

# ATMION®

## Active Wide Range Vacuum Gauge

Absolute Pressure Measurement from 10<sup>-10</sup> to 1000 mbar



### ATMION® Compact

- Compact size
- 2 filaments (1 as a spare)
- Gauge head easily replaceable
- Optimized for production systems
- Flange DN25KF and DN40CF available



### ATMION® Standard

- Bakeable at higher temperature
- 2 replaceable filaments (1 as a spare)
- Gauge head easily replaceable
- Optimized for R&D

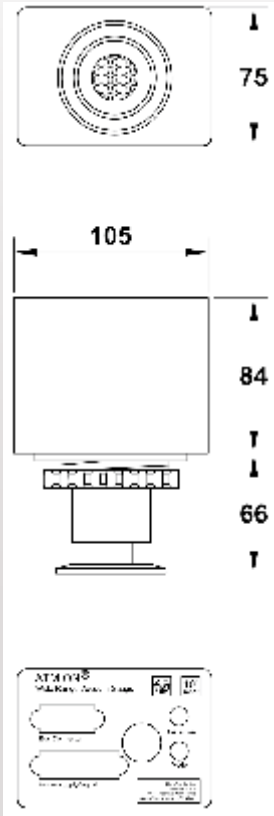
### ATMION®

- Hot cathode ionization gauge and Pirani gauge in one gauge head
- Log-linear analog output 0 - 10 V DC
- TTL setpoint
- RS232 interface
- Optional ProfiBus DP interface
- Digital control inputs
- Status display LED
- Optional external display
- Pirani adjustment via digital input, serial interface or gauge controller

### Features

- High accuracy and reproducibility
- Short response time
- Fully automatic operation as well as external control of the operating mode available
- Long filament life cycle due to intelligent emission current control and filament coating
- No unexpected failure due to automatic switch-over to the spare filament
- Service software and LabView driver (Virtual Instrument) available free of cost
- Each gauge is factory calibrated

## Technical data



- Measurement range 10E-8 ... 1E+5 Pa | 1E-10 ... 1000 mbar | 7.5E-11 ... 750 Torr
- Measuring principles hot cathode ionization (Bayard-Alpert)
- Accuracy heat loss (Pirani, temperature compensated)
  - ±10 % of reading (1E-8 ... 1E-2 mbar)
  - ±25 % of reading (1E-2 ... 10 mbar)
  - ±5 % of reading (1E-8 ... 1E-2 mbar)
- Reproducibility
- Display ATMIGRAF (optional, see display units)
- Analog outputs log-linear, 0 ... 10 V (0.625 V / decade)
- Error signals via interfaces and status LED
- Setpoint relays 1 transistor output, max. 24 V DC / 0.2 A
- Digital control inputs degas, Pirani adjust (ATM, VAC), operating mode (Auto/B-A/Pirani)
- Interfaces RS232, optional Profibus DP
- Temperature range 10 ... 40 °C (operation)
- Max. bakeout temperature ATMION® Compact: 180 °C at the flange (electronics removed)
- ATMION® Standard: 250 °C at the flange (electronics removed)
- Mounting position any
- Ionization gauge auto on/off on (< 1E-2 mbar), off > 1E-1 mbar (factory adjustable)
- Filaments (cathodes) yttria coated iridium
- Number of filaments 2
- Ionization gauge degas electron bombardment degas
- Heat loss sensor platinum
- Materials in vacuum stainless steel, W, Pt, glass, Y2O3 auf Ir, NiFe (KF version only), glass ceramic (CF version only), Al2O3
- Protection category IP40
- Power supply 21.6 ... 26.4 V DC (10 ... 22 V)
- Electrical connectors D-Sub 15 pin (DC in, analog out, digital I/O, RS232)
- optional D-Sub 9 pin (Profibus DP)
- Display and control units MVC3-A, ATMIGRAF

## Optional Display and Control Units



ATMIGRAF

External display and power supply for

- 1 ATMION® wide range gauge



MVC-3 A

Display and Control Unit for

- 1 ATMION® wide range gauge
- optional 2 other active vacuum gauges (capacitive, heat loss, cold cathode and combination gauges)

## Order data

Order code	Description	Vacuum connection
ATC25KLE	ATMION® Compact	DN25KF
ATC40CLE	ATMION® Compact	DN40CF
ATC25KPLE	ATMION® Compact (Profibus DP)	DN25KF
ATC40CPL	ATMION® Compact (Profibus DP)	DN40CF
ATS40C	ATMION® Standard	DN40CF

## Accessories

Order code	Description
AT24E	Power supply, 100-240 VAC (EU)/24 VDC (D-Sub 15)
ATPC	Y-adaptor for RS232, 2 x D-Sub 15, 1 x D-Sub 9
ATLPC3	RS232 interface cable, 3 m, 2 x D-Sub 9
USB-RS232-KONV	USB2.0 / RS232 converter, USB cable 0.8 m, driver CD
ATGC25K-HP	Spare gauge head for ATMION® Compact, DN25KF
ATGC40C-HP	Spare gauge head for ATMION® Compact, DN40CF
ATGS40C	Spare gauge head for ATMION® Standard, DN40CF
ATF-001-1	Dual spare filament (yttria coated Ir) + CU40 gasket for ATMION® Standard

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