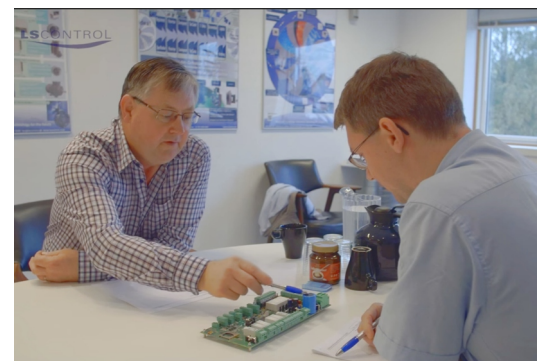# LSCONTROL

ELECTRONICS SINCE 1969

Technology Partner for HVAC - Control Platforms – Power Components - Standard Components - IoT

Products

From Idea to Product

From specification to final product, we support and guide you safely through your development project. If you are already an experienced developer or have your own development department, we offer to assist you with electronic and online solutions.

Do you have an idea or a question? You will always get a fast and competent response from us.
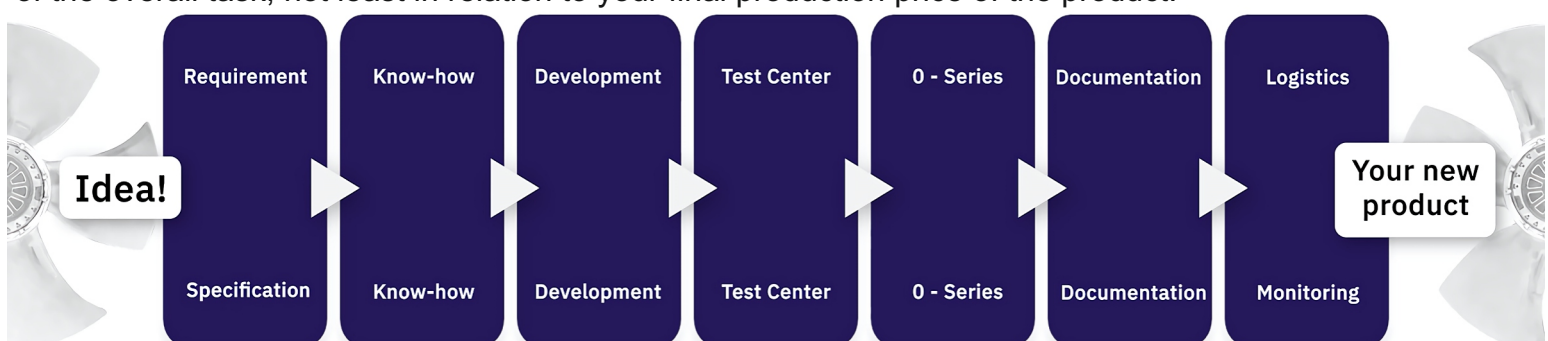
We Work with You All the Way Through the New Tasks and Challenges You May Face.

Each of our development engineers have expert knowledge within one or more specific areas within hardware, software and apps. Knowledge which is continuously updated and shared with the team, letting the team achieve a broad and deep knowledge and experience in a variety of disciplines and specialities.

Our engineers develop both standard products, customization-ready solution platforms and customer-specific solutions.

This gives you, as our client, a wide range of options to find exactly the solution you are looking for. Or to have a product adapted or developed according to your exact requirements.

