



RADIATORS
ITALIAN PREMIUM HEATING

INT
Catalogue

Steel Panels
2017



Production plants

Moimacco

Strada Statale 54, 21
33040 Moimacco
Udine - Italy

Fossalta di Piave

Via delle Industrie, 2
30020 Fossalta di Piave
Venice - Italy



DL Radiators is a company of the **De Longhi Industrial group** known worldwide as a leading Italian manufacturer of **heating** and **home comfort** products. Passionate high-level **professionalism, investments, organisational skills, advanced technologies, full Italian creativity** and a focus on market expectations are all constituent elements of DL Radiators' thirty-year experience for the manufacturing of **leading edge products**.

Faithful to its mission of favouring innovation, DL Radiators offers **radiators** that combine **functionality** and **accurate finishes**. Our focus is put on the technical details and materials we use, we address refined consumers as well as picky and challenging architects and installers.

Quality radiators

Quality in all products is DL Radiators' key founding value.

All customers are offered superior energy efficiency, practicality of connection to existing systems, reliability and ultimate design in all products.

Made in Italy

Durability, little maintenance, efficiency and beauty, these promises are all kept by DL Radiators in all of its products. In order to ensure this is attained, the company has chosen to make the **radiators** in Italy, caring for the most invisible of details such as finishings or welds.

Premium materials

DL Radiators uses only top-quality steel from certified suppliers. Each coil undergoes strict checks to guarantee the technical and style perfection of the **radiator**.

Protecting the environment

A sound production cycle and pioneering products that aim at saving energy and obtaining the ultimate efficiency, DL Radiators protects the environment, making this one of its cornerstone values.

The range

A **wide range** of items is offered in various sizes, colours, heat sources and shapes. Products include hydronic, electric and combined radiators with no limits as to customers' or professionals' choices.



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PROFILED STEEL PANEL

Horizontal and vertical profiled steel panel

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LINEAR STEEL PANEL

Horizontal and vertical linear steel panel

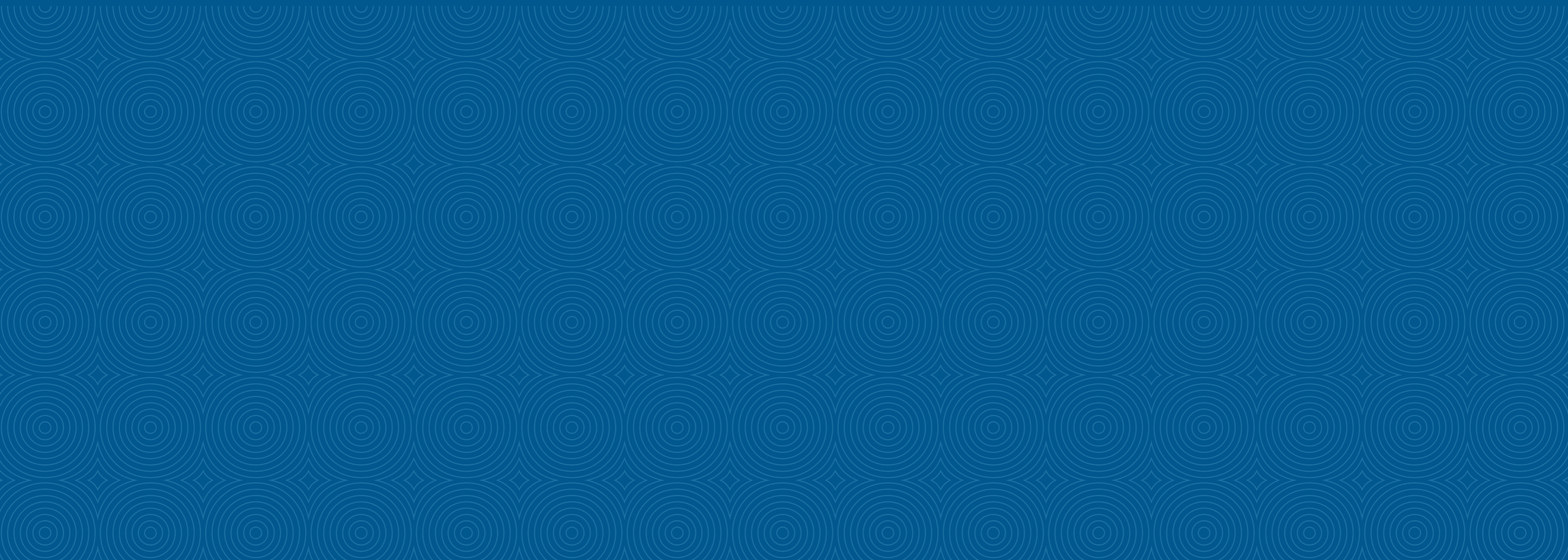
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Hydronic





Profiled Steel Panel

HORIZONTAL AND VERTICAL PROFILED STEEL PANEL



Guaranteed for 5 years

During the many years of production experience, the moulding, welding, assembly and final control of DL Radiators, Plattella panel radiators have reached such a high level of quality and precision that DL Radiators guarantees the line of products for 5 years.

The range

DL Radiators steel panels include the versions:

- Compact with 4 side connections and models 10, 11, 21, 22 and 33;
- PHD 2.0 Panel with valve and 5 connections and models 10, 11, 21, 22, 32,33;
- Steel panel with valve and central connections with the models 11, 21, 22, 33.

PHD 2.0 Panels have a preferential water circulation and the thermostatic valve.

Hygiene panels are included in the product range. To complete the range there are the Vertical steel panel with 6 connections.

Quality

DL Radiators steel panels are made from top quality 1.25 mm thick steel ideal for deep moulding, with grooves 33.3 mm apart. The heat outputs are determined at Milan Polytechnic according to the EN442 standard.

Packaging

DL Radiators steel panels are packed with plastic corner protection and tough cardboard strips to protect the edges from knocks during transport, then finished with heat shrink tape to protect from damp.

Painting

The top quality painted finish of DL Radiators steel panels is achieved by an industrial process originating in the automotive sector to give each element a glossy long-lasting colour. Plattella radiators are painted using a three-phase system:

- Hot degreasing and basic hot iron phosphatisation
- Electrophoretic dip coating to apply the base colour evenly in the innermost and outermost parts of the panel, followed by baking at 185 °C
- Epoxy powder coating and baking at 170 °C to give the panel a bright glossy finish

The colour is DL Radiators's characteristic RAL9016 white in accordance with DIN 55900.

Height (H) 500

Table with columns for Width (mm), Exponent (n), and Length (mm) for heights 10, 11, 21, 22, and 33. Includes sub-columns for Output and Power Code.

For the valve on the left side, you have to turn the third-last number from 3 to 5 [for type 10, 11, 32, 33].

Height (H) 600

Table with columns for Width (mm), Exponent (n), and Length (mm) for heights 10, 11, 21, 22, and 33. Includes sub-columns for Output and Power Code.

Green cells: maximum lead time 2 weeks - Only right-valve rads. For the valve on the left side, you have to turn the third-last number from 3 to 5 [for type 10, 11, 32, 33].

Height (H) 700

Table with columns for Width (mm), Exponent (n), and Length (mm) for heights 10, 11, 21, 22, and 33. Includes sub-columns for Output and Power Code.

For the valve on the left side, you have to turn the third-last number from 3 to 5 [for type 10, 11, 32, 33].

Height (H) 900

Table with columns for Width (mm), Exponent (n), and Length (mm) for heights 10, 11, 21, 22, and 33. Includes sub-columns for Output and Power Code.

Green cells: maximum lead time 2 weeks - Only right-valve rads. For the valve on the left side, you have to turn the third-last number from 3 to 5 [for type 10, 11, 32, 33].

Height (H) 500

Height (H) 700

Table with columns for Width (mm), Exponent (n), Length (mm), and Output values for different valve configurations (11, 21, 22, 33) for heights 400, 500, 600, 700, 800, 900, 1.000, 1.100, 1.200, 1.400, 1.600, 1.800, 2.000, 2.300, 2.600, and 3.000.

For the valve on the left side, you have to turn the third-last number from 1 to 3.

Table with columns for Width (mm), Exponent (n), Length (mm), and Output values for different valve configurations (11, 21, 22, 33) for heights 400, 500, 600, 700, 800, 900, 1.000, 1.100, 1.200, 1.400, 1.600, 1.800, 2.000, 2.300, 2.600, and 3.000.

For the valve on the left side, you have to turn the third-last number from 1 to 3.

Height (H) 600

Height (H) 900

Table with columns for Width (mm), Exponent (n), Length (mm), and Output values for different valve configurations (11, 21, 22, 33) for heights 400, 500, 600, 700, 800, 900, 1.000, 1.100, 1.200, 1.400, 1.600, 1.800, 2.000, 2.300, 2.600, and 3.000.

For the valve on the left side, you have to turn the third-last number from 1 to 3.

Table with columns for Width (mm), Exponent (n), Length (mm), and Output values for different valve configurations (11, 21, 22, 33) for heights 400, 500, 600, 700, 800, 900, 1.000, 1.100, 1.200, 1.400, 1.600, 1.800, 2.000, 2.300, 2.600, and 3.000.

For the valve on the left side, you have to turn the third-last number from 1 to 3.

Height (H) 500

Table for Height (H) 500 showing dimensions (Width, Exponent, Length) and Output for various sizes (10, 20, 30) and Power Codes (75/65-20, 70/55-20, 55/45-20).

For the valve on the left side, you have to turn the third-last number from 3 to 5.

Height (H) 600

Table for Height (H) 600 showing dimensions (Width, Exponent, Length) and Output for various sizes (10, 20, 30) and Power Codes (75/65-20, 70/55-20, 55/45-20).

For the valve on the left side, you have to turn the third-last number from 3 to 5.

Height (H) 700

Table for Height (H) 700 showing dimensions (Width, Exponent, Length) and Output for various sizes (10, 20, 30) and Power Codes (75/65-20, 70/55-20, 55/45-20).

For the valve on the left side, you have to turn the third-last number from 3 to 5.

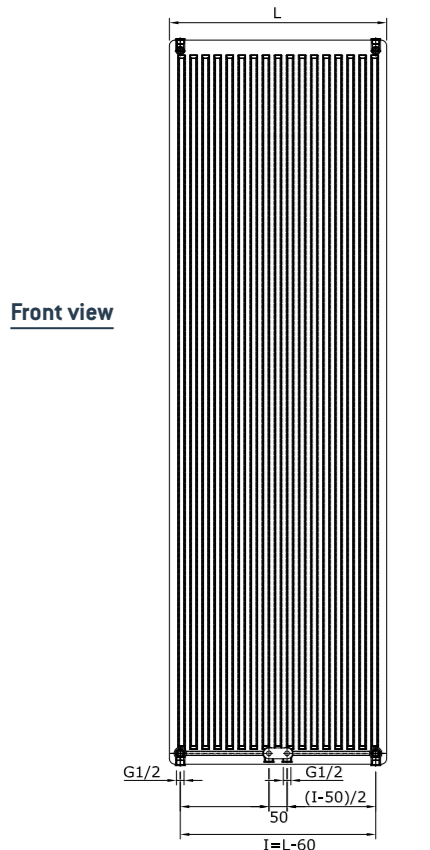
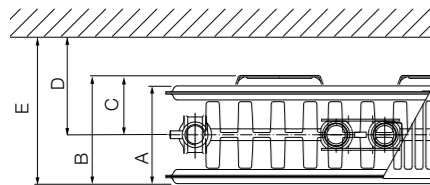
Height (H) 900

Table for Height (H) 900 showing dimensions (Width, Exponent, Length) and Output for various sizes (10, 20, 30) and Power Codes (75/65-20, 70/55-20, 55/45-20).

For the valve on the left side, you have to turn the third-last number from 3 to 5.



Brackets included
 Blind cap and air vent included



Technical characteristics

- Working pressure 10 bar
- Test pressure 13 bar
- Maximum operating temperature 110 °C
- NF Certification in models 10, 20 and 21 see the website www.marque-nf.com

Standard equipment

- 4 x 1/2" connections (perpendicular to the ground), inside thread
- 1 central connector with 50 mm tappings centre (1/2" inside thread) – choice of bottom or top
- 3 x 1/2" blind caps provided, to be mounted
- 1 x 1/2" vent plug provided, to be mounted
- Vertical radiators are available in two different configurations: with central connection at the bottom (configuration AB) or at the top (configuration AA) – see modified order code at the bottom of the tables
- The 20, 21 and 22 models of vertical panel are finished with side covers; in the AB configuration (central connection at the bottom), they also have a top grille; model 10 has no grille or side covers.
- Brackets and supports
 - 2 x GB brackets with top safety hook are provided (1 bracket for 300 mm-wide model)
 - 3 pairs of welded back supports (3 single supports for 300mm-wide models)

Connection

- Vertical radiators can be connected to a two-pipe installation with top/bottom opposite side, bottom/bottom opposite side, top/top opposite side connections and in the configuration with central connection. The two-pipe connection requires a valve and lockshield (not provided). It can also be connected to a two-pipe installation with central connection and valve/lockshield group with 50 mm tappings centre (available as an accessory on request).
- Vertical radiators can be connected to a one-pipe installation using a one-pipe valve with external probe only.
- Floor anchors not available.

Safety

- Vertical radiators cannot be inverted around any of the three axes.
- The sides of Vertical radiators are fastened with screws, safer than the interlocking system adopted on other panel radiators.

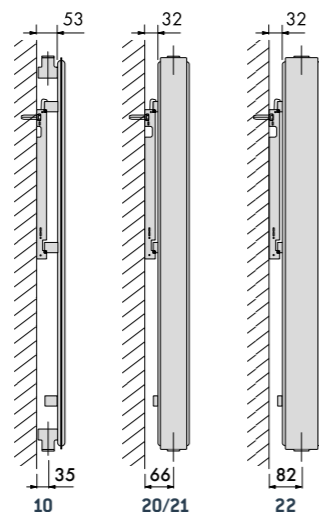
Optional

Brackets and optional accessories are available on dedicated pages.

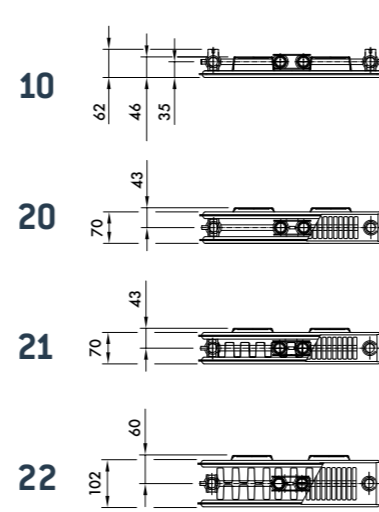
	Dimensions	Dimensions			
		10	20	21	22
panel depth - excluding back supports	A	62	70	70	102
total depth - from the back of the support to the front panel	B	62	77	77	111
distance from the back support to the connection**	C	-	43	43	60
distance from wall to the centre of the connection (mounting the radiators on the GB brackets provided)*	D	35	58/66	58/66	74/82
total distance from the wall to the front panel (panel mounted on the GP brackets provided as standard)*	E	70	93/101	93/101	125/133

* The total distance varies according to whether the GB bracket is mounted in position A or position B (choice of depth)
 ** Calculating the total size of the panel (from the wall to the front panel) with the chosen wall brackets: the useful length of the chosen bracket must be added to this measurement (see brackets page).

