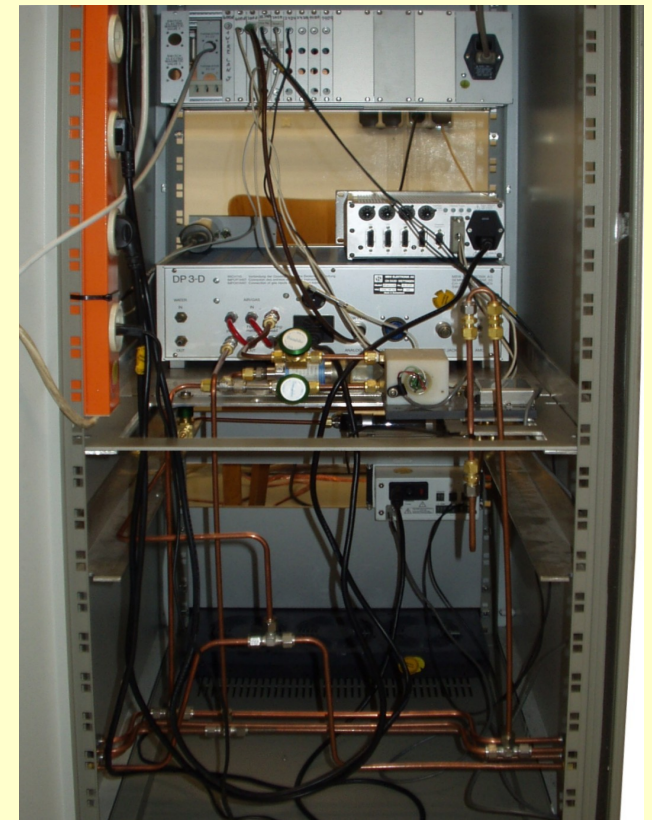# Slow Control for LPTPC

by

Diana Linzmaier

DESY Hamburg

Existing slow control system

front wall with

measuring instruments
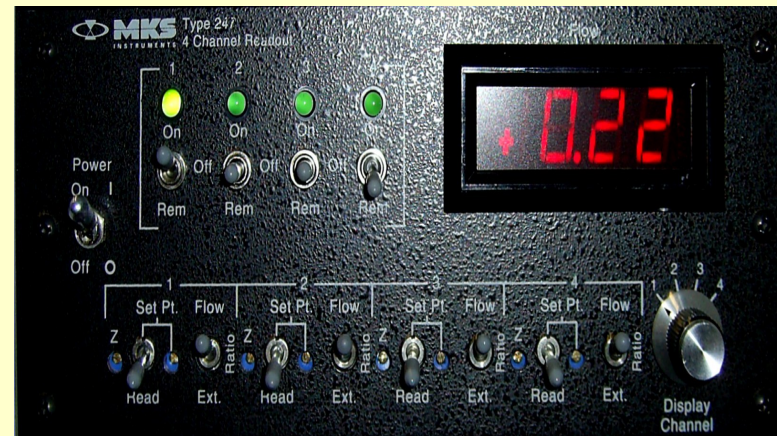
interior view

Hardware

- Flow Control
- Pressure measurement
- Oxygen measurement
- Dew Point Instrument
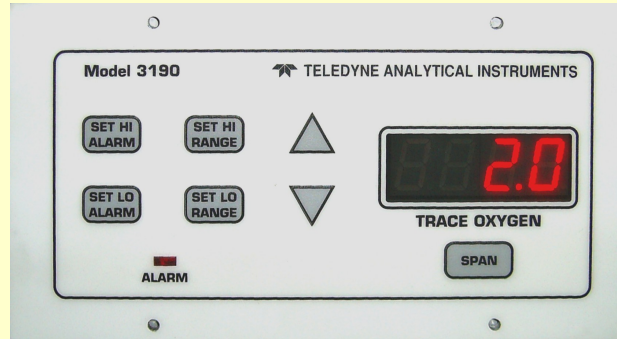
Hardware

