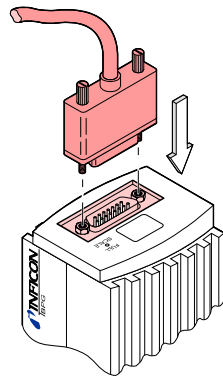


2 Connect the sensor cable to the gauge.



3 Secure the cable connector with the lock screws.

4 Connect the sensor cable to the controller.

Operation

When the voltage is supplied, the measuring signal is available between pins 2 (+) and 12 (-) (Relationship Measuring Signal – Pressure → "Technical Data" and [1]).

BPG400-SD and -SP can also be operated via the corresponding fieldbus interface (DeviceNet or Profibus → [1] and [2] for further details and functions).

Allow for a stabilizing time of ≈10 minutes. Once the gauge has been switched on, permanently leave it on irrespective of the pressure.

Gas Type Dependence (BPG400)

The measurement value is gas dependent. The displayed reading applies to dry air, O₂, CO, and N₂. For other gases, it has to be converted (→ "Technical Data" and [1]).

Adjusting the Gauge

The adjustment of BPG400-SD and -SP (→ [1] and [2]) is slightly different from the procedure for BPG400, which is described below.

The gauge is factory calibrated. If used under different climatic conditions, at extreme temperatures, through aging or contamination and after exchanging the sensor, the characteristic curve can be offset and readjustment can become necessary. Only the Pirani element can be adjusted and only at atmosphere.

Readjustment becomes necessary if

- at atmosphere the output voltage is <10 V or the display reading is <atmosphere
- when venting the vacuum system, the output voltage reaches 10 V before the measured pressure has reached atmosphere (Gauges with display will show the error "5" at atmosphere (Pirani sensor warning)).

1 Activate the gauge.



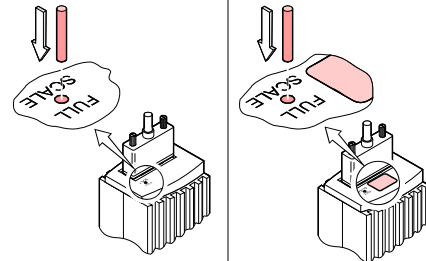
Operate the gauge for ≈10 minutes at atmospheric pressure. If the gauge was operated within the BA range, a cooling-down time of ≈30 minutes is to be expected (gauge temperature = environmental temperature).

2 Adjusting the gauge

BPG400 without display
353-500 353-502

BPG400 with display
353-501 353-503

Insert a pin (≈1.3×50mm) through the opening marked <FULL SCALE> and push the button inside for at least 5 seconds.



Automatic adjustment

Adjustment completed



≈10 s

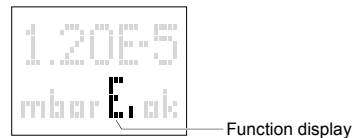
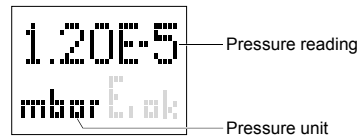
Automatic adjustment

Adjustment completed

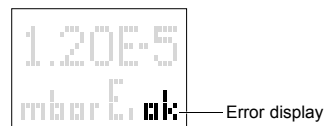
Adjustment completed

Display

(BPG400 with part numbers 353-501 and 353-503)



(none) Pirani operation
E Emission 25 μA
E Emission 5 mA
D Degas
A 1000 mbar adjustment (Pirani)



ak no error (green background illumination)
5 Pirani sensor warning (red background illumination)
8 Pirani sensor error (red background illumination)

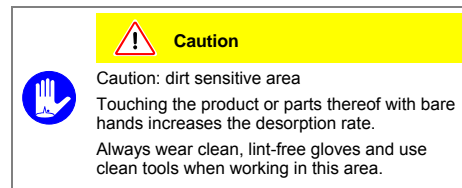
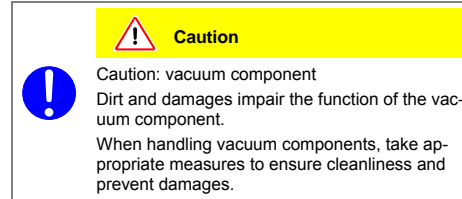
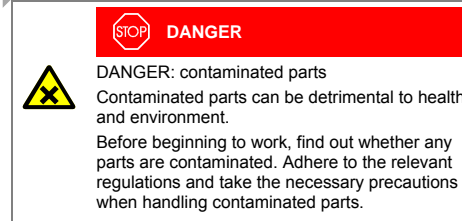


