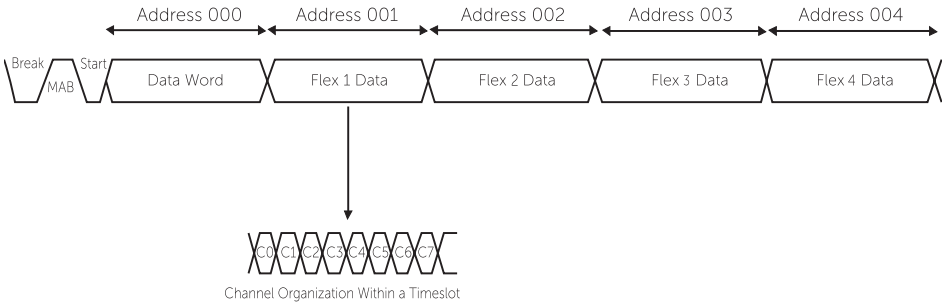
Configure the Flex controller according to the description below:

Command	Command Name	Description	Syntax	Examples
Set DMX ID	A	Sets the DMX base address designated to the controller.	A<decimal, 3 digits>	A001 A009
Get DMX ID	B	Returns the DMX base address of the controller.	B	001 009
Get HW Ver	C	Returns the HW version of the controller.	C	HW VER
Get Status	F	Returns information on the status of the controller	F	F
Set Mode	G	Sets operation mode of the controller	G<0 or 1> 0-DMX mode 1-COM mode	G0 , G1
Set Output	H	F	**ON OFF mode**: H<0 or 1> 0-OFF 1-ON **DIMMER mode**: H<0 or 1 or 2 or 4> 0-Stop action 1-Transparent 2-Opaque 4-Mute **OPEN INTERFACE**: H<000 to 100>(%)	**COM**: H0, H1 **DIMMER**: H0, H1, H2, H4 **OPEN INTERFACE**: H000, H073, H100
Print Menu	P	Prints the menu	P	
Run DMX	X	Runs the controller in DMX mode	X	

Working with the DMX Interface

The Flex controller has 1 channel output. Each data is composed of an 8-bit word that refers the status of the Flex controller output.
DMX protocol allowing to chain a total of 512 Flex controllers to reside in one DMX512 link (Universe).
Each Flex is mapped to a different DMX address with the designated base address in the DMX ID, defined in the configuration menu. For example,
If the DMX ID defined is 1, then Flex controller will be mapped to address 1.
If the DMX ID defined is 2, then Flex controller will be mapped to address 2, etc.:

- Flex 1 – Address 001
- Flex 2 – Address 002
- Flex 3 – Address 003
- Flex 4 – Address 004
- Flex 54 – Address 054
- Flex 362 – Address 362

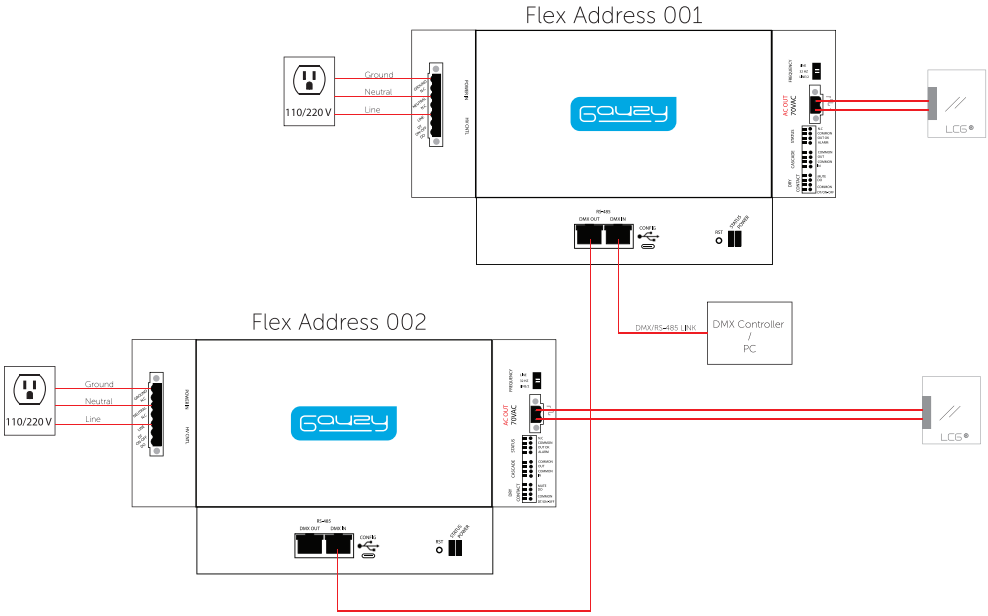


Channel Organization Within a Timeslot

- To work in DMX mode, press the reset button on the Flex controller.
- Set the Flex controller to DMX Mode by sending the command "G0" (G-Zero).
- Set the Flex address by sending the command "A[xxx]" with the correct address. For example, address 1 - A001, address 23 – A023, etc.
- After configuration is complete, press the reset button on the Flex controller and verify the configuration is done, or send the command "P" to see the configuration menu again.