electrically Flow Control

MKS 1179A

control unit

MKS 247 D

Flow Control → shows the gas flow

Hardware

control unit

measuring cell

Teledyne model 3190

Oxygen measurement

Hardware

MBW   model DP3-D-SH-III

Dew Point Instrument

→ check the water content of the gas

Hardware

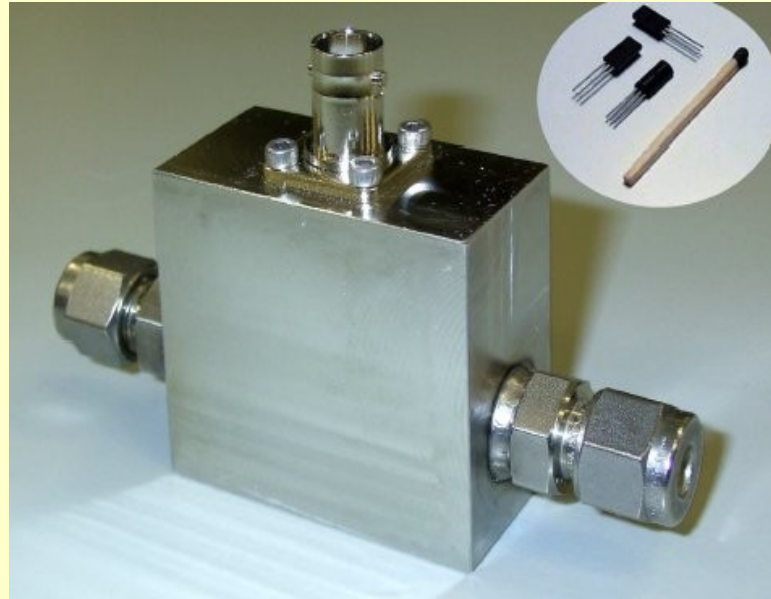absolute pressure sensor
Setra C280E

pressure difference sensor
Setra 267

Pressure measurement

→ external pressure

→ pressure in the chamber (overpressure)
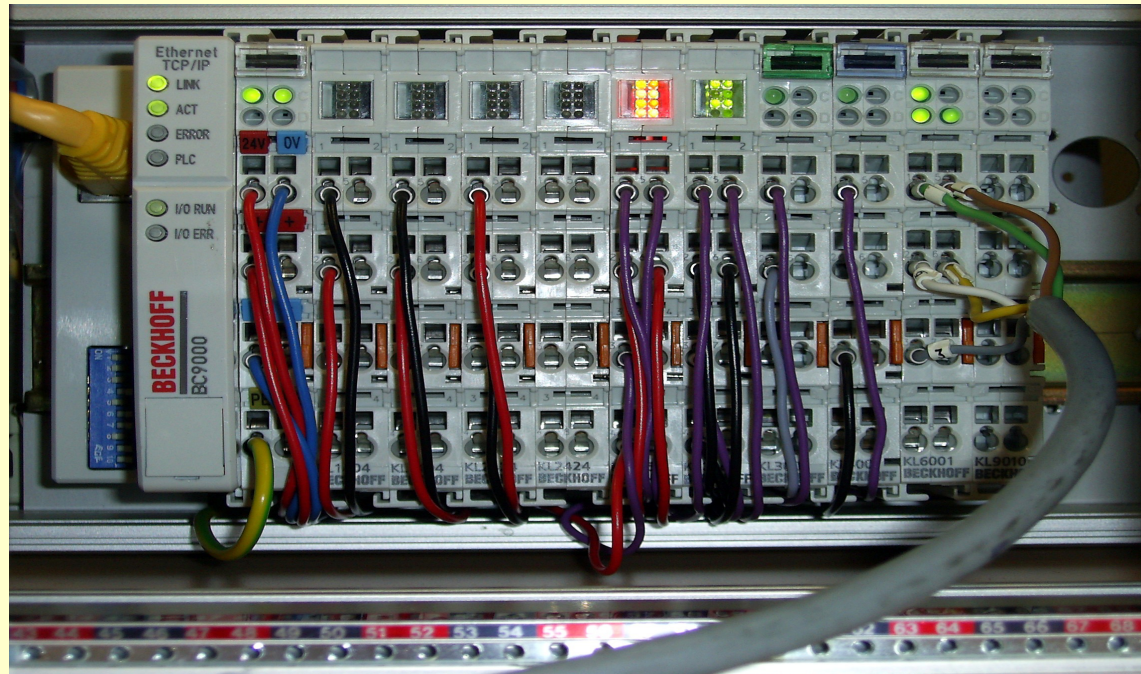
→ pressure difference   (Setra 267)

