

INFORMATION



 **DISTEC**  
A FORTEC GROUP MEMBER

# BLO MONITORS

Fire load and flue gas optimized



# Preventive fire protection creates security

Protection against fire hazard and the assessment of fire behaviour of building materials is a basic presumption when planning and constructing buildings. Public areas, which are also marked emergency exit routes within buildings must be accessible in case of fire. Flammable materials with high risk of smoke gas development must not be used or installed in those areas.

Requirements for fire prevention often conflict the demand of using monitors in public areas of buildings as visitor guiding systems, guest or employee information systems and for advertising purposes. Usually the places of installation are also part of sign-posted emergency exit routes.

Fire safety regulations avoid the installation of devices which are supposed to increase fire load and to promote development of smoke gas. Distec designed and developed a monitor series optimized in the contribution to fire and smoke gas emission for usage in public areas and buildings. Monitors from our BLO-Line are available with two different reaction to fire classification levels.

## BLO-Monitors: Safety first

The European Standard EN13501-1 enables the classification of building materials and components in terms of fire behavior and fire resistance. Additional criteria take a product's tendency to produce smoke and flaming droplets or particles into consideration. Since there is no such classification procedure for electronic devices,

monitors are tested in compliance with the SBI method according to EN 13823:2015-02 standard, which specifies a method of test in order to determine the behaviour of fire performance of construction products when exposed to thermal attack by a single burning item (SBI).

The required fire test was conducted in accordance with the above mentioned standards on the premises of the Leipzig Institute for Materials Research and Testing, a recognised, notified and accredited testing, inspection and certification body in Germany. The results have been verified and certified by an independent expert. The results of the fire tests allow Distec to offer fire load optimized monitors in accordance with both the classifications B (combustible materials with limited contribution to a fire) -s1 (little or no smoke gas emission), d0 (no production of flaming droplets) and even A1 (non-combustible materials - no contribution to fire).

The new BLO line is A1 classified and certified. Consequently, it meets the respective fire safety regulations. BLO-line monitors may be also equipped with an optional extinguishing device or even engineered for a higher IP rating. Thus, our BLO monitors are most suitable for installation as information systems in public buildings, such as hospitals, universities, schools, airports and other public areas in buildings. They are available as common monitors or as an independent system with integrated PC. Hence, there is no need for additional fire resistant housings which are both heavy in weight and more expensive. Therefore, our BLO-line monitors are cost-effective and allow for an easy installation and handling.



# Fire protection classes



German classification	Additional classification		Building material class DIN EN 13501-1	Building material class DIN 4102-1 (Germany)
	no smoke production	no flaming droplets/ particles		
non combustible (without burning elements)	X	X	A1	A1
non combustible (with parts of burning elements)	X	X	A2-s1 d0	A2
flame resistant	X	X	B,C - s1 d0	B1
		X	A2, B, C - s2 d0	
		X	A2, B, C - s3 d0	
	X		A2, B, C - s1 d1	
	X		A2, B, C - s1 d2	
			A2, B, C - s3 d2	
normally flammable	X	X	D - s1 d0	B2
		X	D - s2 d0	
		X	D - s3 d0	
	X		D - s1 d2	
			D - s2 d2	
			D - s3 d2	
		X	E	
			E - d2	
easily flammable			F	B3

## COMPARISON European and German norm

### Note:

Electrical appliances cannot strictly be classified according to the standard DIN EN 13501-1 for building materials. Since an appropriate standard for electrical appliances is not available, was carried out the flammability test following DIN EN 13501-1 as a basis for comparison with building products.

