CCD1200S

Preliminary Technical Data Sheet

CCD1200S Compact Controller with Display

- 4 Buttons
- 3.5" colour TFT
- 38 configurable I/O
- Programmable via Guitu
- Designed for operation at both 12V DC and 24V DC
- Real Time Clock
- Bluetooth

CCD1200S is compact and versatile I/O controller equipped with information display. It has 38 configurable I/O lines.

The unit has a built in Real Time Clock, which can be used for logging events with a time stamp. In addition to flash there is also battery backed memory for storing fast changing information.

The unit has built-in Bluetooth and as an option it can be equipped with an additional RF interface (WiFi/GPS/4G).
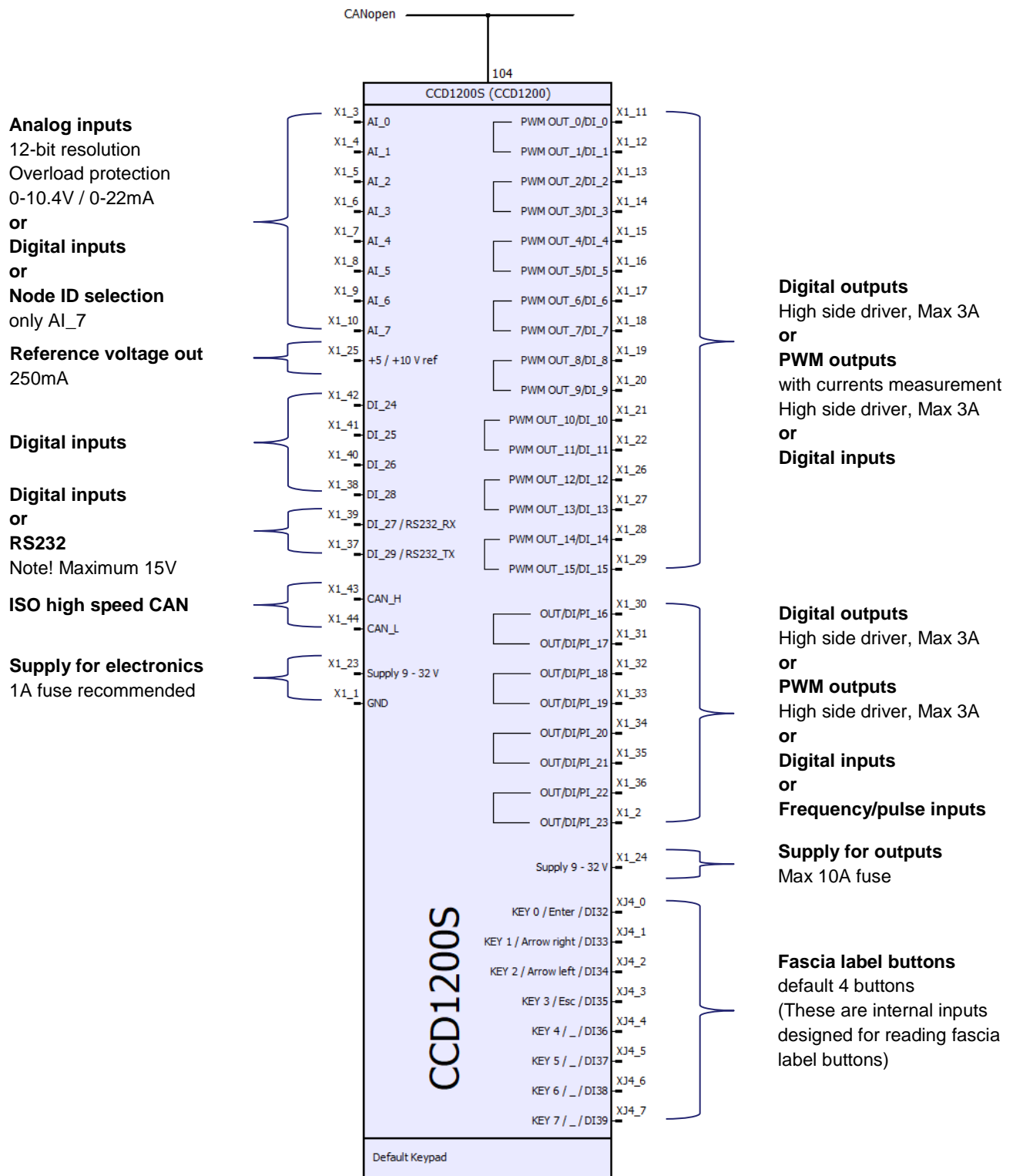
Technical Information

