

## MP4AR Remote Convection Gauge

Range: Atmosphere to  $1 \times 10^{-3}$  Torr

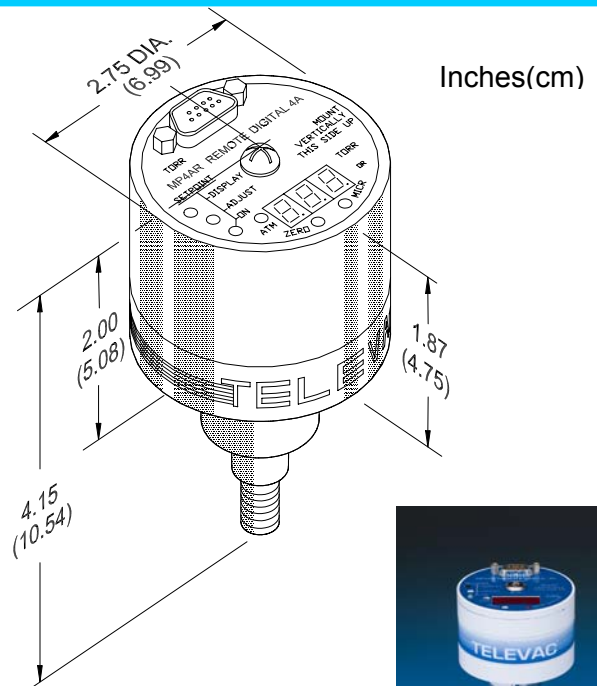
- **PERFORMANCE** - Wide range, fast response and repeatable vacuum measurement system
- **DESIGN** - Simple to read digital display for easy production floor inspection
- **EFFICIENCY** - Quick and easy to replace sensor with zero & atmosphere adjustments
- **ECONOMY** - Stand-alone system eliminates the need for traditional panel-mount instrumentation and cabling



### Description

### Dimensions

The MP4AR series Convection Remote gauges are compact and easy to use vacuum measurement systems. The patented 4A Convection sensor with fast response time provides actual vacuum readings in milliseconds, much faster than traditional thermocouple type sensors. Wide range vacuum measurement from atmosphere to  $1 \times 10^{-3}$  Torr is an additional feature of this patented convection technology. The compact design of the MP4AR will fit in almost any space area and the self-contained electronics allows you to measure vacuum without using traditional large panel-mount instrumentation systems, clearly a more economical solution. Linear 0-10V output signal can be used for remote displaying and controlling of your vacuum measurement system. The easily adjustable setpoint feature uses a Form C relay contact allowing you to control other functions of your process. The MP4AR is a perfect choice for your OEM vacuum measurement application.



### Applications:

Cryogenics	Heat Treatment	Coating Process
Pharmaceutical Products	Electron Beam Welders	
Packaging	Chemical	Pick-up and Conveying

# MP4AR Remote Convection Gauge

## Ordering Information

## Specifications

**MP4AR** Analog output with LED Display  
 Display range: Atmosphere to  $1 \times 10^{-3}$  Torr  
 1 relay contact

Part Number  
 2 - 7930 - X YY

**X**      **0 – 10 V Output**

<b>1</b>	Log :	$1 \times 10^{+3}$ to $1 \times 10^{-3}$ Torr 6 Volts = $10^{+3}$ Torr 0 Volts = $10^{-3}$ Torr
<b>2</b>	Linear:	1 to 1000 microns 10 Volts = 1000 microns 0.01 Volts = 1 micron

**YY**      **Vacuum Fittings**

<b>10</b>	1/8" NPT Nickel Plate Brass <b>Following are Stainless Steel Connections</b>
<b>01</b>	1/8" NPT
<b>11</b>	1/2" Port Diameter
<b>30</b>	NW16 KF Flange
<b>31</b>	NW25 KF Flange
<b>32</b>	NW40 KF Flange
<b>40</b>	8 VCO male type
<b>41</b>	8 VCO female type
<b>42</b>	8 VCR male type
<b>43</b>	8 VCR female type
<b>44</b>	4 VCR male type
<b>45</b>	4 VCR female type
<b>50</b>	1.33" Conflat Flange
<b>52</b>	2.75" Conflat Flange

### Sensor Only Replacements

	Part Number
4A Sensor w/ NW16, Stainless	2-2120-030
4A Sensor w/ NW25, Stainless	2-2120-031
4A Sensor w/ 1/8" NPT, Stainless	2-2120-001

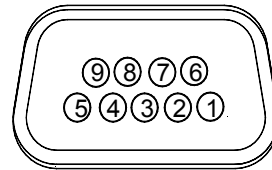
*others available upon request, contact factory*

### Cables

10 ft. 9 pin to Strip & Tin Leads	2-9852-010
20 ft. 9 pin to Strip & Tin Leads	2-9852-020
35 ft. 9 pin to Strip & Tin Leads	2-9852-035
50 ft. 9 pin to Strip & Tin Leads	2-9852-050

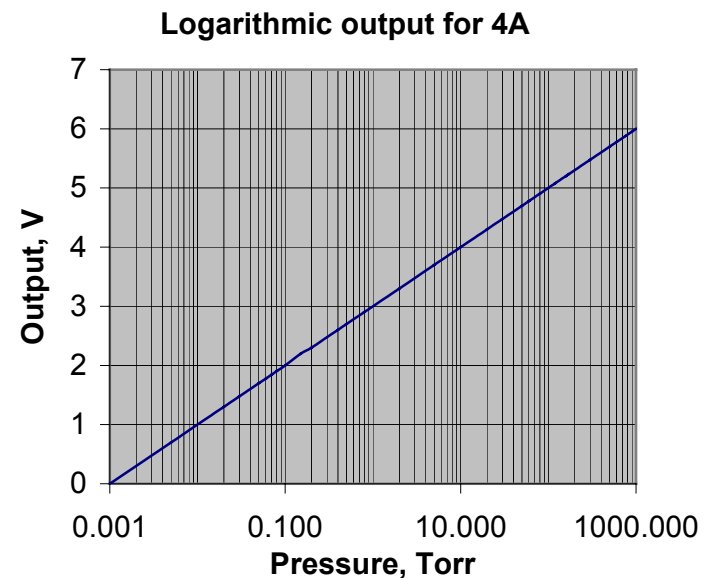
<b>Range</b>	Atmosphere to $1 \times 10^{-3}$ Torr
<b>Accuracy</b>	+/- 1 micron      0-10 microns +/- 10% of reading    10 microns to 10 Torr +/- 20% of reading    10 to 100 Torr +/- 10% of reading    100 to 1000 Torr
<b>Mounting Orientation</b>	Must be mounted vertically
<b>Input Voltage/Power</b>	Required 24V DC @ 100 mA
<b>Setpoint Relay</b>	Form C Contact 24V .5 A rating
<b>Operating Temperature</b>	+ 15 to +50 C
<b>Calibration Medium</b>	Dry Air or Nitrogen
<b>Sensor Material</b>	Stainless Steel or Nickel Plated Brass
<b>Overpressure Tolerance</b>	150 PSI

## Electrical Connections



1. Relay normally open
2. Relay normally closed
3. +24 Volt power
4. Power common
5. Lin/Log signal output
6. Relay common
7. Non-linear signal output
8. Signal return
9. Set point output

## Output Graph



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