Description

A simple operation module suitable for powering process instrumentation such as pressure transmitters that require an external loop supply (4 to 20 mA). For automated testing using EasyCal software, an RS-232 connection is configured inside the CalBench console to a control centre module, when fitted (for example an 8060, 7051 or CC12).

0 to 199.99 mA Measurement: Measure current by connecting the 7079 in series with the circuit under test (the loop must have external power or use 24 V supply on module). The display will show the current flow in the circuit together with the polarity.

Continuity Test: To test circuit continuity, the user connects the circuit under test in series with the 7079 continuity terminals. If a circuit exists, an audible alarm will sound and visual indication will show. The threshold for this test is approximately 100 Ω.

Output 24 V: A separate isolated 24 V DC supply is provided to enable the powering up of 4 to 20 mA loops for instrumentation under test. This output is overload protected with an auto re-settable fuse. The 24 V is present at the output terminals whilst the CalBench is switched on. Simply connect the circuit to be powered to these terminals.

To power a 2 wire 4 to 20 mA system and monitor the current (when external power is not available) simply connect the 24 V output terminals and loop current measure terminals in series with the 2 wire circuit.

RS-232 Readback: An RS-232 port is provided for connection to a control centre module. EasyCal software can then be used to readback the loop current on demand, to allow automatic calibration of pressure transmitters.

Specifications

Range .......................................................... Loop current measurement 0 to 199.99 mA.
Resolution .......................................................... 10 μA.
Resistance .......................................................... Loop load 5 Ω.
Accuracy .......................................................... 0.05 % of reading ±1 digit.
Loop drive ...................................................... 24 V, 50 mA max - isolated and with short circuit protection.
Continuity .......................................................... Threshold: 100 Ω with audio and visual warning.
Terminals .......................................................... 4 mm shrouded sockets.
Interface ......................................................... RS-232. Connected internally to control centre or rear of the console.
Module width ..................................................... 80 mm (primary or secondary console fitting).

Features

• Loop measure 0 to 200 mA
• 4.5 digit display
• Continuity test
• 24 V output for powering 4 - 20 mA loops
• Overload protection to loop
• Supply line protection by F250 mA fuse
• EasyCal software communication via RS-232

Ordering Information

7079 ......................................... Loop Ancillaries Calibrator Module
C175 ........................................ Traceable calibration certificate (Factory)
C121 ........................................ Accredited calibration certificate (ISO 17025)