

# Digiline series

## Multizone Digital mixers with signal processing to make the integration simple

Nowadays it is essential to speed up installations with “easy to learn and install” solutions which are at the same time powerful enough for project requirements. With the Digiline series, WORK offers a new solution for audio control, easy to set up and, be perfectly adequated to small/medium size installations. The main features for the series are:

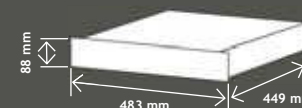
- Digital matrix mixer of 8 double inputs and 8 outputs,
- Independent digital processing for each output,
- TCP/IP device control managing all the Digiline units from the same computer,
- 8 x 150 W power amplifier (only for Digiline 8).

**Digiline series** brings the power of digital mixing to small multizone installations integrating independent DSP processing for each output. Thanks to the new software **WorkCAD Designer**, it is possible to control any Digiline units included in an Ethernet network from a unique computer.

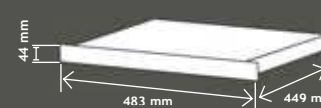
Their GPI (General Purpose Input) interface allows to trigger any function (configured through software) from a simple wall-mount switch. Users can configure the independent signal processing of each channel with parameters like Crossover, Equalizer and Dynamics. They are all suitable for facilities like business offices, restaurants, small shopping centres, etc.

Composed of two devices, the **Digiline series** provides an suitable solution for any installation requirements. **Digiline 8** features a class-D advanced amplifier system with a switching mode power supply.

DIGILINE 8



DIGILINE MX



## Features

- Digital matrix mixer of 8 x 8 (each input is composed of 2 inputs: 1 Mic and 1 Line).
- Independent processing of signal for each output.
- Controllable through TCP/IP protocol, in order to control from a unique computer all the units connected to an Ethernet network.
- Third party controllers can be connected to control Digiline by TCP/IP and RS232 (RS232 only available in Digiline MX) thanks to the command reader incorporated by its firmware.
- All MIC inputs are phantom powered.
- Powerful software WorkCAD Designer for Digiline connection through TCP/IP.
- GPI triggering mode to launch actions, presets, etc from a simple controller.
- Only for Digiline 8: Built-in power amplifier (8 x 150 W RMS).



## Rear panel



## Digiline 8

**Digiline 8** is the most complete unit: in addition to processing features, it includes a powerful amplifier with 8 independent channels of 150 W each.

To maximize S/N ratio in audio signal, it features a double switching mode power supply: one for amplification and another for DSP. It has a small size (2 HU 19" rack units) and ensures maximum efficiency, thanks to the class-D advanced amplifier system.



#### 8 channels but 16 inputs:

Each input is a double one: 1 Line + 1 Mic for Phantom powered microphone. Both inputs are balanced and summed in a same channel, providing 16 inputs possibilities distributed in 8 input channels.



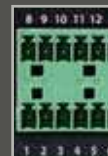
#### Digital signal processing on each output:

The engine system of Digiline MX and 8 includes a complete independent digital signal processing on each output, featuring Crossover, Equalizer and Dynamics. All of them are remotely configurable by using WORCAD.



#### RS 232 port (only for Digiline MX).

Digiline MX features a RS232 port in order to receive ASCII orders from any device that uses this protocol. Thus, it is possible to program automatic actions like preset changes, mute for all channel except one, etc.



#### GPI triggering (easy remote control):

In addition to traditional inputs, 12 GPI inputs (4 GPI in the Digiline 8) with TTL level (DC 0-5 V) are available to launch preset from a simple controller. Users can program several actions on the Digiline. For example, it is possible to set up alarm parameters (e.g. select one Micro as warning) and launching this preset with a signal. Thanks to the monitoring system, Digiline detects if contacts are closed or opened (these inputs can be used for output configurations with Digiline MX).



#### Optimum control through Ethernet.

Thanks to the advanced TCP/IP control system, these powerful networked units can be remotely controlled from the same computer and at the same time. It is possible to use an Ethernet controller for all the parameters of Digiline units but it also admits ASCII orders by TCP/IP being able to be managed by third party controllers.



#### Programmable Mic input.

An additional Mic input detects the acoustic level of the installation. Users can set up actions to be launched depending on acoustic level. For example, it is possible to set up an action which increases volume output when acoustic level is exceeded.