Fire protection class (EN13501-1)	A1	B-s1, d0
non combustible	X	
flame resistant		X
No/ hardly any flue gas development	X	X
No dripping of combustible parts	X	X
Fire protection glass	X	X
integrated thermal fuse	X	X
Fire load certificate	X	X
Extinguishing cartridge (optional)	X	
24" screen size	X	
31.5" screen size	X	X
42" screen size	X	X
46" screen size	X	X
54.6" screen size	X	X
64.5" screen size	X	
PME (1 x VGA, 1 x HDMI, 1 x DP, 1 x Audio line out, 1 x USB remote)	X	X
IQ (PC: Intel® Atom E3845 (1.9 GHz), RAM: 4 GB DDR3L, SSD 120 GB mSATA/ Interfaces: 2 x LAN, 1 x USB 3.0, 1 x USB 2.0, 1 x HDMI, 1 x VGA, 1 x RS232/422/485, 1 x RS232 (optional))	X	X
IoT (Raspberry® PI CM3 Ind. ARM-PC with Raspbian OS; 1 x LAN, 1 x Audio line out, 1 x micro SD-Slot, 2x USB2.0, 1x HDMI-in)	X	

## OVERVIEW Fire protection monitors Distec

# POS-LINE BLO CERTIFICATE B-s1,d0



Fire rating (EN13501-1) B-s1,d0	31.5	42	46	54.6
Fire protection glass	X	X	X	X
Integrated thermal security	X	X	X	X
Fire load certificate	X	X	X	X
PME (1 x VGA, 1 x HDMI, 1 x DP, 1 x Audio Line out, 1 x USB Remote)	X	X	X	X
IQ (PC: Intel® Atom E3845 (1.9 GHz), RAM: 4 GB DDR3L, SSD 120 GB mSATA/ Interfaces: 2 x LAN, 1 x USB 3.0, 1 x USB 2.0, 1 x HDMI, 1 x VGA, 1 x RS232/422/485)	X	X	X	X

# NEW BLO-LINE CERTIFICATE A1



The new BLO-Line series is certified according to fire protection class A1 and complies with the relevant fire protection regulations. In addition, we can optionally equip the new monitors with a fire extinguishing cartridge and/ or 10 points touch screen. This makes them ideal for displaying information in areas with high fire safety regulations in hospitals, universities, schools, airports and public areas of buildings. They are available as simple monitors or as a stand-alone system with integrated PC. Expensive and heavy fireproof housings are not required for the BLO monitors. This makes them cost effective and easy to assemble (integrated wall mount) and handle. Each monitor comes with a certificate for fire protection class A1.

Fire rating (EN13501-1) A1	24	31.5	42	46	54.6	64.5
Fire protection glass	X	X	X	X	X	X
Integrated thermal security	X	X	X	X	X	X
Fire load certificate	X	X	X	X	X	X
Extinguishing capsule (optional)	X	X	X	X	X	X
Touch screen PCAP, 10 points	X	X	X	X	X	
PME (1 x VGA, 1 x HDMI, 1 x DP, 1 x Audio Line out, 1 x USB Remote)	X	X	X	X	X	X
IQ (PC: Intel® Atom E3845 (1.9 GHz), RAM: 4 GB DDR3L, SSD 120 GB mSATA/ Interfaces: 2 x LAN, 1 x USB 3.0, 1 x USB 2.0, 1 x HDMI, 1 x VGA, 1 x RS232/422/485)	X	X	X	X	X	X
VideoPoster (1 x LAN, 2 x USB, 1 x HDMI in, 1 x Line out, 1 x microSD Card slot/ Media player: MPEG-4 (H.264), FVL, AVI, jpeg, tiff, png, pdf, bmp/ XML play list, content update via content server (HTTP protocol), FTP server or USB connection)	X	X	X	X	X	X
IoT (Raspberry® PI CM3 Ind. ARM-PC mit Raspbian OS (optionally); 1 x LAN, 1 x Audio line out, 1 x micro SD-Slot, 2x USB2.0 , 1x HDMI-in)	X	X	X	X	X	X

# Specialist for LCD display solutions

DISTEC

Distec GmbH, a subsidiary of FORTEC AG, headquartered in Germering near Munich, Germany, is an international company with branches in various locations in three countries. The associated customer proximity guarantees high quality advice and efficient service. For over 25 years Distec has been a solution partner for many well-known companies worldwide.

The engineers at the development centers in Germering near Munich, Eisenach and Ronkonkoma near New York draw on many years of experience with LCD panels and at the same time have focused their attention on current and future technologies.

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