

# Control unit for three/single-phase motors

## QC600 | QC600S

Automatic control panel with frequency inverter for drives with digital limits



### Features

- 2 Photocell terminals with test
- Safetyedge PNE /8,2 ohms
- Opto sensor
- Torque control
- Half opening
- Display true type
- Thermosafety
- DC Break /break resist
- Lamp pcb plug for more options

- 3 Dry Relays
- Cross traffic control
- Radio – plug in
- Limit Encoder
- Autoclose
- 4 INPUTS
- 24v aux 250mA
- 2 Rs485 input
- Can-bus

### Technical data

Power supply	1~ 230 Vac - 50/60 Hz\
Operating output	3~ 230Vac +/- 15% 16A fuse
Output	0,75 kW (QC600S: 2,2 kW)
Motor output frequency	0-650 Hz
Max overload	200% (10 sec)
Work condition	-5°C / +40°C
Protection category	IP 66 / NEMA4
Dimensions	445 x 215 x 150 mm

# QC500 | QC501

Automatic control panel for drives  
with digital or mechanical limits



## Features

- 3phase (**QC500**) /1phase (**QC501**) digital control unit for the control of motors with digital (ver. E) or mechanical limit switches
- Integrated buttons in the front cover for UP, STOP and DOWN control
- Display and keyboard for the programming of limit switches and managing of the functions
- Different operating mode
- 3 entries for anti - crushing safety devices:
  - optoelectronic safety edge
  - photocells
  - safety edge 8k2
- Prepared for the addition of a radio receiver
- Prepared for the addition of a module for the management of a traffic light / courtesy lights
- Input for an external control panel
- More room while wiring

## Technical data

<b>Power supply</b>	3~ 230/400 Vac - 50/60 Hz (QC500)   1~ 230 Vac - 50 Hz (QC501)
<b>Power supply external accessories</b>	24VDC / max 250 mA
<b>Motor power</b>	3~ 400 Vac: max 4 kW   3~ 230 Vac: max 2.3 kW   1~ 230 Vac: max 1.5 kW
<b>Protection rate</b>	IP54
<b>Working temperature</b>	-10°C / +60°C
<b>Dimensions</b>	305 x 210 x 120 mm

# Control unit for three/single-phase motors

## QC400

*Basic automatic control panel for drives with digital or mechanical limits*



## Features

- Connection for electronic or mechanical limits
- Connection of 3 safety edge types (Pneumatic, 8k2 electric or optoelectronic)
- Automatic edge type setup
- Increased safety by second motor switch-off in case of welded contactor
- Simply DIL switch setup on 10 pole DIL switch
- Automatic encoder type and rotation direction by learning
- Photo safety input with automatic test function
- Connector for RF radio module
- Connection for special 1-phase motor
- Select for 230V or 400V mains
- Option AUX dry contacts signal output
- Option for plug-in screw terminals
- Speed input for torque control
- Option for Lamp-PCB for traffic light
- Option RS485 output for special features

## Technical data

<b>Power supply</b>	3~ 400VAC / 1~ 230VAC
<b>Power supply external accessories</b>	24VDC $\pm$ 20% (non-regulated), Max load: 100mA
<b>Protection fuse</b>	3 x 10A
<b>Motor power</b>	3 x 400VAC: 2.2 kW / 1 x 230VAC: 0.75 kW
<b>Protection rate</b>	IP54
<b>Working temperature</b>	-10°C / +50°C
<b>Dimensions</b>	305 x 210 x 120 mm

# QC300 | QC301

Basic 3ph (1ph QC301) control panel for drives with mechanical limits



## Features

- 3phase control unit (QC300) / 1phase (QC301)
- More room while wiring
- Quick connections for power and limits cable
- Integrated buttons in the front cover for UP, STOP and DOWN control
- Inter-locked contactors for the best reliability
- Selectable safety input= optoelectric safety edge/nc contacts for safety beams
- Selectable DOWN operating mode= dead man/momentary
- Automatic closing (selectable timing)
- Colors/sequences of led for visual display of the main functions/troubleshooting
- Parallel connection facility for grouping more QC300 in one push button

