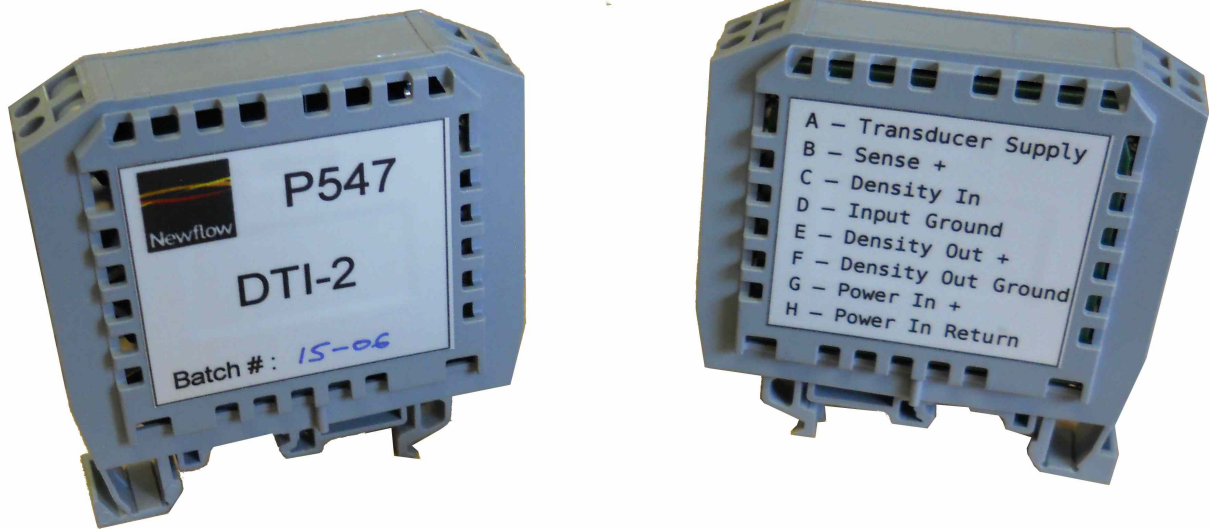


Density Transducer Interface DTI-2



Overview

The DTI-2, or Density Transducer Interface, Mk 2 takes a current modulated transducer output and converts it to a digital pulse signal capable of driving a variety of input devices. This can be used for two purposes. One use of the DTI-2 is as a booster, allowing one header-density transducer to drive up to 10 frequency inputs. The second use is to enable conventional digital or pulse inputs to be used with a current modulated Density transducer.

Features

- Allows current modulating devices to drive opto-isolators
- Output will drive up to 10 devices from one input
- Works with or without barriers
- Compact Rail Mounting housing

Function

When the DTI-2 is connected to a current modulation (2-wire Analog) Density Meter using a Zener Barrier, it should be connected as shown in Figure 1. The current modulation is sensed across the 300 Ohm barrier resistance, and the resulting modulated voltage is sensed via the diode return path in the barrier. A 10 K load is provided on Terminal C to ensure the diode is conducting.

If no I.S. Zener Barrier is required, terminals A and B should be connected together, and the Density meter connected between terminals C and D. Maximum supply current in this mode should not exceed 100mA.

The output voltage is approximately 90% of the supply voltage, and is able to supply a minimum of 25mA. This is sufficient current to drive 10 Opto-Isolated flow computer inputs, which typically require 2.5 mA

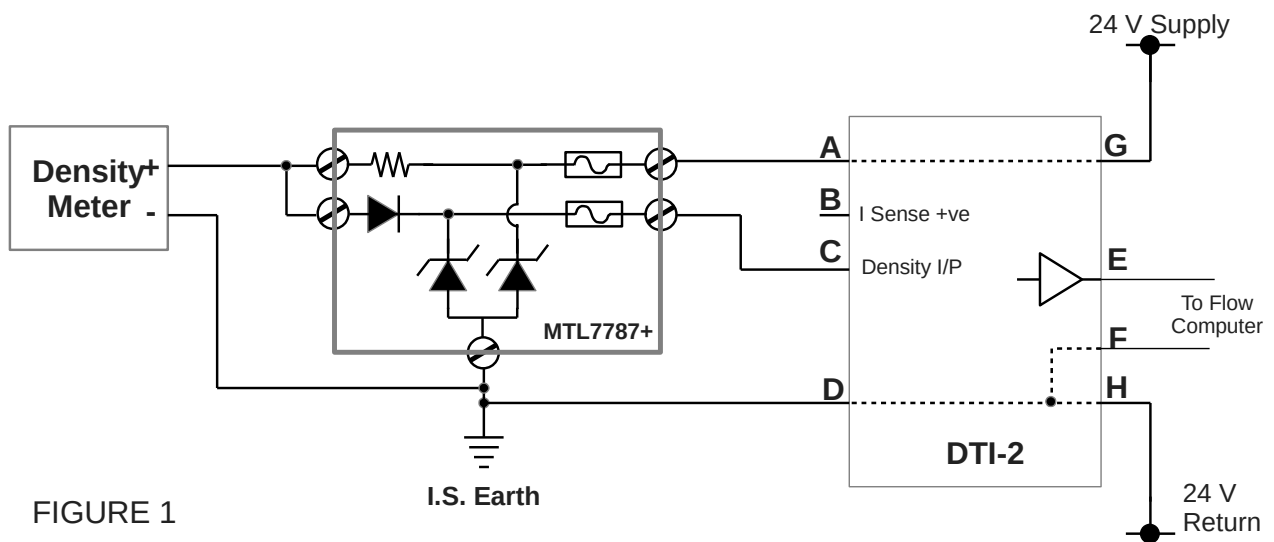


FIGURE 1

DTI-2 Specification

Supply Voltage	15V to 33V DC
Supply Current (No Load)	5mA at 24V typical
Output Drive Current	25mA with 24V supply
Input Sensitivity	400mV p-p at 1KHz
H.F. 3dB Point	3.3KHz typical
Size	64mm by 64mm taking 18mm of rail
Weight	45 gms
Mounting Style	Top-Hat rail to EN50022 or "G" rail to EN50035

DTI-2 Connections

A - Transducer Supply Output
 B - I Sense +ve
 C - Density Input
 D - Input Ground
 E - Density Output +ve
 F - Density Output Ground
 G - DC Power Input +ve
 H - DC Power Return

Old DTI Connections

SKT1 - 2
 SKT1 - 1
 SKT1 - 4
 SKT1 - 3
 SKT2 - 1
 SKT2 - 3
 SKT2 - 2
 SKT2 - 3