Hardware

Dallas Semiconductors DS18S20

- measurement of the gas temperature

- output of the temperature as digital value

- measurement range: -55...125°C, resolution < 3K

Hardware

Beckhoff BC 900

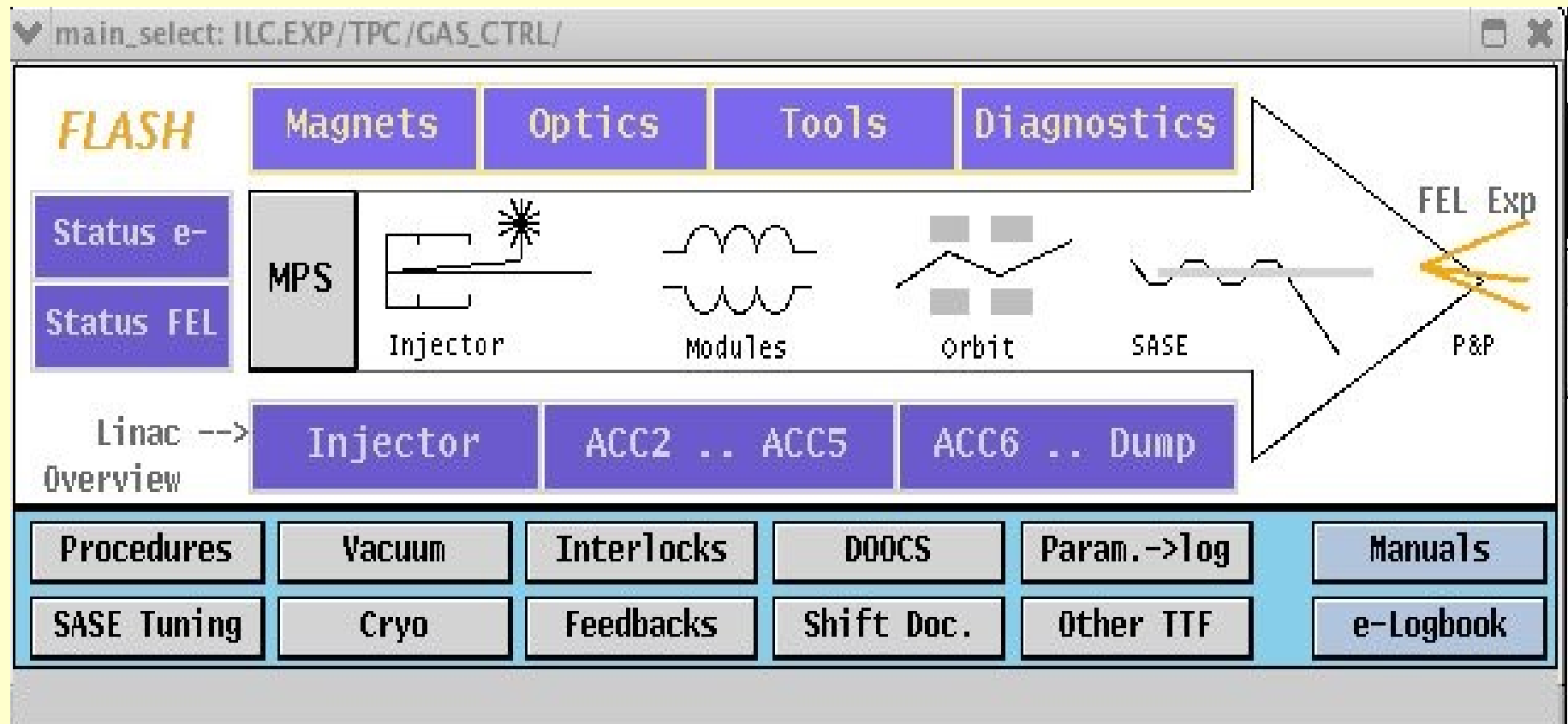with inputs for the several signals of the measuring instruments

DOOCS

= distributed object orientated control system

- was developed for HERA and TTF applications

- Designed from the device server level up to operator consol

- class libraries were developed as building blocks for device servers, communication objects and display components

DOOCS

- written in the programming language C++ and runs on LINUX operating system

- The communication is established by a standard set of data and address objects which are transferred by Remote Procedure Calls (ONC RPC) or other protocols.

DOOCS

DOOCS

Thank you for your attention!