

DHY~02

Digital Telephone Hybrid

The DHY-02 is a high quality digital telephone hybrid suitable for telephony applications in radio and TV stations, bingo halls and dealing floors. Sonifex digital hybrids use 16 bit DSP processing for optimum performance at all times. A commitment to innovative design has ensured that the DHY-02 is a high performance, reliable unit at a very competitive price.



The DHY-02 offers near perfect performance. Digital hybrids perform exactly the same function as analogue units, but have some additional benefits:

- Echo cancellation is improved and distortion of other mixed signals is greatly reduced.
- Digital hybrids are more tolerant to fluctuation line conditions and are especially suitable for dealing with calls that have a slight delay, for example, satellite calls. The DHY-02 can recall signals from its RAM buffer and allow for these delays without impairing performance.

Some of the features for the DHY-02 range include:

- Unwanted sideband rejection of 69dBu on tone, ref +8dB at 1 kHz.
- K-break and dial tone disconnect.
- Full adaptive echo cancellation to 28msec.
- LED bar graph metering of receive and transmit signals.
- Front panel input and output gain controls.
- Fully automatic - they automatically adapt to varying line conditions and have automatic signal limiting.
- Local and remote line hold switching - calls can be remotely switched through a mixing console.
- Balanced inputs and outputs - 0dBu transformer balanced 10k bridging clean feed line input and 0dBu low impedance transformer balanced output.
- BABT approval complaint with European PTT specifications.

What Is A Telephone Hybrid?

Telephone hybrids (or telephone balance units) provide the interface between professional audio equipment and the public telephone network. They provide protection for your equipment and the public telephone lines, allowing for varying line signals and line conditions. Automatically cancelling out the unwanted signal they also facilitate two-way communication down a single telephone line.

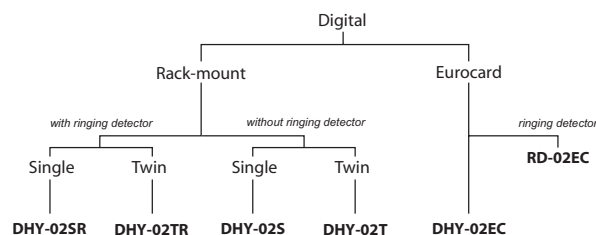
Each hybrid has a telephone line connection and separate terminals for audio input and output from a broadcast mixer, or other professional audio source.

A large proportion of Sonifex hybrids are used in radio and television broadcasting applications for allowing external callers to be connected to the studio mixing console. Other units are supplied to communication operations for allowing extremely effective conversion between 4-wire audio circuits and standard telephone lines.

Is A Ringing Detector Needed?

Ringing detectors can be used when you need to answer a call

Models Available



automatically, for instance, if a journalist files a report to a tape recorder over a telephone line, the call can be picked up after a set number of rings by the ringing detector.

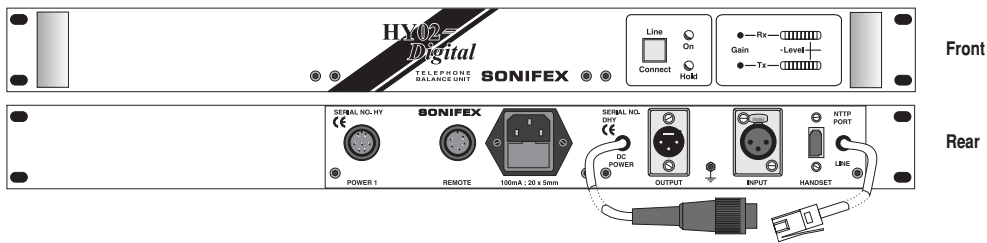
Which Format Is Most Suitable

The DHY-02 hybrids are available as 1U 19" rack-mount units, supplied in either single (DHY-02S) or twin (DHY-02T) configurations. Each model has an onboard approved power supply and optionally, an integral ring detector can be ordered for each unit (DHY-02SR & DHY02TR).

