# Nowadays, digital signage is everywhere: at bus stops, in shopping centers, at airports and train stations, even in schools and fast-food restaurants. Compact axial and centrifugal fans from ebm-papst ensure that the electronics and the 5G modems in these applications remain cool and do not fog up the screen.

# Digital signage offers many advantages in comparison with static cardboard displays or traditional illuminated signs. Thanks to their networking, they can play audiovisual content in sequence, even in real time. Even virtual reality, iBeacons, and the integration of mobile devices are possible.

**Removal of heat and clear visibility**

# The electronics required in the signage must be cooled, or there is a risk of overheating. Another problem is the fogging up of the screens and the restricted visibility of the display that occurs as a result. Robust axial and centrifugal fans from ebm-papst can help in this case. They ensure effective and low-noise removal of thermal loads. In addition, an even, laminar air flow prevents the screen from fogging up and provides a supply of air into the compact housing. Optionally, a sensor is available that emits a warning signal when the filter is blocked.

**Fans withstand adverse environmental influences**

# The fans that are fitted to the outside of the housing have to withstand adverse environmental factors such as spray water, salt spray, and other environmental influences. On request, the fans from ebm-papst can even meet requirements up to IP68. They are available using both conventional AC and highly efficient DC technology, whereby the DC compact fans are especially quiet and energy efficient. In addition, DC compact fans can be controlled and monitored individually thanks to integrated electronics.

**Monitoring function increases operational reliability**

# GreenIntelligence enables fan solutions that are not only highly efficient, but which can also offer intelligent connectivity, with a variety of control and monitoring functions such as condition monitoring and remote maintenance. The FanCheck diagnostic tool also allows the fan's remaining service life to be determined, thus reducing maintenance outlay and increasing operational reliability. Using CAD data, aerodynamic simulations can be performed to determine the optimum cooling concept in terms of cooling capacity and noise characteristics.



Fig. 1: Robust axial fans, e.g. the 4300N series shown on the left in the image, or the centrifugal fan RadiCal 225 TD on the right, are used in digital signage and ensure effective, low-noise removal of thermal loads and moisture.



Fig. 2: Compact axial and centrifugal fans from ebm-papst ensure that the electronics and modems in digital signage remain cool and that the screen does not fog up.

# Fig. 1 ebm-papst

# Fig. 2 AdobeStock\_226141943

# Characters approx. 2,500, including headings and sub-headings

# Tags Digital signage, screens, cooling, display, heat management, electronics cooling, screen ventilation, modem cooling, compact fan, axial compact fan, centrifugal fan

# Link [www.ebmpapst.com/digital-signage](http://www.ebmpapst.com/digital-signage)

**About ebm-papst**

The ebm-papst Group, a family-owned company in Mulfingen, Germany, is the world market leader in fans and drives. Founded in 1963, the technology leader with its core competences motor technology, electronics and aerodynamics, has set international market standards ever since. With over 20,000 products, ebm-papst offers customized, energy-efficient and intelligent solutions for virtually any ventilation and drive technology requirements.

In fiscal year 2019/20, the hidden champion achieved a turnover of 2.188 billion euros and employed almost 15,000 people in 29 production sites (e.g. in Germany, China and the US) as well as in 48 sales locations. With their fan and drive solutions, ebm-papst defines and sets the benchmark in practically all industries, such as ventilation, air-conditioning and refrigeration, heating, automotive, IT, mechanical engineering, catering and household appliances, intralogistics and medical engineering.