Side view



Upper View



		10			20			21			22			
Width (mm)		62			77			77			111			
Exponent (n)		1,363			1,313			1,294			1,38			
Length (mm)	Tappings center (l)	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	
		W	W	W	W	W	W	W	W	W	W	W	W	
300	240	Power	423	339	207	649	525	333	802	650	414	982	786	486
	Code	0184103842			0184203842			0184213842			0184223842			
400	340	Power	565	452	276	865	700	444	1069	867	553	1309	1048	649
	Code	0184104842			0184204842			0184214842			0184224842			
500	440	Power	706	565	345	1081	875	556	1336	1083	691	1637	1310	811
	Code	0184105842			0184205842			0184215842			0184225842			
600	540	Power	847	678	414	1297	1050	667	1604	1300	829	1964	1572	973
	Code	0184106842			0184206842			0184216842			0184226842			
700	640	Power	988	791	483	1514	1225	778	1871	1517	967	2291	1834	1135
	Code	0184107842			0184207842			0184217842			0184227842			
900	840	Power	1270	1017	622	1946	1576	1000	2405	1950	1243	2946	2358	1459
	Code	0184109842			0184209842			0184219842			0184229842			

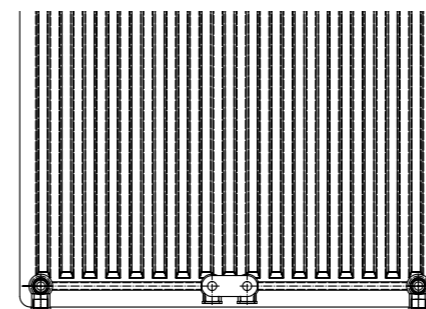
		10			20			21			22			
Width (mm)		62			77			77			111			
Exponent (n)		1,349			1,31			1,322			1,371			
Length (mm)	Tappings center (l)	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	
		W	W	W	W	W	W	W	W	W	W	W	W	
300	240	Power	477	380	234	730	590	378	883	712	450	1072	856	532
	Code	0184103848			0184203848			0184213848			0184223848			
400	340	Power	637	506	312	973	786	505	1177	950	601	1429	1141	709
	Code	0184104848			0184204848			0184214848			0184224848			
500	440	Power	796	633	390	1216	983	631	1471	1187	751	1787	1426	886
	Code	0184105848			0184205848			0184215848			0184225848			
600	540	Power	955	759	468	1459	1179	757	1766	1424	901	2144	1711	1063
	Code	0184106848			0184206848			0184216848			0184226848			
700	640	Power	1114	886	547	1703	1376	883	2060	1662	1051	2502	1997	1240
	Code	0184107848			0184207848			0184217848			0184227848			
900	840	Power	1432	1139	703	2189	1769	1135	2649	2136	1351	3216	2567	1595
	Code	0184109848			0184209848			0184219848			0184229848			

The required configuration must be indicated on the order

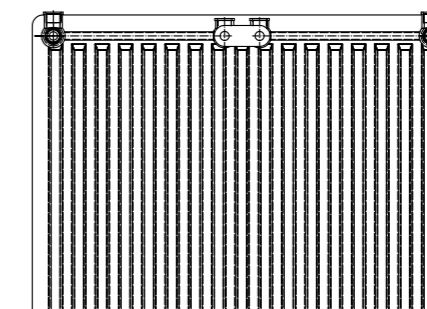
- AB (bottom connection)
- AA (top connection).

In the case of the top connection (AA), the 8 in the third to last position of the code must be replaced with a 9.
 Example: 0184214854 is a Vertical Model 21 1800x400 panel with bottom connections (AB); 0184214954 is a Vertical Model 21 1800x400 panel with top connections (AA)

CONFIGURATION AB: connection on the bottom without top grille



CONFIGURATION AA: connection on the top without top grille



Height (H) 1800

		10			20			21			22			
Width (mm)		62			77			77			111			
Exponent (n)		1,336			1,308			1,35			1,363			
Length (mm)	Tappings center (l)	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	
		W	W	W	W	W	W	W	W	W	W	W	W	
300	240	Power	532	426	270	811	656	414	964	773	486	1162	935	577
		Code	0184103854			0184203854			0184213854			0184223854		
400	340	Power	709	567	360	1081	874	553	1285	1030	649	1550	1246	769
		Code	0184104854			0184204854			0184214854			0184224854		
500	440	Power	886	709	450	1351	1093	691	1607	1288	811	1937	1558	961
		Code	0184105854			0184205854			0184215854			0184225854		
600	540	Power	1063	851	541	1622	1311	829	1928	1545	973	2324	1870	1153
		Code	0184106854			0184206854			0184216854			0184226854		
700	640	Power	1240	993	631	1892	1530	967	2249	1803	1135	2712	2181	1345
		Code	0184107854			0184207854			0184217854			0184227854		
900	840	Power	1595	1277	811	2432	1967	1243	2892	2318	1459	3486	2805	1730
		Code	0184109854			0184209854			0184219854			0184229854		

Height (H) 2200

		10			20			21			22			
Width (mm)		62			77			77			111			
Exponent (n)		1,366			1,318			1,339			1,407			
Length (mm)	Tappings center (l)	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	
		W	W	W	W	W	W	W	W	W	W	W	W	
300	240	Power	652	521	324	966	779	493	1115	895	563	1377	1094	671
		Code	0184103866			0184203866			0184213866			0184223866		
400	340	Power	870	695	432	1288	1039	657	1487	1194	751	1835	1459	895
		Code	0184104866			0184204866			0184214866			0184224866		
500	440	Power	1087	869	541	1610	1298	821	1859	1492	938	2294	1823	1119
		Code	0184105866			0184205866			0184215866			0184225866		
600	540	Power	1305	1043	649	1932	1558	986	2231	1791	1126	2753	2188	1342
		Code	0184106866			0184206866			0184216866			0184226866		
700	640	Power	1522	1217	757	2253	1818	1150	2602	2089	1314	3212	2553	1566
		Code	0184107866			0184207866			0184217866			0184227866		
900	840	Power	1957	1564	973	2897	2337	1478	3346	2686	1689	4130	3282	2014
		Code	0184109866			0184209866			0184219866			0184229866		

Height (H) 2000

		10			20			21			22			
Width (mm)		62			77			77			111			
Exponent (n)		1,351			1,313			1,345			1,385			
Length (mm)	Tappings center (l)	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	
		W	W	W	W	W	W	W	W	W	W	W	W	
300	240	Power	586	471	297	892	718	450	1036	836	523	1270	1011	622
		Code	0184103860			0184203860			0184213860			0184223860		
400	340	Power	781	629	396	1189	957	601	1381	1115	697	1694	1348	829
		Code	0184104860			0184204860			0184214860			0184224860		
500	440	Power	976	786	495	1486	1197	751	1727	1394	871	2117	1685	1036
		Code	0184105860			0184205860			0184215860			0184225860		
600	540	Power	1171	943	595	1784	1436	901	2072	1672	1045	2541	2022	1243
		Code	0184106860			0184206860			0184216860			0184226860		
700	640	Power	1366	1100	694	2081	1676	1051	2417	1951	1219	2964	2359	1450
		Code	0184107860			0184207860			0184217860			0184227860		
900	840	Power	1757	1414	892	2676	2154	1351	3108	2509	1568	3811	3034	1865
		Code	0184109860			0184209860			0184219860			0184229860		

Height (H) 2400

		10			20			21			22			
Width (mm)		62			77			77			111			
Exponent (n)		1,382			1,323			1,339			1,429			
Length (mm)	Tappings center (l)	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	Output 75/65-20	Output 70/55-20	Output 55/45-20	
		W	W	W	W	W	W	W	W	W	W	W	W	
300	240	Power	723	577	357	1041	839	530	1192	958	603	1495	1185	721
		Code	0184103872			0184203872			0184213872			0184223872		
400	340	Power	963	770	476	1387	1119	706	1589	1277	804	1993	1580	961
		Code	0184104872			0184204872			0184214872			0184224872		
500	440	Power	1204	962	595	1734	1399	883	1986	1597	1005	2491	1975	1201
		Code	0184105872			0184205872			0184215872			0184225872		
600	540	Power	1445	1154	714	2081	1678	1059	2384	1916	1205	2989	2370	1441
		Code	0184106872			0184206872			0184216872			0184226872		
700	640	Power	1686	1347	832	2428	1958	1236	2781	2235	1406	3487	2765	1682
		Code	0184107872			0184207872			0184217872			0184227872		
900	840	Power	2168	1732	1070	3122	2518	1589	3576	2874	1808	4484	3555	2162
		Code	0184109872			0184209872			0184219872			0184229872		

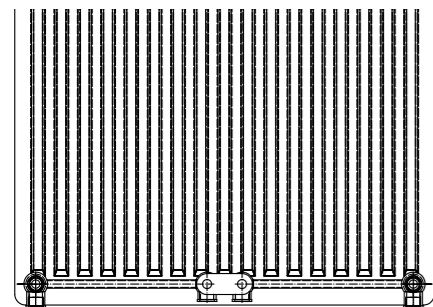
The required configuration must be indicated on the order

- AB (bottom connection)
- AA (top connection).

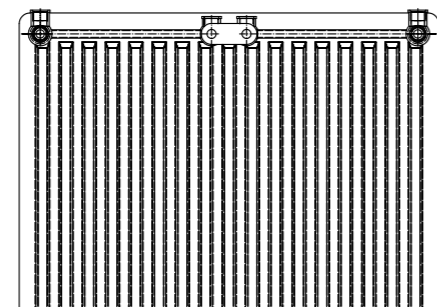
In the case of the top connection [AA], the 8 in the third to last position of the code must be replaced with a 9.

Example: 0184214854 is a Vertical Model 21 1800x400 panel with bottom connections [AB]; 0184214954 is a Vertical Model 21 1800x400 panel with top connections [AA].

CONFIGURATION AB: connection on the bottom with top grille



CONFIGURATION AA: connection on the top without top grille



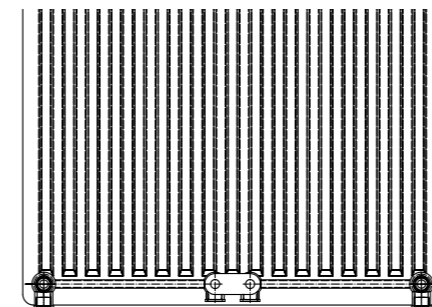
The required configuration must be indicated on the order

- AB (bottom connection)
- AA (top connection).

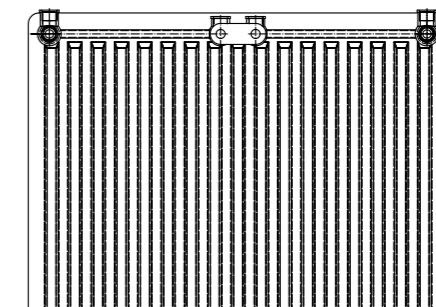
In the case of the top connection [AA], the 8 in the third to last position of the code must be replaced with a 9.

Example: 0184214854 is a Vertical Model 21 1800x400 panel with bottom connections [AB]; 0184214954 is a Vertical Model 21 1800x400 panel with top connections [AA].

CONFIGURATION AB: connection on the bottom with top grille



CONFIGURATION AA: connection on the top without top grille



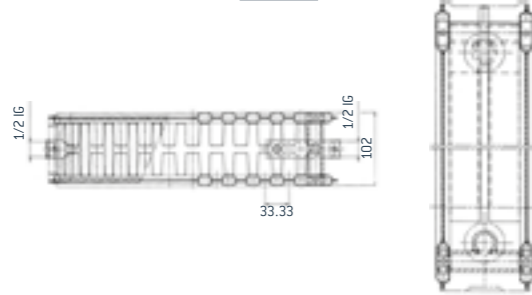
Replacement radiators - Compact Panel

The Replacement rad are planned to be the ideal solution for the replacement of old DIN rads. The Replacement rads are available only for 22 and 33 Compact Panel. The rads have the upper grill and side covers, without back supports. No brackets included in the package. Height 960 model has the same tappings centre distance by both sides and has the back supports.

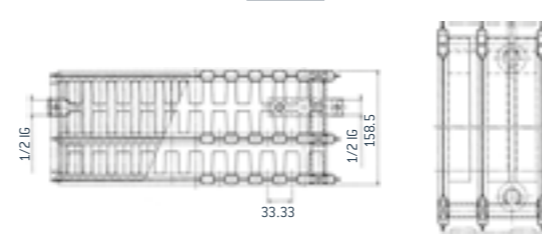
Height	300	400	500	600	700	960
Tappings centre side 1 (special distance)	200	300	400	500	600	900
Tappings centre side 2	240	340	440	540	640	900

For the lengths available, see following tables
Price on demand

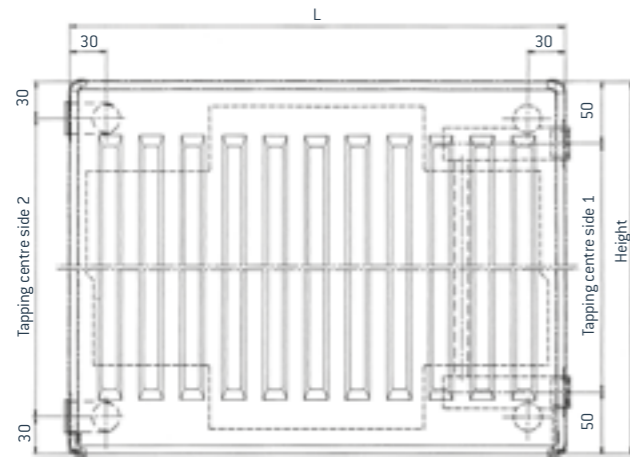
Type 22



Type 33



Heights 300 - 400 - 500 - 600 - 700



How to order:

Complete the code with the numbers of the height in place of "z".
h 300 z = 3
h 400 z = 4
xx = 22 Type 22
xx = 33 Type 33

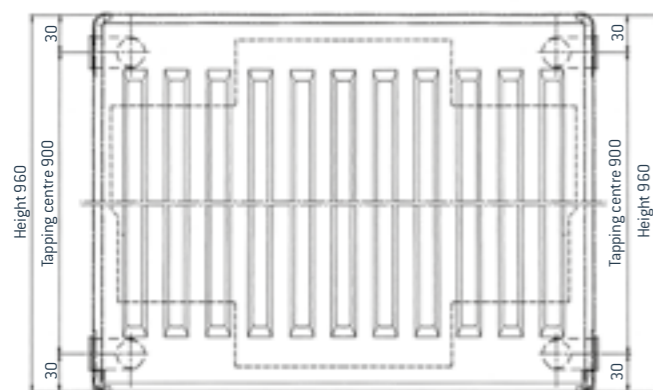
Length (mm)	Code
600	0181xxz918
800	0181xxz924
1000	0181xxz930
1200	0181xxz936
1400	0181xxz942
1600	0181xxz948
1800	0181xxz954

Height 960

How to order:

Complete the code with the numbers of the type:
xx = 22 Type 22
xx = 33 Type 33

Length (mm)	Code
400	0181xx0912
500	0181xx0915
600	0181xx0918
700	0181xx0921
900	0181xx0927



Correction factor F

Calculate the heat output for different Δt, valid for traditional and low temperature installations

The following temperatures:

- input fluid t_e
- output fluid t_u
- room t_a

indicated in the table determine the correction factor F. To obtain the heat output according to the EN 442 standard Q_n , the heat requirement Q_f must be multiplied by the correction factor F.

$$Q_n = Q_f \cdot F$$

Q_n = heat output according to EN 442
 $t_m = 70^\circ\text{C}$ (75/65),
 $t_a = 20^\circ\text{C}$

Q_f = heat requirement

F = correction factor indicated in table

EXAMPLE

Given a heat requirement Q_f of 830 Watt in the following two cases:

Case A

for traditional installations
 $t_e = 80^\circ\text{C}$; $t_u = 70^\circ\text{C}$; $t_a = 18^\circ\text{C}$
Correction factor $F = 0,84$
(from table)
 $Q_n = Q_f \cdot F = 830 \cdot 0,84 = 697 \text{ W}$

Case B

for NT low temperature installations
 $t_e = 60^\circ\text{C}$; $t_u = 50^\circ\text{C}$; $t_a = 20^\circ\text{C}$
Correction factor $F = 1,60$
(from table)
 $Q_n = Q_f \cdot F = 830 \cdot 1,60 = 1328 \text{ W}$