For DMX interface, switch the cable from the PC to the external DMX controller. After 40 seconds, the device should sync to the DMX link and the status LED should blink. If not – Send the command "X" and Flex controller will immediately react to DMX commands.

When having more than one Flex controller connected to the same DMX link, addressing must be done in such a way to avoid overlapping of the channels in the controllers:



The following table shows an example for a DMX link with 4 Flex controllers:

DMX ID	Flex Controller	Data Values
1	1	0 - LC6® OFF 1 - LC6® ON
2	2	
3	3	
4	4	

The following values should be sent to the specific DMX address ID, in order to control the LC6®

On-Off:

- Turns Off (Opaque):
  (Bin): 00000000 = (Hex): 0x00
- Turns On (Transparent):
  (Bin): 00000001 = (Hex): 0x01

Dimmer:

- Stops the dimming output level at the moment you sent the command:
  (Bin): 00000000 = (Hex): 0x00

- Dimming On (Transparent) the output level
  (Bin): 00000001 = (Hex): 0x01

- Dimming Off (Opaque) the output level
  (Bin): 00000010 = (Hex): 0x02

- MUTE the output level. When activating the MUTE interface, the output level will instantaneously toggle into opaque state. When deactivated, the output level will return to the previous transparency state before Mute was applied. (Bin): 00000100 = (Hex): 0x04

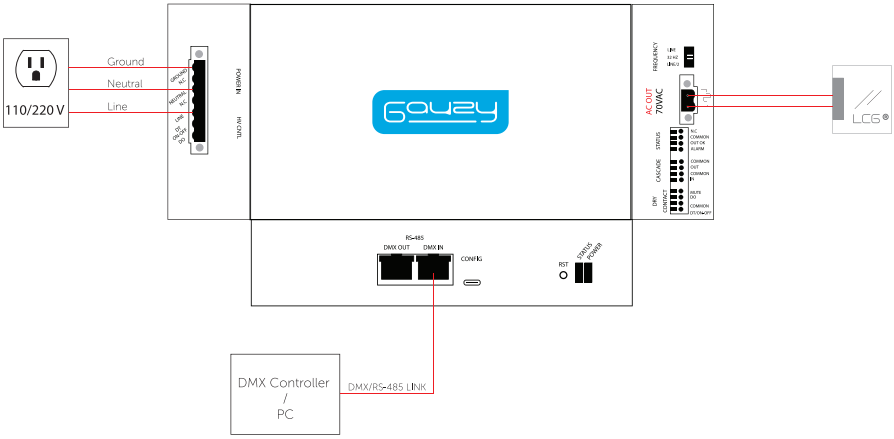
Open Interface: (Transparency percentage):
Commands in Hex:

- 000 – Output level will be 0% transparency
- 023 – Output level will be 23% transparency
- 050 – Output level will be 50% transparency
- 067 – Output level will be 67% transparency
- 100 – Output level will be 100% transparency

Configuring the Flex for COM Operating Mode

1. In COM mode, only a single controller can be connected to the link, thus this is a point to point connection and not a daisy chain like the DMX protocol.

2. When used in COM mode, the Flex can be accessed from a PC with a simple API using a RS-485 link. The COM mode works with the following configuration:
   - Baud rate 9600
   - Data bits 8
   - Parity NONE
   - Stop bits 1



A simple command is defined to control of the output channel value: H <channel status> For example:

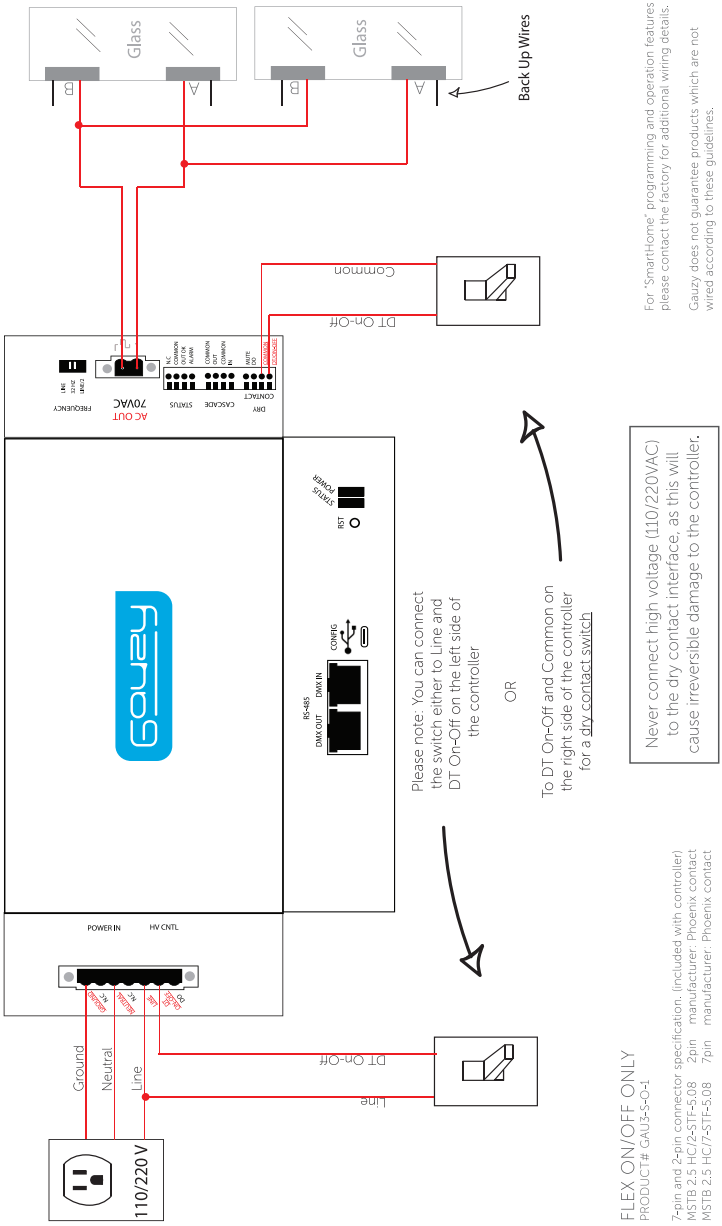
On-Off:
- H0 - Turns Off (Opaque): the output channel
- H1 - Turns On (Transparent): the output channel

Dimmer:
- H0 - Stops the dimming output level at the moment you sent the command
- H1 - Dimming On (Transparent): the output channel
- H2 - Dimming Off (Opaque): the output channel
- H4 - MUTE the output channel. When activating the MUTE interface, the output level will instantaneously toggle into opaque state. When deactivated by "H0" command, the output level will return to the previous transparency state before Mute was applied.

Open Interface: (Transparency percentage):

- H000 – Output level will be 0% transparency
- H023 – Output level will be 23% transparency
- H050 – Output level will be 50% transparency
- H067 – Output level will be 67% transparency
- H100 – Output level will be 100% transparency

Basic Wiring Diagram - On/Off



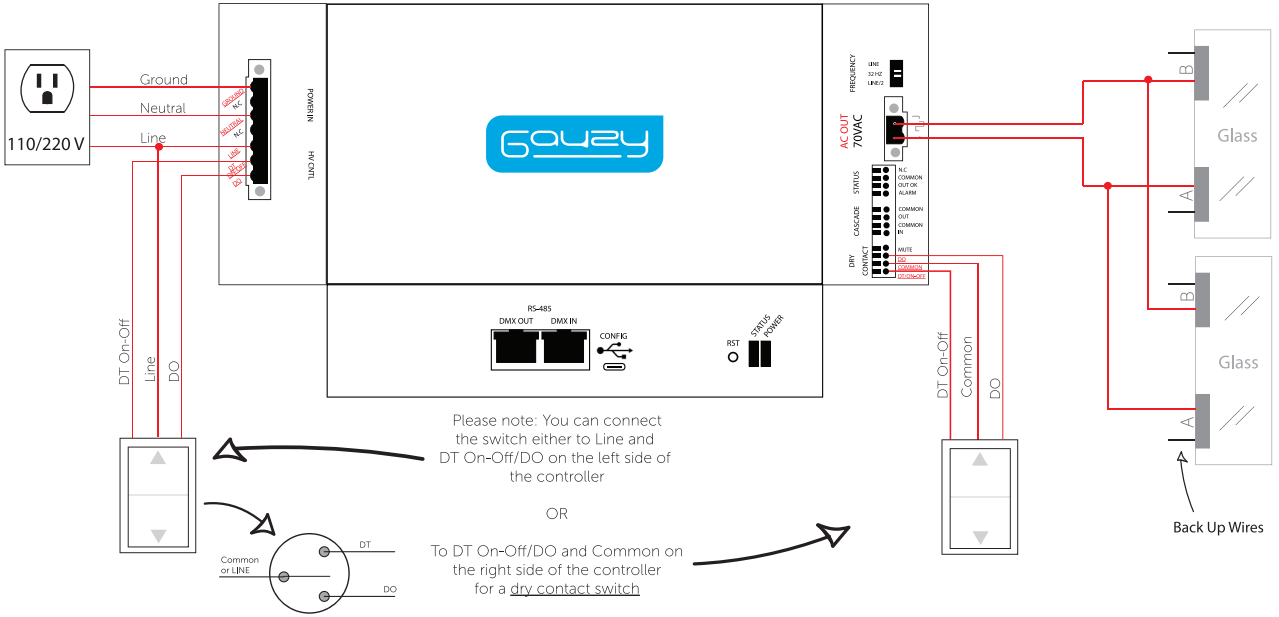
For "SmartHome" programming and operation features please contact the factory for additional wiring details.