Our experience originates from many product areas and industries, and we always focus on finding the optimal solution. Both in terms of development time, production optimization, environmental impact and price of the overall task, not least in relation to your final production price of the product.
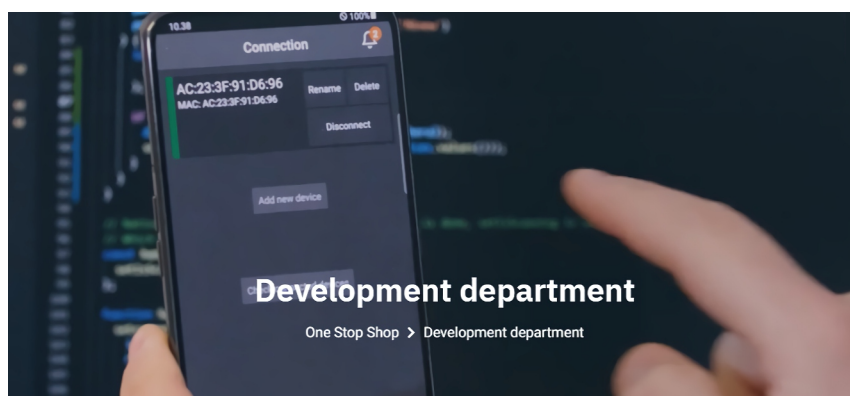
Requirement	Know-how	Development	Test Center	0 - Series	Documentation	Logistics
Idea!						Your new product
Specification	Know-how	Development	Test Center	0 - Series	Documentation	Monitoring

Your Idea / Your Product

Get the Benefits from an Experienced Development Department

We develop your product exactly as you want it based on the knowledge of our large R+D department. We assist with the electronic product development in all aspects. E.g. supplying complete control systems for heat pumps.

This also applies if you are looking for online cloud services with App and service management. We already have a complete operational system where we are responsible for both smooth operation and future developments.

We are especially experienced within medical production and laboratory equipment, building electronics, HVAC, ventilation and heat pumps including R290 systems.

Safe and Secure IoT

LS SmartConnect enables you to get a secure web connection to your product.

When your product is securely connected to the web, you have the option of controlling the product using a mobile phone or tablet. It is also possible to get your product connected to the fleet management system LS SmartConnect Center.

Get Your Own Inside Facilitator

When you choose to have a solution adapted or developed by us, you will be assigned a Key Account Manager, who will be your contact person in all aspects of your cooperation with us.

In close cooperation with our development department, the Key Account Manager makes sure to get the developers specialized in the field or fields required assigned to your project. And will keep track of the project and take care of your business with us as long as you choose to be our customer.

We Care About the Environment

Therefore we keep a constant focus on providing state of the art electronic controls to optimize energy consumption in motors and compressors, and a long product lifetime which preserves resources. Our production department focuses on an environmentally friendly production - without ever compromising the quality of the final products.

Naturally we have certified our quality and environmental system according to ISO9001:2015 and ISO14001:2015.

LSCONTROL

Our Business Relies on 3 Areas, Each of which Contributes to Define Us.

We take pride in being on the forefront of rules and regulations, not least the ECO-design, to ensure you get competent and reliable information and feedback from us, regardless if your need is for us to develop a brand new product for you or you need to get advice about one of our standard products.

First Area is our Standard Products

Our range of standard products are a broad range of ready to install products, which are primarily supplied through wholesalers, and used by electricians and service technicians within the ventilation business.

Second Area is our OEM Products

These are all products, which we have developed from scratch for a specific customer according to customer specifications, and in close cooperation with the customer. Subsequently we produce and deliver the products, which are always for manufacturers and our relation with our customers is very close.

Third Area is our Customization Products

These products do already have HW layout and basic software. All they need is to be finalized and configured with the requirements and specifications of individual manufacturers.
This approach speeds up the development time and lowers project costs. Even though the solution can be just as individual as the OEM solutions.
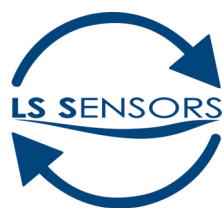
Standard Products

Investigate Our Standard Products Online. You Will Find a Whole Range of Options

LS SPEEDCONTROL

Controllers for AC-Fans

EC CONTROL

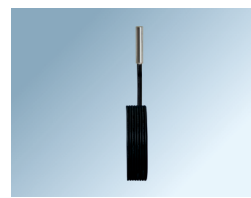Controllers for EC-Fans / 0-10V Controller

