

MICROCONTROLLER BASED MANUAL LOADER



DCS – 723

DCS - 966

Model Wise Description:

Model	Product Description
DCS-723	Micro controller based Manual Loader in 72 x 72 x 120 mm
DCS-966	Micro controller based Manual Loader in 96 x 96 x 120 mm

Description:

This is a microcontroller based manual loader – designed to generate stable and accurate 4-20mA dc current signal, which can be fed to the 4-20mA operated load or actuator such as motorized valve, I/P converter etc... Unlike simple current source meter, the source output 4-20mA is also taken internally as the input feedback to ensure the external loop continuity of the signal which is being fed to the load. In case, the external 4-20mA loop is open, the fault message is indicated on the display, which ensures that the signal is actually being fed or not fed to the load. The 4-20mA signal is of 12 bit resolution, and is fed to the external device in the range of 0.0 to 100.0 %. The smallest change in the output is 0.01% or 16uA. Both the set value and the feedback values are simultaneously displayed on the 4 digit red LED display. The serial communication in the form RS485, having MODBUS RTU protocol is also provided for to SCADA or DCS. The protocol, allows configuration of digital ID of each such DCS-723 and monitoring of source and set parameters. DCS-723 works on 230VAC and is protected against industrial RFI/EMI interference by suitable filter.

Technical Specifications:

Input	Nil
Range	4.00 to 20.00 mA
Resolution	0.01 mA
Sampling rate / Display rate	40mS / 1 second
Indicating Accuracy	+/- 0.02mA

Display (DCS-723)	4 digit 0.3" Red 7-segment display for Source mA Output 4 digit 0.3" Red 7-segment display for % output.
Display (DCS-966)	4 digit 0.5" Red 7-segment display for Source mA Output. 4 digit 0.5" Green 7-segment display for % output.
Settings	Using front panel membrane key board to set the various parameters.
Memory Backup	Retention of Set values in the built in non-volatile memory in case of power failure and automatic re-execution on power resumption
Feedback	Taken from the 4-20mA output loop – Internal.
Source Output (Analogue)	Analog Output – 4-20mA i.e. percentage 0.0 to 100.0%
Serial Communication	Optically isolated 2 wire RS485 in Modbus RTU protocol. ID = 1 to 32 user programmable using front panel key board.
Supply	230VAC +/- 20%, 50/60Hz. Or 110VAC +/- 20 %, 50/60 Hz.
Panel Cutout	68 x 68 mm. +/- 0.5 mm. (DCS-723) 92 x 92 mm +/- 0.5 mm. (DCS-966)
Enclosure	Metallic powder coated with ABS bazel and polycarbonate front. (DCS-723). ABS plastic with polycarbonate front (DCS-966).