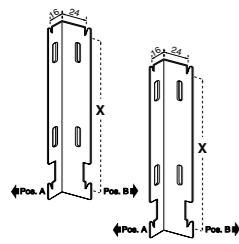
Inlet Temperature t_e (°C)	Room Temperature t_a (°C)	Outlet Temperature t_u (°C)															
		25	30	35	40	45	50	55	60	65	70	75	80	85	90		
95	24	4,23	2,29	1,77	1,48	1,29	1,15	1,04	0,96	0,89	0,83	0,78	0,73	0,70	0,66		
	22	2,91	1,99	1,60	1,36	1,20	1,08	0,99	0,91	0,85	0,79	0,75	0,70	0,67	0,64		
	20	2,35	1,76	1,46	1,26	1,13	1,02	0,93	0,87	0,81	0,76	0,72	0,68	0,64	0,61		
90	24	4,56	2,45	1,88	1,57	1,36	1,21	1,10	1,01	0,93	0,87	0,82	0,77	0,73			
	22	3,11	2,11	1,69	1,44	1,27	1,14	1,04	0,96	0,89	0,83	0,78	0,74	0,70			
	20	2,50	1,87	1,54	1,33	1,19	1,07	0,98	0,91	0,85	0,80	0,75	0,71	0,67			
85	24	4,94	2,63	2,00	1,67	1,45	1,29	1,16	1,07	0,99	0,92	0,86	0,81				
	22	3,34	2,26	1,80	1,53	1,34	1,21	1,10	1,01	0,94	0,88	0,82	0,78				
	20	2,67	1,99	1,64	1,41	1,25	1,13	1,04	0,96	0,89	0,84	0,79	0,75				
80	24	5,38	2,83	2,15	1,78	1,54	1,37	1,24	1,13	1,05	0,97	0,91					
	22	3,61	2,42	1,93	1,63	1,43	1,28	1,16	1,07	0,99	0,93	0,87					
	20	2,87	2,13	1,75	1,50	1,33	1,20	1,10	1,01	0,94	0,88	0,83					
75	24	5,90	3,07	2,32	1,92	1,66	1,47	1,32	1,21	1,12	1,04						
	22	3,92	2,61	2,07	1,75	1,53	1,37	1,24	1,14	1,05	0,98						
	20	3,10	2,28	1,87	1,61	1,42	1,28	1,17	1,08	1,00	0,94						
70	24	6,54	3,36	2,52	2,08	1,79	1,58	1,42	1,30	1,19							
	22	4,30	2,84	2,24	1,89	1,64	1,47	1,33	1,22	1,13							
	20	3,38	2,47	2,02	1,73	1,52	1,37	1,25	1,15	1,07							
65	24	7,33	3,70	2,76	2,27	1,94	1,71	1,54	1,40								
	22	4,75	3,11	2,44	2,05	1,78	1,59	1,43	1,31								
	20	3,70	2,69	2,19	1,87	1,64	1,47	1,34	1,23								
60	24	8,43	4,13	3,06	2,50	2,13	1,87	1,68									
	22	5,32	3,44	2,69	2,24	1,94	1,73	1,56									
	20	4,10	2,96	2,39	2,03	1,78	1,60	1,45									
55	24	9,67	4,67	3,43	2,78	2,37	2,07										
	22	6,03	3,86	2,99	2,48	2,15	1,90										
	20	4,60	3,29	2,64	2,24	1,96	1,75										
50	24	10,67	5,39	3,92	3,15	2,67											
	22	6,97	4,39	3,38	2,79	2,40											
	20	5,23	3,70	2,96	2,50	2,17											
45	24	12,23	6,38	4,58	3,66												
	22	8,22	5,11	3,89	3,19												
	20	6,08	4,25	3,37	2,83												
40	24	13,99	7,28	5,01	3,93												
	22	9,22	5,68	4,21	3,41												
	20	6,70	4,25	3,37	2,83												

correction factor F for
input fluid temperature from 95 to 40°C
output fluid temperature from 90 to 25°C
room temperature from 24 to 12°C
n around 1.3

Spare parts and Accessories

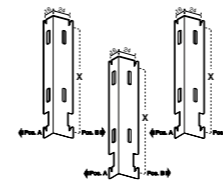
Brackets for horizontal profile panel - installation accessories

			Compact Panel	PHD 2.0 Panel with valve	PHD 2.0 Panel with central connection and valve	Hygiene Compact Panel	PHD 2.0 Hygiene Panel with valve	Vertical Profiled Panel
		back supports included	√	√ (only model 10 and 11)	√	√	√	√
		brackets included	√ (excluded model 10)	√	-	√ (excluded model 10)	√	√
	5580080500	H300	spare part for L ≤ 1600mm (excluded model 10)	spare part, only for model 11 with L ≤ 1600mm	optional for L ≤ 1600mm	spare part for models 20,30 with L ≤ 1600mm (excluded model 10)	spare part for models 20,30 with L ≤ 1600mm	-
	5580080600	H400	spare part for L ≤ 1600mm (excluded model 10)	spare part, only for model 11 with L ≤ 1600mm	optional for L ≤ 1600mm	spare part for models 20,30 with L ≤ 1600mm (excluded model 10)	spare part for models 20,30 with L ≤ 1600mm	-
	5580080700	H500	spare part for L ≤ 1600mm (excluded model 10)	spare part, only for model 11 with L ≤ 1600mm	optional for L ≤ 1600mm	spare part for models 20,30 with L ≤ 1600mm (excluded model 10)	spare part for models 20,30 with L ≤ 1600mm	-
	5580080800	H600	spare part for L ≤ 1600mm (excluded model 10)	spare part, only for model 11 with L ≤ 1600mm	optional for L ≤ 1600mm	spare part for models 20,30 with L ≤ 1600mm (excluded model 10)	spare part for models 20,30 with L ≤ 1600mm	-
	5580080900	H700	spare part for L ≤ 1600mm (excluded model 10)	spare part, only for model 11 with L ≤ 1600mm	optional for L ≤ 1600mm	spare part for models 20,30 with L ≤ 1600mm (excluded model 10)	spare part for models 20,30 with L ≤ 1600mm	-
	5580081000	H900	spare part for L ≤ 1600mm (excluded model 10)	spare part, only for model 11 with L ≤ 1600mm	optional for L ≤ 1600mm	spare part for models 20,30 with L ≤ 1600mm (excluded model 10)	spare part for models 20,30 with L ≤ 1600mm	-
	5580107900	H1400	-	-	-	-	-	spare part
	5580108000	H1600	-	-	-	-	-	spare part
	5580108100	H1800	-	-	-	-	-	spare part
	5580108200	H2000	-	-	-	-	-	spare part
	5580108300	H2200	-	-	-	-	-	spare part
	5580108500	H2400	-	-	-	-	-	spare part

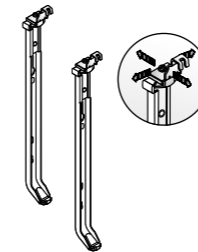


GB1
(2 pcs)
screws included
Wall distance with position
A = 16 mm
Wall distance with position
B = 24 mm

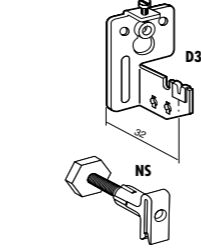
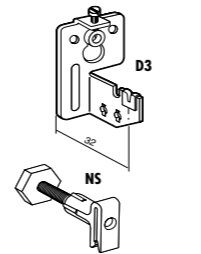
			Compact Panel	PHD 2.0 Panel with valve	PHD 2.0 Panel with central connection and valve	Hygiene Compact Panel	PHD 2.0 Hygiene Panel with valve	Vertical Profiled Panel
	5580081100	H300	spare part for L > 1800mm	spare part, only for model 11 with L > 1800mm	optional for L > 1800mm	spare part for models 20,30 with L > 1800mm	spare part for models 20,30 with L > 1800mm	-
	5580081200	H400	spare part for L > 1800mm	spare part, only for model 11 with L > 1800mm	optional for L > 1800mm	spare part for models 20,30 with L > 1800mm	spare part for models 20,30 with L > 1800mm	-
	5580081300	H500	spare part for L > 1800mm	spare part, only for model 11 with L > 1800mm	optional for L > 1800mm	spare part for models 20,30 with L > 1800mm	spare part for models 20,30 with L > 1800mm	-
	5580081400	H600	spare part for L > 1800mm	spare part, only for model 11 with L > 1800mm	optional for L > 1800mm	spare part for models 20,30 with L > 1800mm	spare part for models 20,30 with L > 1800mm	-
	5580081500	H700	spare part for L > 1800mm	spare part, only for model 11 with L > 1800mm	optional for L > 1800mm	spare part for models 20,30 with L > 1800mm	spare part for models 20,30 with L > 1800mm	-
	5580081600	H900	spare part for L > 1800mm	spare part, only for model 11 with L > 1800mm	optional for L > 1800mm	spare part for models 20,30 with L > 1800mm	spare part for models 20,30 with L > 1800mm	-
	5580107000	H300	optional for models 21, 22, 33 with L ≤ 1600mm	spare part for models 21, 22, 32 and 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 20, 30 with L ≤ 1600mm	-
	5580107100	H400	optional for models 21, 22, 33 with L ≤ 1600mm	spare part for models 21, 22, 32 and 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 20, 30 with L ≤ 1600mm	-
	5580107200	H500	optional for models 21, 22, 33 with L ≤ 1600mm	spare part for models 21, 22, 32 and 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 20, 30 with L ≤ 1600mm	-
	5580107300	H600	optional for models 21, 22, 33 with L ≤ 1600mm	spare part for models 21, 22, 32 and 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 20, 30 with L ≤ 1600mm	-
	5580107700	H700	optional for models 21, 22, 33 with L ≤ 1600mm	spare part for models 21, 22, 32 and 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 20, 30 with L ≤ 1600mm	-
	5580107400	H900	optional for models 21, 22, 33 with L ≤ 1600mm	spare part for models 21, 22, 32 and 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 21, 22, 33 with L ≤ 1600mm	optional for models 20, 30 with L ≤ 1600mm	-
		H300	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
		H400	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
		H500	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
		H600	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
		H700	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
		H900	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
	5580005300	H300 H400 H500 H600 H700 H900	optional for model 10 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	spare part for model 10 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-	optional for model 10 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional for model 10 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
	5580108700		optional for 552919	-	optional for 552919	optional for 552919	optional for 552919	-
	5580018900		optional for 5580005300	optional for 5580005300	optional for 5580005300	optional for 5580005300	optional for 5580005300	-



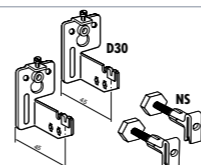
GB1
(3 st)
Nutzmaß:
Position A = 16 mm
Position B = 24 mm



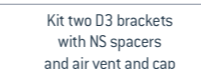
F7
(2 st, inclusive Schrauben)



D3 with NS (2 pcs)
for models 11-21-22-33
Distance from the wall 32 mm

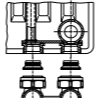
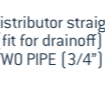
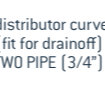











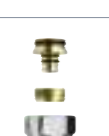

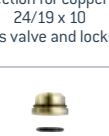
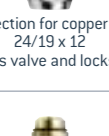
D30 with NS (2 pcs)
for model 10
Distance from the wall 45 mm



Kit two D3 brackets
with NS spacers
and air vent and cap

		Compact Panel	PHD 2.0 Panel with valve	PHD 2.0 Panel with central connection and valve	Hygiene Compact Panel	PHD 2.0 Hygiene Panel with valve	Vertical Profiled Panel
	6180002000 (minimum order 10 pcs)	✓ spare part	✓ spare part	✓ spare part	✓ spare part	✓ spare part	✓ spare part
Air vent 1/2" with oring [1 pc]							
	611454	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional
Air vent key							
	611453	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional
Plug reduction 1/2" - 3/8" with O-ring							
	5500010100	✓ spare part	✓ spare part	✓ spare part	✓ optional	✓ spare part	✓ spare part
Blind cap 1/2" without cover (1pc) (to be coupled with cover 5500866200)							
	5500866200 (minimum order 10 pcs)	✓ spare part	✓ spare part	✓ spare part	✓ optional	✓ spare part	✓ spare part
Cover for blind cap 1/2" (1pc) (to be coupled with blind cap 5500010100)							
	5580008900	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional
Air vent 1/2" with oring + Blind cap 1/2"							
	5580008200	-	✓ optional	✓ optional	-	✓ optional	-
H distributor straight ONE PIPE (3/4")							
	5580008300	-	✓ optional	✓ optional	-	✓ optional	-
H distributor curved ONE PIPE (3/4")							
	5580013600	-	✓ optional	✓ optional	-	✓ optional	-
H distributor straight TWO PIPE (3/4")							

		Compact Panel	PHD 2.0 Panel with valve	PHD 2.0 Panel with central connection and valve	Hygiene Compact Panel	PHD 2.0 Hygiene Panel with valve	Vertical Profiled Panel
	5580013700	-	✓ optional	✓ optional	-	✓ optional	-
H distributor curved TWO PIPE (3/4")							
	5580103500	-	✓ optional	✓ optional	-	✓ optional	-
H distributor straight (fit for drainoff) TWO PIPE (3/4")							
	5580103600	-	✓ optional	✓ optional	-	✓ optional	-
H distributor curved (fit for drainoff) TWO PIPE (3/4")							
	5567001000	-	-	-	-	-	✓ optional
Chrome Danfoss Kit H-valve tappings centre 50mm (1/2" - 3/4")							
	5580010100 3/4" x 10mm 5580010200 3/4" x 12mm 5580010400 3/4" x 14mm 5580010500 3/4" x 15mm 5580010600 3/4" x 16mm 5580010700 3/4" x 18mm	-	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	-	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500
Connection for copper pipe for distributor one/two pipe							
	5580127000 (3/4"x18)x14/10 5580127100 (3/4"x18)x16/12 5580127200 (3/4"x18)x20/16	-	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	-	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500
Connection for multilayer pipe							

		Compact Panel	PHD 2.0 Panel with valve	PHD 2.0 Panel with central connection and valve	Hygiene Compact Panel	PHD 2.0 Hygiene Panel with valve	Vertical Profiled Panel
	5567009900	✓ optional	-	-	✓ optional	-	✓ optional
	5567010000	✓ optional	-	-	✓ optional	-	✓ optional
	5567011100	✓ optional	-	-	✓ optional	-	✓ optional
	5567011200	✓ optional	-	-	✓ optional	-	✓ optional
	550S300400	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
	550S300500	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
	550S300600	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
	550S300700	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
	550S300800	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
	550S300900	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000

		Compact Panel	PHD 2.0 Panel with valve	PHD 2.0 Panel with central connection and valve	Hygiene Compact Panel	PHD 2.0 Hygiene Panel with valve	Vertical Profiled Panel
	550S301000	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
	550S301100	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
	5567008600	-	-	-	-	-	✓ optional
	5567011000	-	-	-	-	-	✓ optional
	5567011300	✓ optional for 5567009900 5567010000 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567008600 5567011000
	5580105400	✓ optional for 5567009900 5567010000 5567008600 5567011000	-	-	✓ optional for 5567009900 5567010000 5567008600 5567011000	-	✓ optional for 5567009900 5567010000 5567008600 5567011000
	5580104900	-	✓ optional	✓ optional	-	✓ optional	-
	5580113800	-	✓ optional	✓ optional	-	✓ optional	✓ optional for kit danfoss 5567001000
	5580127700 chrome	-	✓ optional	✓ optional	-	✓ optional	✓ optional for kit danfoss 5567001000
	5580127500 black 5580127600 white	-	✓ optional	✓ optional	-	✓ optional	-
	7381016700	-	✓ optional	-	-	✓ optional	-

Spare side covers and spare grills - Profiled Panel

SIDE COVER FOR PROFILED PANEL

Model	Height	11	20	21	22	32/33	22 special tapping centre	33 special tapping centre
compact	300	7380000000	7380012400	7380001800	7380003000	7380004200	7380018300	7380018800
Rightvalve rad	300	7380000600	7380002400	7380002400	7380003600	7380004800	-	-
Leftvalve rad	300	7380001200	7380002400	7380002400	7380003600	7380005400	-	-
compact	400	7380000100	7380012500	7380001900	7380003100	7380004300	7380018400	7380018900
Rightvalve rad	400	7380000700	7380002500	7380002500	7380003700	7380004900	-	-
Leftvalve rad	400	7380001300	7380002500	7380002500	7380003700	7380005500	-	-
compact	500	7380000200	7380012600	7380002000	7380003200	7380004400	7380018500	7380019000
Rightvalve rad	500	7380000800	7380002600	7380002600	7380003800	7380005000	-	-
Leftvalve rad	500	7380001400	7380002600	7380002600	7380003800	7380005600	-	-
compact	600	7380000300	7380012700	7380002100	7380003300	7380004500	7380018600	7380019100
Rightvalve rad	600	7380000900	7380002700	7380002700	7380003900	7380005100	-	-
Leftvalve rad	600	7380001500	7380002700	7380002700	7380003900	7380005700	-	-
compact	700	7380000400	7380012800	7380002200	7380003400	7380004600	7380018700	7380019200
Rightvalve rad	700	7380001000	7380002800	7380002800	7380004000	7380005200	-	-
Leftvalve rad	700	7380001600	7380002800	7380002800	7380004000	7380005800	-	-
compact	900	7380000500	7380012900	7380002300	7380003500	7380004700	7380019300	7380019400
Rightvalve rad	900	7380001100	7380002900	7380002900	7380004100	7380005300	-	-
Leftvalve rad	900	7380001700	7380002900	7380002900	7380004100	7380005900	-	-