LS SENSORS

CO$_2$

Temperature
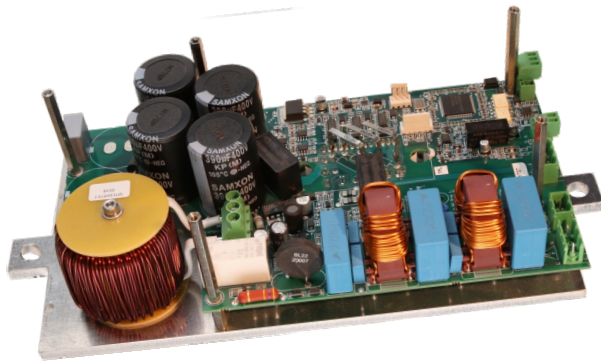
Combination

ModBus

NTC / PT1000
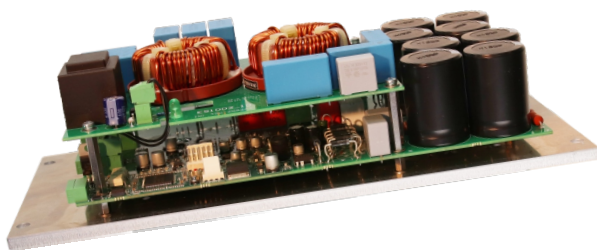
Air-Flow

Wireless

Pressure Boxes

A Wide Range of Standard Inverters

SpeedControl 1145
1 x 230V supplied

Available for compressor motors up to 3000W
Compressor use max 3 x 16A

SpeedControl 1002
3 x 400V supplied

Available for compressor motors up to 7500W
Compressor use max 3 x 16A

Exists in a Variety of Models

With and Without enclosure

Vertical cooling fins
Horizontal cooling fins
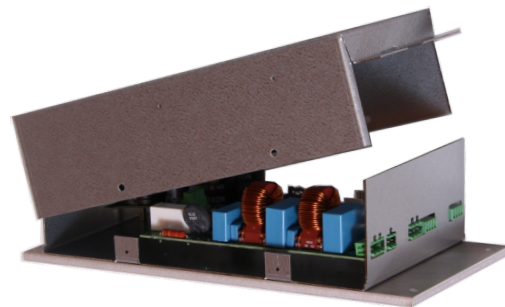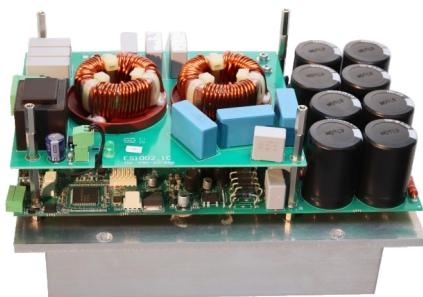Cold plate - cooling with air

For use with environmental friendly refrigerants

Assistance in getting certificate for chosen
compressor model

Let us assist you with finding the right solution for your project within our existing base models. Or adjust it to your requirements as we know;

All projects are unique so at least special assembly is always in play.

Also, if you do not find your chosen compressor in the list, please contact us for further discussion.

LSCONTROL

List of Compressors,
- Already Programmed in Our Standard Inverters:

Hitachy Highly

ASD102RKQA6JT6B
PSD162RKQAJ6T6
WHP03600PRKQA7JT6
WHP03700PRKQA6JT6
WHP04000ARKQA6JT6
WHP04200ARKQA6JT6
WHP04200VRKQA7JT6
BSA804SD-A3BUA
ATH356SDP-C9FQ
ASD084CKMA7JK
ASD102SF-A7JT
ASG133CDNB7AT
ASC104SD-A8JT
ASG151CDNB7BT
WHP05600VUKQA7JT6B
WHP08750VCDNC9AU
WHP05500PUKPA6NT6
WHP05500PUKPA8LT6
WHP07600PSDPC9KQ
WHP10200PSDPC9EQ

Hitachy Highly

WHP11500VSDPC9EQ
WHP13300PSDPC9EQ
WHP15600ASDPC9EQ
WHP03240BSKNB7AT
WHP07850VUKQA8JT6T
WHP32900VSKTQ9JK
WHP15600VSKPC9EQ
BSA586SDMY3FJ

