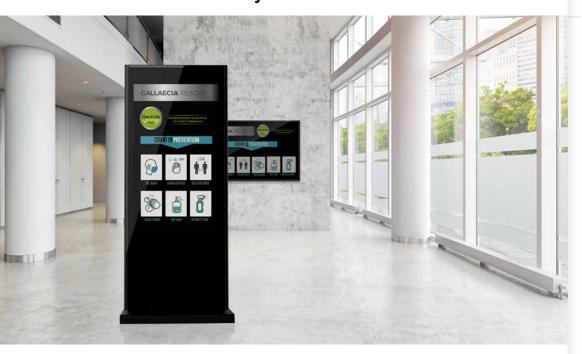
Televes®

INFO

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The Hospitality sector, an unwavering commitment to safety and the future



There is a light at the end of the tunnel and a swift recovery is expected. These optimistic, hopeful words are the general feeling in the Hospitality sector,

an industry that represents 10% of the European GDP and doubtlessly has been one of the sectors most affected by the global COVID-19 pandemic. The coronavirus has immersed this industry in an extremely complicated situation, with losses in Spain, as an example of a country where tourism is one of the economy's pillars, that reached around €200 million per day during the month of June.

Despite all of this, there continued to be trust and hope that the summer season would serve to drive recovery. At the end of this period, the expectations were not met. You may be surprised to learn that hotel occupancy on the coast of Andalusia dropped by an average of 40% in July with respect to July of last year.

And the situation was even worse in August. The restrictions imposed by some

During this global pandemic, the Hospitality sector has been responsible, investing in infrastructure for the future countries, such as the United Kingdom (a compulsory two-week quarantine) and Switzerland (compulsory quarantine, except for the Canary Islands and

Balearic Islands) brought about an extreme situation that caused many hotels to close. In fact, UK tourism is the most important for Spain.

What is certain is that the Hospitality sector has been an example of responsibility, making the necessary changes and investments to provide clients with a safe stay and clearly minimize the risk of exposure to COVID-19. And it continues to take steps focused on the future. At present, projects for networks and infrastructure in many hotels with every type of safety measure continue to be implemented.

Televes has participated fully in these measures, **outfitting hotels' telecommunication networks with IPTV systems**, which required the management of processes minimizing contact between guests as well as hotel staff to be fully computerized

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City hall of Arahal, Seville (Spain)

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Teresa López Novo. A whole career among us

Let's bring the spotlight to Teresa López Novo, the active employee with the most time with Televes. A lifelong resident of Santiago de Compostela, she will soon begin a well-earned early retirement and shared her experiences with us from almost five decades of employment.

Teresa began working at Televes when she had just turned 14 years old. She was hired the same Friday that she had her first interview. Seeing her bright-eyed and eager look, it is easy to imagine how fast the head of hiring must have made that decision.

And now she has spent 47 years of complete dedication

at Televes. Always working in the field of production lines, **Teresa began making electronic rivets and assemblies in pull boxes**, which were made completely by hand at that time. Depending on the company's needs, she rotated through the sections of plastics, electronic, screenprinting,



Teresa began working at Televes having just turned 14 years old, and now is celebrating 47 years of full dedication at Televes.

blisters, and was even part of the first assemblies of fiber-optic equipment.

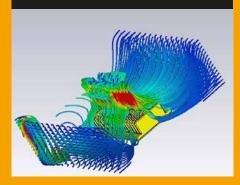
We could say that Teresa, almost with tears in her eyes, told the stories she'll take away from Televes, which always were about her colleagues and supervisors, who she has formed a family bond with. "Especially early on when there weren't many of us working there, and even Don Ricardo -referring to Mr. Ricardo Bescansa, founder- came to our area to see everything that we were doing." Now, with hundreds of employees, these relationships are more focused on her close colleagues.

Her retirement plans, which are simple but full of activity, "will include a lot of routines

with physical activity and sport, as well as enjoying time with friends and family."

We wish Teresa **the best in this new chapter** that will soon begin. We are certain she will always have pleasant memories of a life full of loyalty and dedication at Televes





ISF

THE FUTURE OF HEAT DISPERSION IN PRODUCTS WITH HIGH TEMPERATURES

Aluminum is the most used element in industrial design to disperse the temperature that electronic products accumulate. But recently, specialized formulations of polymers have been increasingly **used that contain graphite and conductive fibers** with an ability to disperse heat that has been confirmed in industries such as the automotive industry.

