

DANFOSS SIGHT GLASSES

DSG01



INTRODUCTION

Sight glasses are used to indicate:

1. The condition of the refrigerant in the plant liquid line.
2. The moisture content in the refrigerant.
3. The flow in the oil return line from the oil separator.

The SGI, SGN, SGR or SGRN can be used for CFC, HCFC and HFC refrigerants.

The SGI and SGN are fitted with an indicator which changes color to show the moisture content in the refrigerant.

The SGR is used to indicate the liquid level in a receiver or the oil level in a compressor crankcase.

The SGRN is a sight glass like SGR, but supplied with a moisture indicator.

The moisture indicators in the sight glasses are dirt repelling.

APPROVALS

UL listed, file SA 652.

CSA Certified, LR 55874.

TECHNICAL DATA

Refrigerants:

SGI/SGRI: CFC

SGN/SGRN: HFC and HCFC

Ambient Temperature:

-60° F → 175° F

Maximum Working Pressure:

SGI/SGN: 6 → 12:

MWP = 500 psig

SGI/SGN: 16s (solder):

MWP = 500 psig

SGI/SGN: 16 (flare):

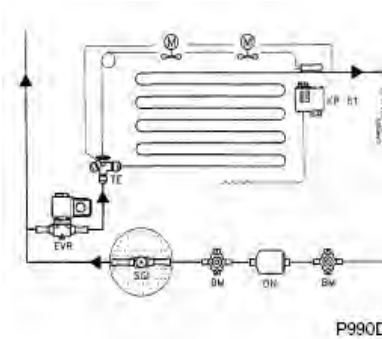
MWP = 400 psig

SGI/SGN 19 → 22:

MWP = 400 psig

SGR/SGRI/SGRN:

MWP = 500 psig



DANFOSS SIGHT GLASSES, TYPES SGI, SGN, SGR, AND SGRN

Ordering

SGI = CFC refrigerants

SGN = HFC, HCFC refrigerants

PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0060	SGI 6	Flare ext. × ext.	1/4 × 1/4	2.65	0.25
014-0061	SGI 10	Flare ext. × ext.	3/8 × 3/8	3.25	0.5
014-0009	SGI 12	Flare ext. × ext.	1/2 × 1/2	3.5	0.75
014-0024	SGI 16	Flare ext. × ext.	5/8 × 5/8	4.1	1
PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0063	SGI 6	Flare int. × ext. 1)	1/4 × 1/4	1.8	0.25
014-0064	SGI 10	Flare int. × ext. 1)	3/8 × 3/8	2.25	0.5
014-0065	SGI 12	Flare int. × ext. 1)	1/2 × 1/2	2.33	0.75
PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0066	SGI 6s	ODF × ODF solder	1/4 × 1/4	4	0.25
014-0067	SGI 10s	ODF × ODF solder	3/8 × 3/8	4.7	0.25
014-0068	SGI 12s	ODF × ODF solder	1/2 × 1/2	5.75	0.5
014-0069	SGI 16s	ODF × ODF solder	5/8 × 5/8	5.75	0.5
014-0070	SGI 22s	ODF × ODF solder	7/8 × 7/8	6.82	0.5

DANFOSS REFRIGERATION THERMOSTATS, TYPE KPU

ORDERING

PART NO	CHARGE	TYPE	BULB TYPE	Range [°F]	DIFFERENTIAL At		Reset function	Capillary tube length [in]	Max bulb temp [°F]
					Lowest Temperature Setting °F	Highest Temperature Setting °F			
060L5201	Vapour (1)	KPU 61	A	-20 to 60	8 to 40	2.5 to 13	auto.	80	250
060L5202	Vapour (1)	KPU 61	A	-20 to 60	8 to 40	2.5 to 13	auto.	200	250
060L5203	Vapour (1)	KPU 61	B	-20 to 60	8 to 40	2.5 to 13	auto.	80	250
060L5204	Vapour (1)	KPU 61	B	-20 to 60	fixed 10	fixed 3.5	man. (3)	80	250
060L5205	Vapour (1)	KPU 61	B	-20 to 60	fixed 10	fixed 3.5	man. (3)	200	250
060L5206	Vapour (1)	KPU 62	C1	-20 to 60	8 to 40	2.5 to 13	auto.	room sensor	250
060L5210	Vapour (1)	KPU 61	B	-20 to 60	8 to 40	2.5 to 13	auto. (4)	80	250
060L5213	Vapour (1)	KPU 63	A	-60 to 15	18 to 125	5 to 15	auto.	80	250
060L5214	Vapour (1)	KPU 63	B	-60 to 15	18 to 125	5 to 15	auto.	80	250
060L5215	Vapour (1)	KPU 68	C1	25 to 95	8 to 45	3 to 13	auto.	room sensor	250
060L5217	Vapour (1)	KPU 69	B	25 to 95	8 to 45	3 to 13	auto.	80	250
060L5207	Adsorption (2)	KPU 62	C2	-20 to 60	9 to 36	3 to 14	auto. (4)	room sensor	175
060L5208	Adsorption (2)	KPU 73	E3	-15 to 60	6 to 18	5 to 50	auto.	80	175
060L5209	Adsorption (2)	KPU 73	E1	-15 to 60	22 to 125	15 to 45	auto.	80	175
060L5211	Adsorption (2)	KPU 73	E3	-15 to 60	fixed 6	fixed 6	man. (3)	80	175
060L5212	Adsorption (2)	KPU 73	D	-15 to 60	6 to 35	5 to 32	auto.	80	175
060L5218	Adsorption (2)	KPU 71	E2	25 to 70	5.5 to 18	4 to 6	auto.	80	175
060L5216	Adsorption (2)	KPU 71	E2	25 to 70	fixed 5	fixed 5	man. (3)	80	175
060L5219	Adsorption (2)	KPU 74	E1	0 to 80	9 to 35	9 to 35	auto.	80	175
060L5220	Adsorption (2)	KPU 74	E1	0 to 80	fixed 10	fixed 10	man. (3)	80	175
060L5221	Adsorption (2)	KPU 75	F	30 to 95	6 to 29	4.5 to 21.5	auto.	80	230
060L5222	Adsorption (2)	KPU 75	E2	30 to 95	6 to 30	4.5 to 22	auto.	80	230
060L5223	Adsorption (2)	KPU 77	E3	60 to 140	6 to 18	6.3 to 18	auto.	80	265