## Technical data

Power supply	3~ 400 Vac - 50/60 Hz (QC300)   1~ 230 Vac - 50 Hz (QC301)
Power supply external accessories	24VDC / max 70mA
Motor power	max 2 kW
Protection fuse	315 mA
Protection rate	IP54
Working temperature	-10°C / +60°C
Dimensions	133 x 208 x 80 mm

# Additional plug-in (for QC600/QC500/QC400)

## QCMR500

*Plug-in radio receiver*



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Power supply	24 Vcc
Coverage (int/ext)	20/200 m
Exit	NO
Codes	1997
Frequency	433.92 MHz
Transmitter (not included)	QCTE

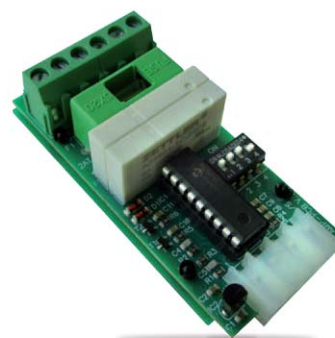
## QCLSM

*Plug-in board to control flashing lights, courtesy lamps and traffic lighters*

### Technical details

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Power supply	24 Vdc
External lights power exit	Max 230Vac / 24Vdc
Protection fuse	2 A



# Connection cables



**Power supply cable with CE plug**

3CASPT01	(5 pole)
3CASPT02	(9 pole)



**Power/Limit switch cable**

FLSI4G6	(1.5 m)
FLSI4G6.50	(5 m)
FLSI4G6.70	(7 m)



**Power supply cable with CE plug**

3CASPM01

# Additional accessories



**Extra chain**

CAT416	8 m	(ring)
CAT416.70	14 m	(ring)
CAT416.50M	50 m	(reel)



**Set for release cord**

For SZX 10SBLRV	(4 m)
For SIDONE 10SBLRVRC	(4 m)
10SBLRV70RC	(7 m)



# Control units for **single-phase** motors

## QC100 | QC101

*Basic 1ph automatic control panel for drives with mechanical limits*



## Features

Operating logic: semiautomatic, automatic, dead-man (only for closing)

Manual control:

- with integrated buttons in the front cover (**QC101**)
- with an additional pushbutton to be connected with the related low-voltage plug

Remote control

Safety devices:

- Safety beams (active also for opening)
- Optoelectronic safety edge (**QC100 / QC101**)
- Safety edge 8k2 (**QC102**)

Pause timer and automatic closing

Flashing light/courtesy light

Adjustable working time, from 5 seconds to 4 minutes

## Technical data

<b>Power supply / Max Motor power</b>	230Vac $\pm$ 10% - 50Hz (singlephase) / 800 W		
<b>Exit 24V~</b>	terminals 11 - 12, MIN 20 Vac, MAX 26.5 V~		
<b>Exit 12Vcc</b>	terminals 9 (+) - 3 (GND), MIN 9.5V, MAX 12.5 V		
<b>AUX exit</b>	terminals 13 - 14, 250V - 2A, resistive load		
<b>Protection fuse</b>	4A (delayed)		
<b>Protection rate</b>	IP54		
<b>Working temperature</b>	-10°C /+60°C		
<b>Dimensions</b>	133 x 208 x 80 mm		
<b>Maximum current (12V<sub>cc</sub> / 24V~)</b>	<b>Loading condition</b>	24V~	12Vcc
	<b>Case 1</b>	0mA	50mA
	<b>Case 2</b>	<b>70mA</b>	<b>40mA</b>
	<b>Case 3</b>	140mA	10mA

# Transmitters for garage, commercial and industrial doors

## QCTE

4 channels hand-held transmitter



## QCTIR

3 channels hand-held transmitter  
(1 channel in UP/STOP/DOWN fashion)



## Technical details

	QCTE	QCTIR
Channels	4	3 (1)
Frequency	433,92 MHz	
Power supply	3V mod. CR2430	
Battery life	2 years	
Radiated power	0,150 mW	
Protection rate	IP40	
Coverage (int/ext)	20 m / 200 m	
Encoding	RC Gaposá	
Working temperature	-5°C / +40°C	
Dimensions (mm)	35 x 53 x 12	33 x 68 x 13
Weight	20 g	20 g



