FAIR Cryogenic Nomenclature System

1	2	3	4	5	6	7	8	9

Digit 1, 2, 3, 4 Accelerator systems

Digit 5 = Y FAIR Cryogenics

Digit 6 = Cryogenic devices

D Distribution box;

T Transfer line;

C interConnection between transfer line sections, feedboxes and distribution box;

F Feedbox;

J Jumper connection between feedbox and magnet cryostat;

B Vaccum Barrier;

R Return box (endbox);

W Warm piping for Cryogenics;

Cryogenic Devices

YD Cryogenic Distribution box
YT Cryogenic Transfer line;
YC Cryogenic interConnection between transfer line sections, feedboxes and distribution box;
YF Cryogenic Feedbox;
YJ Cryogenic Jumper connection between feedbox and magnet cryostat;
YR Cryogenic Return box (endbox);
YW Warm piping for Cryogenics.

Digit 7 = Subsystem in cryogenic devices

I	Instrumentations;
H	Headers (cryogenic piping);
V	Valves;
X	helium heat eXchanger in subcooler;
S	thermal Shield;

If Digit 7 = I, then

- **8 = T** Temperature sensor;
- **8 = P** Pressure sensor;
  - **9 = A** Absolute pressure sensor;
  - **9 = B** Barometric pressure sensor;
  - **9 = D** Differential pressure sensor;
  - **9 = R** Gauge pressure sensor;
  - **9 = V** Vacuum pressure sensor;
- **8 = F** Flow meter;
- **8 = L** Level meter;
  - **9 = H** liquid Helium meter;
  - **9 = N** liquid Nitrogen meter;

For example,
- - - - Y F I P B
for
one Barometric Pressure Sensor in one Cryogenic Feedbox

If Digit 7 = H, then

Digit 8 =

1 Helium low temperature supercritical/liquid supply line;
2 Helium low temperature return line;
3 Helium shield temperature supply line;
4 Helium shield temperature return line;
5 Helium ambient temperature supply line;
6 Helium ambient temperature return line;
7 Helium purge line;
8 Helium low/ambient temperature multipurpose line;

If Digit 7 = V, then

Digit 8 =

C Control valve;
E Electric valve;
P Pneumatic valve;
Q Quench valve;
S Safety valve;
N Non-return valve (check valve);
H Hand valve;
O On/off valve (digital valve);

AND

Digit 9 =

1 Helium low temperature supercritical/liquid supply line;
2 Helium low temperature return line;
3 Helium shield temperature supply line;
4 Helium shield temperature return line;

5 Helium ambient temperature supply line;

6 Helium ambient temperature return line;

7 Helium purge line;

8 Helium low/ambient temperature multipurpose line;

Examples,

- - - - Y D V C 1
for
one Control Valve on the helium low temperature supercritical/liquid supply line in one Cryogenic Distribution box