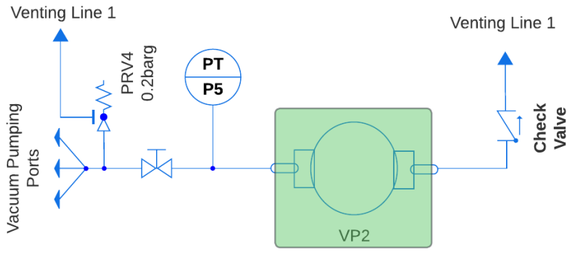
PID AMBER TPC Gas System

Benjamin Veit | December 8, 2023

888-R-002

888-R-413

TPC Vacuum System



Venting Line 1

Check Valve

EV21 NO

Exhaust Line 2
25.4mm

PT P2

Burst Disc
BP: 20.3barg

TT T1

AMBER TPC
1000l / 20bara

oil filter

Venting Line 1

Venting Line 1

Check Valve

HV oil system 1

HV oil system 2

Check Valve

Check Valve

preamp 1

...

preamp 8

10 kV 1

10 kV 2

10 in total

Rotameter

Rotameter

Rotameter

Rotameters should have readout to PLC to be interlocked with the HV/LV PSU

PT P8

PV203 NO

PV202 NC

MFC21

PV201 NC

8mm x 4mm

Check Valve

V200

PR4

CERN N2 Central supply

PV208 NC

MFC22

8mm x 4mm V208 NC

VV23

PP23 Vacuum Pumping

PV207 NC

Venting Line 1

PRV3

EV20

PT P1a

V206

PT P1b

VV21

PP21 Vacuum Pumping

PV205 NO

Valve FV200

Rotameter

DP

VV20

PP20 Vacuum Pumping

4mm x 8mm

Check

V112

4mm x 8mm

V111

V110

Purification Unit

Venting Line

Check Valve

V12

VV15

Vacuum Pumping

Venting Line

Venting Line

Check Valve

EV32

Check Valve

EV31

6mm x 1/4" VCR

Filter GPUS700F-HX F3

1/4" VCR x 6mm

MV34

MV32

MV33

Filter GPUS700F-HX F4

MV31

MV30

VV32

VV31

Vacuum Pumping

Vacuum Pumping

Compressor Vacuum System

Venting Line

Venting Line

PRV5
0.2barg

PT P6

Vacuum Pumping Ports

Check Valve

VP1

F2

V111

PV108 NC

Venting Line

Check Valve

EV12

VV12

Vacuum Pumping

Compressor Unit

Venting Line

PT P3

PRV2

Flow Direction

PT P4

RS2 Buffer Volume 50L

C1 Compressor

RS1 Buffer Volume 50L

PV107 NO

MFC12

F1

V105

Venting Line

Check Valve

EV11

VV11

Vacuum Pumping

Venting Line

Check Valve

EV10

PV103 NC

MFC11

PV104 NC

VV10

Vacuum Pumping

V106

Gas Analyzer Sample Line

F3

Venting Line

PRV1
25barg

Check Valve

V102

PR1

Bld.908 from supply H2 CRLP-03779

PT P7

Check Valve

V101

O2

PR2

He

VV13

Vacuum Pumping

Check Valve

V100

O1

PR3

N2

EV	Vent Valve
VV	Vacuum Valve
V	Valve
F	Filter
RS	Reservoir
CV	Check Valve
PRV	Pressure Relieve Valve
TT	Temperature Transmitter
PT	Pressure Transmitter
DP	Dew Point Sensor
PP	Pump Port
FV	Fine Valve
VP	Vacuum Pump
MFC	Mass Flow Controller