18653 - Quickguide Quantec Connectbox (Maxi) for up to 8 tower lights (en)

The Quantec 'Connectbox Maxi' combines 8 terminals for connecting tower lights or 4 tower lights, each with a redundant light with M12 plug, in a compact housing. It is possible to connect additional Connectboxes and a Power supply box (TuFuBox) for power supply.

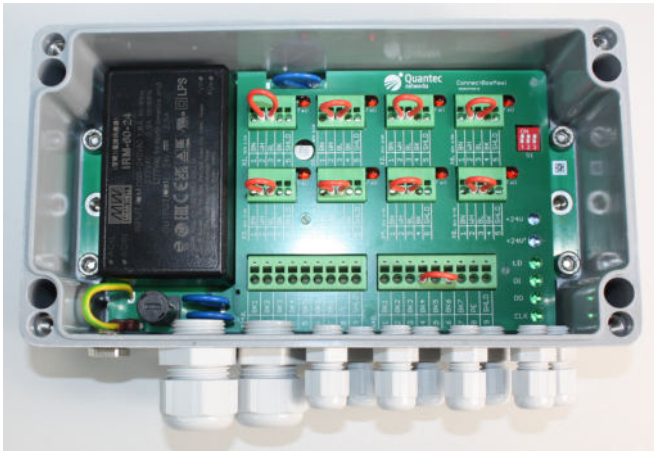


Figure: Quantec ConnectboxMaxi

Key features

- Compact design
- Terminal blocks for connecting up to 8 tower lights or up to 4 tower lights with redundant luminaire
- Integrated overvoltage protection
- Up to 8 boxes can be connected in series to one tower base box (TuFuBox)
- Fault enquiry possible from each light

General safety information for Quantec products

NOTICE

Before operating, installing or maintaining the product, you must carefully read and understand these instructions, in particular the safety instructions and warnings.

Only **electrically** instructed, trained and authorised personnel may operate, install or maintain the product.
If you have any questions, please contact the manufacturer.

These instructions must be kept to hand at all times.

NOTICE

Repairs may only be carried out by the manufacturer or by personnel authorised by the manufacturer. Any unauthorised modification or replacement of components may impair the safe operation of the product.

The housing must remain closed. Otherwise the tightness may be impaired!

Technical specifications

General

Item numbers	• 18653 - Connection box for QF tower lights
Terminal blocks for	• 8 Quantec Tower lights with M12 plug • Quantec Power supply box (TuFuBox) for supply
Conformity	CE, RoHS
Standarts	EMC, IEC

Electrical specification

Rated voltage	230 V AC (nom.) / 24 V DC (supplied by e.g. TuFuBox)
Rated current (output)	6.3 A (230V AC looped) / 2.5A (24V DC for light)
Overvoltage protection	Class III according to DIN EN IEC 61400-24

Physical characteristis

Dimensions (H × W x D)	120 mm x 220 mm x 91 mm
Weight	Approx. 1300 g
IP rating	IP 66
Material	Polyester (housing), polyamide (cable glands), nickel-plated brass (diaphragm), stainless steel A2 (screws), PUR (seal)
Mounting	Mounting holes

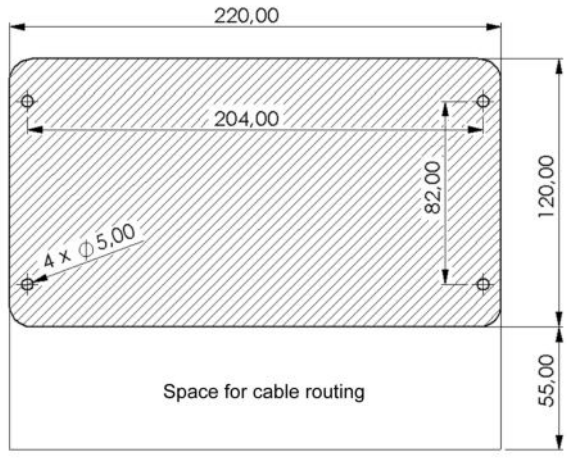


Figure: Drilling pattern Quantec ConnectboxMaxi

Protection against electrostatic discharge

NOTICE

Electrostatic sensitive components!

Electrostatic discharges can cause immediate or latent damage to electronic circuits. Quantec Signals products are well protected against electrostatic discharge when used properly. Touching or removing parts, inserting objects into the housing or tampering with the connectors can lead to damage.