- 9-32V DC Operating voltage range
  (Protected against reverse polarity)
- -30…+70°C operating temperature range
- -30…+80°C storage temperature range
- 3.5" TFT colour display (Resolution QVGA, 320x240)
- 32-bit microprocessor
- 512 kB RAM
- 2 MB flash memory
- 84 B battery backed memory
- IP67 aluminium housing
- Weight 0.7kg
- Main dimensions 127mm x 146mm x 37mm
- One 44 pin AMP Super Seal connector
- CAN Interface 2.0B, ISO 11898
- Serial port interface RS232
- Real time clock (RTC)
- Bluetooth 4.1, BLE
- Optional radio frequency interface

I/O Interface

- Total of 38 configurable IO-lines
- Separate supply for outputs and electronics
- The I/O interface is protected against short to GND and to supply voltage
- Configurable reference voltage: 5V / 10V, max 250mA

| Amount	Configurability	Details
4	Digital input	Low<3.5V, High>5V, max 100Hz

8	Digital input
	Analog input
		Low<3.5V, High>5V, max 100Hz
		12-bit AD conv.,
		  0-10.4V, 69kΩ
		  0-22mA, 150Ω

8	Digital input Frequency/pulse input Digital output PWM output	Low<3.5V, High>5V, max 100Hz Low<3.5V, High>5V, max 20kHz High side switch, max 3A High side switch, max 3A
16	Digital input Digital output Current controlled PWM output	Low<3.5V, High>5V, max 100Hz High side switch, max 3A High side switch, max 3A
2	Digital inputs RS232 interface	Low<3.5V, High>5V, max 100Hz ! Note: Max 15V

Wiring Diagram:

CANopen

104

CCD1200S (CCD1200)

Analog inputs
12-bit resolution
Overload protection
0-10.4V / 0-22mA
or
Digital inputs
or
Node ID selection
only AI_7

X1_3 — AI_0
X1_4 — AI_1
X1_5 — AI_2
X1_6 — AI_3
X1_7 — AI_4
X1_8 — AI_5
X1_9 — AI_6
X1_10 — AI_7

Reference voltage out
250mA

X1_25 — +5 / +10 V ref

Digital inputs

X1_42 — DI_24
X1_41 — DI_25
X1_40 — DI_26
X1_38 — DI_28

Digital inputs
or
RS232
Note! Maximum 15V

X1_39 — DI_27 / RS232_RX
X1_37 — DI_29 / RS232_TX

ISO high speed CAN

X1_43 — CAN_H
X1_44 — CAN_L

Supply for electronics
1A fuse recommended

X1_23 — Supply 9 - 32 V
X1_1 — GND

PWM OUT_0/DI_0 — X1_11
PWM OUT_1/DI_1 — X1_12
PWM OUT_2/DI_2 — X1_13
PWM OUT_3/DI_3 — X1_14
PWM OUT_4/DI_4 — X1_15
PWM OUT_5/DI_5 — X1_16
PWM OUT_6/DI_6 — X1_17
PWM OUT_7/DI_7 — X1_18
PWM OUT_8/DI_8 — X1_19
PWM OUT_9/DI_9 — X1_20
PWM OUT_10/DI_10 — X1_21
PWM OUT_11/DI_11 — X1_22
PWM OUT_12/DI_12 — X1_26
PWM OUT_13/DI_13 — X1_27
PWM OUT_14/DI_14 — X1_28
PWM OUT_15/DI_15 — X1_29

Digital outputs
High side driver, Max 3A
or
PWM outputs
with currents measurement
High side driver, Max 3A
or
Digital inputs