The Televes Corporation is joining this trend. Its subsidiary ISF, in collaboration with Televes Industrial and Automation Engineering department have already begun to develop its own **polyamide composites** with graphite fibers and ceramic additives to design the heat sinks that will be used in products with a high operating temperature range.

The result is a **specialized polymer with advantages over aluminum**, namely, the improved weight ratio and flexible injection processes at Televes facilities, which allow for comprehensive control of processes and quality, in addition to the option to create complex heat sink geom-etries that cannot be created with traditional aluminum extrusion, improving how pieces fit together and optimizing spaces in final products.

An example that will soon be applied is **LED lighting**, which high-intensity diodes that require a well-designed heat sink to maintain optimal performance in the proper ranges of temperature.

ISF has modernized current aluminum heat sinks and is proposing a new generation of special-ized polymer heat sinks that will help improve the performance of electronic products designed and manufactured by Televes Corporation companies



EuroSwitch

A series of compact multiswitchers effective in large facilities

At large group facilities, satellite TV signals are normally distributed with multiswitch devices as they provide users with all the possible channels of one or more satellite platforms. When there is a high number of users and/or floors in the building, the losses through cables and connections can increase considerably. As a result, it can be quite difficult to balance the facility properly so the signal can sufficiently reach outlets.

The new line of Euroswitch commutators was designed with a focus on performance as a key property, thereby providing optimized electronic performance that can be seen in through-loss reduction (cascading) and also derivatives (user outputs). The EuroSwitch is therefore a series that is particularly appropriate for

large group facilities by reducing the number of boosters needed in the waterfall and maintaining a quality signal for users.

This improved performance also affects the electrical performance of multiswitches, **providing an overall reduction of use** with the possibility of being powered with between 12 and 18V (locally or cascading). It also includes an ECO mode that reduces use even more as users temporarily disconnect from the satellite facility.

In terms of electromagnetic protection, this line has a high-level of shielding from interference (class A) and effective isolation between input and output.

In order to provide the facility with full distribution of television, the EuroSwitch line is equipped with a landline TV signal input, with a level that is balanced with the TForce autoregulation system. The multiswitches can use direct current at the input in order to activate an intelligent TDT antenna, such as the Ellipse.

Another important property of the Euroswitch line is its versatility in the facility as the **same multiswitcher can be configured as a star or a cascade** by simply activating a switch.



Meeting the needs of the most numerous facilities, EuroSwitch includes a line of 4 input satellites (17x) with several user output options: 8, 16, 24, and 32. For even the largest combinations, this line stands out due its highly compact nature (30x35cm for the 17x32 model). The line also offers a booster for more ambitious facilities. It can be regulated both as a slope (12dB) and as a gain (up to 31dB for satellites and 27dB for landlines).

The same as with NevoSwitch multiswitchers, EuroSwitch has the quality guarantee of being a 100% European product, designed and manufactured at the Televes facilities

REF.	Series for four satellites and landlines (17 inputs)
719801	8 outputs
719803	16 outputs
719804	24 outputs
719805	32 outputs
719809	27/31dB booster



IDEA

How to promote services and products through Arantia TV

Thanks to the new interactive services and functionalities released in the latest version of Arantia TV middleware, it is now even easier to promote hotel services and products through the in-room interactive television system.

- Booking & shopping: the hotelier is now able to promote services and products that the guests will be able to book or order from the comfort of their room via the TV interactive platform.
- Scrolling text banner: it is now possible to create information banners that will be overlayed over the bottom or top of the TV channels.
- Customizable widgets with text and images: these visually attractive widgets
 can be added to the interactive menu and can be used to direct the guest to any
 section in guest interface.

All these features can be used either to promote, inform or remind guests about events that are going on at the hotel via an existing digital platform, avoiding the need of using printed brochures and also minimizing the number of interactions required with the frontdesk, following COVID-19 safety guidelines for the hospitality industry



How to connect a USB-C phone with the AvantX

If your smartphone/tablet has a USB-C connection, it will not be able to use the OTG cable provided with the AvantX (microUSB). In this case, we recommend using an OTG cable adapter for USB-C to microUSB-b. In this way, both devices can be directly connected. You can request this cable from your Televes distributor with reference number 216810.

However, if you already have a type C OTG adapter to connect to your smartphone/ tablet, you can connect to the AvantX with a conventional USB to microUSB cable





TELEVES FACILITIES

CITY HALL OF ARAHAL, SEVILLE (SPAIN)

Known in the 18th century as the small, fertile Athens thanks to its prestigious schools that served the best students of the age, this town in the Seville region was a settlement whose name, Arahal, means the place on the road to stop and rest.

