



Tech Note

C-DIN-M/F Gain Cables

Overview

When transducers, electrodes, and isolation amplifiers are used with iWorx data recorders or amplifiers like the iWorx 214 or the ETH-256C, the appropriate gain required for the proper operation of the transducer or probe is programmed by the transducer or probe itself. The amplification of the DIN 8 input channels is set by the value of a gain set resistor located inside the DIN 8 connector of the transducer or probe. When a transducer or probe is plugged into a DIN 8 input of the recorder or amplifier, the resistor completes a circuit that sets the gain of the input channel to a level that is proportional to the value of the resistor.

During the course of some experiments, the output of a transducer or a probe may need to be amplified above or below the level programmed by the gain set resistor of the transducer. The gain of DIN 8 input channels can be changed, without modification to the transducer or probe, through the use of C-DIN-M/F gain cables. This is possible because the resistor in a C-DIN-M/F gain cable replaces the resistor in the DIN 8 connector of the transducer when the C-DIN-M/F gain cable is placed between the DIN 8 connector of transducer and the DIN 8 input of the iWorx data recorder or amplifier.



Figure 1: C-DIN-M/F gain cable.

Equipment Setup

1. Select the C-DIN-M/F gain cable with the amplification needed for the experiment being performed.
2. Plug the male DIN8 connector of the C-DIN-M/F gain cable into one of the DIN8 inputs of an iWorx data acquisition unit or amplifier (Figure 2).
3. Plug the male DIN8 connector of the transducer, head stage amplifier, electrode assembly, or isolation amplifier into female DIN connector of the C-DIN-M/F gain cable (Figure 2).



Figure 2: A DHS-300 Differential Head Stage Amplifier connected to a C-DIN-M/F gain cable.

Specifications

iWorx Gain Cables:	X10 (C-DIN-M/F-X10) X100 (C-DIN-M/F-X100)
Input Connector :	Female DIN 8
Output Connector:	Male DIN 8

Cables with gains between X1 and X1000 are available at an additional charge.