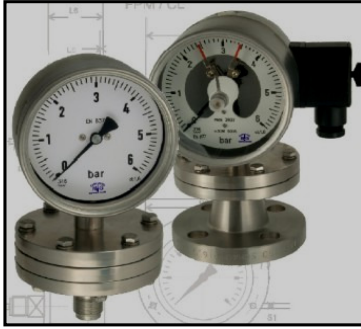


# DIGITAL PRESSURE GAUGES/CONTROLLERS

MDPG--Series

**Introduction:** MDPG series of digital pressure gauges/controllers are available in more than 100 different modes, virtually offering solutions to pressure measurement/control for any liquid in varied pressure range i.e. 0.01 kg/cm<sup>2</sup> – 10000.0 kg/cm<sup>2</sup>. These pressure gauges are offered in material like SS-316 (ceramic/Teflon coating), polypropylene, derelin etc to make up with corrosion, thermodynamical and other pertinent physical properties of gauges of fluid/gas under measurement. On account of above, these gauges are first choice for medical diagnostic, agro, biomedical, petrochemical, automobile, organic/inorganic chemical, milk plant, sugar, textiles, beverages, water management/treatment, academic and defense.

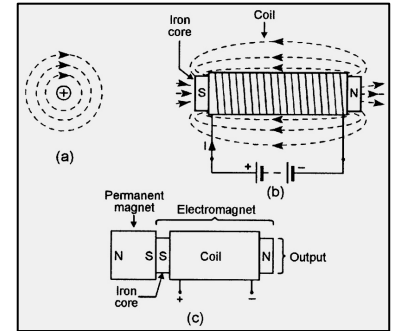
**Operating Principle:** Fluids/gases passing through the -pressure gauges imparts pressure on diaphragm/bourdon as result inductance of coil mounted on diafram/tube moves close to pick-up coil. This result in change in induce emf of pick-up coil. This induce emf is linearized to applied pressure in accuracy range of 99%. . It May have two set point for alarm and may be interface with PC using RS-232.



MDPG- 500



MDPG-050



schematic of working principle

Electrical/Mechanical specification of Low Temp Tempreture/low Pressure Gauges MDPG SERIES PRESSURE RANGE <100.00 kg/cm<sup>2</sup>

Model	PRESSURE range kg/cm <sup>2</sup>	Size (inch)	Accuracy	Repeatability	Operating Temp °C	PRESSURE tube-Liner	O.D.P.	Leak rate	Output signal-volt
MDPG-0001L	001.000.0	1/2	99.5	100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0002L	002.000.0	3/8	99.5	100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0004L	0048.00.0	1.0	99.5	100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0007L	0070.00.0	1.5	99.5	100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0010L	0100.00.0	2.0	99.5	100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0020L	020.0.00.0	3.0	99.5	100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0050L	050.0.00.0	4.0	99.5	100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0100L	100.0.00.0	6.0	99.5	100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0

## DIGITAL PRESSURE GAUGES CONTROLLER SPECIFICATION:

Operating voltage 220 volts/28 volts D.C.

Pressure range: +/- 0 to 1, 1.6, 2, 2.5, 4, 6, 10, 16 25, 40, 60, 100, 160, 250, 400 & 600 kg/cm<sup>2</sup>

Excitation frequency 2.5/7.5/15.0/25.0 Hz

Response time: 10,000 sample/sec

Hydraulic Burden: less than 100 micro psi /full scale current

Accuracy: 0.5/1.0/2.0 % reading

Repeatability: 100 of reading

Resolution: 1/10 of least significant bit

Linearity adjustment: upto 100 nano volt

Input imedence: ultra low (<1000 micro-psi,

Operating Temperature: -50 to 600 degree cel in different ranges

Step down ratio 1:2000/1:1:10000/1:100,000

Pressure tube/casing material SS-316

Filtering: low pass

Offset: variable upto 10,000 nano volts (manual/auto)

CMMR: >80 db at 50-60 Hz

Isolation: > 100 giga ohm

Connection size: 1/4, 1/2, 1.0, 1.5 inches

Interface Signal 0.0-12.0 volts D.C. (proportional to pressure)

Control option Pressure control against set point with multi

Pressure synchronized control (interactively) with predictive/ **Control system/ dp, dp/dt, dp.t** to ensure boiler safety.