GMCC

DA131S1B-31FZ
DSM180D19UDZ
DTN210D32UFZ
EDTN210D32EEZ

Toshiba

DA330A2F-20MD
DA422A3F-27M

Panasonic

5RS102XRSQ094B1
5KD184XAA21
5RD132XDA21
5RS092XCD21
5KD240XAD21
5VD330ZAA21
5VD420ZAA21
9RD138ZFB21
9RD198ZAA21
9RD220ZAA21
1SD110ZAA41-A1
1TD058XAA41

Mitsubishi

CBB130FAC
RMT5113MDE2
RMT5111RCE3X

Copeland

YHV046

More models are added continuously

«Invisible» Sensors

Even though most technical installations need room sensors to operate optimal for the users, the sensors should not be seen. Users do not need displays or LEDs on the wall showing data they can easily access on an app or a PC.

Also,users consider the sensors to be part of the building and thus working with no maintenance requirements, not even changing batteries.

Therefore we have made a whole new maintenance free sensor in a discreet white design almost so flat it becomes invisible on the wall. Only 10 mm deep.

The sensor can be mounted in a standard wall box or with a wall bracket.

The sensor comes in 2 versions, one measuring temperature and humidity. One measuring temperature, humidity and CO_2.

Size 80x80x10mm, Supply: 24V DC, Communication Protocol: ModBus

Vertical 4.3" Display

The feel and orientation like your mobile phone. Making the display vertical gives the possibility of having the same design as if it was an app on a mobile. Many people find that intuitively easier to operate.

Also speed is an issue. We have investigated the market and come up with this flat and fast graphical display with an incredible performance. The graphical interface used gives an endless number of possibilities to design the graphic to exactly as wished.
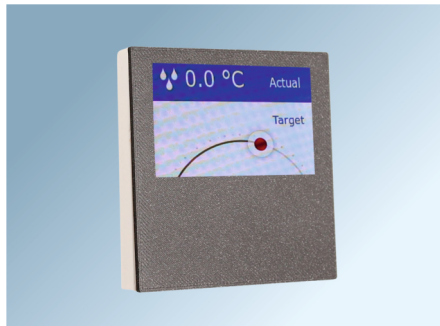
The display is designed as flat as the sensor, which is only 10 mm deep and can be mounted in either the product itself or in a standard European wall box.

The software is ready to be customized to specific needs, with special company logos, colors and graphics.

And it is compatible with Wi-Fi Bluetooth®

Size 80x122x10mm, Supply: 24V DC, Communication Protocol: ModBus

Small and Flat Graphical Display

If a smaller graphical display is needed we have made this 2.8" graphical display for build-in in the same flat design as the larger 4.3" vertical graphical mobile like display - only 10 mm deep.
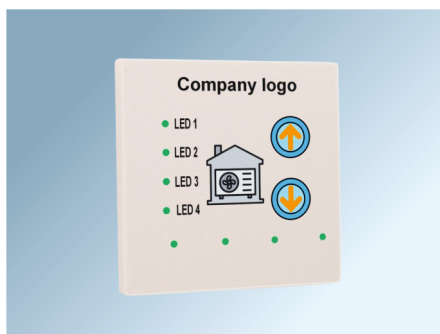
The 2.8" graphical display comes with a glass panel and are equipped with the same possiblities as the larger 4.3". However, the smaller size must be considered when designing the user menus.

Compatible with Wi-Fi ✖ Bluetooth® ⓩ zigbee
Placed in the very front of the display to obtain best possible wireless signal.

Size 80x80x10mm, Supply: 24V DC, Communication Protocol: ModBus.

