MCIH

Cerebrum Series

PROGRAMMABLE TOTALISERS

MCP2-ITP

FEATURES

- ✦ **Accepts mA/V inputs**
- ✦ **Built in Transmitter powering**
- ✦ **Square root / linear selection**
- ✦ **Powerful software features**
- ✦ **Fully configurable through keypad**
- ✦ **5 digit rate of flow display**
- ✦ **6 digit totaliser with battery back-up**
- ✦ **Optional retransmission output**
- ✦ **Optional alarm / Pulse output contacts**
- ✦ **110 V / 220 V AC mains powered**

About *MCP2 ITP . . . .*

MCP2-ITP is an upgraded version of the conventional totaliser Model:MCP2-IT. The panel cutout dimensions of the instrument are same as MCP2-IT to facilitate easy replacement. MCP2-ITP is a microcontroller based totaliser, with front panel programmability to offer great flexibility to the user. Selection of input type, ranging, square root or linear conversion, alarms on rate of flow or count and even the selection of output type are all keypad configurable from the front panel. No dipswitch setting, jumper selection or screw driver adjustments are needed. Hence the operational reliability of the totaliser is at its best. The user can convert one of the alarm contacts to retransmit the pulse train to a remote electromechanical counter.

MCP2-ITP is offered in four different models to give cost effective and optimised solutions covering every requirement.

MCP2-ITP-NN is the basic model having 5 digit rate of flow display and 6 digit totaliser display and transmitter powering with all the necessary software features.

MCP2-ITP-AN is with 2 alarm contacts added to the basic model.

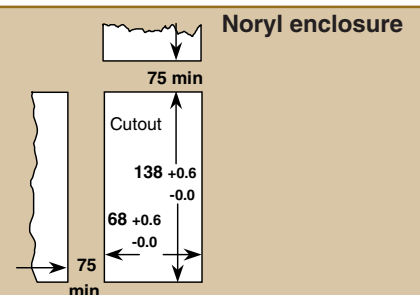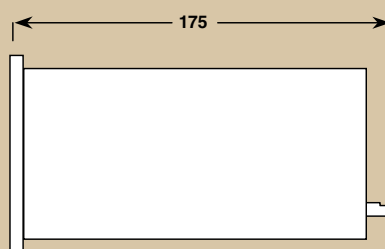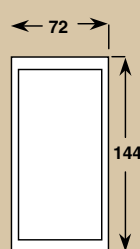MCP2-ITP-NT is with retransmission output (mA/V configurable) added to the basic model.

MCP2-ITP-AT is a full fledged totaliser with 2 alarms and a retransmission output added to the basic model.

GENERAL SPECIFICATIONS

Power Supply	: 90 to 270V AC/ 50 to 60 Hz (5W).	**Humidity**	: 0-90% (Non Condensing).
Operating Temp.	: 0 to 55 °C.	**Mounting**	: Flush panel.
Storage Temp.	: 0 to 70 °C.	**Bezel**	: 72mm (W) X 144mm (H).

DIMENSIONS : In mm and not to scale

Noryl enclosure

72

144

175

75 min

Cutout

138 +0.6 -0.0

68 +0.6 -0.0

75 min

PERFORMANCE SPECIFICATIONS

INPUT

Types and Accuracy

Input	Range	Accuracy
mA 1	4-20 mA	±0.1% FS
mA 2	0-20 mA[1]	±0.1% FS
V 1	1-5 V	±0.1% FS
V 2	0-10 V[1]	±0.1% FS

Note 1: User can define any special range with in the range limits indicated.
For example, user can fix a range of 2- 8volts which lies

0   User Defined Range   +10 V
2V   8V
Basic Range Limits

with in the basic range limits of 0V and 10V.

I/P Impedence: 51Ω for mA, 1MΩ for Voltage.
Filter : Programmable Digital Filter.
Tx. Powering : 24V DC,30mA. Short circuit protected.

DISPLAY

Type : Seven segment LED.
Size : 8mm.
Range : Rate of flow (5digits). -19999 to 30,000.
Resolution : Configurable upto four decimal places.

TOTALISER

No of Digits : Six.
Back up : By Ni-Cd rechargeable cells.
Resolution : Congfigurable upto 3 decimal places.
Count rate : Configurable upto 10,000 counts/hr.

ALARMS (Optional)

Types : Hi/Lo on rate flow & Totaliser counter.
Setpoints &
Hysteresis : In Engg. units or in %.
Output : Two Change over relay contacts 250 V AC, 5 A. (Non-inductive).
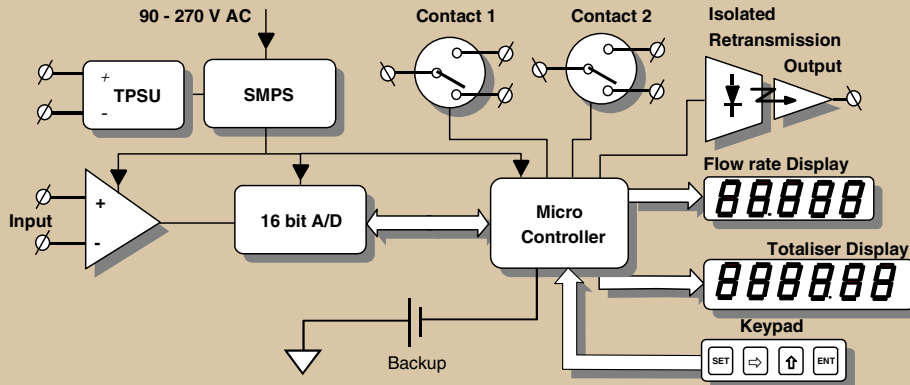
RETRANSMISSION (Optional)

Output : 0-20mA / 4-20mA / 0-5 V / 1-5V / 0-10V Selectable through front panel Keypad.
Accuracy : ± 0.05% of FS (D/A accuracy only).
Load : 600Ω (max.) for mA. 1KΩ (min.) for V.

PROGRAMMABLE FEATURES

Totaliser cutoff limit for low signals.
Square root extraction selection.
Retransmission output type selection.
Repeating contact output for remote counter.

For totaliser with 8 digit counter refer to Model Cutetot catalog

FUNCTIONAL SCHEMATIC

ORDERING INFORMATION

Alarm	Retransmission	Model
Not provided	Not provided	MCP2-ITP - **NN**
Provided	Not provided	MCP2-ITP - **AN**

Alarm	Retransmission	Model
Not provided	Provided	MCP2-ITP - **NT**
Provided	Provided	MCP2-ITP - **AT**

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Specifications are subject to change without any notice due to continuous development.