Display 3 1/2 & 4 1/2 digit red glow LED/LCD display/analogue

Controller size 48x48x96, 72x72x96, 96x96x192

Protection: IP-65/67 /Interface: RS-232

Option: ADDITIONAL SOFTWARE to plot V/I OR ANY DESIRED INFERENCEAL PARAMETER



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# DIGITAL TYPE PRESSURE GAUGES/CONTROLLERS

MDPG/MDPG-Series

Electrical/Mechanical specification of High Temp Temperature/High-Pressure

MDPG SERIES PRESSURE RANGE <10000.00 kg/cm<sup>2</sup>

Model	PRESSURE range kg/cm <sup>2</sup>	Size (inch)	Accuracy Repeatability	Operating Temp °C	PRESSURE tube-Liner	O.D.P.	Leak rate	Output signal-volt
MDPG-0010H	0100.00.0	2.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0020H	020.0.00.0	3.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0050H	050.0.00.0	4.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0100H	100.0.00.0	6.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0200H	200.0.00.0	8.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0500H	500.0.00.0	10.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0800H	800.0.00.0	12.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-1000H	10000.00.0	14.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0

Electrical/Mechanical specification of Low Temp Temperature/Low pressure range

MDPG SERIES PRESSURE RANGE <100.0 kg/cm<sup>2</sup>

Model	PRESSURE range kg/cm <sup>2</sup>	Size (inch)	Accuracy Repeatability	Operating Temp °C	PRESSURE tube-Liner	O.D.P.	Leak rate	Output signal-volt
MDPG-0001L	001.000.0	½	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0002L	002.000.0	3/8	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0004L	0048.00.0	1.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0007L	0070.00.0	1.5	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0010L	0100.00.0	2.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0020L	020.0.00.0	3.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0050L	050.0.00.0	4.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0100L	100.0.00.0	6.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0

Electrical/Mechanical specification of High Temp Temperature/High Pressure Gauges MDPG SERIES PRESSURE RANGE <10000.00 kg/cm<sup>2</sup>

Model	PRESSURE range kg/cm <sup>2</sup>	Size (inch)	Accuracy Repeatability	Operating Temp °C	PRESSURE tube-Liner	O.D.P.	Leak rate	Output signal
MDPG-0010H	0100.00.0	2.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0020H	020.0.00.0	3.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0050H	050.0.00.0	4.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0100H	100.0.00.0	6.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0200H	200.0.00.0	8.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0500H	500.0.00.0	10.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-0800H	800.0.00.0	12.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
MDPG-1000H	10000.00.0	14.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0

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# DIGITAL DIFFERENTIAL PRESSURE GAUGES/CONTROLLERS

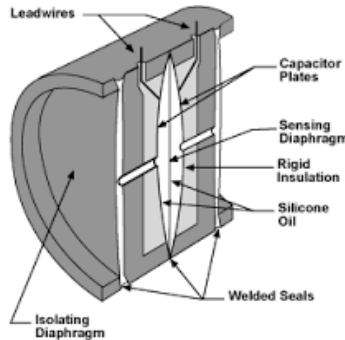
MDPG--Series

**Introduction:** MDPG series of digital pressure gauges/controllers are available in more than 100 different modes, virtually offering solutions to pressure measurement/control for any liquid in varied pressure range i.e. 0.01 kg/cm<sup>2</sup> – 10000.0 kg/cm<sup>2</sup>. These pressure gauges are offered in material like SS-316 (ceramic/Teflon coating), polypropylene, derelin etc to make up with corrosion, thermodynamical and other pertinent physical properties of gauges of fluid/gas under measurement. On account of above, these gauges are first choice for medical diagnostic, agro, biomedical, petrochemical, automobile, organic/inorganic chemical, milk plant, sugar, textiles, beverages, water management/treatment, academic and defense.

**Operating Principle:** Fluids/gases passing through this meter, inserts pressure on both diafram as result inductance of coil mounted on both diafram/tube moves to alter relative distance as result e.m.f. in pick-up coil is induce. This induce emf is linearized to applied pressure in accuracy range of 99%. It May have two set point for alarm and may be interface with PC using RS-232.

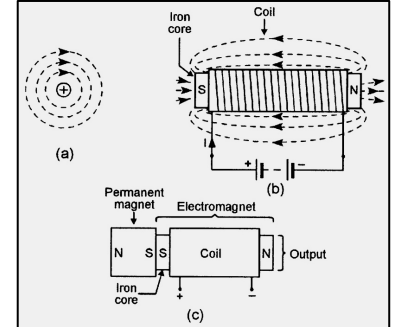


DDPG- 500



DDPG-050

Figure 2-11 - Typical Capacitance Cell



schematic of working principle

**Electrical/Mechanical specification of Low Temp Tempreture/low Pressure Gauges DDPG SERIES PRESSURE RANGE <100.00 kg/cm<sup>2</sup>**

Model	Diff. PRESSURE range kg/cm <sup>2</sup>	Size (inch)	Accuracy Repeatability	Operating Temp °C	PRESSURE tube-Liner	O.D.P.	Leak rate	Output signal-volt
DDPG-0001L	001.000.0	½	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0002L	002.000.0	3/8	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0004L	0048.00.0	1.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0007L	0070.00.0	1.5	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0010L	0100.00.0	2.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0020L	020.0.00.0	3.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0050L	050.0.00.0	4.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0100L	100.0.00.0	6.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0

**DIGITAL PRESSURE GAUGES CONTROLLER SPECIFICATION:**

Operating voltage 220 volts/28 volts D.C.