# Electronic safety devices

## QCSE

Optoelectronic safety beams

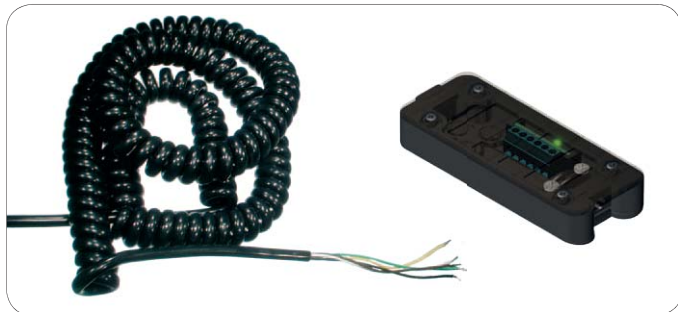


A set of Ø12 mm optical beams, spiral cable, and junction box for the full protection against impacts of the door.

The beams are suitable for all common bottom rubber profiles and assure full functionality even in large door widths. They are less sensitive to wind load and bending and are resistant against voltage reversal and short-circuits

The cable is tested and guarantee for 100.000 cycles under hard conditions

The junction box (IP 65) has a very flat design to suit any door slat and a strong strain relief for the spiral cable.



Range	12 m
Operating voltage	9/16V resistant against voltage reversal
Current consumption	typ. 3.8mA
Output	transistor output max. load 20mA short-circuit proofed
Output frequency	automatic recognition typ. 900Hz
Output signal	rectangular signal low level 0-0.5V / high level 2.5-4V
Wire	3x0.14 mm <sup>2</sup> , Ø 3.4mm PUR, halogen free, acid-and oil-resistant
Operating temp.	-25° ... +75°C
Dimensions (mm)	Ø12 x 39

## QCF4

Infra-red safety beams

Self-aligning  
15 m range



## QCF5

Self-aligning  
30 m range



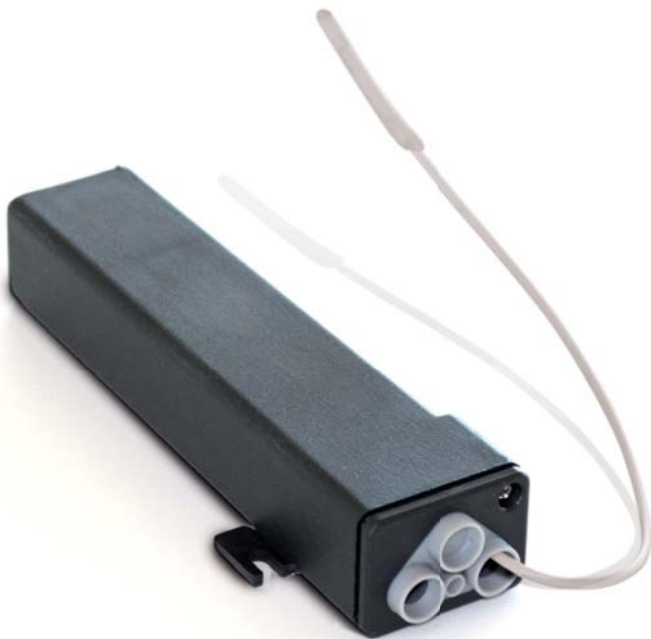
75 x 65 x 30 mm

Power supply	12 - 24V AC/DC
Relay contact	1A MAX 30V DC
Working temperature	-10°C / +60°C
Absorption	2W
Protection Rate	IP54
Dimensions	56x82x24 mm

# Accessories for garage, commercial and industrial doors

## QCRS1

Receiver



QCRS1 is a self-learning receiver, able to memorise up to 31 codes in a simple and quick way. It features a strong water-tight box.

- Transmitters' radio self-learning
- Sequential transmitters programming
- Proper functionality even in interfered areas.

