# MAG050, MAG060

## Cold Cathode Gauges – Passive

The INFICON passive Cold Cathode Gauge Heads MAG050 and MAG060 are designed for use with the INFICON Vacuum Gauge Controller VGC083C. They are constructed of a compact metal design resulting in a simple yet rugged gauge suitable for numerous industrial applications. Gauge Head MAG050 utilizes an elastomer internal seal while the MAG060 uses a metal seal allowing pressure measurements in the UHV range. The Gauge Head assembly can be easily disassembled and cleaned allowing long term use with minimal down time. A Gauge Head ignition aid mounted on the anode improves the time it takes to set the Cold Cathode Gauge Head on.
MAG050 measures low as $2 \times 10^{-9}$ hPa | mbar and MAG060 down to $1 \times 10^{-10}$ hPa | mbar.
The MAG050 is made for industrial use in different applications and bakeable to 150 °C.
The MAG060 is made for R&D applications down to $1 \times 10^{-10}$ hPa | mbar and bakeable up to 250 °C and radiation resistant.


### ADVANTAGES

- Reliable and proven gauge head design
- Bakeable to 150 °C (MAG050) or 250 °C (MAG060).
- Good ignition properties
- Corrosion resistant with ceramic feed through
- MAG060 radiation resistant design
- Easy to maintain

### ORDERING INFORMATION

| Type | MAG050<br>FPM sealed | MAG060<br>metal sealed |
|---|---|---|
| DN 25 ISO-KF | **399-840** | – |
| DN 40 ISO-KF | **399-841** | **399-845** |
| DN 40 CF-F | **399-842** | **399-846** |

### ACCESSORIES

| Cable to VGC083C | MAG050/060<br>250°C | MAG060/060<br>80 °C |
|---|---|---|
| 3 m (9.0 ft) | **399-830** | **399-820** |
| 8 m (25.0 ft) | **399-831** | **399-821** |
| 15 m (50.0 ft) | **399-832** | **399-822** |

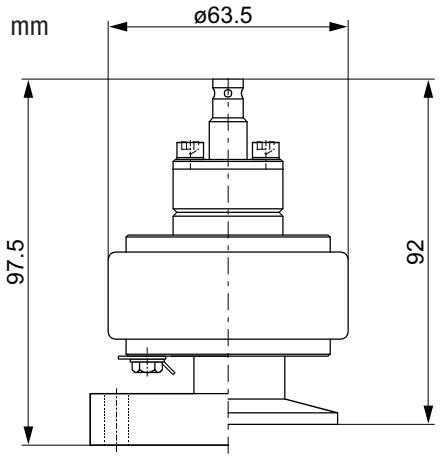
Other lengths on request

## SPECIFICATIONS

| Type | | | MAG050<br>FPM sealed | MAG060<br>metal sealed |
|---|---|---|---|---|
| Measurement system | | | cold cathode ionization measurement system<br>(according to the inverted magnetron principle) | |
| Measurement range (air, $N_2$) | | hPa \| mbar | $2\times10^{-9}$ … $5\times10^{-3}$ | $1\times10^{-10}$ … $5\times10^{-3}$ |
| Accuracy ($N_2$, typical) | | % of reading | 30 [1] | |
| Repeatability (typical) | | % of reading | 5 [1] | |
| Overpressure | | kPa (bar) | ≤900 (9) | |
| Mounting orientation | | | any | |
| Admissible temperature | | | | |
| Operation | with normal cable | °C | +5 … +80 | +5 … +80 |
| | with high temperature cable | °C | +5 … +150 | +5 … +250 |
| Bakeout | | °C | 150 | 250 |
| Storage | | °C | –40 … +80 | –40 … +80 |
| Relative humidity | | | max. 80 % at temperatures up to +31 °C, decreasing to 50 % at+45 °C | |
| Use | | | indoors only, altitude up to 2000 m | |
| Radiation resistance | | rad | – | $10^9$ |
| Operating voltage (in measuring chamber) | | kV | ≤3.3 | |
| Operating voltage (in measuring chamber) | | µA | ≤700 | |
| Electrical connection | | | | |
| Connector | | | SHV | |
| Type | | | coaxial cable | |
| Cable length between gauge & measurement unit | | m | ≤100<br>≤40, if the lower limit of the measurement range is used | ≤100<br>≤6, if the lower limit of the measurement range is used |
| Materials exposed to vacuum | | | stainless steel, $Al_2O_3$, FPM, Mo | stainless steel, $Al_2O_3$, Ag, Mo |
| Internal volume | | $cm^3$ | 20 | |
| Weight | | | | |
| DN 25 ISO-KF | | g | 600 | – |
| DN 40 ISO-KF | | g | 600 | 600 |
| DN 40 CF-F | | g | 850 | 850 |
| CE compliance [1] | EMC | | 2014/30/EU, EN61000-6-2, EN61000-6-4, EN61326-1 | |
| | Safety | | EN61010-1 | |
| | RoHS | | 2011/65/EU | |

[1] When used with VGC083C

## DIMENSIONS

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