Small and Flat Operating Panel

For configurations / products where a graphical panel is a too advanced user interface, we have a new operating panel in the same slim design as the sensors and the graphical displays.
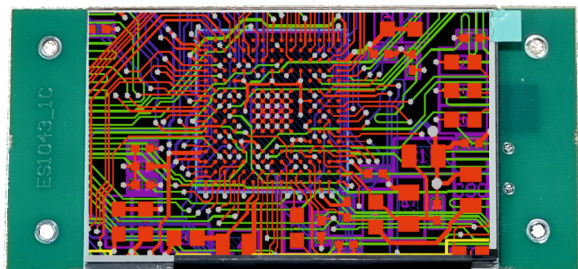
The operating panel is for either build-in or wall mounting and comes with a plastic front. The user interface consists of up to 6 touch «buttons» and LED indicators, thus ensuring a more secure and controlled user access to operate the product.

Compatible with Wi-Fi ✖ Bluetooth® ⓩ zigbee
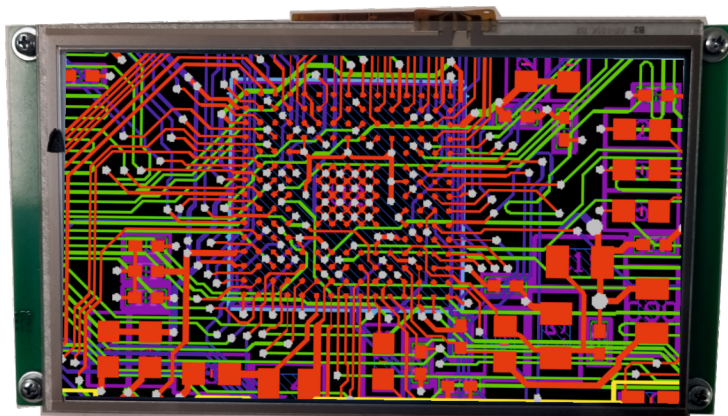Placed in the very front of the panel to obtain best possible wireless signa.l

Size 80x80x10mm, Supply: 24V DC, Communication Protocol: ModBus

4" and 7" High Resolution Horizontal Displays

The traditional way of having displays are horizontal. For these configurations we offer both 4" and 7" High Resolution graphical displays. Choose between Resistive or Capacitive touch.

Resistive touch display is recommended for environments where operation is carried out with tools or with gloves on. Also, the foil over the display ensures that a seal of IP 54 or more can be obtained.

The PCBs of these displays are equipped with an ARM Cortex-M7 processor with 32MB dedicated flash, which works at 550mHz / 1177DMIPS. The voltage supply is 24V DC and they all come with a ModBus master included in the firmware.

Also, on the PCB you have an USB3 connector and a SD-card reader, making it possible to update the software from a smart phone or an SD-card.

1 App for Everything

With LS Config App you get a service tool for technicians and a user app for the end user at the same time.

The LS Config App consist of a base platform which is easily adapted to the requirements of most product configurations including colors, style, menu options and values.

Benefits of Choosing LS Config App

If you have your own unique app developed then you also have the maintenance responsibilities of that app. So whenever Apple or Google update their software the entire cost of updating your app is placed on you.

Choosing the LS Config App places the responsibility on LS Control and the share of cost is divided amongst all manufacturers having a profile in the LS Config App.

Another benefit is the team of app specialists we have working on the Config App constantly developing and expanding the standard functionality, making sure the LS Config App not only technically is up to date but also function wise.

LS Config App is a data base driven app, meaning that updates including Logo, colors and functionality is updated right in the app without the user having to reinstall the app.

How Does It Work and What Are the Options Within the App?

To use the app to control the product they need to be connected, which is easily done by scanning the QR-code on the product. It is now possible to control and read status on the product directly on the user-friendly app, as long as you are within Bluetooth range.

Which options the end-user have to control the product is completely up to the manufacturer of the product, you. But the possibilities are many. It can be adjusting set points, set calendar for different operation on different days and times, enable holiday function, update firmware and many more.

However, you may choose that some options should only be allowed to be performed by a service technician. Those options can be hidden behind a password protection, or maybe need login. That is to be decided, and also in this area we are open for many options and will assist you in getting exactly the solution you require.

Scan the QR-code to go to our web-page and learn more about Config App. We even offer you a small tour of the app.