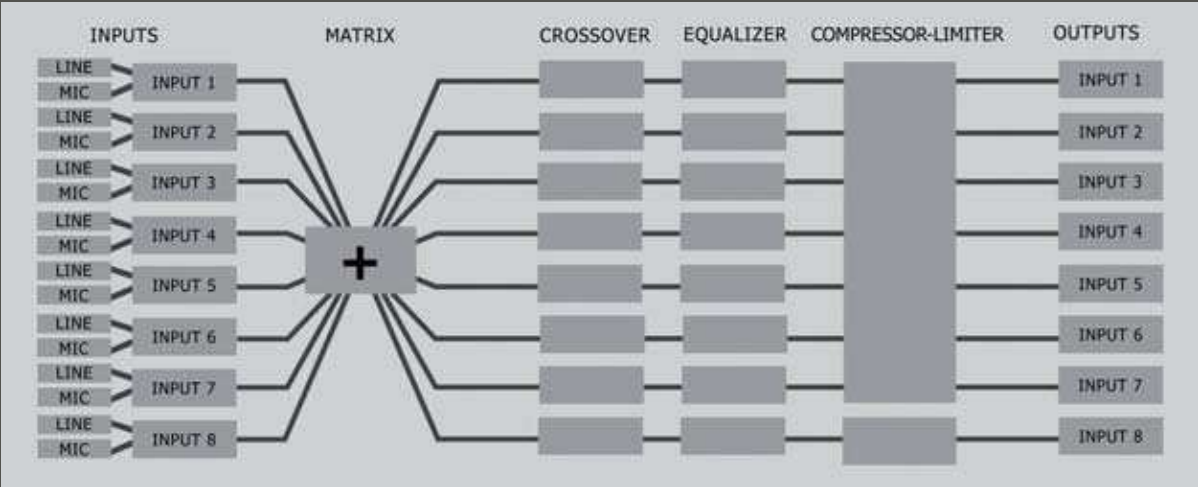
#### Rear panel



## Digiline MX

Digiline MX by itself is exclusively dedicated to processing uses, it means it doesn't include amplifier, such Digiline 8 does. In only 1 HU 19" rack unit, it is a very interesting alternative for those who already have a power amplifier or for others who need more power at the outputs. The remote control can be operated through ASCII orders by RS 232 or TCP/IP. Thus, it is possible to program automatic actions like preset changes, mute for all channels except one, etc. It also features 12 GPI inputs (against 4 GPI inputs for Digiline 8), providing further configuration possibilities.

# Digiline series



DSP block diagram.

## WGC 1 Digiline controller



WGC1 controller is a useful solution for many applications, because this device it's designed to control equipments with FPI interface. It means **WGC1** is a group of switches with the final purpose of switching on/of different contacts by pressing its corresponding button.

It is delivered together with a set of stickers where the final user will be able to write down the corresponding function for each button previously selected by him.

To use WGC1 with Digiline series is very simple, useful and economical, because with a simple configuration of the **WORKCAD Designer** you can program any action or set of actions, that **Digiline** will be able to carry out by pressing the WGC1 assigned button. For example; all MUTE channels, a volume FADE, to turn up the volume with one button and turn it down with the other, to change the audio source configuration for an only output, and an endless number of possibilities. Besides, WGC1 is not only compatible with Digiline, but also with any other GPI compatible control device.