Gauzy does not guarantee products which are not wired according to these guidelines.

FLEX ON/OFF ONLY
PRODUCT# GAU3-S-O-1

7-pin and 2-pin connector specification. (included with controller)
MSTB 2.5 HC/2-STF-5.08 2pin manufacturer: Phoenix contact
MSTB 2.5 HC/7-STF-5.08 7pin manufacturer: Phoenix contact

Basic Wiring Diagram - Dimmer



FLEX DIMMER ONLY

PRODUCT# GAU3-S-D-1

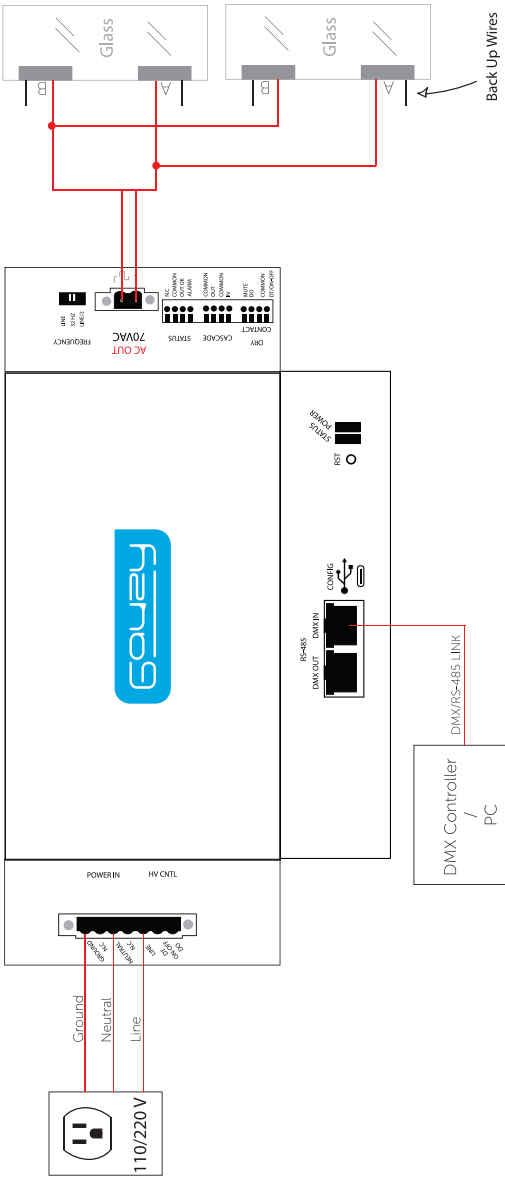
7-pin and 2-pin connector specification. (included with controller)
MSTB 2.5 HC/2-STF-5.08 2pin manufacturer: Phoenix contact
MSTB 2.5 HC/7-STF-5.08 7pin manufacturer: Phoenix contact

Never connect high voltage (110/220VAC) to the dry contact interface, as this will cause irreversible damage to the controller.

For "SmartHome" programming and operation features please contact the factory for additional wiring details.

Gauzy does not guarantee products which are not wired according to these guidelines.

Basic Wiring Diagram - DMX



Never connect high voltage (110/220VAC) to the dry contact interface, as this will cause irreversible damage to the controller.

For "SmartHome" programming and operation features please contact the factory for additional wiring details.

Gauzy does not guarantee products which are not wired according to these guidelines.

FLEX DMX ONLY
PRODUCT# GAU3-5-DMX O-1
GAU3-5-DMX D-1
GAU3-5-DMX I-1

7-pin and 2-pin connector specification. (included with controller)
MSTB 2.5 HC/2-STF-5.08 2pin manufacturer: Phoenix contact
MSTB 2.5 HC/7-STF-5.08 7pin manufacturer: Phoenix contact

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