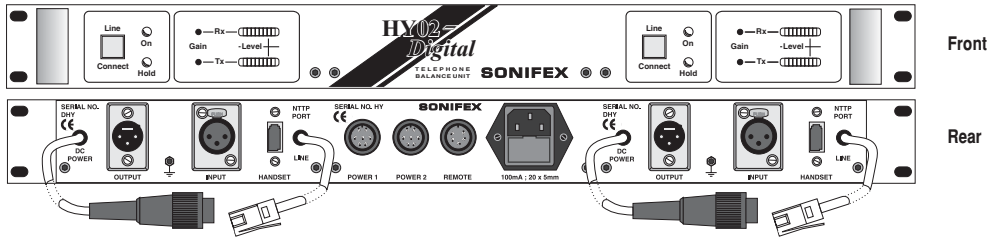
Also the hybrid can be supplied as a single eurocard. Eurocards are supplied without a power supply, or casing and are therefore significantly cheaper than the other units.

The cards can be slotted into a rack and located by the bracket at the front of the card. They are mainly used in mixing consoles, or other systems, which have been designed specifically with slots to hold eurocard equipment. Where multiple units are required they can be slotted into a rack and connected to a single power supply unit, saving money on duplicating power supplies and casing.

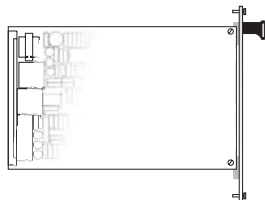
DHY~02



DHY-02S Single digital TBU, rack-mounted with PSU



DHY-02T Twin digital TBU, rack-mounted with PSU



DHY-02EC Eurocard version of DHY-02

Audio Specification

Clean Feed Input Line:	10k ohm balanced 0dB
Clean Feed Limiting Input:	+4 dBu
Bandwidth to Telephone Line:	250 Hz - 4kHz, -3 dB ref 1kHz
Telephone Line Impedance:	Nominally 600 ohm, reactive
Telephone Line Impedance Range:	300 ohm to 1.5 k ohm
Output:	Balanced floating 0dBu 10 ohm
Rejection Ratio:	Typically 69 dB ref +8dB
Power:	110V 60Hz, 220V-240V 50 Hz

Connections

Input Line:	XLR 3 pin female
Output Line:	XLR 3 pin male
Telephone Line:	BT6/502 cord plug (plugs into standard line jack socket)
Telephone instrument:	BT605A socket (accepts standard telephone plug)
Remotes:	5 way IP40 (678 series) (mating connector supplied)
Power:	IEC mains (CEE22)

Physical Specifications

	Height	Width	Depth*	Total Nett Weight
DHY-02S single digital rack-mount:	4.5cm (1U)	48.3cm (19" Rack fitting)	23.8cm	2.9kg
DHY-02T twin digital rack-mount:	4.5cm (1U)	48.3cm (19" Rack fitting)	23.8cm	3.4kg
DHY-02SR single digital rack-mount with ring detector:	4.5cm (1U)	48.3cm (19" Rack fitting)	23.8cm	2.9kg
DHY-02TR twin digital rack-mount with ring detector:	4.5cm (1U)	48.3cm (19" Rack fitting)	23.8cm	3.4kg
DHY-02EC digital eurocard:	13.5cm (3U)	8 E (1.6")	17.4cm	0.2kg

* Depth is measured from the front to the end of the connectors fitted to the back of the units.

SONIFEX

Sonifex have manufactured telephone hybrids for many years and have a reputation for quality combined with highest manufacturing standards.

Every stage in the manufacture of Sonifex products is carried out in purpose built head-quarters in the heart of the UK, from initial design to final test and delivery.

Sonifex is a BABT approved manufacturing facility with a licence to build telecommunications equipment and all telecom products are compliant with BS6301, BS7002, BS415 and CTR21.

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APPROVED for connection to telecommunication systems specified in the instructions for use subject to the conditions set out in them

S/3619/23/II/501792

In an effort to continually improve equipment performance, Sonifex reserve the right to alter product specifications from those given in this brochure. Errors and omissions excepted.

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