

## Data Sheet

# Flow directors for tube segment radiators - apply with integrated valve 013G1382

### Application



Flow director 013G1525/013G1557

The Danfoss flow directors 013G1525/013G1557 are designed to be used with Danfoss integrated valve type 013G1382 for incorporation into tube segment radiators.

Tube segment radiators are constructed by a series of elements, which are welded together. The first segment is used as inlet pipe, while return is through the bottom of the second segment.

When integrated valves are used in tube segment radiators, the water flow needs to be directed correctly through the valve to avoid noise problems. This is made with the Danfoss flow director.

### Code Nos. and Technical Data

#### Flow director

Flow director type	Connection radiator	Connection integr. valve	Max. water temperature	Code no.
For tube segment radiators	1" RH thread	½"	120 °C	013G1525
For tube segment radiators	1" LH thread	½"	120 °C	013G1557

#### Integrated valve for flow directors

Valve type	Differential pressure <sup>1)</sup>		Test pressure	Work. pressure	Max. water temp.	Code no.
	Recom.	Technical				
For Danfoss RA type sensors	0.05-0.2 bar	0.6 bar	16 bar	10 bar	120 °C	013G1382

#### Accessories and spare parts for integrated valve 013G1382

Product	Code no.
Gland seal	013G0290
Protection cap (red)	013G0951

#### Pre-setting values, flow director + integrated valve

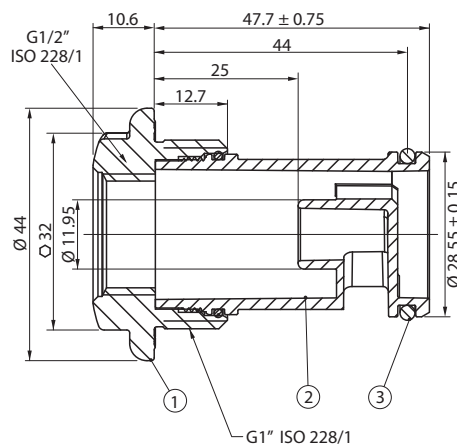
Flow director + integrated valve	Presetting								
	k <sub>v</sub> -value <sup>2)</sup>								k <sub>vs</sub>
	1	2	3	4	5	6	7	N	
Flow director + RA 013G1382	0.14	0.18	0.26	0.32	0.45	0.55	0.69	0.84	1.18

- 1) The technical differential pressure indicates the upper limit for a proper valve function. In most two-pipe systems the recommended differential pressure is sufficient. In order to achieve a noiseless function we recommend in smaller systems to apply automatic bypass valves or automatic balancing valves. If pump differential pressure exceeds the recommended max. valve differential pressure it is recommended that an automatic balancing valve type ASV-P/PV is added to the system.
- 2)  $k_v$ -values indicate the flow volume (Q) in m<sup>3</sup>/h at a pressure loss ( $\Delta p$ ) across the valve of 1 bar ;  

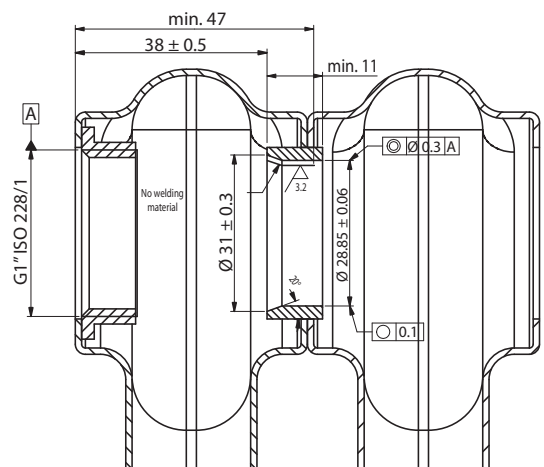
$$k_v = \frac{Q}{\sqrt{\Delta p}}$$
 At setting N, the  $k_v$ -value in accordance with EN 215 can be stated as  $X_p = 2 K$ . At lower preset values,  $X_p$  will be reduced until approximately  $X_p 0.5$  at presetting 1. The table shows the average measured values for integrated valves with radiator. The  $k_{vs}$ -values indicate the valve capacity, when the valve is fully open. If a remote temperature adjuster is used, the P-band is increased by a factor of 1.1. If a liquid filled radiator thermostat is used, the P-band is increased by a factor of 1.6.

Design and Dimensions

Flow director 013G1522



Radiator dimensions

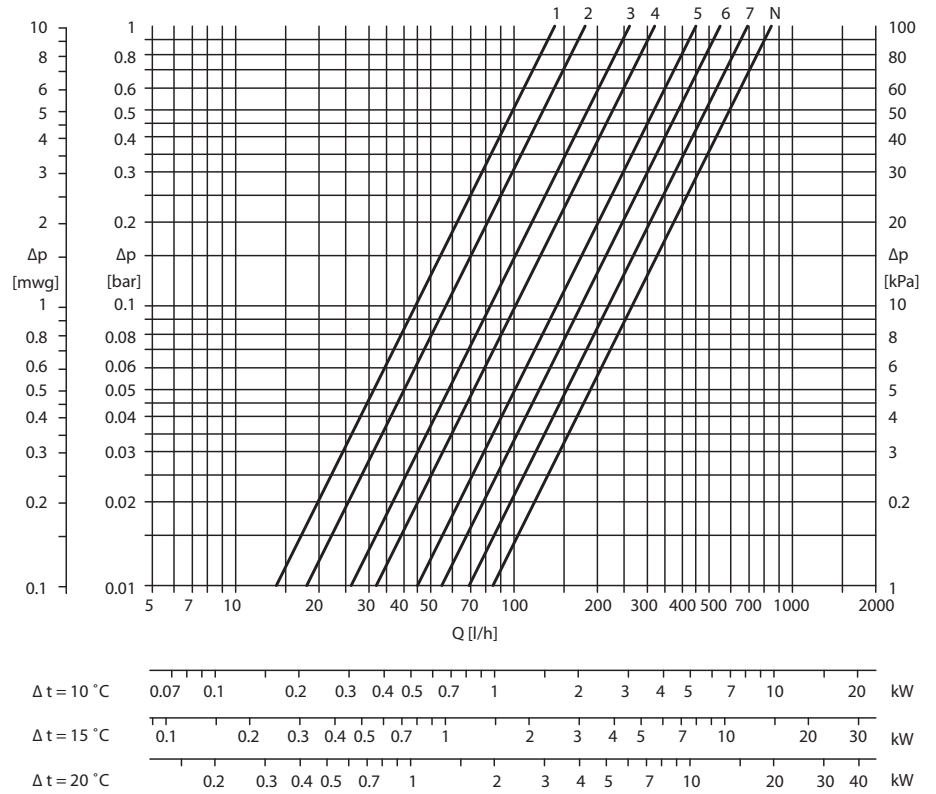


Materials

1. Plug	Nickel plated steel
2. Flow director body	PPS
3. O-ring	EPDM

Capacities

Flow director 013G1525/013G1557 + integrated valve 013G1382



Danfoss A/S  
Heating Solutions  
Haarupvaenget 11  
8600 Silkeborg  
Denmark  
Phone: +45 7488 8000  
Fax: +45 7488 8100  
Email: [heating.solutions@danfoss.com](mailto:heating.solutions@danfoss.com)  
[www.heating.danfoss.com](http://www.heating.danfoss.com)

---

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

---