GRILL FOR PROFILED PANEL

Model	Length	11	20	21	22	32/33
all	400	7380006000	7380013000	7380007600	7380009200	7380010800
all	500	7380006100	7380013100	7380007700	7380009300	7380010900
all	600	7380006200	7380013200	7380007800	7380009400	7380011000
all	700	7380006300	7380013300	7380007900	7380009500	7380011100
all	800	7380006400	7380013400	7380008000	7380009600	7380011200
all	900	7380006500	7380013500	7380008100	7380009700	7380011300
all	1000	7380006600	7380013600	7380008200	7380009800	7380011400
all	1100	7380006700	7380013700	7380008300	7380009900	7380011500
all	1200	7380006800	7380013800	7380008400	7380010000	7380011600
all	1400	7380006900	7380013900	7380008500	7380010100	7380011700
all	1600	7380007000	7380014000	7380008600	7380010200	7380011800
all	1800	7380007100	7380014100	7380008700	7380010300	7380011900
all	2000	7380007200	7380014200	7380008800	7380010400	7380012000
all	2300	7380007300	7380014300	7380008900	7380010500	7380012100
all	2600	7380007400	7380014400	7380009000	7380010600	7380012200
all	3000	7380007500	7380014500	7380009100	7380010700	7380012300

PLASTIC GRID STOPPER FOR PROFILED PANEL

Description	Code
FOR MODEL 20	5380000301
FOR MODEL 21	5380000401
FOR MODEL 22	5380000501
FOR MODEL 33	5380000301 + 5380000501
PLASTIC SCREW FOR GRID STOPPER 1 x Plastic grid stopper	535295

SIDE COVER FOR VERTICAL PANEL

Description	Code	
Spare part Side panel 20 1400 NE	7384002700	Spare part 20/21 vert.
Spare part Side panel 20 1600 NE	7384002800	Spare part 20/21 vert.
Spare part Side panel 20 1800 NE	7384002900	Spare part 20/21 vert.
Spare part Side panel 20 2000 NE	7384003000	Spare part 20/21 vert.
Spare part Side panel 20 2200 NE	7384003100	Spare part 20/21 vert.
Spare part Side panel 20 2400 NE	7384003300	Spare part 20/21 vert.
Spare part Side panel 22 1400 NE	7384004600	Spare part 22 vert.
Spare part Side panel 22 1600 NE	7384004700	Spare part 22 vert.
Spare part Side panel 22 1800 NE	7384004800	Spare part 22 vert.
Spare part Side panel 22 2000 NE	7384004900	Spare part 22 vert.
Spare part Side panel 22 2200 NE	7384005000	Spare part 22 vert.
Spare part Side panel 22 2400 NE	7384005100	Spare part 22 vert.

SPARE PART GRID FOR VERTICAL PANEL

Description	Code	
Spare part vertical L 300	7384002000	Spare part Grid 20-21
Spare part vertical L 400	7384002100	Spare part Grid 20-21
Spare part vertical L 500	7384002200	Spare part Grid 20-21
Spare part vertical L 600	7384002300	Spare part Grid 20-21
Spare part vertical L 700	7384002400	Spare part Grid 20-21
Spare part vertical L 900	7384002500	Spare part Grid 20-21
Spare part vertical L 300	7384005200	Spare part Grid 22
Spare part vertical L 400	7384005300	Spare part Grid 22
Spare part vertical L 500	7384005400	Spare part Grid 22
Spare part vertical L 600	7384005500	Spare part Grid 22
Spare part vertical L 700	7384005600	Spare part Grid 22
Spare part vertical L 900	7384005700	Spare part Grid 22

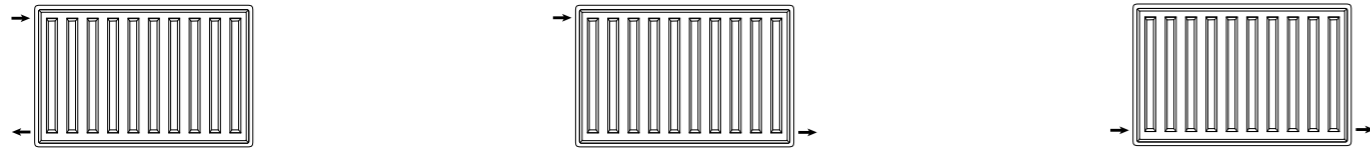
PLASTIC GRID STOPPER FOR VERTICAL PANEL

Description	Code
FOR MODEL 20	5380000301
FOR MODEL 21	5380000401
FOR MODEL 22	5380000501
PLASTIC SCREW FOR GRID STOPPER 1 x Plastic grid stopper	535295

Compact Panel and Hygiene Compact Panel

Connection methods

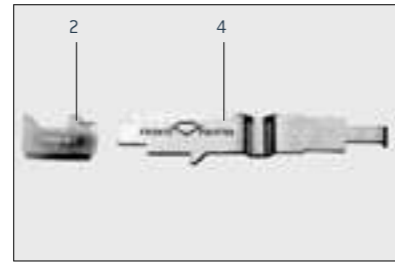
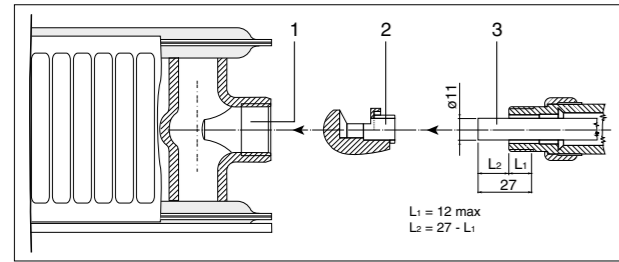
Two-pipe



The connection methods described here are symmetric.

Compact radiators can be connected with a two-pipe connection as follows: top/bottom same side (all EN442 heat outputs are calculated and verified with this type of connection), top/bottom opposite side (the best way to connect radiators longer than 1000 mm), bottom/bottom opposite side (this connection method reduces heat output by about 10%). Two-pipe connection requires a thermostatic valve (possibly with thermostatic head) and lockshield.

One-pipe



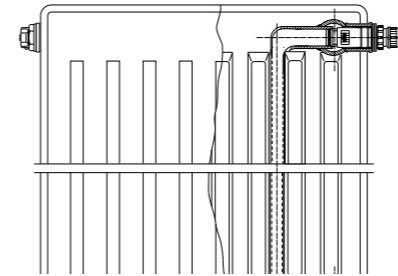
Compact radiators can be connected with a one-pipe connection using the special flow diverter (2) inserted in the connection point (1) using the key (4). To connect to a one-pipe installation, a one-pipe valve with probe (not available from DL Radiators catalogue) is required. The probe must have a maximum length of 11 mm and the length of the external probe and the thread inside the valve must not exceed 27 mm (3).

One-pipe connection kit

Code	Description
5380003300	Flow diverter for one-pipe valve
611561	Wrench for the flow diverter

PHD 2.0 Panel with valve, PHD 2.0 Hygiene Panel with valve

Connection methods



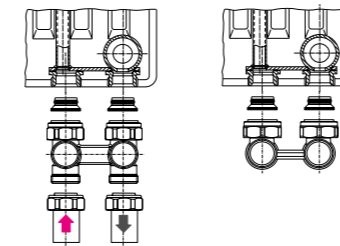
PHD radiators are supplied with preset thermostatic valve. Regulation is based on the 70/55-20 heat output of the radiator and the pressure drop of the insert mounted (0.1 bar).

If resetting is required:

The setting for the thermostatic insert (two-pipe connection) is obtained from the flow rate Q diagrams (expressed in kg/h) - Pressure drop Δp (expressed in bars or kPa). Starting from the Δt set in the system and the power of the radiator (EN442 standard output), the intersection with the pressure drop value on the X axis determines the nearest kv at which to set the insert (for example: position 3 or 4).

Instructions on adjusting the thermostatic insert are provided with every panel.

Two-pipe connection



PHD radiators can be connected to a two-pipe installation using a straight or square distributor. Our range of distributors are provided with Eurocone insert for connection to the 3/4" externally threaded connections on radiators with valve.

The nozzle on the distributors provided for draining the radiator can be connected to the draining device.

Distributors Two Pipe

Code	Description
5580013600	H distributor straight - TWO PIPE
5580013700	H distributor curved - TWO PIPE
5580103500	H distributor straight (fit for drainoff) - TWO PIPE
5580103600	H distributor curved (fit for drainoff) - TWO PIPE

Pressure drop and valve regulation

Two-Pipe

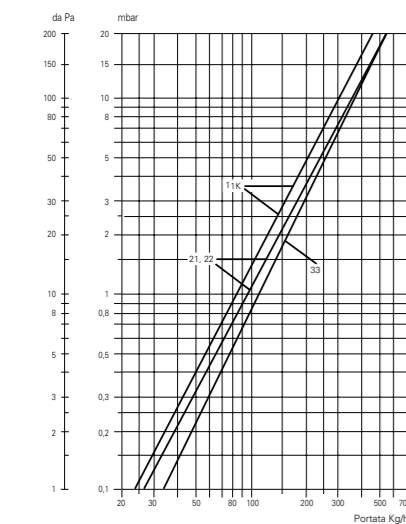


Chart 1: Pressure drop two-pipe

Pressure drops Δp are expressed by daPa and mbar.

1 mm H₂O = 0,0981 mbar

Pressure drop chart for Compact Panels

The values are obtained with the connection 1/2 G by one side.
model 11K
model 21 e 22
model 33

One-Pipe

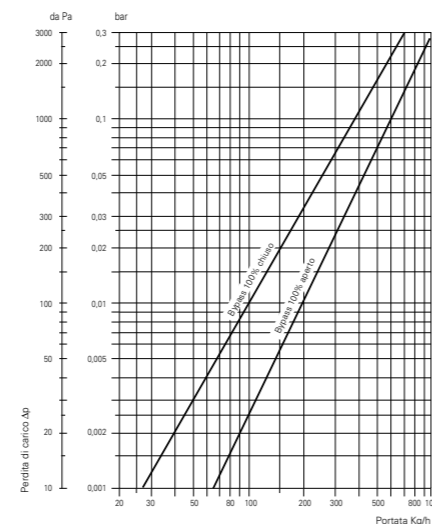
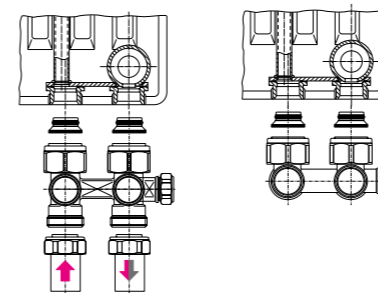


Chart 2: Pressure drop one-pipe

Pressure drops refer to panels with valve for one-pipe loop with the special flow diverter. They are esprese by daPa and bar.

Pressure drop chart shows the outer values of pressure drops for Compact Panels for models 21, 22 e 33. Care of instructions for one-pipe valve.

One-pipe connection



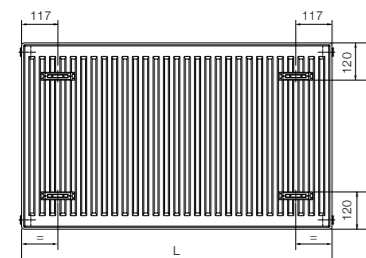
PHD radiators can be connected to a one-pipe installation using a straight or square distributor. Our range of distributors are provided with Eurocone insert for connection to the 3/4" externally threaded connections on radiators with valve. On the distributor side the by-pass must be regulated to define the water flow entering the radiator and the flow bypassing it to continue in the circuit. Place the thermostatic insert in the N position (fully open) then adjust the number of turns of the bypass.

For further technical details, see the Radiators Technical Catalogue downloadable from our new site www.dlradiators.com.

Distributors One Pipe

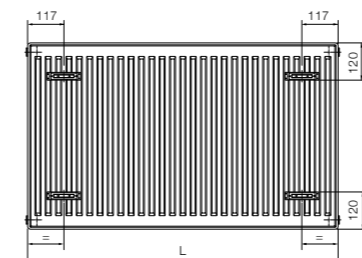
Code	Description
5580008200	H distributor straight - ONE PIPE
5580008300	H distributor curved - ONE PIPE

How many brackets are required:



Up to 1600 mm, 4 back supports are welded and so 2 brackets (1 set) is required; above 1800 mm, 6 back supports are welded and so 3 brackets (2 sets) are required.

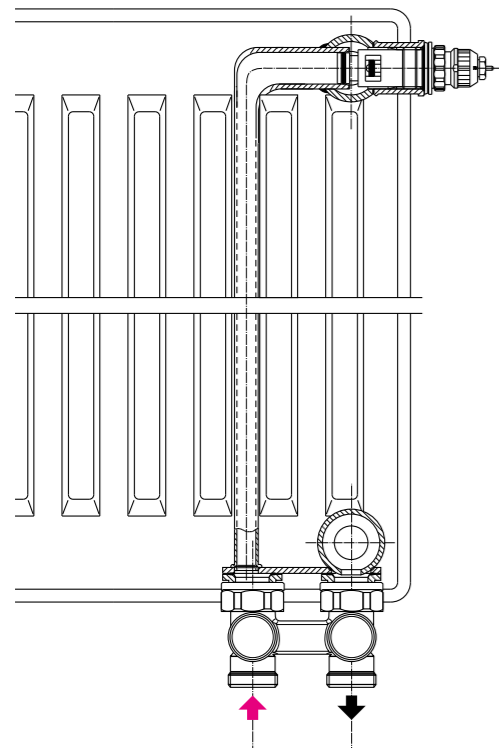
How many brackets are required:



Up to 1600 mm, 4 back supports are welded and so 2 brackets (1 set) is required; above 1800 mm, 6 back supports are welded and so 3 brackets (2 sets) are required.

PHD 2.0 Panel with valve and PHD 2.0 Panel with central connection and valve

Pressure drop and valve regulation - Panels with valve (Two-Pipe)



Square or straight distributors can be used in two-pipe installations. These distributors incorporate two gate valves to intercept the input and output flows. PHD series radiators can also be used without distributors.

To ensure the thermostatic head maintains room temperature precisely, the built-in Danfoss thermostatic valve must be adjusted to achieve a pressure drop of 0.1 bar in the radiator (use diagram 1).

REGULATION

The value obtained from the diagram can be set on the Danfoss thermostatic valve easily without using tools (for maximum accessibility, it may be more convenient to regulate the valve before assembly):

- Remove the protective cap
- Turn the adjustment ring until the pointer corresponds to the required value on the graduated scale (fig. 1)

The setting is continuous from 1 to 7 (fig. 2). In position N, the valve is fully open.