OUT/DI/PI_16 — X1_30
OUT/DI/PI_17 — X1_31
OUT/DI/PI_18 — X1_32
OUT/DI/PI_19 — X1_33
OUT/DI/PI_20 — X1_34
OUT/DI/PI_21 — X1_35
OUT/DI/PI_22 — X1_36
OUT/DI/PI_23 — X1_2

Digital outputs
High side driver, Max 3A
or
PWM outputs
High side driver, Max 3A
or
Digital inputs
or
Frequency/pulse inputs

Supply 9 - 32 V — X1_24

Supply for outputs
Max 10A fuse

KEY 0 / Enter / DI32 — XJ4_0
KEY 1 / Arrow right / DI33 — XJ4_1
KEY 2 / Arrow left / DI34 — XJ4_2
KEY 3 / Esc / DI35 — XJ4_3
KEY 4 / _ / DI36 — XJ4_4
KEY 5 / _ / DI37 — XJ4_5
KEY 6 / _ / DI38 — XJ4_6
KEY 7 / _ / DI39 — XJ4_7

Fascia label buttons
default 4 buttons
(These are internal inputs
designed for reading fascia
label buttons)

CCD1200S

Default Keypad

Node ID

As default the unit Node address is set by voltage level at AI_7.

Voltage at AI_7	Node ID offset	Rx / Ω
0V	1	open
0.9V	9	330k
1.7V	3	150k
2.6V	11	68k
3.5V	5	33k
4.3V	13	11k
5.2V	7	0

Node ID = Base Node ID (103) + Node ID offset
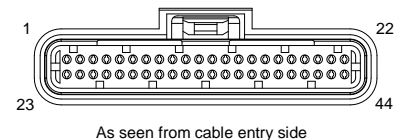
See also product's CANopen profile for further details.
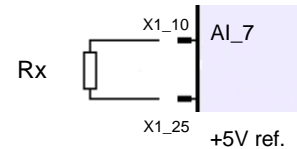
Connector

Tyco Electronics Superseal Connector

	Connector components needed:
Superseal Connector Plug Housing	Ø1.6-2.2mm - AMP 1376886-1 Ø 2.0-2.4mm - AMP 2-1447232-6
Receptacle Contact (0.75 – 1.25mm^2)	AMP 3-1447221-3
Filler Plug $^*)$	AMP 4-1437284-3 Deutsch 0413-204-2005

*) Filler plugs must be used to reach waterproofness

As seen from cable entry side

Tests & CE compliance

| EMC	EN 61000-4-2, Testing and measurement techniques – Electrostatic discharge immunity test E/ECE Regulation No. 10, Revision 4 (2012), Emission and immunity tests IEC 60255-22-1, Electrical disturbance tests for measuring relays and protection equipment – 1 MHz burst immunity test
Environmental	EN 60068-2-1, Cooling test IEC 60068-2-2, Dry heat test IEC 60068-2-30, Damp heat test EN 60068-2-6, Stationary vibration EN 60068-2-27, Mechanical shock test IEC 60529, IP6X dust test IEC 60529, IPX7 temporary inversion test to 1m ISO 9227, Salt spray test

