



## Sight glasses for HFC refrigerants Type SGN

**Give your plant  
optimal protection -  
The moisture indicator  
tells you when to act...**

The optimal protection lies in the unique indicator which changes colour to show the moisture content within the refrigerant. Danfoss sight glasses are the less effected by temperature when compared to other brand equivalents and they guarantee the best visual indication of moisture throughout the whole year. With the same moisture content in the installation, the sight glasses will not be as quick to change colour when the liquid temperature increases. This is important to ensure adequate and optimal compressor protection. Danfoss offers sight glasses that are designed for CFC, HCFC and HFC refrigerants.

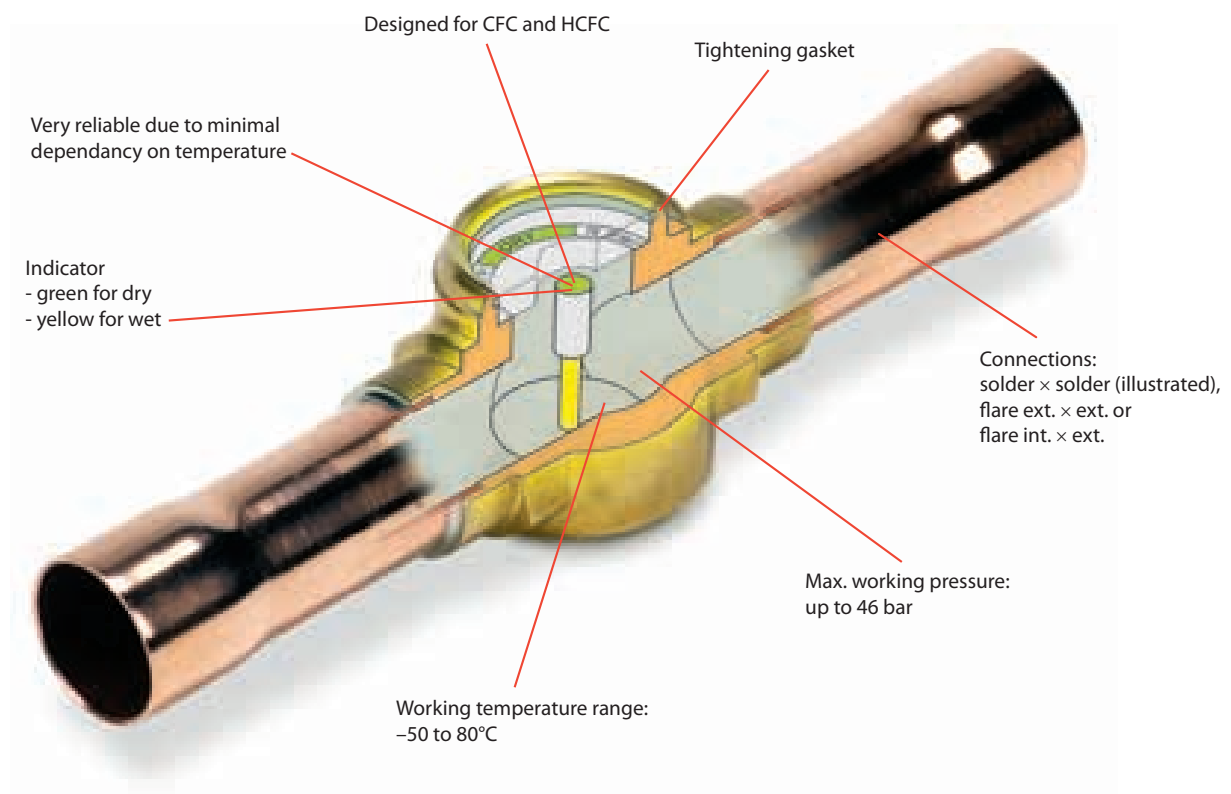




## SGN/H, SGR, SGRN/H: secure optimal protection

Sight glasses are mostly installed in the liquid line between the filter drier and the expansion valve to monitor the condition of the refrigerant. The SGR is mainly used to indicate the condition of the refrigerant as well as the liquid level in the receiver or the oil level in the compressor and has no moisture indicator. The SGN/H and SGRN/H are equipped with sensitive indicators that reflect a colour, depending on the moisture content in the refrigerant.