To avoid electrostatic discharges, only handle parts that are sensitive to electrostatic discharges in sufficiently earthed and protected areas/working environments. If this is not possible, ground yourself before touching components or connections on the housing of the device.

Grounding

WARNING

Electrical Hazards!

Ensure that the device is properly earthed.

If the connected devices are not properly earthed, dangerous voltages may occur on the devices in the event of a lightning strike!

Electric shocks caused by lightning strikes can result in death or serious injury.

- The enclosure of the switch cabinet must be correctly earthed.
- Do not connect/disconnect the cable while the appliance is switched on!

Environmental specification

Operating temperature	-40 °C to +55 °C (-40 °F to 131 °F)
Storage temperature	-55 °C to +70 °C (-67 °F to 158 °F)
Relative humidity	0 to 100 %
Operating altitude	0 to 2500 m (0 to 8202 ft) AMSL

Terminal blocks X40 / X240

The X240 terminal block is used to connect to the TuFuBox or an upstream ConnectBoxMaxi. The X40 terminal block can be used to connect another Connect Box.

Tower lights

X240	Signal	Function
1	L_IN	230V supply
2	N_IN	
3	24V_IN	Auxiliary supply
4	DATA_RETURN	Communication
5	CLOCK	
6	DATA_IN	
7	LOAD	
8	PE	Earth
9	SHLD	Shield

X40	Signal	Funktion
1	L_IN	230V supply
2	N_IN	
3	24V_IN	Auxiliary supply
4	DATA_RETURN	Communication
5	CLOCK	
6	DATA_OUT	
7	LOAD	
8	PE	Earth
9	SHLD	Shield

Setting the DIP-switch

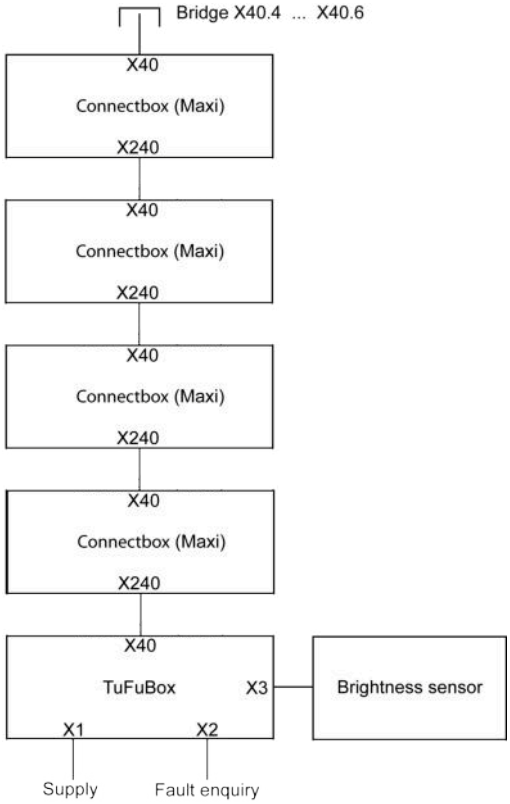
Various options can be set using the DIP switch function.
Do not adjust the DIP switches on your own without consulting Quantec Signals GmbH.

Figure: DIP-switch S1

dip-switch S1	Switch settings	Function
DIP1	ON	flashing controlled by TuFuBox/PLC
DIP1	OFF	flashing controlled by Beacon 1
DIP2	ON	steady burn
DIP2	OFF	flashing controlled by TuFuBox/PLC
DIP3	ON	4 redundant Beacons
DIP3	OFF	8 normal Beacons

NOTICE

The last ConnectboxMaxi connected in the series must be bridged with a wire between terminals X40.4 and X40.6.



Pinout (tower light)

M12 plug, 5-pole, female

Pin	Cable core	Function
1	brown	SVInfo/test mode
2	white	+24 V power supply
3	blue	status output, +24 V: no error, GND error
4	black	GND
5	none	not connected

Assignment Terminal / Tower lights

Terminal	Terminal assignment
X1	Beacon 1 / Main Beacon 1
X2	Beacon 2 / Main Beacon 2
X3	Beacon 3 / Main Beacon 3
X4	Beacon 4 / Main Beacon 4
X5	Beacon 5 / redundant Beacon 1
X6	Beacon 6 / redundant Beacon 2
X7	Beacon 7 / redundant Beacon 3
X8	Beacon 8 / redundant Beacon 4