Housing Dimensions

CCD1200S is prepared for panel mounting and for widely used RAM-mount system. With panel mounting panel max thickness is 2 mm.
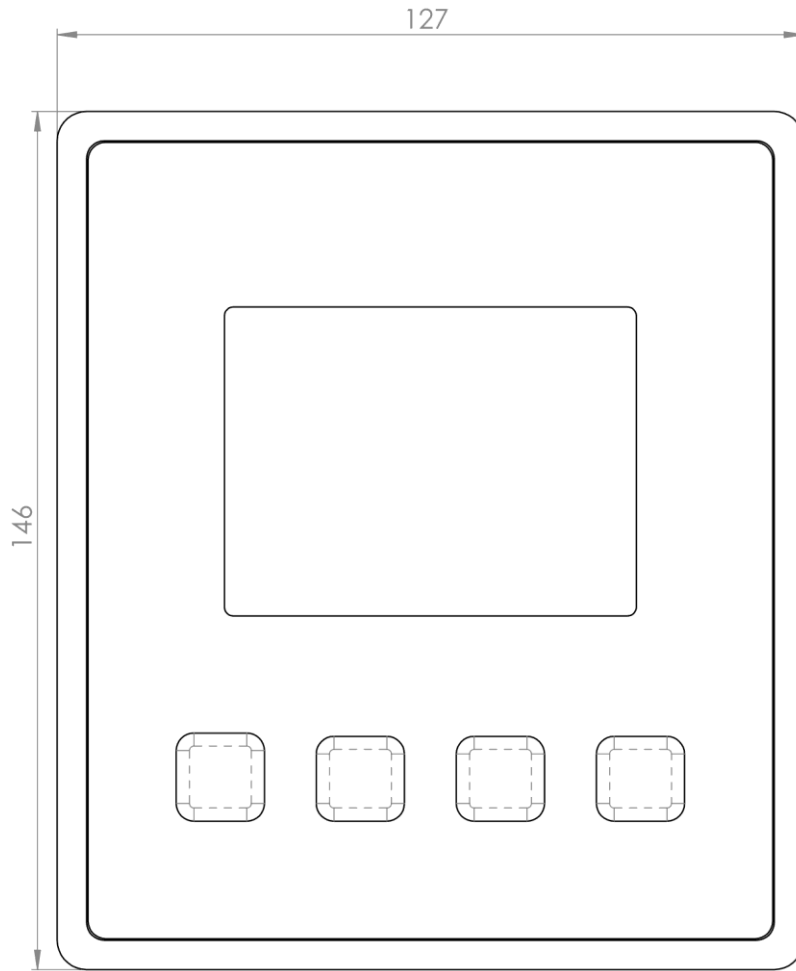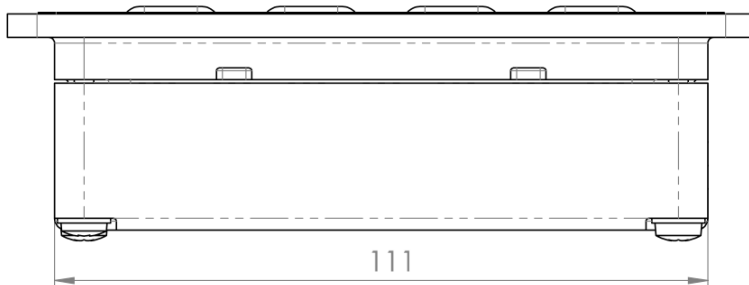