### Features



Applications	Advantages	Facts
<ul style="list-style-type: none"> <li>Traditional refrigeration</li> <li>Heat pump systems</li> <li>Air conditioning units</li> <li>Liquid coolers</li> <li>Transport refrigeration</li> </ul>	<ul style="list-style-type: none"> <li>Best visual indication of moisture (minimal dependence on temperature).</li> <li>The flare ext. x int. version can be screwed together with filter drier (reduction of assembly costs).</li> <li>Flare connections are 4-sided for quick installation.</li> <li>Extended solder connections.</li> <li>Glass diameter permits high working pressures.</li> </ul>	<ul style="list-style-type: none"> <li>Designed for HFC refrigerants.</li> <li>Flare-/solder connection or socket type.</li> <li>Wide range with sizes from 6 to 22 mm.</li> <li>Max. working pressure: up to 46 bar.</li> <li>Working temperature: -50 to 80°C.</li> <li>Approvals: PED, UL, GOST.</li> </ul>

# Technical data and ordering

	Moisture content ppm = parts per million					
	Green - dry	Intermed. color	Yellow - wet	Green - dry	Intermed. color	Yellow - wet
<b>SGN and SGRN</b>	Liquid temperature 25°C			Liquid temperature 43°C		
<b>R22</b>	< 30	30 - 120	>120	< 50	50 - 200	>200
<b>R134a</b>	< 30	30 - 100	>100	< 45	45 - 170	>170
<b>R404A</b>	< 20	20 - 70	> 70	< 25	25 - 100	>100
<b>R407C</b>	< 30	30 - 140	>140	< 60	60 - 225	>225
<b>R507</b>	< 15	15 - 60	> 60	< 30	30 - 110	>110
<b>SGH and SGRH</b>	Liquid temperature 25°C			Liquid temperature 43°C		
<b>R410A</b>	< 20	20 - 165	>165	< 40	40 - 350	>350

Type	Version	Connection		Code no. <sup>1)</sup>	MWP
		in.	mm		
 <b>SGN 6</b> <b>SGN 10</b> <b>SGN 12</b> <b>SGN 16</b> <b>SGN 19</b>	Flare, ext. x ext.	1/4 x 1/4	6 x 6	<b>014-0161</b>	35
		3/8 x 3/8	10 x 10	<b>014-0162</b>	
		1/2 x 1/2	12 x 12	<b>014-0163</b>	
		5/8 x 5/8	16 x 16	<b>014-0165</b>	
		3/4 x 3/4	19 x 19	014-0166	
 <b>SGN 6</b> <b>SGN 10</b> <b>SGN 12</b> <b>SGN 16</b> <b>SGN 19</b>	Flare, int. x ext. <sup>2)</sup>	1/4 x 1/4	6 x 6	<b>014-0171</b>	35
		3/8 x 3/8	10 x 10	<b>014-0172</b>	
		1/2 x 1/2	12 x 12	<b>014-0173</b>	
		5/8 x 5/8	16 x 16	<b>014-0174</b>	
		3/4 x 3/4	19 x 19	014-0175	
 <b>SGN 6s</b> <b>SGN 6s</b> <b>SGN 10s</b> <b>SGN 10s</b> <b>SGN 12s</b> <b>SGN 12s</b> <b>SGN 16s</b> <b>SGN 16s</b> <b>SGN 18s</b> <b>SGN 19s</b> <b>SGN 22s</b> <b>SGN 22s</b>	Solder, ODF x ODF	1/4 x 1/4	6 x 6	<b>014-0181</b>	35
		3/8 x 3/8		<b>014-0191</b>	
		10 x 10	<b>014-0182</b>		
		12 x 12	<b>014-0192</b>		
		16 x 16	<b>014-0183</b>		
		18 x 18	<b>014-0193</b>		
		19 x 19	<b>014-0184</b>		
		22 x 22	<b>014-0195</b>		
		22 x 22	<b>014-0185</b>		
		1 1/8 x 1 1/8	<b>014-0186</b>		
1 1/8 x 1 1/8	014-0187				
 <b>SGN 6s</b> <b>SGN 10s</b> <b>SGN 12s</b> <b>SGN 16s</b> <b>SGN 22s</b>	Solder, ODF x ODM <sup>2)</sup>	1/4 x 1/4	16 x 16	<b>014-0201</b>	35
		3/8 x 3/8		<b>014-0202</b>	
		1/2 x 1/2		<b>014-0203</b>	
		5/8 x 5/8		<b>014-0204</b>	
		7/8 x 7/8		014-0206	
 <b>SGH 6</b>	Flare, ext. x ext.	1/4 x 1/4		014-1660	46
 <b>SGH 6s</b> <b>SGH 10s</b> <b>SGH 12s</b> <b>SGH 16s</b> <b>SGH 22s</b> <b>SGH 22s</b>	Solder, ODF x ODF	1/4 x 1/4		014-1090	46
		3/8 x 3/8		014-1092	
		1/2 x 1/2		014-1091	
		5/8 x 5/8		014-1094	
		7/8 x 7/8		014-1096	
		1 1/8 x 1 1/8		014-1098	
 <b>SGR</b>	Pipe thread NPT NPT	G 3/4 A <sup>3)</sup>		014-0004	35
		3/4 NPT	<b>014-0005</b>		
		1/2 NPT	014-0002		
 <b>SGRN 1/2</b> <b>SGRN for saddle</b>	NPT M	1/2 NPT		014-0006	35
		M	M24 x 1	014-1155	
 <b>Sight glass saddle for SGRN</b>	Tube fitting (M24 x 1)	7/8		014-1059	-
		1 1/8		014-1056	
		1 3/8		014-1057	
		1 5/8		014-1058	
		2 1/8		014-1067	
		4 1/8		014-1068 014-1069	
 <b>SGRH for saddle</b>	M		M20 x 1	014-1601	46
 <b>Sight glass saddle for SGRH</b>	Tube fitting (M20 x 1/2)	3/8		014-1072	-