Example:

- Model 21/600-1100
- Power output = 1412 W
- With $\Delta t = 15^\circ\text{C}$ and $\Delta p = 0,1$ bar from chart 1 you obtain the valve regulation value: 3 (water flux)

DL Radiators Code	Danfoss Code	Danfoss Model	Colour Ring	Presetting	Cap
5580115600	013G1489	013G0380	black	N4	red
5580115700	013G1490	013G0380	orange	N6	red
5580115500	013G1488	013G0380	red	NN	red
5580115800	013G1401	013G0381	white	U3	yellow
5580115900	013G1402	013G0381	green	U5	yellow

Fig. 1

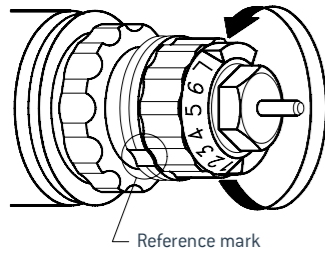


Fig. 2

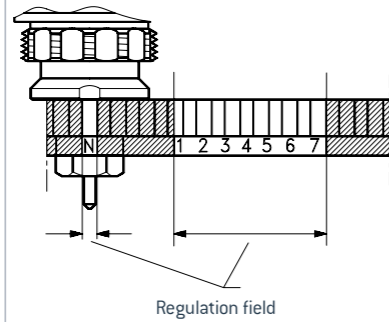


Fig. 3

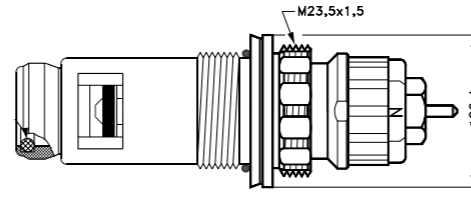
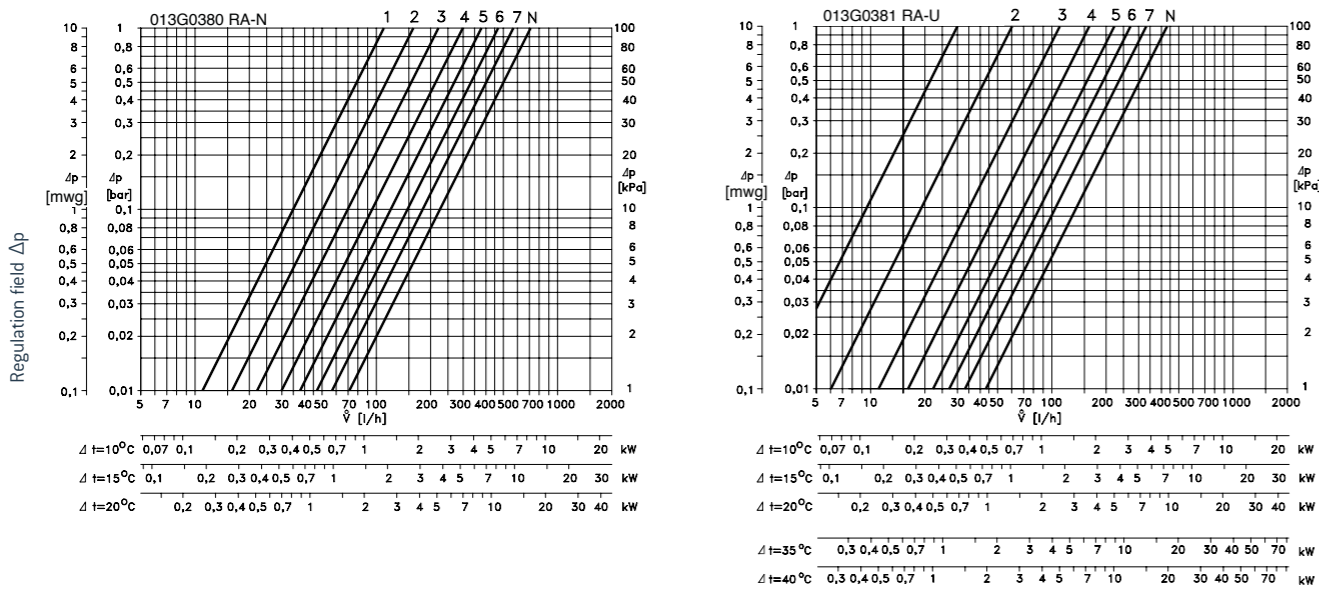
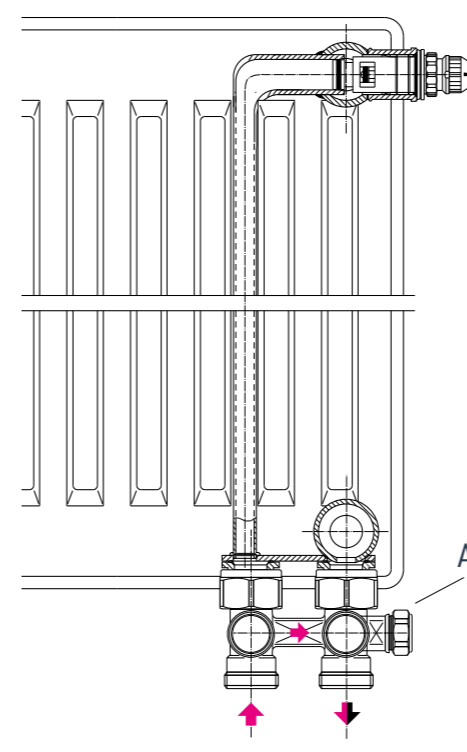


Chart 1



PHD 2.0 Panel with valve and PHD 2.0 Panel with central connection and valve

Pressure drop and valve regulation - panels with valve (One-Pipe)



For one-pipe installations, a straight or square distributor with adjustable by-pass is required. The Danfoss thermostatic valve must be placed in the N position.

When the percentage flow rate in the radiator is known (with respect to the total flow in the installation), the no. of turns to be set on the by-pass can be obtained from diagram 1.

The by-pass under the cover A of the distributor can then be adjusted using an Allen key by the number of turns indicated in the table.

To know the pressure drop in the radiator, use diagram 2. Once the total flow in the installation and the percentage flow in the radiator are known, the pressure drop in metres of water column or bars can be obtained.

EXAMPLE: Total thermal flow in the loop (5814 Watt)
 $\Delta t = 10^\circ\text{C}$ (75/65 $^\circ\text{C}$)

35% water capacity in the exchanger
OBTAIN: by-pass regulation value and pressure lost in the radiator

SOLUTION: Capacity in the ring $\dot{m} = \frac{\dot{Q}}{c \times \Delta t} = \frac{5814 \times 0,86}{1 \times 10} = 500 \text{ kg/h}$

From chart 1: by-pass turning number = 1 + 3/4
From chart 2 $\Delta p = 0,1$ bar

The flow rate in the radiator can be regulated subsequently, including during operation. The distributor can also be used as a blind bridge if the radiator is mounted subsequently or dismantled, without having to empty the installation.

Chart 1

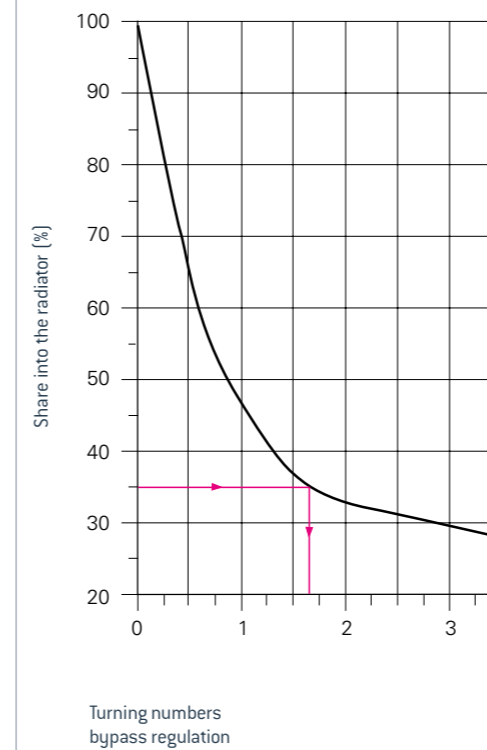
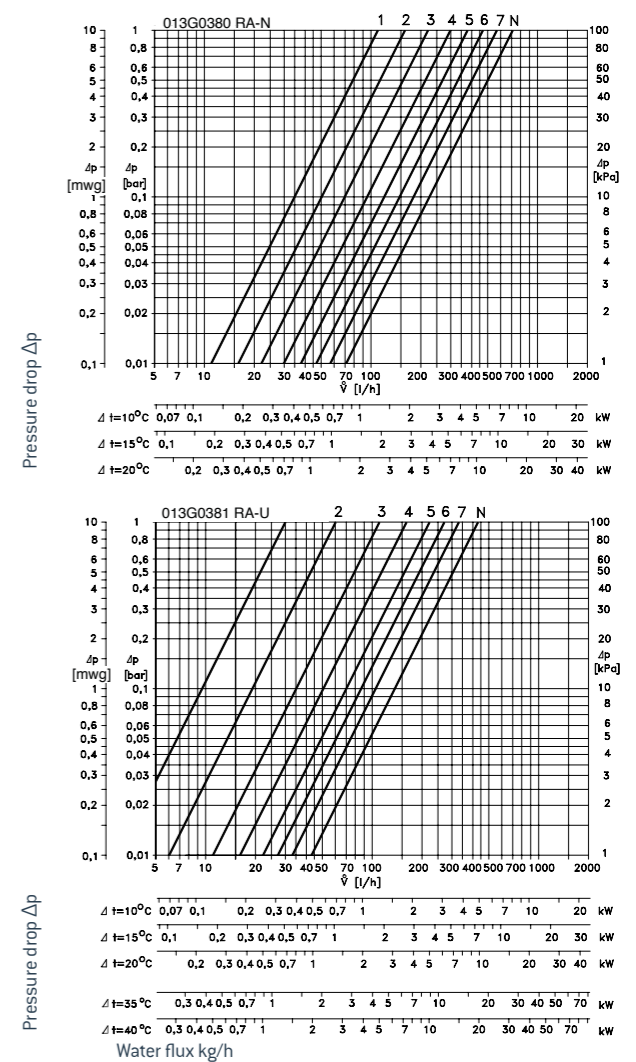
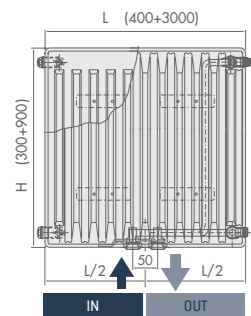


Chart 2



PHD 2.0 Panel with central connection and valve

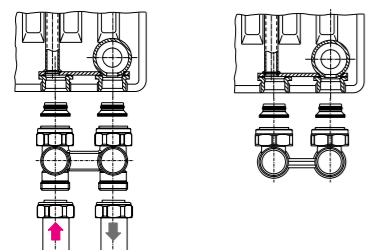
Connection methods



The setting for the thermostatic insert (two-pipe connection) is obtained from the flow rate Q diagrams (expressed in kg/h) - Pressure drop Δp (expressed in bars or kPa). Starting from the Δt set in the system and the power of the radiator (EN442 standard output), the intersection with the pressure drop value on the X axis determines the nearest kv at which to set the insert (for example: position 3 or 4).

Panels with central connection are supplied with the insert in the N position (valve fully open). Instructions on adjusting the thermostatic insert are provided with every Plattella panel. The inlet connection lies always on the left, even by right-valve radiator

Two-pipe connection



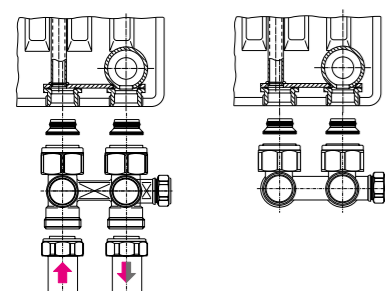
Panels with central connection can be connected to a two-pipe installation using a straight or square distributor. Our range of distributors are provided with Eurocone insert for connection to the 3/4" externally threaded connections on Plattella Thermostatic radiators.

The nozzle on the distributors provided for draining the radiator can be connected to the draining device.

Distributors Two Pipe

Code	Description
5580013600	H distributor straight - TWO PIPE
5580013700	H distributor curved - TWO PIPE
5580103500	H distributor straight (fit for drainoff) - TWO PIPE
5580103600	H distributor curved (fit for drainoff) - TWO PIPE

One-pipe connection

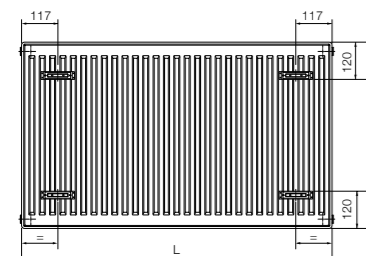


Panels with central connection can be connected to a one-pipe installation using a straight or square distributor. Our range of distributors are provided with Eurocone insert for connection to the 3/4" externally threaded connections on Plattella Thermostatic radiators. On the distributor side the by-pass must be regulated to define the water flow entering the radiator and the flow bypassing it to continue in the circuit. Place the thermostatic insert in the N position (fully open) then adjust the number of turns of the bypass.

Distributors One Pipe

Code	Description
5580008200	H distributor straight - ONE PIPE
5580008300	H distributor curved - ONE PIPE

How many brackets are required:



Up to 1600 mm, 4 back supports are welded and so 2 brackets (1 set) is required; above 1800 mm, 6 back supports are welded and so 3 brackets (2 sets) are required.

Vertical Profiled Panel

Connection possibilities

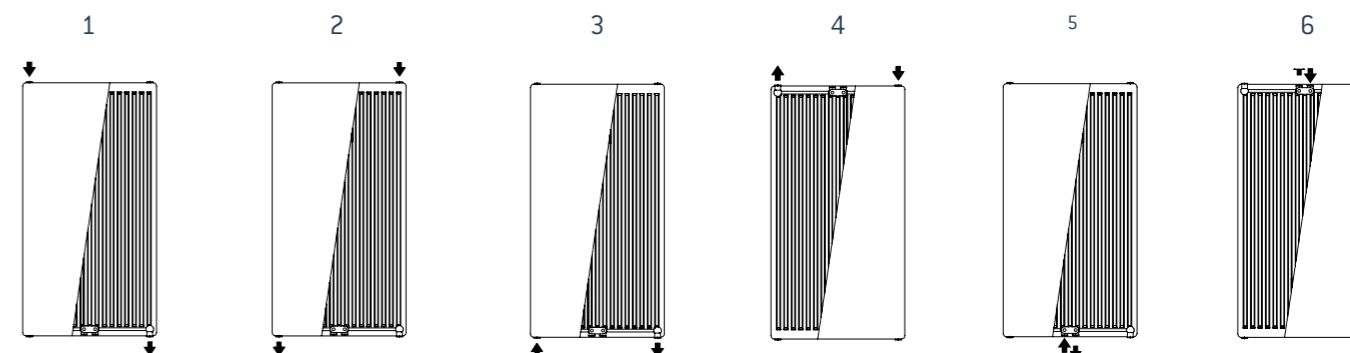
Connection possibilities

Vertical radiators can be connected to a two-pipe connection as follows: top/bottom opposite side (1, 2), bottom/bottom opposite side (3), top/top opposite side (4) connections and in the configuration with bottom (5) or top (6) central connection. The top/top opposite side connection (4) and top central connection (6) are applicable only and exclusively with the panel in configuration AA (top connection) as in this case a deflector is installed in the radiator. AA Configuration has no grille.

Configurations 3, 4, 5 and 6 are symmetrical with respect to the indications in the drawings below (the output and input indicated by the arrows can be reversed).

Two-pipe connection with side connections requires a thermostatic valve (possibly with thermostatic head) and lockshield.

When connecting with side connections, the central connection must be sealed with two blind caps.



Central connection with valve/lockshield kit

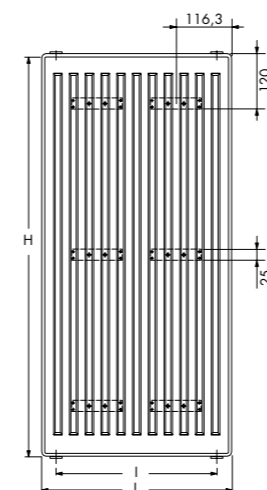
In a two-pipe connection, Vertical radiators can be connected with a central connection using a valve/lockshield group with 50mm tappings centre (to be ordered separately) which can be connected to the central connection of the panel via two 3/4" - 1/2" nipples.

The setting for the valve in the valve/lockshield group with 50mm tappings centre (two-pipe connection) is obtained from the flow rate Q diagrams (expressed in kg/h) - Pressure drop Δp (expressed in bars or kPa). Starting from the Δt set in the system and the power of the radiator (EN442 standard output), the intersection with the pressure drop value on the X axis determines the nearest kv at which to set the insert (for example: position 3 or 4).

The valve/lockshield group can be thermostatically controlled by fitting the thermostatic head (to be ordered separately).