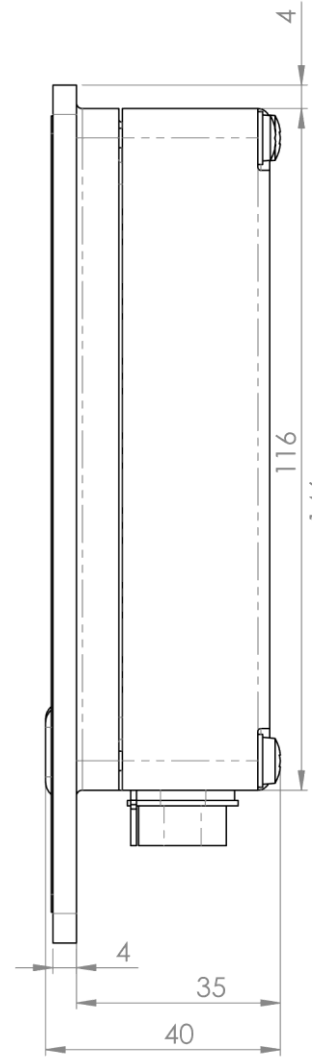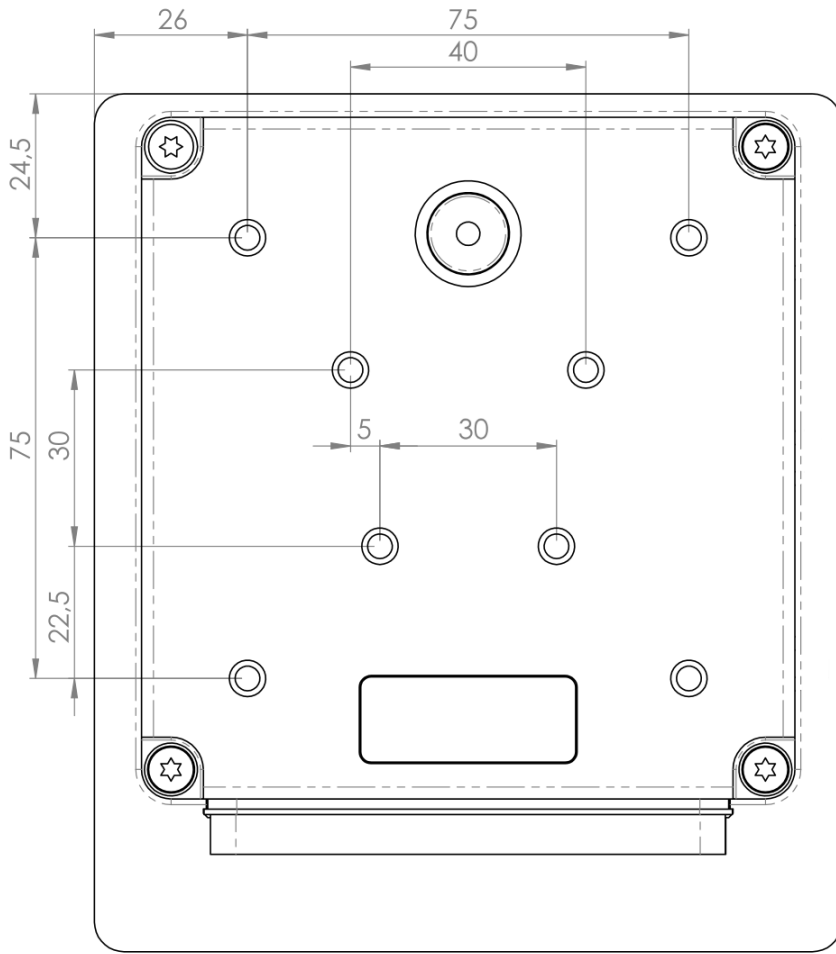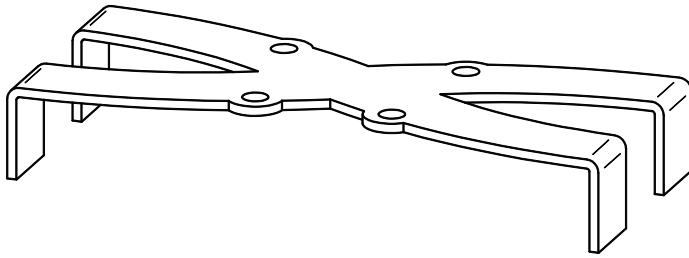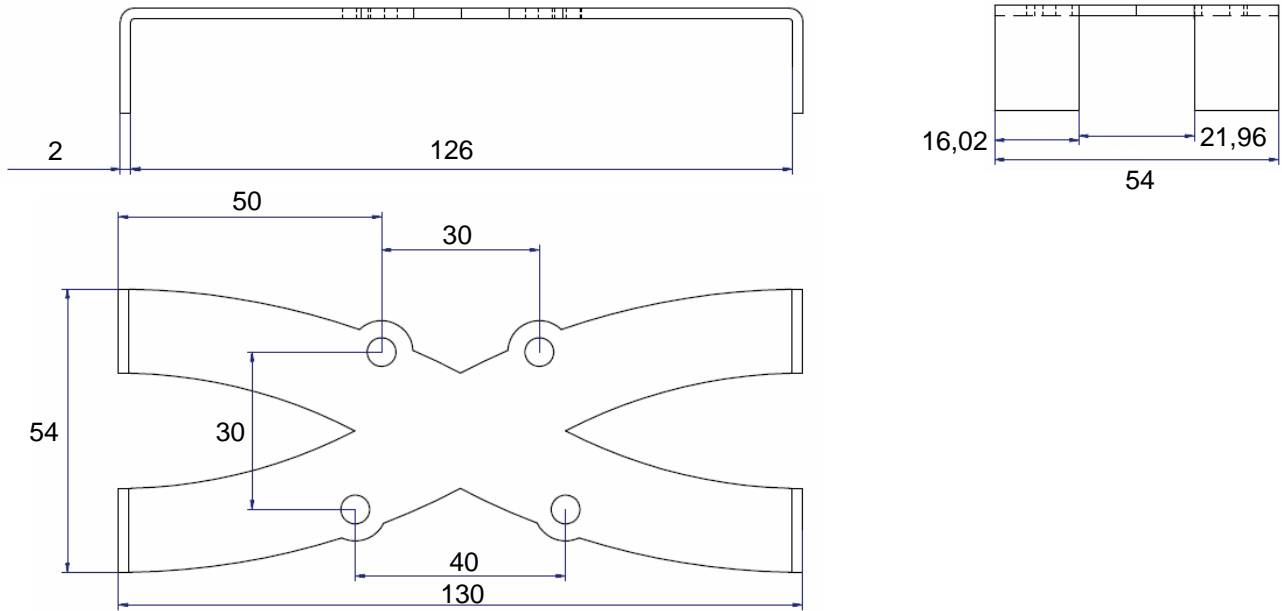
Panel Mounting Hole Dimensions:

120

140.97

126.9

R 5

135°

R 5

R 5
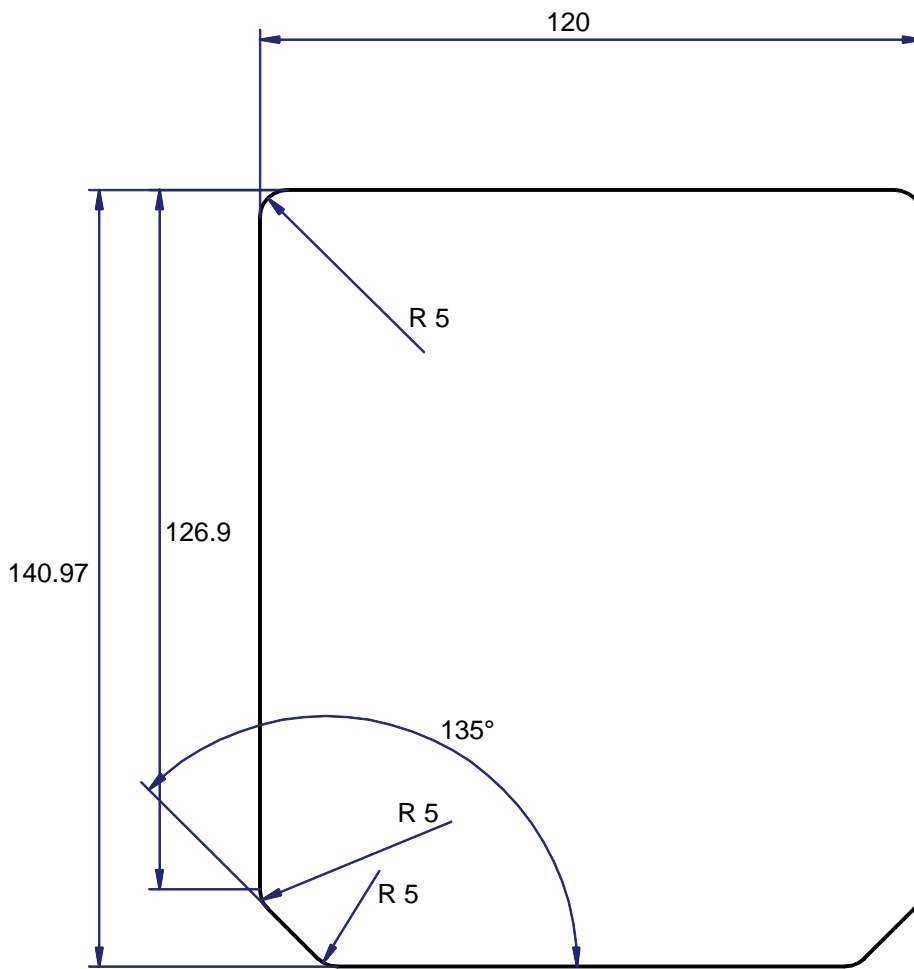
Panel Mounting Bracket - Optional

Panel Mounting Bracket dimensions

Exertus reserves the right to change product details without prior notice