Technical data	Digiline 8	Digiline MX
Inputs:	8 double MIC inputs (with phantom) + LINE balanced and one additional MIC input. All of them have Euroblock connector.	
Outputs:	8 outputs with Euroblock connector.	
Control interface:	TCP/IP and GPI.	TCP/IP, RS232 and GPI.
Control connections:	RJ45 (Ethernet TCP/IP) and Euroblock (GPI).	RJ45 (Ethernet TCP/IP) , DB9 (RS232) and Euroblock (GPI).
Control software:	WorkCAD Designer (included).	
Control indicators:	Frontal LED for signal presence.	Frontal LEDs for signal presence, input & output clip.
Frontal controls:	Gain control.	-----
GPI inputs:	4 GPI (normally opened TTL inputs) for direct control.	12 GPI (TTL inputs software selectable).
Input sensitivity:	0 dBu	0 dBu (20 dB PAD).
Phantom supply:	24 V MIC inputs.	24 V MIC inputs (selectable).
THD+N:	< 0.1 %.	< 0.1 %.
DSP features		
Matrix mixer:	8 mixers of 8 channels with reverse signal and mute for any channel.	
Crossover:	Butterworth type filters, Linkwitz-Riley and Bessel up to 4° order with up to 7 filters per output.	
Equalizer:	Equalizations with peak type curves, low pass, high pass, notch, low shelving, high shelving and band pass with up to 7 filter per output maximum.	
Dynamic control:	Common Limiter compressor for first 7 channels and an independent one for the last one.	
Output channel volume control:	Selectable by software and frontal potentiometer (36 dB to -109 dB range). 48 bit processing architecture with 76 bits of precision for most audio processing features.	
Presets memory:	10 program memories available.	
DSP Architecture:	32 bit processing with 40 bits of precision.	
Oversampling:	8 x Oversampling with fifth order noise shaping @ 32-48 kHz; 4 x Oversampling @ 88.2 and 96 kHz; 2 x Oversampling @ 176.2 kHz and 192 kHz.	
Digital De-emphasis:	For 32,44.1 and 48 kHz.	
Physical Features		
Power requirement:	1300 W.	50 W.
Main supply:	AC 120 ó 230 V (internally selectable).	AC 90-264 V (automatic).
Dimensions:	483 x 88 x 449 mm.	483 x 44 x 229 mm.

## WorkCAD Designer, the software for digital audio control and processing.

### What is WorkCAD Designer?

WorkCAD Designer is the software of WORK® designed to manage audio through TCP/IP and USB. It is suitable for many devices like the Digiline series and allows the independent control of each unit.

### WorkCAD Designer in action.

The exclusive design of WorkCAD Designer provides great benefits for users. Units connected through Ethernet are visualized in a unique computer: users can create a schematic visualization of the installation which is very useful to have a general view and understanding of the installation design. User can group devices in projects (each one with different zones) and name inputs and outputs, taking advantage of an intuitive management and visualization of the overall installation. It is also possible to select a device and edit its parameters (e.g. IP address, name, preset, filters, etc.). Programming operations can be done online and offline. Changes are instantaneously saved when WorkCAD Designer is connected. On the other hand, user can use the offline mode to prepare and save a show without affecting current process.

### Opening doors for future innovations.

Day after day, engineers of WORK team design new products and improve existing ones. For this reason, WorkCAD Designer software makes possible the integration in the same interface of all the devices of the brand, even those which will come to the market in the future. And because it is free, anyone can get and use the latest versions.

### Firmware updating from the software.

Improvements not only concern the software but rather any devices. Indeed, WorkCAD Designer is able to find firmware updates online and so to upgrade the device firmware. It ensures maximum reliability and compatibility of WORK devices with next systems coming out.

### The software for digital processing and audio control.

WorkCAD Designer is the ultimate software designed by WORK to control devices of the brand connected by Ethernet. It creates a virtual version of each unit and it generates an interface for the control of its specific parameters. Using it with Digiline units, users can edit all the following parameters:

- Control of presets (both visualization and execution).
- Control of the input matrix (8x8) with balance of each input. It is possible to edit the input level to be sent at each output.
- Control of output channel volume (36 dB to -109 dB) as well as Master volume.
- Crossover and equalization with seven BIQUAD filters independently configurable.
- Bessel, Linkwitz-Riley and Butterworth types.
- Adjustment of limitation and compression for the outputs.
- Name edition for inputs and outputs.



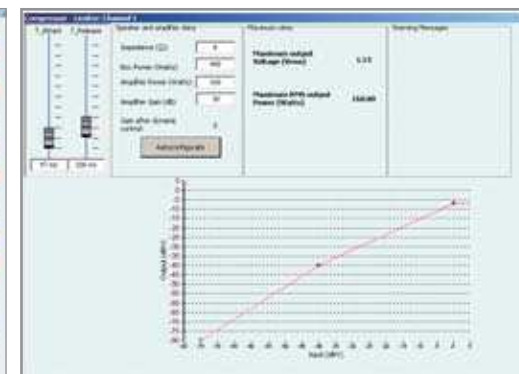
Main screen for WorkCAD Designer configuration.



Equalizer.



WorkCad matrix screen.



Limiter configuration.