8 BA sensor error (red background illumination)

no
Signal

Internal data connection failure (red background illumination)

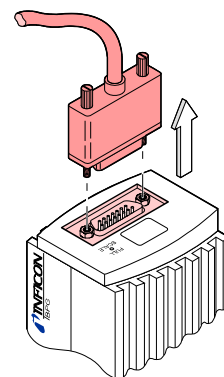
Deinstallation



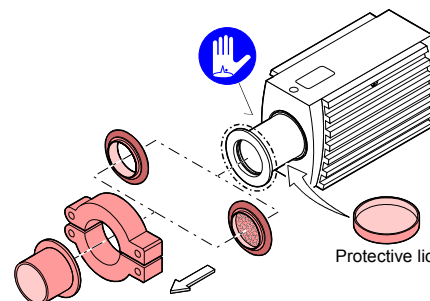
1 Vent the vacuum system.

2 Put the gauge out of operation.

3 Unfasten the lock screws and unplug the sensor cable. (If you are using BPG400-SD or -SP, unfasten and unplug the interface cable too (→ [1] and [2]).



4 Remove the gauge from the vacuum system.

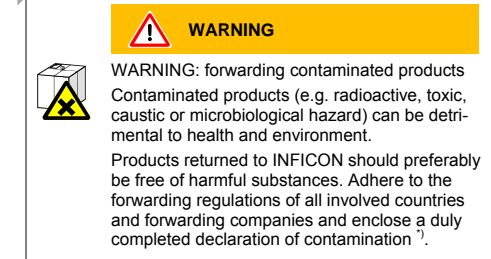


Maintenance, Troubleshooting

In case of severe contamination or a malfunction, the sensor can be replaced (→ [1]).

Gauge failures due to contamination or wear and tear, as well as expendable parts (e.g. filament), are not covered by the warranty.

Returning the Product

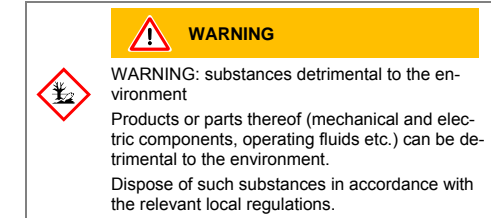
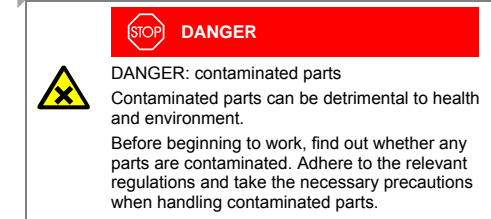


¹⁾ Form under www.inficon.com

Products that are not clearly declared as "free of harmful substances" are decontaminated at the expense of the customer.

Products not accompanied by a duly completed declaration of contamination are returned to the sender at his own expense.

Disposal



Separating the components

After disassembling the product, separate its components according to the following criteria:

- Contaminated components
Contaminated components (radioactive, toxic, caustic, or biological hazard etc.) must be decontaminated in accordance with the relevant national regulations, separated according to their materials, and recycled.
- Other components
Such components must be separated according to their materials and recycled.

Further Information

[1] www.inficon.com
Operating Manual
Bayard-Alpert Pirani Gauge BPG400, BPG400-SD, BPG400-SP
tina03d1 (German)
tina03e1 (English)
INFICON AG, LI-9496 Balzers, Liechtenstein

[2] www.inficon.com
Instruction Sheet
Bayard-Alpert Pirani Gauge BPG400-SD, BPG400-SP
tima36d1 (German)
tima36e1 (English)
INFICON AG, LI-9496 Balzers, Liechtenstein

EU Declaration of Conformity



We, INFICON, hereby declare that the equipment mentioned below complies with the provisions of the Directive relating to electromagnetic compatibility 2014/30/EU and the Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment 2011/65/EU.

Products

Bayard-Alpert Pirani Gauge

BPG400
BPG400-SD
BPG400-SP

Standards

Harmonized and international/national standards and specifications:

- EN 61000-6-2:2005 (EMC: generic emission standard)
- EN 61000-6-3:2007 + A1:2011 (EMC: generic immunity standard)
- EN 61010-1:2010 (Safety requirements for electrical equipment for measurement, control and laboratory use)
- EN 61326-1:2013 (EMC requirements for electrical equipment for measurement, control and laboratory use)

Manufacturer / Signatures

INFICON AG, Alte Landstraße 6, LI-9496 Balzers
15 February 2016 15 February 2016

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