<p>5567001000 Chrome Danfoss Kit H-valve tappings centre 50mm</p>	<p>5567009900 Ovus chrome valve 1/2" x 24/19</p>	<p>5567011100 Ovus white valve 1/2" x 24/19</p>	<p>5567008600 Kit Ovus 1/2" x 24/19 only two pipe</p>
<p>5567010000 Ovus chrome lockshield valve 1/2" x 24/19</p>	<p>5567011200 Ovus white lockshield valve 1/2" x 24/19</p>	<p>5567011000 Kit Ovus 1/2" x 24/19 only two pipe</p>	

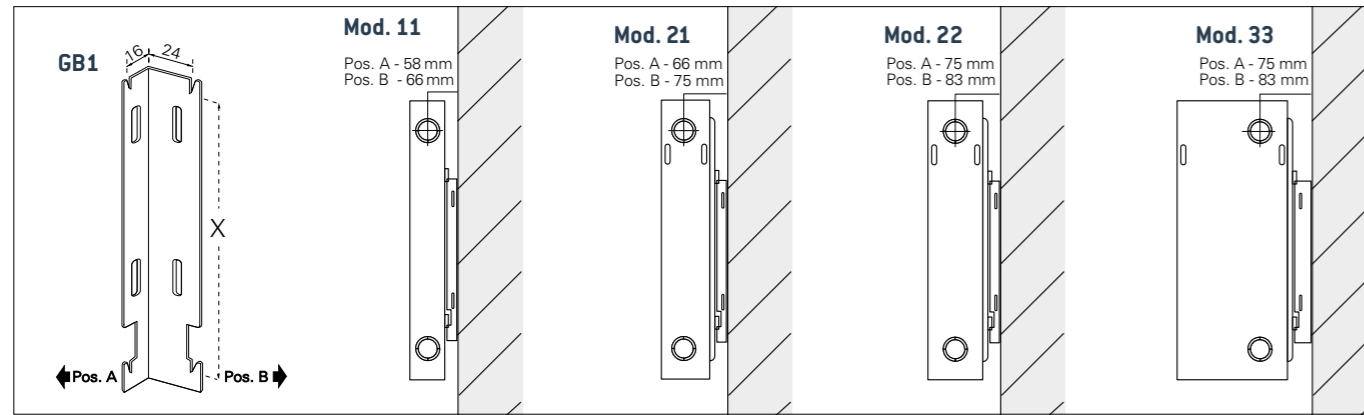
How many brackets are required:



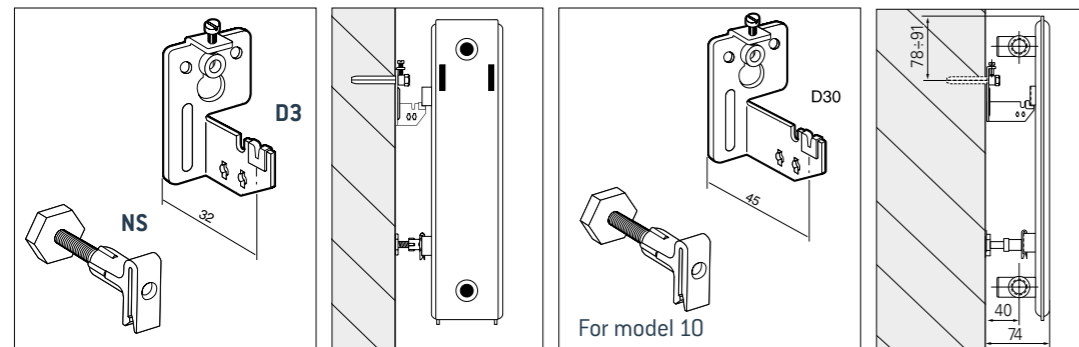
The 300mm wide Vertical radiator needs 1 bracket, (1 set), from the 400mm 2 brackets (2 sets) are required.

Wall brackets - steel panels

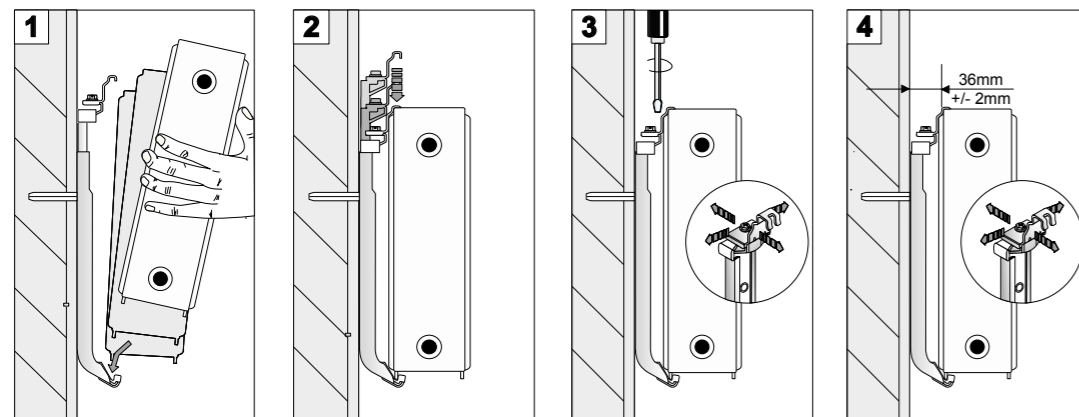
BRACKETS GB1



BRACKETS D3 - D30



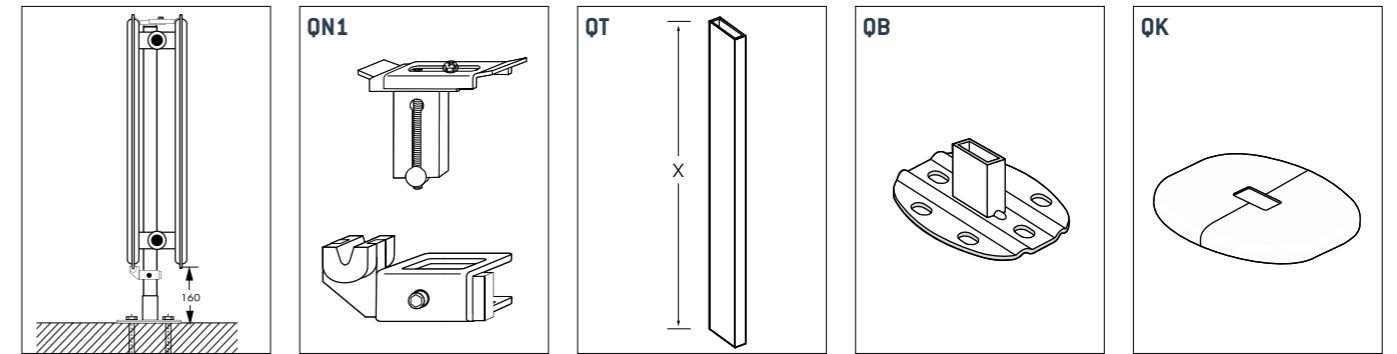
BRACKETS F7



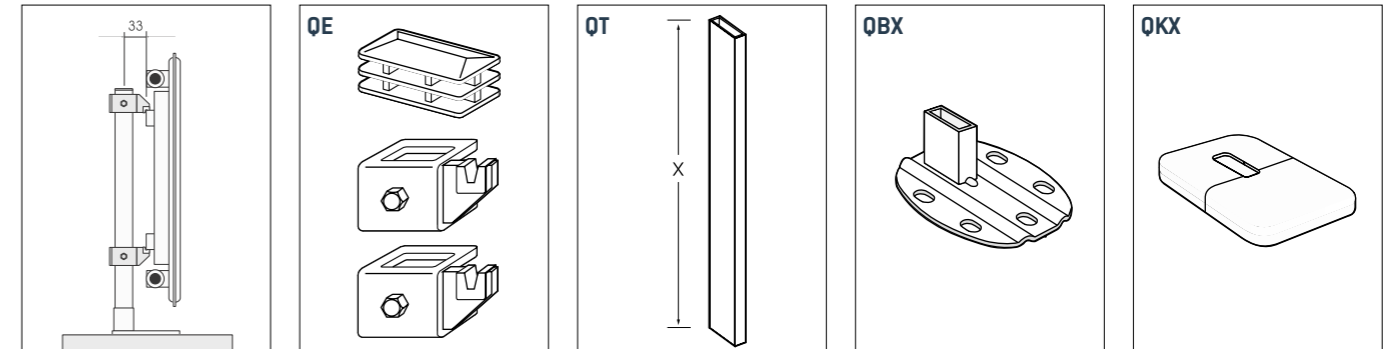
Distances and dimensions: see product pages.

Floor anchors - steel panels

KIT QT with QN1 For models Compact panel type 21 - 22 - 33, PHD 2.0 Panel type 21 - 22 - 33, Hygiene Compact panel type 20 - 30 and Hygiene PHD 2.0 type 20 - 30

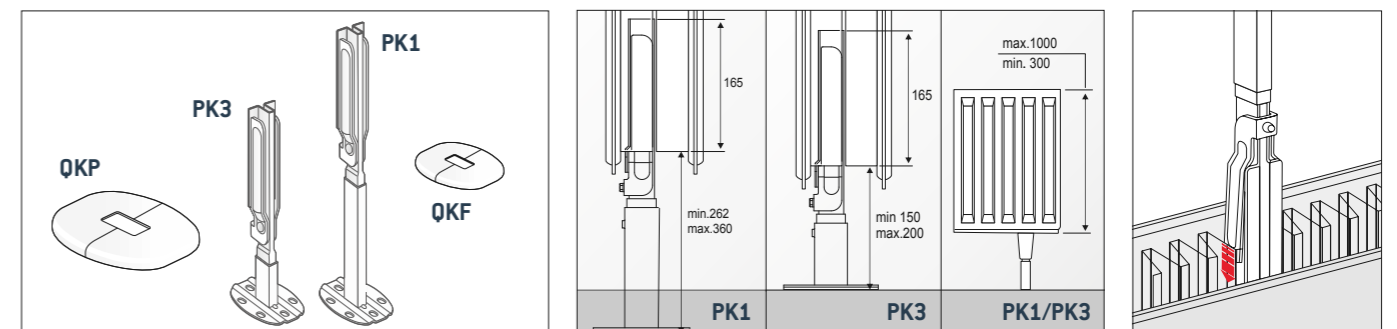


KIT QT with QE For models Compact panel type 21 - 22 - 33, PHD 2.0 Panel type 21 - 22 - 33, Panel with central connection type 21 - 22 - 33, Hygiene Compact panel type 10 - 20 - 30 and Hygiene PHD 2.0 type 10 - 20 - 30



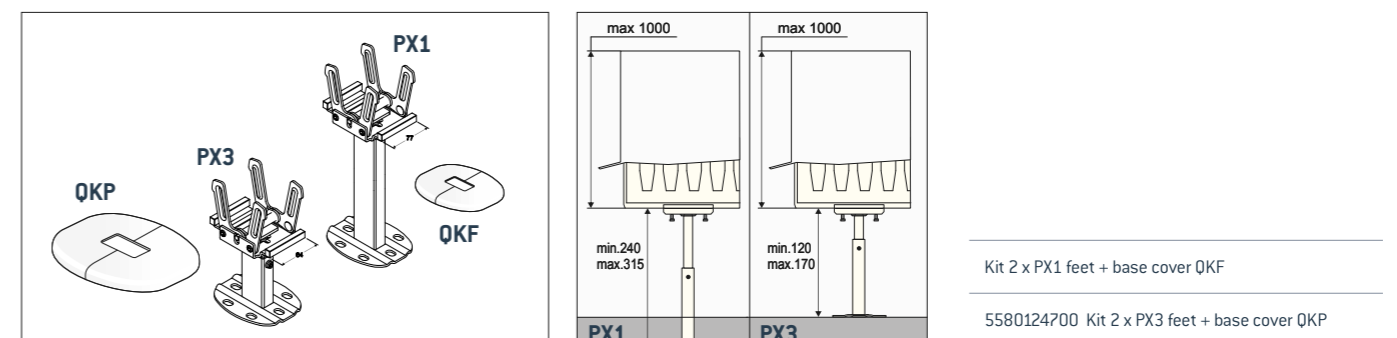
Code	Description	Code	Description
552309	QT floor anchor 460mm (H=300)	552314	QT base for QB
552310	QT floor anchor 560mm (H=400)	5580013400	QKP base cover
552311	QT floor anchor 660mm (H=500)	552317	2 x QE fixing with tube cover
552312	QT floor anchor 760mm (H=600)	5580005700	QN1 fixing for type 20, 30
552649	QT floor anchor 860mm (H=700)		
552313	QT floor anchor 1060mm (H=900)		radiators up to 1600 mm long: two kits required radiators up to 1800 mm long: three kits required

PK anchor For models Compact panel type 21 - 22 - 33, PHD 2.0 Panel type 21 - 22 - 33



5580103300	Kit 2 x PK3 adjustable feet + base cover QKP Height from floor adjustable from 150 - 200 mm	5580104400	Kit 2 x PK1 adjustable feet + base cover QKF Height from floor adjustable from 262 - 360 mm
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PX anchor For models Compact panel type 21 - 22 - 33, PHD 2.0 Panel type 21 - 22 - 33, Hygiene Compact panel type 20 - 30 and Hygiene PHD 2.0 type 20 - 30 and models with central connection



	Kit 2 x PX1 feet + base cover QKF
5580124700	Kit 2 x PX3 feet + base cover QKP



Linear Steel Panel

HORIZONTAL AND VERTICAL LINEAR STEEL PANEL



Guaranteed for 5 years

During the many years of production experience, the moulding, welding, assembly and final control of Linear Panel radiators have reached such a high level of quality and precision that DL Radiators guarantees the line of products for 5 years.

The range

Linear steel panels include the versions:

- Compact with 4 side connections and models 10, 20, 21, 22 and 33;
- PHD 2.0 Panel with valve and 5 connections and models 10, 20, 21, 22, 33;
- steel panel with valve and central connections with the models 21, 22, 33.

All Linear PHD 2.0 Panels have a preferential water circulation and the thermostatic valve. Hygiene panels are included in the product range. To complete the range there are the Vertical steel panel with 6 connections.

Quality

Linear steel panels are made from top quality 1.25 mm thick steel ideal for deep moulding, with grooves 33.3mm apart. The heat outputs are determined at Milan Polytechnic according to the EN442 standard.

Packaging

Linear steel panels are packed with tough cardboard strips at the top and bottom. On the front they are packed with cardboard and plasticfoam. Then they are finished with heat shrink tape to protect from damp.

Painting

The top quality painted finish of Linear steel panels is achieved by an industrial process originating in the automotive sector to give each element a glossy long-lasting colour. Linear radiators are painted using a three-phase system:

- Hot degreasing and basic hot iron phosphatisation
- Electrophoretic dip coating to apply the base colour evenly in the innermost and outermost parts of the panel, followed by baking at 185°C
- Epoxy powder coating and baking at 170°C to give the panel a bright glossy finish
- The colour is DL Radiators's characteristic RAL9016 white in accordance with DIN 55900.

Height (H) 500

Table with columns for Width (mm), Exponent (n), Length (mm), and Output for various valve sizes (10, 20, 21, 22, 33) at Height 500. Includes sub-columns for Output 75/65-20, 70/55-20, 55/45-20, and W.

For the valve on the left side, you have to turn the third-last number from 2 to 4.

Height (H) 700

Table with columns for Width (mm), Exponent (n), Length (mm), and Output for various valve sizes (10, 20, 21, 22, 33) at Height 700. Includes sub-columns for Output 75/65-20, 70/55-20, 55/45-20, and W.

For the valve on the left side, you have to turn the third-last number from 2 to 4.

Height (H) 600

Table with columns for Width (mm), Exponent (n), Length (mm), and Output for various valve sizes (10, 20, 21, 22, 33) at Height 600. Includes sub-columns for Output 75/65-20, 70/55-20, 55/45-20, and W.

For the valve on the left side, you have to turn the third-last number from 2 to 4.

Height (H) 900

Table with columns for Width (mm), Exponent (n), Length (mm), and Output for various valve sizes (10, 20, 21, 22, 33) at Height 900. Includes sub-columns for Output 75/65-20, 70/55-20, 55/45-20, and W.

For the valve on the left side, you have to turn the third-last number from 2 to 4.

Height (H) 500

Table with columns for Width (mm), Exponent (n), Length (mm), and Output (W) for sizes 10, 20, and 30. Rows include Power Code and Output values for lengths from 400 to 3.000 mm.

For the valve on the left side, you have to turn the third-last number from 2 to 4.

