

## Data sheet

# Sight glass

## Type MLI



The MLI sight glass 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.

The MLI is equipped with a sensitive indicator that reflects a colour, depending on the moisture content in the refrigerant.

### Features

- MLI are moisture indicators suitable for use with HCFC, HFC and R717 (Ammonia).
- MLI can be used for refrigerants within the temperature range 80 – 40 °C / 176 – 40 °F to maximum operating pressure of 25 bar.
- MLI are available with weld or solder connections.
- MLI 100 can, when the indicator element has been removed, alternatively be used as a normal sight glass for all refrigerants including R717 (ammonia).
- Classification: DNV, CRN, BV, EAC etc. To get an updated list of certification on the products please contact your local Danfoss Sales Company.

### Design

- **Housing**  
The MLI housing is made of special, cold resistant steel approved for low temperature applications.
- **Connections**
  - Welding DIN (2448), DN 20 to 25
  - Welding ANSI (B 36.10 Schedule 80), DN 20 to 25

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### Technical data

- Max. operating pressure is 25 bar.
- The MLI 20-25 are designed for:  
Strength test:  
50 bar g / 725 psig.  
Leakage test:  
25 bar g / 362 psig.

New systems or systems where the drier has been replaced may cause the element to change color almost immediately. However, it is recommended that the plant is allowed to operate for at least 12 hours to allow the system to reach equilibrium before deciding if the drier should be changed.

The moisture liquid indicators are designed as sight glasses with an integral moisture indicator element.

The drying of the system should be continued until the indicator element stays dark green.

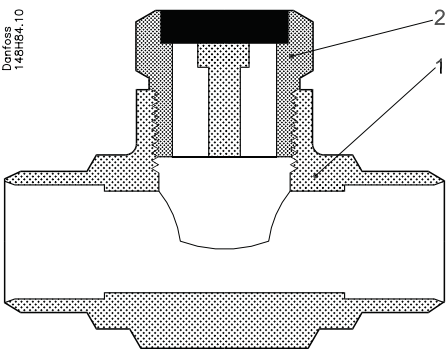
The indicator element is a filter paper impregnated with a chemical salt, which is sensitive to moisture. The indicator element will change color upon detection of moisture within the system. The color change is reversible.

### Moisture content

#### MLI for HCFC refrigerants

	Moisture content ppm = parts per million					
	MLI 100					
	25 °C			43 °C		
	Green/dry	Intermediate color	Yellow/wet	Green/dry	Intermediate color	Yellow/wet
R22	< 30	30 – 90	> 90	< 45	45 – 130	> 130

### Material specification

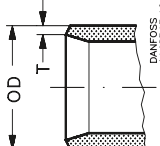
 <p style="text-align: center;">MLI 100</p>					
No.	Part	Material	DIN/EN	ISO	ASTM
1	Housing	Steel	TTSt 35N 17173	TW6 2604/3	Grade 1 A 333, A 334 A350 LF2*
2	Indicator MLI 100	steel / glass			

\* - alternative material

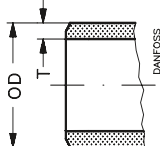
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### Connections

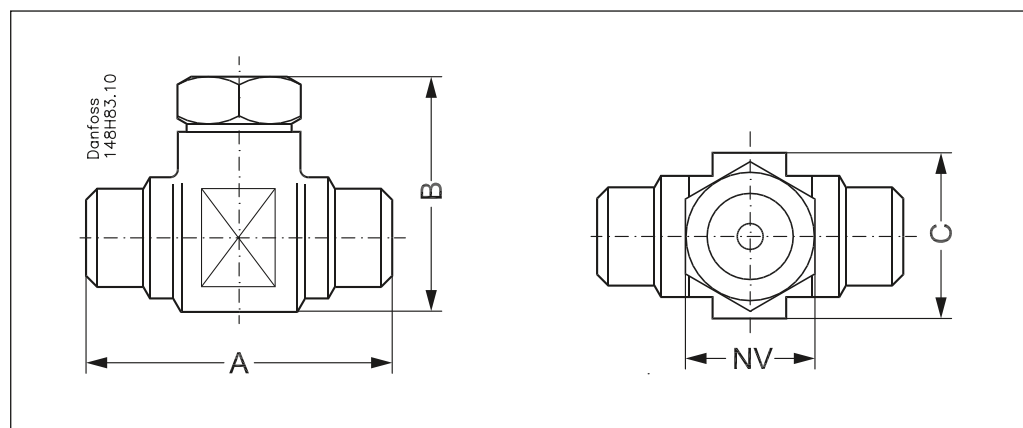
#### Welding DIN (2448)

	mm	inch	OD / ID Ø mm	OD / ID Ø inch
	20	¾"	26.9 / 22.3	1.059 / 0.878
	25	1"	33.7 / 28.5	1.327 / 1.122

#### Welding ANSI (B 36.10 Schedule 80)

	mm	inch	OD / ID Ø mm	OD / ID Ø inch
	20	¾"	26.9 / 18.9	1.059 / 0.744
	25	1"	33.7 / 24.5	1.327 / 0.965

### Dimensions



Size	Connection	A		B		C		NV		Weight	
		mm	in.	mm	in.	mm	in.	mm	in.	kg	lb
DN 20	D / A	85	3.35	57.5	2.26	46	1.81	35	1.38	0.6	1.32
DN 25	D / A										

D = Welding DIN (2448)

A = Welding ANSI (B 36.10 Schedule 80)

### Ordering

DIN weld connection/ANSI solder connection						ANSI connection			
Size welding		Size solder		Type	Code no.	mm	inch	Type	Code no.
mm	inch	mm	inch						
20	¾"	22	7/8"	MLI 20 D 100	<b>2511+019</b>	–	–	–	–
25	1"	27	1 1/8"	MLI 25 D 100	<b>2511+020</b>	25	1"	MLI 25 A 100	<b>2511+089</b>

