

TECHNICAL REQUIREMENTS FOR A FAST ACTING SECTOR  
VALVE SAFETY SYSTEM

Fast acting valve safety system composed of :

- 1 safety valve
- 1 control system
- 1 low pressure type sensor

with the following main characteristics :

1. Safety Valves

- Size NW 150 (free passage)
- 8" O.D. Conflat type flanges on each side
- Bakeable to 150°C
- radiation resistant to  $10^8$  rad
  
- Opening of the valve by remote controlled motor
- Closing time  $\leq$  50 ms
- 2 Additional pumping ports of the NW 63 CF type on the valve body.

2. Control System

- Composed of power supply, sensor unit, control unit and firing unit.
- Each control system shall control up to two safety valves.
- Operational with one or two low pressure safety valves.
- Cable length between low pressure sensor and control system as well as between control system and safety valve up to 250 m.
- The controls must provide for the central control system of the SPS, the following additional features :
  - Status contacts for "open", "closed" and "ready to open" status.
  - Remote opening command facility of the valve.

3. Low pressure type sensor

- Mounted an NW 35 CF flange
- Bakeable to 150°C
- Operating range  $10^{-8}$  to  $10^{-5}$  torr.

Cables between the sensors, valves and control units will be supplied and installed by CERN.

The characteristics for the cables required shall be indicated in the offer.

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