<sup>1)</sup> Code numbers in bold are normally on stock and a shorter delivery time can, therefore, be expected.

<sup>2)</sup> Can be mounted directly into the filter drier.

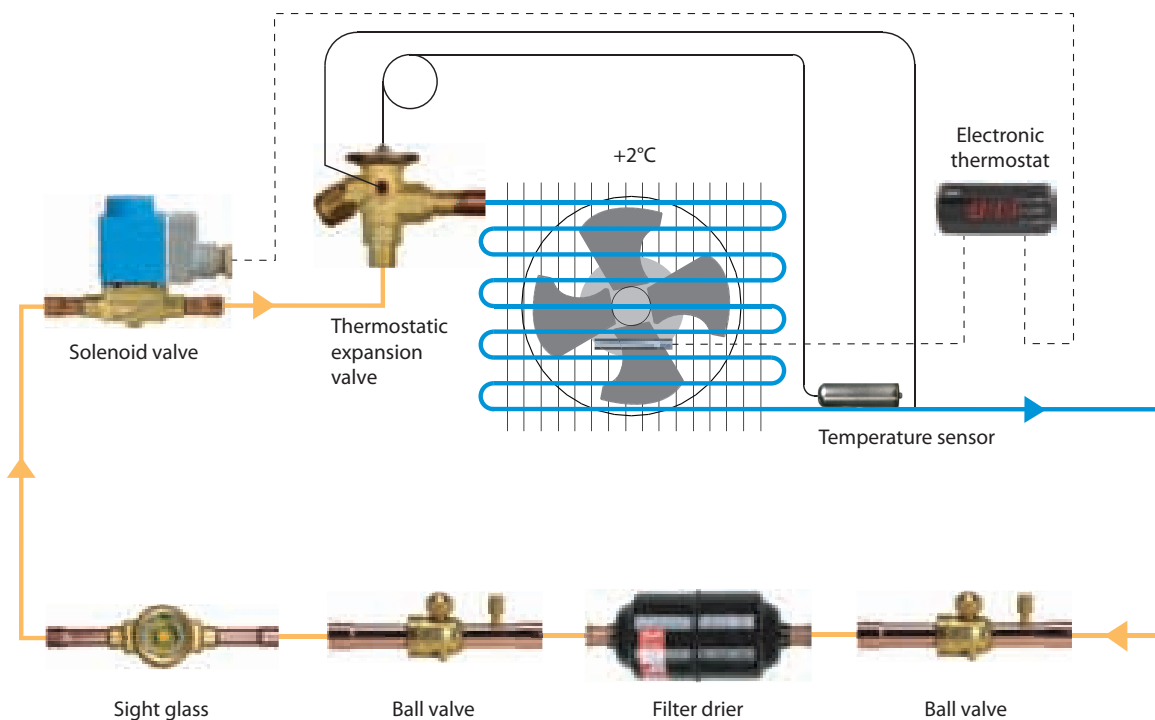
<sup>3)</sup> ISO 228/1.

## Quality in everything we do

SGN, SGH, SGR, SGRN and SGRH sight glasses are a part of the Danfoss line components program which covers a wide range of components used in a refrigeration system. Our production utilises state-of-the-art technology and every product is thoroughly tested in accordance with the most demanding standards.

If the component you are looking for is not mentioned in this leaflet or if you have special requirements, Danfoss partner wholesalers or our local Danfoss team can offer you help and guidance and will do their utmost to fulfill your needs.

## Related products



## The Danfoss line components program

Filter driers	Ball valves	Shut-off valves	Check valves	Solder adapters