

## Model SGN Sight Glass



### Product Description

- Both Model SGN sight glass is used on the liquid piping of the refrigeration and air conditioning unit to indicate the flow condition of the refrigerant, water out of the refrigerant and lubricant oil flow condition of the oil return piping on the oil separator.
- Model SGN sight glass and is equipped with one moisture indicators which will change color to indicate the water cut in the refrigerant.

- Model SGR sight glass is used to indicate the level of the refrigerant in the liquid drum and the lubricant oil level in the compressor crankcase.
- The modified PTFE sealing is used in both Model SGN sight glass and Model SGR sight glass, which is applicable to various refrigerants and oils with perfect sealing performance. The structure of both Model SGN sight glass and Model SGR sight glass is an explosion-proof press fit and the viewing glass is clear and safety.

### Technical Parameters

Applicable Refrigerant:	HCFC and HFC
Applicable Medium Temperature:	-40°C ~ +80°C
MAX Working Pressure	4.5MPa
MAX. Compression Pressure	6.8MPa
Yearly Leakage of Refrigerant	≤2g R22/a

Note: For the fully enclosed compressor, generally the allowable water cut is in a range 30~75ppm, but for other types of compressor, the water cut will be higher slightly. For an effective protection, it is necessary to monitor the indicator carefully and replace the drier immediately if the color is changed into yellow.

### Features

#### Model SGN

- Be applicable to HCFC/HFC refrigerants.
- Indicate high water cut in system if any.
- Indicate no overcooling in refrigerant liquid.
- Indicate insufficient charging of refrigerant if any.

- Both welded and threaded connections are available.

#### Model SGR

- Be applicable to HCFC/HFC refrigerants.

- Indicate the liquid level in the liquid drum.
- Indicate the oil level in the compressor crankcase.
- NPT threaded connection.

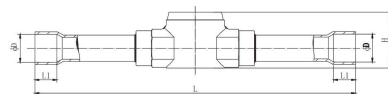
### Model Selection

Model of Welded Connection	Size	Model of Threaded Connection	Size
SGN-1/4 ODF	1/4(Ø6)	SGN-1/4 SAE	1/4 SAE
SGN-3/8 ODF	3/8(Ø10)	SGN-3/8 SAE	3/8 SAE
SGN-1/2 ODF	1/2(Ø12)	SGN-1/2 SAE	1/2 SAE
SGN-5/8 ODF	5/8(Ø16)	SGN-5/8 SAE	5/8 SAE
SGN-3/4 ODF	3/4(Ø18)	SGN-3/4 SAE	3/4 SAE
SGN-7/8 ODF	7/8(Ø22)	SGN-3/4NPT	3/4NPT
SGN-1 1/2 ODF	1 1/2(Ø38)	SGR-G3/4	G3/4

### Correlation between Water Cut and Color

	Water Cut(ppm)					
	25°C	25°C	25°C	43°C	43°C	43°C
	Green/DRY	Medium Color	Yellow/WET	Green/DRY	Medium Color	Yellow/WET
R22/R502	<30	30~120	>120	<50	50~200	>200
HFC-134a	<30	30~100	>100	<45	45~170	>170
R404a	<20	20~70	>70	<25	25~100	>100
R407c	<30	30~140	>140	<60	60~225	>225
R507	<15	15~60	>60	<30	30~110	>110

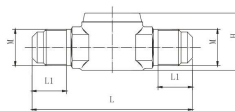
### Structure



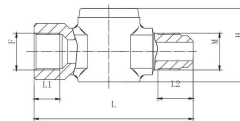
Soldering type sight glass

Model	L	L1	D	H
SGN-1/4 ODF	102	7	6.5	21.5
SGN-3/8 ODF	119	8	10.1	22.5
SGN-1/2 ODF	146	10	12.8	26.5
SGN-5/8 ODF	152	14	16.1	29.5

Model	L	L1	D	H
SGN-3/4 ODF	167	16	19.2	35
SGN-7/8 ODF	173	17	22.2	39
SGN-1-1/8 ODF	216	20	28.7	44.5



Flare type sight glass



M/F flare type sight glass

Model	L	L1	H	Thread M
SGN-1/4 SAE	64	13	21.5	7/16-20UNF
SGN-3/8 SAE	70	15	25	5/8-18UNF
SGN-1/2 SAE	75	16	26.5	3/4-16UNF
SGN-5/8 SAE	80	18	29.5	7/8-14UNF
SGN-3/4 SAE	90	20.5	35	1-1/16-14UNS

Model	L	L1	L2	H	Thread F/M
SGN-1/4-MF	60	8.5	12	25	7/16-20UNF
SGN-3/8-MF	68	11	15	31.5	5/8-18UNF
SGN-1/2-MF	70	11.5	16	34.5	3/4-16UNF
SGN-5/8-MF	78	13	18	38	7/8-14UNF