DANFOSS SIGHT GLASSES, TYPES SGI, SGN, SGR, AND SGRN

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PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0119	SGI 10s	ODF x ODM solder	3/8 x 3/8	4	0.25



PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0131	SGR 1/2	NPT	1/2 NPT	--	--



PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0132	SGN 6	Flare ext. x ext.	1/4 x 1/4	2.65	0.25
014-0133	SGN 10	Flare ext. x ext.	3/8 x 3/8	3.25	0.5



PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0137	SGN 6	Flare int. x ext. 1)	1/4 x 1/4	2.25	0.5
014-0138	SGN 10	Flare int. x ext. 1)	3/8 x 3/8	2.33	0.75
014-0139	SGN 12	Flare int. x ext. 1)	1/2 x 1/2	2.8	1



PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0142	SGN 6s	ODF x ODF solder	1/4 x 1/4	3	1.33
014-0143	SGN 10s	ODF x ODF solder	3/8 x 3/8	4	0.25
014-0144	SGN 12s	ODF x ODF solder	1/2 x 1/2	4.7	0.25
014-0145	SGN 16s	ODF x ODF solder	5/8 x 5/8	5.75	0.5
014-0147	SGN 22s	ODF x ODF solder	7/8 x 7/8	6.82	0.5



PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0152	SGN 10s	ODF x ODM solder	3/8 x 3/8	4.7	0.25
014-1092 (R410A)	SGH 10s	ODF x ODF solder	3/8 x 3/8	--	--
014-1096 (R410A)	SGH 22s	ODF x ODF solder	7/8 x 7/8	--	--
014-1098 (R410A)	SGH 22s	ODF x ODF solder	1-1/8 x 1-1/8	--	--
014-0154	SGN 16s	ODF x ODM solder	5/8 x 5/8	5.75	0.5
014-1091 (R410A)	SGH 12s	ODF x ODF solder	1/2 x 1/2	--	--

DANFOSS SIGHT GLASSES, TYPES SGI, SGN, SGR, AND SGRN

Ordering



PART NO	TYPE	VERSION	Connection in	LENGTH (IN)	WEIGHT (LB)
014-0006	SGRN	NPT	1/2 NPT	--	--

- 1) Can be screwed directly into the filter drier.
- 2) ISO 228/1.

Refrigerant	SGI						SGN					
	77°F			110°F			77°F			110°F		
	Green dry	Intermed. color	Yellow wet	Green dry	Intermed. color	Yellow wet	Green dry	Intermed. color	Yellow wet	Green dry	Intermed. color	Yellow wet
CFC	**SGI recommended											
R12	< 10	10 - 25	> 25	< 35	35 - 65	> 65						
R502	< 70	70 - 140	> 140	< 110	110 - 230	> 230	< 10	10 - 50	> 50	< 20	20 - 90	> 90
HCFC							**SGN recommended					
R22	< 150	150 - 300	> 300	< 250	250 - 500	> 500	< 30	30 - 120	> 120	< 50	50 - 200	> 200
R134a	< 130	130 - 270	> 270	< 210	210 - 430	> 430	< 30	30 - 100	> 100	< 45	45 - 170	> 170
R404A	< 90	90 - 170	> 170	< 125	125 - 250	> 250	< 20	20 - 70	> 70	< 25	25 - 100	> 100
R407C	< 170	170 - 350	> 350	< 280	280 - 560	> 560	< 30	30 - 140	> 140	< 60	60 - 225	> 225
R507	< 80	80 - 160	> 160	< 140	140 - 280	> 280	< 15	15 - 60	> 60	< 30	30 - 110	> 110

This chart indicates the moisture content in parts per million for both types of Danfoss sight glasses for the given refrigerants.