Renovating the lighting, a project with an notable religious-cultural value of heritage, had to be done with the best lighting options. Televes installed more than 3,500 lights with point-to-point NEMA control technology.

The final network had an advanced remote management system to control each light individually, with its performance parameters and records (schedules, operational supervision, and incident detection and notification).

This resulted in energy savings of greater than 70% and the use of warm temperatures throughout the town



The well-known travel restrictions caused by the COVID-19 pandemic have had an absolute impact on the attendance of companies at industry events and conventions.

These events are important meeting points, not only due to the exhibition of innovations in products, but also as they are often the only time we can meet with clients and friends face-to-face.

Televes did not want this situation to limit that contact with our clients and opted to hold webinars with select topics during the stay-at-home period that allowed the contact to continue, albeit remotely.

In March, the subsidiary Televes Italia began its series of webinars with clients with more than 40 webinars organized by mid-April with a variety of topics: design (TV-SAT/ FTTH), AvantX, measurement instruments,



Other subsidiaries soon joined, like the Portugal unit, which organized webinars specific to the changes in hospitality, fiber-optic networks, signal measurement devices, the professional LED lighting line, among others, but particularly everything concerning the ITED regulations for telecommunication facilities in the country.

There are also specific business areas that have been very active in organizing remote meetings, of which we can highlight the webinar on professional LED lighting that brought together more than 150 people in one of its sessions.



We hope that in the near future we can again see each other face to face at industry events. In the meantime, Televes will continue to communicate and connect with its clients through all the remote options at our disposal



CONSTRUCTION PRODUCT REGULATION: CPR

How is Televes committed to people's safety?

For Televes, protecting people is not only an option, it is our responsibility to ensure our clients are protected and safe.

The Construction Products Regulation provides standardized technical language for all of Europe. This regulation does not impose requirements on products' level of performance, rather, it classifies their performance regarding their reaction and resistance to fire and the discharge of hazardous substances. Consequently, Each member state of the European Union is individually responsible for establishing what the minimum safety levels are to be applied within their borders.

In Spain for example, the required minimum level for coaxial cables, twisted-pair cables, and fiber-optic cables is Dca-s2, d2, a2.

The Euroclasses defined in the CPR regulation are what classify products according to how they react to fire. For more information on this classification and what each class means, see our pamphlet:

www.televes.com/en/catalogues

Televes not only complies with EU regulations, but also adheres to the key principle of protecting people and keeping them safe as one of its most important responsibilities. Since the CPR came into force in July 2017, all of the CE cables provided by Televes are



A00578

marked with their corresponding Euroclass. This information can be found on the cable's outer sheath, as well as on the box and the product label. Examples can be seen below:

*EN50117-2-4 Euro-class B2ca-s1a-d1-a1 Televés SK2020plus LSFH ITED 18AtC 1,00



Since the very beginning, Televes has had every type of cable, from the highest category, B2ca, to the lowest, Fca. It is therefore adapted to every European market and all of their safety needs. In recent weeks, Televes has continued to expand its line of cables and has added a large number of coaxial cables and fiber cables with Dca marking, among others. As a result, it has consolidated its position in the CPR classification's most restrictive and safest section.

New Dca coaxial cables: Ref. 213002, 214121, 212811, 414002, 214911, etc.

New Dca fiber-optic cables: Ref. 231714, 231614, 231414, 232611, 232652, etc.

Every manufacturer is required to provide a document for each product in order to provide infor-

mation on how the cable performs in fire, how to identify it, and how to establish its intended use. This document is known as the DoP (Declaration of Performance) and includes all the information provided by the manufacturer. This information is gathered with strict adherence to the methods and criteria stipulated in the regulating standard. Thanks to the DoP, there is increased transparency and a better foundation for a Common Market



Don't miss it!

Arantia TV mobile app(1) used as a remote control

- Control the TV in the room from your mobile device.
- Browse through the interactive TV menus without interrupting the content on the TV.
- Easily check-out from the comfort of your room $^{(2)}$

All this from the an app, minimizing contact with in-room elements and contributing to overall safetyagainst COVID-19 $\,\Box$

(1) App available for Android and IoS / (2) Requires PMS integration.





The usual MOSAIQ6, now WITH MORE FEATURES



The Advance model comes standard with a pack of 4 options for the price of 2





