

APPLICATION NOTES

LVDS



LVDS – the slim HMI solution has many applications

An LVDS option is available for all applications where the remote part of the extender is integrated directly into the monitor. The monitor electronics are replaced by the KVM Extender and the extender controls the TFT panel directly via the LVDS interface. The options can then be controlled via the on-screen display. Depending on the resolution of the panel, various DDC information can be configured. The inclusion of multitouch controllers makes for perfect HMI control systems. Connection to the PC is simple via a CAT or fibre cable.

*Now let's take a look at some of the exciting applications for HMI.
The interface between human and machine:*

The LVDS option on the touchscreen - this is how to raise the heat in your living room

Just imagine, you come home after a stressful day at work and want to make things comfortable for the evening. Unfortunately the living room isn't even warm. The LVDS option gives you a heating control on your touchscreen. You

touch the living room on the screen and the heating switches on, and then you are ready to start your nice relaxing evening.

The LVDS option in dust-protected monitors - the dust stays on the outside

Now we are at a package handling facility, a transit station. There is a lot going on and there is a succession of lorries arriving, making dust and dirt the order of the day. However, the details from the packages must be entered cleanly. The LVDS option is built into a dust-protected monitor and the data can then be entered using the HMI like a smartphone.

The integrated LVDS option enables improved access protection using RIFD – safeguarding security

Now let's change location to a closed-off security zone, where every access has to be checked and workstations or visitor rooms are located in the secured area. Other employees, or even visitors can only enter this protected area once they have been identified accordingly and a security check has been performed.

The integrated LVDS option enable a terminal with a contactless chip card to be used, which identifies the employee, and a camera allows communication with the secure area.

The LVDS OPTION, because oil rigs, the pharmaceuticals industry, and chocolate production lines all have one thing in common

The LVDS option allows for fully-encapsulated and explosion-protected terminals. Incidentally, we are collaborating with all of the well-known companies in the explosion-protection sector.

All handling of explosive materials, since all mixtures of air and combustible materials are explosive, be it the gas mixtures coming out of the drilling hole on an oil rig, or the cacao in a chocolate production line.

The LVDS option in the medical industry, clean means sterile

An operating theatre or intensive care unit requires sterile and disinfectable technical devices. The LVDS option is integrated with the monitor into a hermetically sealed steel enclosure with glass front, making it ideally suited to medical applications.

And if the operating theatre team want to follow along with the operation on a wall screen or the image will be transmitted via a projector to a university lecture theatre – no problem, because the LVDS option is compatible with the KVM Switching option, thus enabling a whole array of different applications.



The LVDS option in industry or gloves and LVDS

In many branches of industry, dirt is a frequently-discussed topic. Just think about a refinery or the chemical production of synthetic fibres. These are places where



working without protective clothing is not possible.

With the LVDS option, the monitor is integrated into a dust and dirtproof enclosure and it is operated wearing gloves, via the touchscreen.

The LVDS option for control via touchscreen – for hot and harsh conditions

High temperature are often a major problem in paper factories. Since the PC is heat-sensitive, this can also cause the failure of the PC under harsh conditions and elevated ambient temperatures, or make use of a PC impossible.

The LVDS option makes it possible to use a PC in ultra-clean rooms – where things can never be too clean

Of course we all have an immediate image that comes to mind of workers in white suits, producing microchips or solar cells, for example. In such a use case, not even a single molecule of dirt may be present, and no dust may be stirred up by the PC.

Airports, shops, and POS as a whole – digital signage applications

Regardless of whether they are used for targeted information in airports, or videos in shops. Only the LVDS option can enable these applications. Manufacturers of the POS terminals in every shop or restaurant can incorporate an LVDS part into their products, giving them a universal, compact, and reliable terminal.

LVDS compact:

The LVDS option makes many additional applications possible. Wherever the monitor electronics are replaced by the KVM Extender and the TFT panel is controlled directly via the LVDS interface.

The LVDS option is ideal for applications in the medical industry, ultra-clean rooms, Ex zones as well as in many sectors of industry.

Saving the best for last – having the option to entirely replace the monitor electronics results in a reduction in costs.

The LVDS option – the slim part with many applications, enabling a reduction in costs.