Height (H) 500

Table with columns for Width (mm), Exponent (n), Length (mm), and Output (W) for sizes 10, 20, and 30. Rows include Power Code and Output values for lengths from 400 to 3.000 mm.

For the valve on the left side, you have to turn the third-last number from 2 to 4.

Height (H) 700

Table with columns for Width (mm), Exponent (n), Length (mm), and Output (W) for sizes 10, 20, and 30. Rows include Power Code and Output values for lengths from 400 to 3.000 mm.

For the valve on the left side, you have to turn the third-last number from 2 to 4.

Height (H) 900

Table with columns for Width (mm), Exponent (n), Length (mm), and Output (W) for sizes 10, 20, and 30. Rows include Power Code and Output values for lengths from 400 to 3.000 mm.

For the valve on the left side, you have to turn the third-last number from 2 to 4.



Brackets included
Blind cap and air vent included

Technical characteristics

- Working pressure 10 bar
- Test pressure 13 bar
- Maximum operating temperature 110° C
- NF certification in models 10, 20 and 21. For NF certification see the website www.marque-nf.com

Included in the packing

- 4 x 1/2" connections (perpendicular to the ground), inside thread
- 1 central connector with 50 mm tappings centre (1/2" inside thread) – choice of bottom or top
- 3 x 1/2" blind caps provided, to be mounted
- 1 x 1/2" vent plug provided, to be mounted
- Vertical radiators are available in two different configurations: with central connection at the bottom (configuration AB) or at the top (configuration AA) – see modified order code at the bottom of the tables
- The 20, 21 and 22 models of vertical panel are finished with side covers; in the AB configuration (central connection at the bottom), they also have a top grille; model 10 has no grille or side covers.
- Brackets and supports
 - 2 x GB brackets with top safety hook are provided (1 bracket for 300 mm-wide model)
 - 3 pairs of welded back supports (3 single supports for 300mm-wide models)

Connection

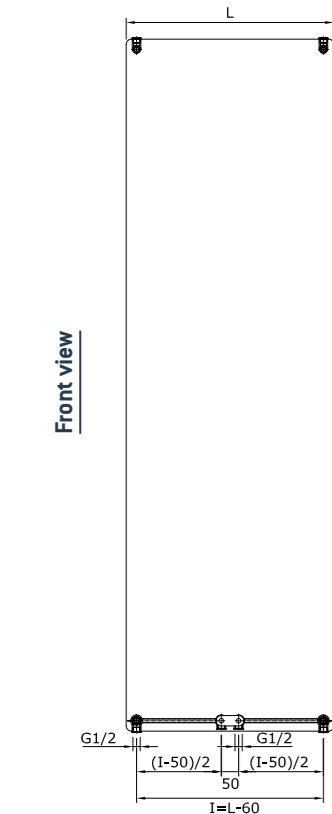
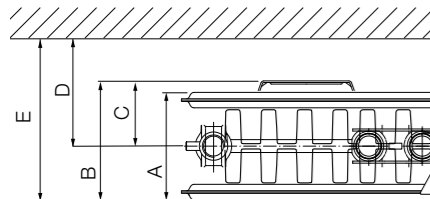
- Vertical radiators can be connected to a two-pipe installation with top/bottom opposite side, bottom/bottom opposite side, top/top opposite side connections and in the configuration with central connection. The two-pipe connection requires a valve and lockshield (not provided).
- It can also be connected to a two-pipe installation with central connection and valve/lockshield group with 50 mm tappings centre (available as an accessory on request).
- Vertical radiators can be connected to a one-pipe installation using a one-pipe valve with external probe only.
- Floor anchors not available.

Safety

- Vertical radiators cannot be inverted around any of the three axes.
- the sides of Vertical radiators are fastened with screws, safer than the interlocking system adopted on other panel radiators.

Optional

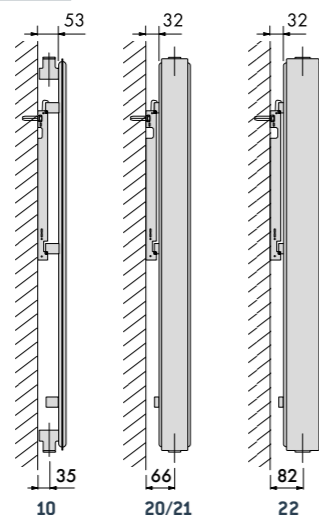
Brackets and optional accessories are available on dedicated pages.



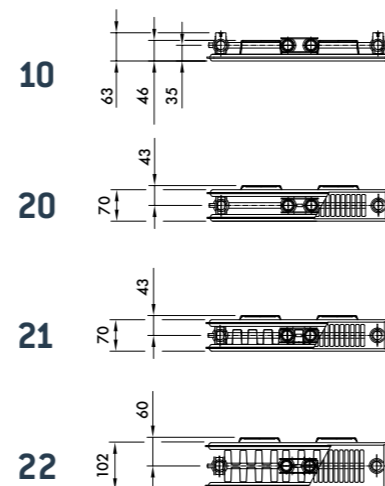
		Dimensions			
		10	20	21	22
panel depth - excluding back supports	A	62	70	70	102
total depth - from the back of the support to the front panel**	B	62	77	77	111
distance from the back support to the connection	C	-	43	43	60
distance from wall to the centre of the connection (mounting the radiators on the GB brackets provided)*	D	35	58/66	58/66	74/82
total distance from the wall to the front panel (panel mounted on the GP brackets provided as standard)*	E	70	93/101	93/101	125/133

* The total distance varies according to whether the GB bracket is mounted in position A or position B (choice of depth)
** Calculating the total size of the panel (from the wall to the front panel) with the chosen wall brackets: the useful length of the chosen bracket must be added to this measurement (see brackets page).

Side view



Upper view



	10	20	21	22
Width (mm)	62	77	77	111
Exponent (n)	1,234	1,263	1,298	1,354

Length (mm)	Tappings center (l)		Output 75/65-20			Output 70/55-20			Output 55/45-20					
			W	W	W	W	W	W	W	W	W			
300	240	Power	378	312	207	577	469	306	739	597	378	955	764	477
		Code	0146103842			0146203842			0146213842			0146223842		
400	340	Power	505	416	276	769	626	408	985	796	505	1273	1018	637
		Code	0146104842			0146204842			0146214842			0146224842		
500	440	Power	631	520	345	961	782	511	1231	996	631	1592	1273	796
		Code	0146105842			0146205842			0146215842			0146225842		
600	540	Power	757	624	414	1153	939	613	1477	1195	757	1910	1528	955
		Code	0146106842			0146206842			0146216842			0146226842		
700	640	Power	883	728	483	1345	1095	715	1724	1394	883	2228	1782	1114
		Code	0146107842			0146207842			0146217842			0146227842		
900	840	Power	1135	936	622	1730	1408	919	2216	1792	1135	2865	2291	1432
		Code	0146109842			0146209842			0146219842			0146229842		

	10	20	21	22
Width (mm)	62	77	77	111
Exponent (n)	1,288	1,277	1,318	1,355

Length (mm)	Tappings center (l)		Output 75/65-20			Output 70/55-20			Output 55/45-20					
			W	W	W	W	W	W	W	W	W			
300	240	Power	414	336	216	649	528	342	811	655	414	1054	845	532
		Code	0146103848			0146203848			0146213848			0146223848		
400	340	Power	553	448	288	865	704	456	1081	873	553	1405	1127	709
		Code	0146104848			0146204848			0146214848			0146224848		
500	440	Power	691	560	360	1081	880	571	1351	1091	691	1757	1409	886
		Code	0146105848			0146205848			0146215848			0146225848		
600	540	Power	829	672	432	1297	1056	685	1622	1310	829	2108	1690	1063
		Code	0146106848			0146206848			0146216848			0146226848		
700	640	Power	967	784	505	1514	1232	799	1892	1528	967	2459	1972	1240
		Code	0146107848			0146207848			0146217848			0146227848		
900	840	Power	1243	1008	649	1946	1584	1027	2432	1965	1243	3162	2536	1595
		Code	0146109848			0146209848			0146219848			0146229848		

The required configuration must be indicated on the order

— AB (bottom connection)

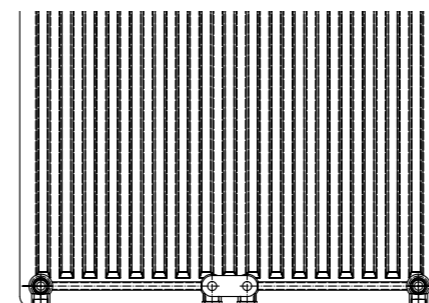
— AA (top connection).

In the case of the top connection (AA), the 8 in the third to last position of the code must be replaced with a 9.

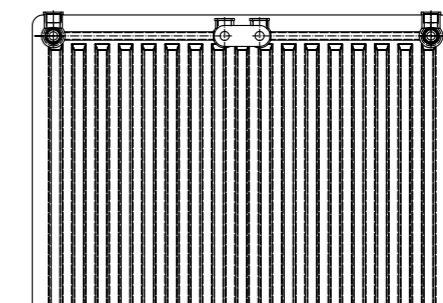
Example:

0146214854 is a Vertical flat fronted 21 1800x400 panel with bottom connections (AB); 0146214954 is a Vertical flat fronted 21 1800x400 panel with top connections (AA)

CONFIGURATION AB: connection on the bottom with top grille



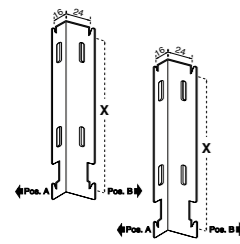
CONFIGURATION AA: connection on the top without top grille



Spare parts and Accessories

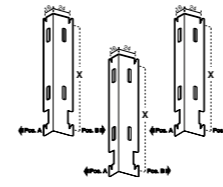
Brackets for horizontal linear panel - installation accessories

		Linear Compact panel	Linear PHD 2.0 panel with valve	Linear PHD 2.0 panel with central connection and valve	Linear Hygiene compact panel	Linear Hygiene PHD 2.0 panel with valve	Linear Vertical Panel
	back supports included	✓	✓	✓	✓	✓	✓
	brackets included	-	-	-	-	-	✓
	5580080500	H300 optional for L <= 1600mm (excluded model 10)	optional for L <= 1600mm (excluded model 10)	optional for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	-
	5580080600	H400 optional for L <= 1600mm	optional for L <= 1600mm	optional for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	-
	5580080700	H500 optional for L <= 1600mm	optional for L <= 1600mm	optional for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	-
	5580080800	H600 optional for L <= 1600mm	optional for L <= 1600mm	optional for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	-
	5580080900	H700 optional for L <= 1600mm	optional for L <= 1600mm	optional for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	-
	5580081000	H900 optional for L <= 1600mm	optional for L <= 1600mm	optional for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	optional for models 20, 30 for L <= 1600mm	-
	5580107900	H1400	-	-	-	-	spare part
	5580108000	H1600	-	-	-	-	spare part
	5580108100	H1800	-	-	-	-	spare part
	5580108200	H2000	-	-	-	-	spare part
	5580108300	H2200	-	-	-	-	spare part
	5580108500	H2400	-	-	-	-	spare part

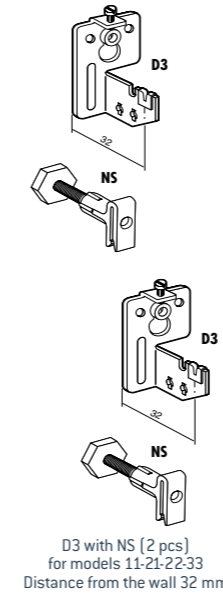


GB1
[2 pcs]
screws included
Wall distance with position
A = 16 mm
Wall distance with position
B = 24 mm

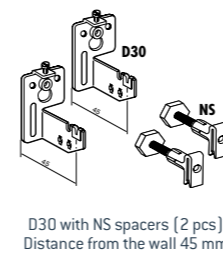
		Linear Compact panel	Linear PHD 2.0 panel with valve	Linear PHD 2.0 panel with central connection and valve	Linear Hygiene compact panel	Linear Hygiene PHD 2.0 panel with valve	Linear Vertical Panel
	5580081100	H300 optional for L >= 1800mm (excluded model 10)	optional for L >= 1800mm	optional for L >= 1800mm	optional for models 20, 30 with L >= 1800mm	optional for models 20, 30 with L >= 1800mm	-
	5580081200	H400 optional for L >= 1800mm (excluded model 10)	optional for L >= 1800mm	optional for L >= 1800mm	optional for models 20, 30 with L >= 1800mm	optional for models 20, 30 with L >= 1800mm	-
	5580081300	H500 optional for L >= 1800mm (excluded model 10)	optional for L >= 1800mm	optional for L >= 1800mm	optional for models 20, 30 with L >= 1800mm	optional for models 20, 30 with L >= 1800mm	-
	5580081400	H600 optional for L >= 1800mm (excluded model 10)	optional for L >= 1800mm	optional for L >= 1800mm	optional for models 20, 30 with L >= 1800mm	optional for models 20, 30 with L >= 1800mm	-
	5580081500	H700 optional for L >= 1800mm (excluded model 10)	optional for L >= 1800mm	optional for L >= 1800mm	optional for models 20, 30 with L >= 1800mm	optional for models 20, 30 with L >= 1800mm	-
	5580081600	H900 optional for L >= 1800mm (excluded model 10)	optional for L >= 1800mm	optional for L >= 1800mm	optional for models 20, 30 with L >= 1800mm	optional for models 20, 30 with L >= 1800mm	-
	552919	H300 optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
	552919	H400 optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
	552919	H500 optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
	552919	H600 optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
	552919	H700 optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
	552919	H900 optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional (except for model 10) L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	optional only for models 20+30 L < 1600 mm order 1 kit L > 1600 mm order 2 kits	-
	5580005300	H300 H400 H500 H600 H700 H900 optional for model 10 L <= 1600mm order 1 kit L >= 1800mm order 2 kits	spare part for model 10 L <= 1600mm order 1 kit L >= 1800mm order 2 kits	-	optional for model 10 L <= 1600mm order 1 kit L >= 1800mm order 2 kits	optional for model 10 L <= 1600mm order 1 kit L >= 1800mm order 2 kits	-
	5580108700	Kit two D3 brackets with NS spacers and air vent and cap	-	optional for 552919	optional for 552919	optional for 552919	-
	5580018900	Kit two D30 brackets with NS spacers and air vent and cap	optional for 5580005300	optional for 5580005300	optional for 5580005300	optional for 5580005300	-



GB1
[3 pcs]
screws included
Wall distance with position
A = 16 mm
Wall distance with position
B = 24 mm

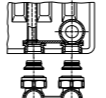
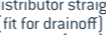
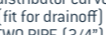





D3 with NS (2 pcs)
for models 11-21-22-33
Distance from the wall 32 mm

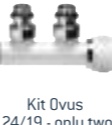



D30 with NS spacers (2 pcs)
Distance from the wall 45 mm

		Linear Compact panel	Linear PHD 2.0 panel with valve	Linear PHD 2.0 panel with central connection and valve	Linear Hygiene compact panel	Linear Hygiene PHD 2.0 panel with valve	Linear Vertical Panel
	6180002000 (minimum order 10 pcs)	✓ optional	✓ Ersatzteil	✓ Ersatzteil	✓ optional	✓ Ersatzteil	✓ Ersatzteil
Air vent 1/2" with oring [1 pc]							
	611454	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional
Air vent key							
	611453	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional
Plug reduction 1/2" - 3/8" with O-ring							
	5500010100	✓ optional	✓ Ersatzteil	✓ Ersatzteil	✓ optional	✓ Ersatzteil	✓ Ersatzteil
Blind cap 1/2" without cover (1pc) (to be coupled with cover 5500866200)							
	5500866200 (minimum order 10 pcs)	✓ optional	✓ Ersatzteil	✓ Ersatzteil	✓ optional	✓ Ersatzteil	✓ Ersatzteil
Cover for blind cap 1/2" (1pc) (to be coupled with blind cap 5500010100)							
	5580008900	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional	✓ optional
Air vent 1/2" with oring + Blind cap 1/2"							
	5580008200	-	✓ optional	✓ optional	-	✓ optional	-
H distributor straight ONE PIPE (3/4")							
	5580008300	-	✓ optional	✓ optional	-	✓ optional	-
H distributor curved ONE PIPE (3/4")							
	5580013600	-	✓ optional	✓ optional	-	✓ optional	-
H distributor straight TWO PIPE (3/4")							