Power supply	24 V DC/AC
Frequency	433.92 MHz
Relay	1A / 30 VDC
Irradiation on antenna	-60 dBm
Sensitivity	102 dBm
Consumption (standby)	30 mA
Protection rate	IP55
Working temperature	-20°C /+60°C
Dimensions	50 x 133 x 25 mm
Weight	65 g

## QCL4I

Flashing light

It works in intermittent way at 230V  
IP44 protection rating  
Supplied with wall bracket

85 x 115 x 85 mm



Available in two colors:  
orange and yellow

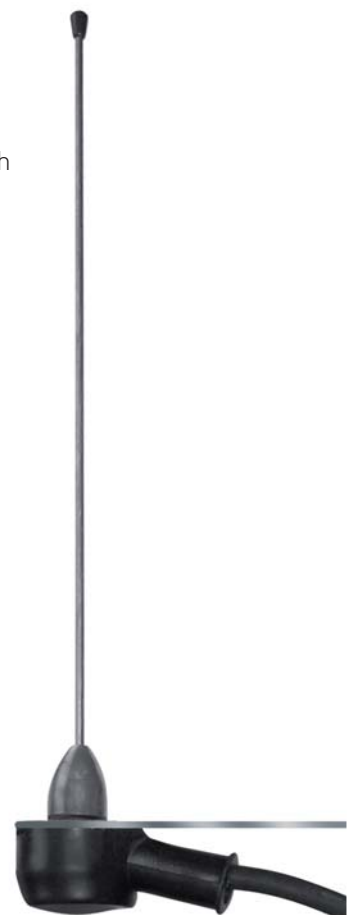


## ANT433

Aerial

Useful to extend the range of reception of any control unit with radio receiver

- 433/434 MHz
- Cable RG58 4,5 m



# Key selectors and pushbuttons for garages, commercial and industrial doors

## ACS1

Surface-mounted casing with key cover and UP-0-DOWN switch.



85x80x25 mm

## ACSI

Recessed key switch, European cylinder (DIN 18252). Nylon casing 15mm thin.



75x90x15 mm

## ACSE

Surface mounted key switch, European cylinder (DIN 18252). Aluminium casing 50mm thick.



75x90x50 mm

## Blindoor

Aluminium security box with key. Compact design to contain the TWISTY rotary switch and the declutch release of the SPLIT-E. It can be surface mounted or installed in the wall.

On demand it is available in the version with antipicking key.



## ACS12

167x111x35 mm

## ACS12S

with antipicking key

## ACP4

Up-stop-down switch for industrial use.



70x140x60 mm

## Twisty ACPG

"Twisty" rotary switch for surface-mounted installations.



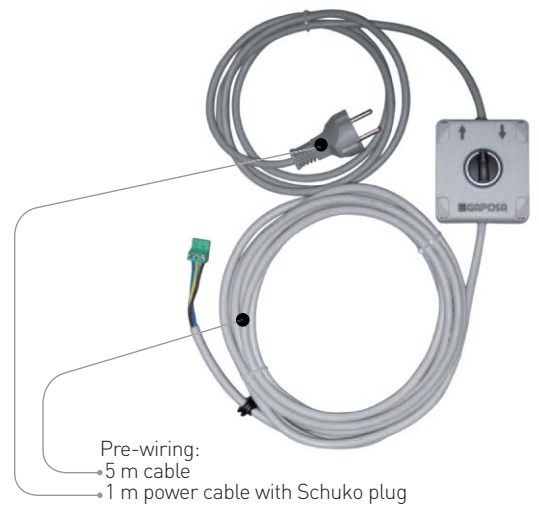
70x70x30 mm

## ACPS1C5

Prewired switch 3 positions with spring return.



72x80x56 mm



Pre-wiring:  
• 5 m cable  
• 1 m power cable with Schuko plug

# Summary of the characteristics of control units and matching engines

## SINGLE PHASE CONTROL UNITS – LOW POWER

REFERENCE	DESCRIPTION	Motor maximum power	Dual core cable	Buttons on front cover	Emergency STOP on front cover	Digital display for programming	Standard photocells QCF4	Optoelectronic Safety edge QCSE	Resistive safety edge 8K2	CEDES (PNP) Light curtain
QC100	Multi-function control with radio receiver for optoelectronic safety edge (QCSE), or standard photocells (QCF4)	800 W					■	■		
QC101	Multi-function control with radio receiver for optoelectronic safety edge (QCSE), or standard photocells (QCF4)	800 W		■			■	■		
QC102	Multi-function control with radio receiver for resistive safety edge (8K2), or standard photocells (QCF4)	800 W		■			■		■	

