

Additional details:

Flow meters	Type-1	Type-2	Type-3	Type-4	Type-5	Type-6	Type-7
Fluid	Water	Water	GN2	GN2	Kerosene	Liquid Nitrogen/GHe	GHe
Density	~998 kg/m <sup>3</sup>	~998 kg/m <sup>3</sup>	~143.68 kg/m <sup>3</sup>	~143.68 kg/m <sup>3</sup>	~810 kg/m <sup>3</sup>	~806.11 Kg/m <sup>3</sup> (LN2) 0.062 Kg/m <sup>3</sup> (GHe)	~0.062 Kg/m <sup>3</sup>
Viscosity	~854 micro Pa-s	854 micro Pa-s	~43.68 micro Pa-s	~43.68 micro Pa-s	~1398 micro Pa-s	~162.9 μPa-s (LN2) ~0.19 μPa-s (GHe)	~0.19 μPa-s
Flow rates(g/s)	Available in the tender document.						
Pressure							
Temperature							
Line Size							

**Query:**

- Area classification to be considered for Transmitters
- For Type 6, one flow meter requirement for 2 services - i.e. Liquid Nitrogen & GHe, we are getting pressure drop and accuracies as below:
  - A) When we select a meter suitable for Liquid Nitrogen with required accuracy of 0.05%, but the same meter while using GHe, the pressure drop is coming to 12.92 bar
  - B) When we select a meter of next size than what is mentioned in point A above, the pressure drops are well within the limit, but the accuracy of Liquid Nitrogen is as per attached sizing calculations, slightly higher than required 0.05%.

**Reply:**

1. class IIA
2. Accuracy requirement of 0.05% should be met.

