Ankersmid Gas Panels
Pressure regulators

AGP Assist series
APAN1 Gas Panel

Application

Gas analysis equipment needs regular calibration.
The most common method is using zero- and span-gas from certified gas cylinders. These gas cylinders contain high purity zero-gas (for example Nitrogen, or synthetic air) or well defined gas mixtures for span calibration.
To assure proper pressure reduction (most gas cylinders have a pressure of 150 or 200bar), to prevent any contamination and to manipulate safely, Ankersmid offers gas panel -and point-of-use pressure regulators.

Description

Wherever possible the calibration gases are installed outside the analyzer cabinet or shelter. Ankersmid offers primary pressure reducing panels, allowing easy installation and handling. The Gas panel 'APAN1' includes a stainless steel mounting plate, the first stage pressure regulator with in-and outlet manometers, gas outlet diaphragm valve, overpressure relief valve and a 1 meter pressure flexible with appropriate cylinder valve connection (DIN 477).

Inside the analyzer cabinet a finely adjustable point-of-use regulator assures precise gas dosing .The regulator allows immediate control of the calibration gas without the need of checking the outside cylinder settings. The Ankersmid Pressure Regulator (APR) uses a bellow type diaphragm, which allows sensitive outlet pressure control (0-1 bar) with a low torque multiple turn adjusting knob.

Using this combination of first stage (outside) and second stage (inside) regulators assures very stable gas pressure, even at low cylinder pressure. (One stage regulators show an increasing secondary pressure when the gas cylinder pressure drops, creating unacceptable calibration flows or even causing damage to the analyzer).

- **Corrosion resistance**
- **Easy installation and handling**
- **Prevents contamination**
- **Safe**
- **Precise gas dosing**
- **DIN477 connection**

Specification APAN1

Material body	AISI 316 L or plated Brass
Valve seats	PCTFE
O-rings	EPDM
Diafragma	AISI 304
Inlet pressure max.	200 barg
Outlet pressure	0-8 barg
Nominal flow	10 Nm3/h (N2)
Temperature range	-20°C to +50°C
Leak rate	10-8mbar.l/s He
Gauges : HP & LP	Bourdon type
Pressure relief valve	+ 30% LP
Inlet flexible	Zyttel®, PFA, PTFE
Length	1m
Cover	Black thermal sleeve
Cylinder connection	90° with DIN477
Outlet valve	1/4 turn diaphragm valve
Outlet connection	1/4 or 6mm O.D.

Code: **APAN 1 - X -Y-F1-DIN Z-GAS**

X:	material : stainless steel or Plated Bras	SS or PB
Y:	outlet connection : 1/4" or 6mm OD	1/4" or 6
Z:	DIN477 connection type :	1, 5, 6, 8 or specify
GAS:		Specify gas composition

for example :

APAN 1-PB-6-F1-DIN6-N2 purity 6.

APAN1-SS-1/4"-F1-DIN8-500ppmCO in synthetic air

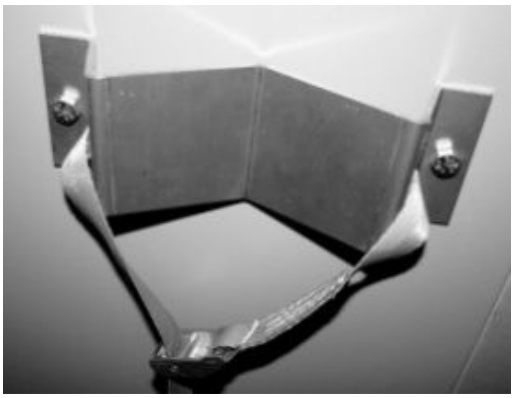
Options

Contact manometer on high pressure side EN837, NO or NC

This adjustable contact can be used to warn when the cylinder is at low pressure code:
CM-NO, **CM-NC**

Cylinder holder

Stainless steel cylinder holder with polyamide strap and Aluminum clamp code :
CH



Specification APR

Material body	AISI 316 L or plated Brass
Valve seats	EPDM
O-rings	EPDM
Bellow	bronze or stainless steel
Inlet pressure max.	50 barg / 20barg
Outlet pressure	0,1 - 1 barg
Nominal flow	2 Nm3/h (N2)
Temperature range	-20°C to +50°C
Leak rate	10-8mbar.l/s He
Gauge : LP	Bourdon type
Inlet	left, right or backside
Inlet connection	1/4 or 6 mm O.D.
Outlet	right or left (oposite inlet)
Outlet connection	1/4 or 6 mm O.D.
Mounting	2 x M5 on backside

Code: **APR - V -W -X - Y - Z**

V:	material : stainless steel or Plated Bras	SS or PB
W:	inlet connection : 1/4" or 6mm OD	1/4" or 6
X:	inlet orientation : left, right, backside	IL / IR / IB
Y:	outlet connection	1/4" or 6
Z :	outlet orientation	OR / OL

for example :

APR -PB- 6-IB- 6- OR.

APR- SS- 1/4"-IL-1/4"-OR

Option

Low pressure version:

The APR has a special version allowing a precise outlet pressure regulation between 0,01 - and 0,1 barg (**10mbarg to 100mbarg !**). This **Low Pressure** execution is only available in Chrome plated Brass, parts of the body are in Aluminum. The flow is **0.5Nm3/h max** (N2)

Code: **APR LP –PB- W-X-Y-Z**

Mounting bracket

Stainless steel mounting bracket for APR (back panel mount)
Code: **MB**