Pressure range: +/- 0 to 1, 1.6, 2, 2.5, 4, 6, 10, 16 25, 40, 60, 100, 160, 250, 400 & 600 kg/cm<sup>2</sup>

Excitation frequency 2.5/7.5/15.0/25.0 Hz

Response time: 10,000 sample/sec

Hydraulic Burden: less than 100 micro psi /full scale current

Accuracy: 0.5/1.0/2.0 % reading

Repeatability: 100 of reading

Resolution: 1/10 of least significant bit

Linearity adjustment: upto 100 nano volt

Input imedence: ultra low (<1000 micro-psi,

Operating Temperature: -50 to 600 degree cel in different ranges

Step down ratio 1:2000/1:1:10000/1:100,000

Pressure tube/casing material SS-316

Filtering: low pass

Offset: variable upto 10,000 nano volts (manual/auto)

CMMR: >80 db at 50-60 Hz

Isolation: > 100 giga ohm

Connection size: ¼, 1/2, 1.0, 1.5 inches

Interface Signal 0.0-12.0 volts D.C. (proportional to pressure)

Control option Pressure control against set point with multi

Pressure synchronized control (interactively) with predictive/ **Control system/ dp, dp/dt, dp.t to ensure boiler safety.**

Display 3½ & 4½ digit red glow LED/LCD display/analogue

Controller size 48x48x96, 72x72x96, 96x96x192

Protection: IP-65/67 /Interface: RS-232



# DIGITAL DIFFERENTIAL PRESSURE GAUGES/CONTROLLERS

DDPG/MDPG-Series

Electrical/Mechanical specification of High Temp Temperature/High-Pressure

DDPG SERIES PRESSURE RANGE <10000.00 kg/cm<sup>2</sup>

Model	PRESSURE range kg/cm <sup>2</sup>	Size (inch)	Accuracy Repeatability	Operating Temp °C	PRESSURE tube-Liner	O.D.P.	Leak rate	Output signal-volt
DDPG-0010H	0100.00.0	2.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0020H	020,0.00.0	3.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0050H	050,0.00.0	4.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0100H	100,0.00.0	6.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0200H	200,0.00.0	8.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0500H	500,0.00.0	10.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0800H	800,0.00.0	12.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-1000H	10000.00.0	14.0	99.5 100	<600	Ceramic/PP	2000	<1.8x10	0.0-12.0

Electrical/Mechanical specification of Low Temp Temperature/Low pressure range

DDPG SERIES PRESSURE RANGE <100.0 kg/cm<sup>2</sup>

Model	PRESSURE range kg/cm <sup>2</sup>	Size (inch)	Accuracy Repeatability	Operating Temp °C	PRESSURE tube-Liner	O.D.P.	Leak rate	Output signal-volt
DDPG-0001L	001.000.0	½	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0002L	002.000.0	3/8	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0004L	0048.00.0	1.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0007L	0070.00.0	1.5	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0010L	0100.00.0	2.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0020L	020,0.00.0	3.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0050L	050,0.00.0	4.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0100L	100,0.00.0	6.0	99.5 100	<100-4000	Ceramic/PP	2000	<1.8x10	0.0-12.0

Electrical/Mechanical specification of High Temp Temperature/low Pressure Gauges DDPG SERIES PRESSURE RANGE <10.0 kg/cm<sup>2</sup>

Model	PRESSURE range kg/cm <sup>2</sup>	Size (inch)	Accuracy Repeatability	Operating Temp °C	PRESSURE tube-Liner	O.D.P.	Leak rate	Output signal
DDPG-0010H	00.1000	1/4	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0020H	00.2000	3/8	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0050H	01.0000	1.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0100H	002.000	1.5	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0200H	002.000	2.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0500H	005.000	3.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-0800H	005.000	4.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0
DDPG-1000H	010.000	6.0	99.5 100	<100,250	Ceramic/PP	2000	<1.8x10	0.0-12.0

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