

MHO/STRAIN-GAGE/MICROVOLT INPUT DPM
With Built-In Excitation
"Flat Pack" No Panel Cut Out Required
(NEMA 3 or NEMA 4X)

MODEL
543



FLAT PACK

Features

- Built-in Excitation
- Powers 300Ω to 5KΩ Bridges
- Measures Conductivity (MHO)
- High Stability
- .6" LED 3½ Digit Display
- NEMA 3 or NEMA 4X Case
- Only ½" Thick



SANITARY

DESCRIPTION: Model 543 requires 5VDC power and accepts 300Ω to 5000Ω bridges with 2mV/V or greater output. Internal excitation (5VDC) with excellent line and load regulation is standard. Customer to specify a.) bridge resistance, b.) mV/V output, c.) mV at zero & full scale.

CALIBRATION: All units are shipped calibrated to customer's specifications according to S-G impedance (ohms) and sensitivity. To recalibrate the 543, apply power, remove the plug, adjust the "zero" potentiometer, apply "Full Scale" (pressure/weight/signal) and adjust the span potentiometer for desired reading, replace plug by snapping it into the housing.

EXCITATION: A powerful and 90%+ efficient DC-DC converter and ref. OPamp is used to provide the highly stable (±0.05%) excitation to the external bridge capable of powering bridges as low as 300Ω or as high as 5000Ω impedance (others on request), the output amplifier is chopper stabilized for greater noise rejection.

HOUSING: Otek's Flat Pack requires no panel cut out. Just drill a 10mm (3/8") Ø hole, pass the wires through, attach the provided double-sided tape (to prevent rotation), align the flat pack, tighten the nut and make the connections to the wires. No connector or tools required! No behind the panel space needed! The case is U.L. approved ABS Polycarbonate 94VO rated. **NEMA 4 housing option does not have access to the adjustments. If other than Otek's standard setting is required, please specify at the time of ordering.** Our New Sanitary housing is wall, pipe or panel mount and can have up to 2 flat packs, please specify.

DECIMAL POINTS: Externally selectable.

POWER SUPPLIES: Externally mounted. Two types are available, the "Open Frame" style accepts 120/240VAC and delivers 5VDC at up to 400mADC. The "Power Pack" is a wall plug in module available only for 120VAC input and delivers 5VDC at up to 200mADC.

SPECIFICATIONS AT 25°C

Accuracy and Linearity	±0.05 ±1 digit
Maximum Input, at Pin 3	±3VDC
Drift vs. Temperature	(±1LSB/°C) ±0.05%/°C
Samples/Second	4 Nominal
Input Bias Current	5 pA
Input Impedance	1000 Meg. Nominal
Operating/Storage Temp	-10° to +60°C/-20° to +70°C
Power Requirements	5VDC ±½V at 200mA max.
Display Type LED	3½ Digit .6" Red LED
Minimum Input Range F.S.	±2mV
Zero Adjustment Range	±50% of F.S.
Gain (Span) Adjustment	±25% of F.S.
Noise Rejection (NMR)	95dB, 50/60Hz
CMV (+5 to GND)	±3VDC
MTBF	100,000 Hours
Sanitary Case	NEMA 4X up to 250°F Steam Cleaning

EXCITATION

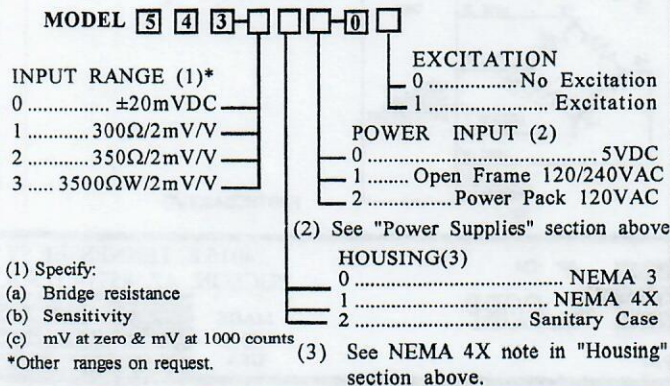
Output	5VDC ±5%
Temp. Stability	+0.05%/°C
Load Stability	±0.05% of setting (300-5KΩ)
Max. Output	40mADC

LEAD COLOR

TERMINAL DESCRIPTION

YELLOW	+ Signal Input
ORANGE	- Signal Input
RED	+ 5VDC Power Input
WHITE	+ Excitation Output
BLACK	Power Ground
GREEN	- Excitation Out
BLUE	Analog Out
VIOLET	1.XXX Decimal Point : connect to Black to illuminate.
GRAY	1X.XX Decimal Point : connect to Black to illuminate.
BROWN	1XX.X Decimal Point : connect to Black to illuminate.

ORDERING INFORMATION (11/1/00)



STRAIN-GAGE/μVDC