## POWER SINGLE PHASE CONTROL UNITS - HIGH POWER

REFERENCE	DESCRIPTION	Motor maximum power	Dual core cable	Buttons on front cover	Emergency STOP on front cover	Digital display for programming	Standard photocells QCF4	Optoelectronic Safety edge QCSE	Resistive safety edge 8K2	CEDES (PNP) Light curtain
QC301	Single phase control unit for mechanical limit (6 cams) motors	2 kW	■	■			■	■		
QC401	Single phase multifunction control unit for mechanical limit (6 cams) motors	750 W	■	■			■	■	■	■
QC401E	Single phase multifunction Control unit for digital limit motors	750 W	■	■			■	■	■	■
QC501	Single phase multifunction control unit for mechanical limit (6 cams) motors with display	1.5 kW	■	■		■	■	■	■	■
QC501E	Single phase multifunction control unit for digital limit motors with display	1.5 kW	■	■		■	■	■	■	■

## THREE PHASE CONTROL UNITS

REFERENCE	DESCRIPTION	Motor maximum power	Dual core cable	Buttons on front cover	Emergency STOP on front cover	Digital display for programming	Standard photocells QCF4	Optoelectronic Safety edge QCSE	Resistive safety edge 8K2	CEDES (PNP) Light curtain
QC300	Three phase control unit for mechanical limit (6 cams) motors	4 kW	■	■			■	■		
QC400	Three phase multifunction control unit for mechanical Limit (6 cams) motors	2.2 kW	■	■			■	■	■	■
QC400E	Three phase multifunction Control unit for digital limit motors	2.2 kW	■	■			■	■	■	■
QC500	Three phase multifunction control unit for mechanical limit (6 cams) motors with display	4 kW	■	■		■	■	■	■	■
QC500E	Three phase multifunction control unit for digital limit motors with display	4 kW	■	■		■	■	■	■	■

## THREE PHASE CONTROL UNITS WITH FREQUENCY INVERTER

REFERENCE	DESCRIPTION	Motor maximum power	Dual core cable	Buttons on front cover	Emergency STOP on front cover	Digital display for programming	Standard photocells QCF4	Optoelectronic Safety edge QCSE	Resistive safety edge 8K2	CEDES (PNP) Light curtain
QC600	Multifunction control unit for digital limit RAPI-DO Motors with display and frequency inverter	0,75 kW	■	■	■	■	■	■	■	■
QC600S	Multifunction control unit for digital limit RAPI-DO motors with display and frequency inverter	2,2 kW	■	■	■	■	■	■	■	■

CEDES (FSS) Light curtain	Flashing Light QCL41	Traffic light	Radio Receiver	Working time	Automatic UP	Automatic Closing	Courtesy light	24V Power output (AC/DC)	Auto diagnostic	SPLIT Central operator	XQ Tubular motor	SZX Sectional door	SIDONE Rolling door	RAPIDO Hi-speed door ≤ 90 rpm	RAPIDO Hi-speed door ≥ 130rpm
	■		■	■	■	■	■	AC		■	■	ver. H/I			
	■		■	■	■	■	■	AC		■	■	ver. H/I			
	■		■	■	■	■	■	AC		■	■	ver. H/I			

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			QCRS1	■	■	■		AC				ver. M				
			QCRM 500	■	■	■		DC	■			ver. M				
	■	QCML 500		■	■	■		DC	■				ver. E			
■	■			■	■	■	■	■	DC	■				ver. M		
■	■			■	■	■	■	■	DC	■			ver. E			

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			QCRS1	■	■	■		AC				ver. M	ver. M	ver. M		
	■		QCRM 500	■	■	■		DC	■			ver. M	ver. M	ver. M		
	■	QCML 500		■	■	■		DC	■				ver. E	ver. E	ver. E	
■	■			■	■	■	■	■	DC	■				ver. M	ver. M	ver. M
■	■			■	■	■	■	■	DC	■			ver. E	ver. E	ver. E	

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	■		QCRM 500	■	■	■	■	DC	■					ver. E	ver. E
	■	QCML 500		■	■	■	■	■	DC	■					ver. E