		Linear Compact panel	Linear PHD 2.0 panel with valve	Linear PHD 2.0 panel with central connection and valve	Linear Hygiene compact panel	Linear Hygiene PHD 2.0 panel with valve	Linear Vertical Panel
	5580013700	-	✓ optional	✓ optional	-	✓ optional	-
H distributor curved TWO PIPE (3/4")							
	5580103500	-	✓ optional	✓ optional	-	✓ optional	-
H distributor straight (fit for drainoff) TWO PIPE (3/4")							
	5580103600	-	✓ optional	✓ optional	-	✓ optional	-
H distributor curved (fit for drainoff) TWO PIPE (3/4")							
	5567001000	-	-	-	-	-	✓ optional
Chrome Danfoss Kit H-valve tappings centre 50mm (1/2" - 3/4")							
	5580010100 3/4" x 10mm 5580010200 3/4" x 12mm 5580010400 3/4" x 14mm 5580010500 3/4" x 15mm 5580010600 3/4" x 16mm 5580010700 3/4" x 18mm	-	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	-	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500
Connection for copper pipe for distributor one/two pipe							
	5580127000 (3/4"x18)x14/10 5580127100 (3/4"x18)x16/12 5580127200 (3/4"x18)x20/16	-	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	-	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500	✓ optional for 5580008200 5580008300 5580013600 5580013700 5580103500
Connection for multilayer pipe							

		Linear Compact panel	Linear PHD 2.0 panel with valve	Linear PHD 2.0 panel with central connection and valve	Linear Hygiene compact panel	Linear Hygiene PHD 2.0 panel with valve	Linear Vertical Panel
	5567009900	optional	-	-	optional	-	optional
Ovus chrome valve 1/2" x 24/19							
	5567010000	optional	-	-	optional	-	optional
Ovus chrome lockshield valve 1/2" x 24/19							
	5567011100	✓	-	-	optional	-	optional
Ovus white valve 1/2" x 24/19							
	5567011200	optional	-	-	optional	-	optional
Ovus white lockshield valve 1/2" x 24/19							
	550S300400	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
Connection for multilayer pipe 24/19 x 9,5/10-14 for Ovus valve and lockshield							
	550S300500	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
Connection for multilayer pipe 24/19 x 11,5/12-16 for Ovus valve and lockshield							
	550S300600	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
Connection for multilayer pipe 24/19 x 15,5/16-20 for Ovus valve and lockshield							
	550S300700	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
Connection for copper pipe 24/19 x 10 for Ovus valve and lockshield							
	550S300800	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
Connection for copper pipe 24/19 x 12 for Ovus valve and lockshield							
	550S300900	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
Connection for copper pipe 24/19 x 14 for Ovus valve and lockshield							

		Linear Compact panel	Linear PHD 2.0 panel with valve	Linear PHD 2.0 panel with central connection and valve	Linear Hygiene compact panel	Linear Hygiene PHD 2.0 panel with valve	Linear Vertical Panel
	550S301000	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
Connection for copper pipe 24/19 x 15 for Ovus valve and lockshield							
	550S301100	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000	-	optional für 5567009900 5567010000 5567011100 5567011200 5567008600 5567011000
Connection for copper pipe 24/19 x 16 for ovus valve and lockshield							
	5567008600	-	-	-	-	-	optional
Kit Ovus 1/2" x 24/19 - only two pipe							
	5567011000	-	-	-	-	-	optional
Kit Ovus 1/2" x 24/19 - only two pipe							
	5567011300	optional für 5567009900 5567011100 5567008600 5567011000	-	-	optional für 5567009900 5567011100 5567008600 5567011000	-	optional für 5567009900 5567011100 5567008600 5567011000
Thermostatic head for ovus valve (M30x1,5)							
	5580105400	optional für 5567009900 5567011100 5567008600 5567011000	-	-	optional für 5567009900 5567011100 5567008600 5567011000	-	optional für 5567009900 5567011100 5567008600 5567011000
Thermostatic head for ovus valve (M30x1,5)							
	5580104900	-	optional	optional	-	optional	-
Thermostatic head (M23,5x1,5)							
	5580127700 chrome	-	optional	optional	-	optional	optional für kit danfoss 5567001000
Thermostatic head							
	5580127500 black 5580127600 white	-	optional	optional	-	optional	-
Thermostatic head							
	5580113800	-	optional	optional	-	optional	optional für kit danfoss 5567001000
Hand knob							
	7381016700	-	optional	-	-	optional	-
PHD-Tool							

Linear Compact Panel and Linear Hygiene Compact Panel

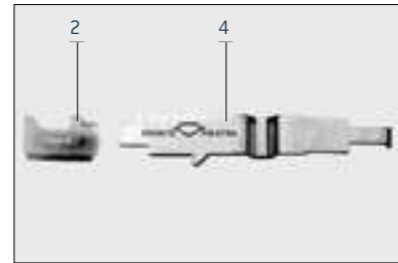
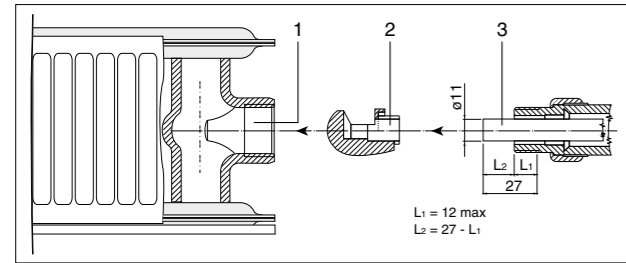
Connection

Two-pipe



The connection methods described here are symmetric. Linear Compact radiators can be connected with a two-pipe connection as follows: top/bottom same side (all EN442 heat outputs are calculated and verified with this type of connection), top/bottom opposite sides (the best way to connect radiators longer than 1000 mm), bottom/bottom opposite side (this connection method reduces heat output by about 10%). Two-pipe connection requires a thermostatic valve (possibly with thermostatic head) and lockshield.

One-pipe



Linear Compact radiators can be connected with a one-pipe connection using the special flow deviator [2] inserted in the connection point [1] using the key [4]. To connect to a one-pipe installation, a one-pipe valve with probe (not available from DL Radiators) is required. The probe must have a maximum length of 11mm and the length of the external probe and the thread inside the valve must not exceed 27mm [3].

One-Pipe connection kit

Code	Description
5380003300	Flow diverter for one-pipe valve
611561	Wrench for the flow diverter

Pressure drop and valve regulation - Compact steel panels

Two-Pipe

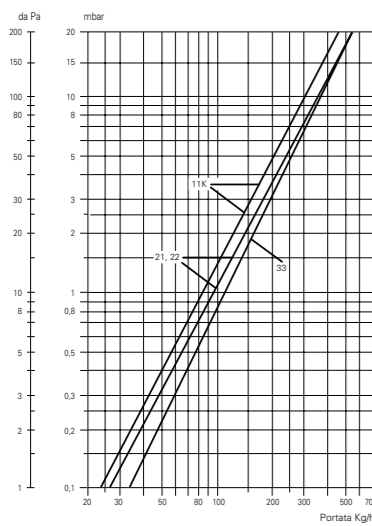


Chart 1: Pressure drop two-pipe

Pressure drops Δp are expressed by daPa and mbar.

1 mm H₂O = 0,0981 mbar

Pressure drop chart for Compact Panels

The values are obtained with the connection 1/2 G by one side.

model 11K

model 21 e 22

model 33

One-Pipe

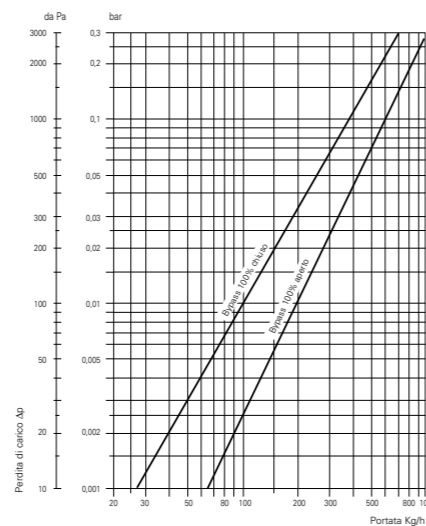


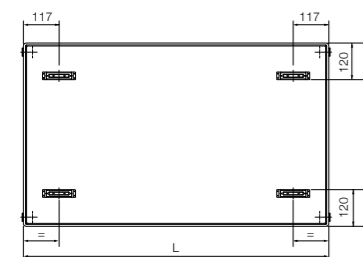
Chart 2: Pressure drop one-pipe

Pressure drops refer to panels with valve for one-pipe loop with the special flow diverter. They are espresse by daPa and bar.

Pressure drop chart shows the outer values of pressure drops for Compact Panels for models 21, 22 e 33.

Care of instructions for one-pipe valve.

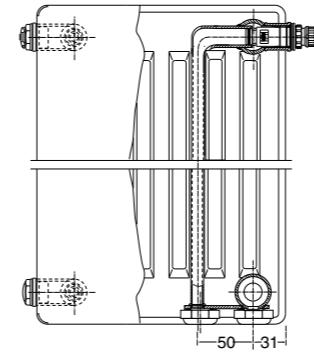
How many brackets are required:



Up to 1600mm, 4 back supports are welded and so 2 brackets (1 set) is required; above 1800mm, 6 back supports are welded and so 3 brackets (2 sets) are required.

Linear PHD 2.0 Panel with valve, PHD 2.0 Hygiene Panel with valve

Connection methods



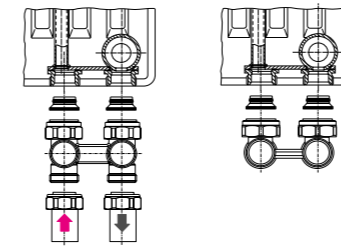
PHD radiators are supplied with preset thermostatic valve. Regulation is based on the 70/55-20 heat output of the radiator and the pressure drop of the insert mounted (0.1 bar).

If resetting is required:

The setting for the thermostatic insert (two-pipe connection) is obtained from the flow rate Q diagrams (expressed in kg/h) - Pressure drop Δp (expressed in bars or kPa). Starting from the Δt set in the system and the power of the radiator (EN442 standard output), the intersection with the pressure drop value on the X axis determines the nearest kv at which to set the insert (for example: position 3 or 4).

Instructions on adjusting the thermostatic insert are provided with every panel.

Two-pipe connection

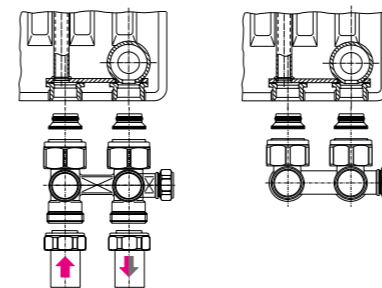


Linear PHD panels can be connected to a two-pipe installation using a straight or square distributor. Our range of distributors are provided with Eurocone insert for connection to the 3/4" externally threaded connections on Plattella Thermostatic radiators. The nozzle on the distributors provided for draining the radiator can be connected to the draining device.

Distributors Two Pipe

Code	Description
5580013600	H distributor straight - TWO PIPE
5580013700	H distributor curved - TWO PIPE
5580103500	H distributor straight (fit for drainoff) - TWO PIPE
5580103600	H distributor curved (fit for drainoff) - TWO PIPE

One-pipe connection

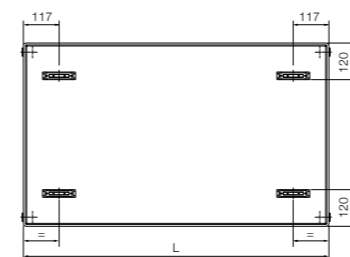


Linear PHD panels can be connected to a one-pipe installation using a straight or square distributor. Our range of distributors are provided with Eurocone insert for connection to the 3/4" externally threaded connections on Plattella Thermostatic radiators. On the distributor side the by-pass must be regulated to define the water flow entering the radiator and the flow bypassing it to continue in the circuit. Place the thermostatic insert in the N position (fully open) then adjust the number of turns of the bypass.

Distributors One Pipe

Code	Description
5580008200	H distributor straight - ONE PIPE
5580008300	H distributor curved - ONE PIPE

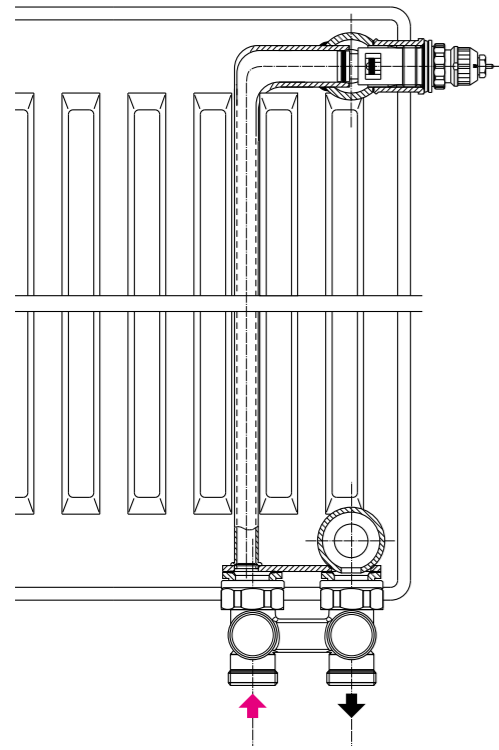
How many brackets are required:



Up to 1600mm, 4 back supports are welded and so 2 brackets (1 set) is required; above 1800mm, 6 back supports are welded and so 3 brackets (2 sets) are required.

Linear PHD 2.0 Panel with valve, Linear PHD 2.0 Hygiene Panel with valve and Linear PHD 2.0 Panel with valve and central connection

Pressure drop and valve regulation panels with valve (Two-Pipe)



Square or straight distributors can be used in two-pipe installations. These distributors incorporate two gate valves to intercept the input and output flows. PHD series radiators can also be used without distributors. To ensure the thermostatic head maintains room temperature precisely, the built-in Danfoss thermostatic valve must be adjusted to achieve a pressure drop of 0.1 bar in the radiator (use diagram 1).

REGULATION

The value obtained from the diagram can be set on the Danfoss thermostatic valve easily without using tools (for maximum accessibility, it may be more convenient to regulate the valve before assembly):

- Remove the protective cap
- Turn the adjustment ring until the pointer corresponds to the required value on the graduated scale (fig. 1). The setting is continuous from 1 to 7 (fig. 2). In position N, the valve is fully open.

Example:

- Model 21/600-1100
- Power output = 1412 W
- With $\Delta t = 15^\circ\text{C}$ and $\Delta p = 0,1$ bar from chart 1 you obtain the valve regulation value: 3 (water flux)

DL Radiators Code	Danfoss Code	Danfoss Model	Colour Ring	Presetting	Cap
5580115600	013G1489	013G0380	black	N4	red
5580115700	013G1490	013G0380	orange	N6	red
5580115500	013G1488	013G0380	red	NN	red
5580115800	013G1401	013G0381	white	U3	yellow
5580115900	013G1402	013G0381	green	U5	yellow

Fig. 1

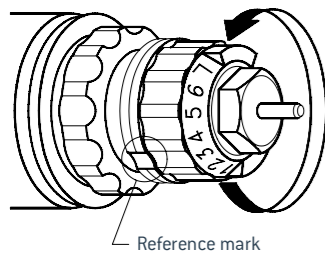


Fig. 2

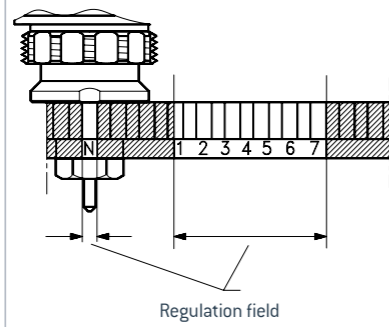


Fig. 3

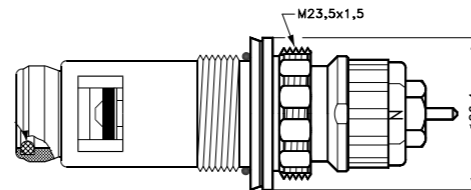
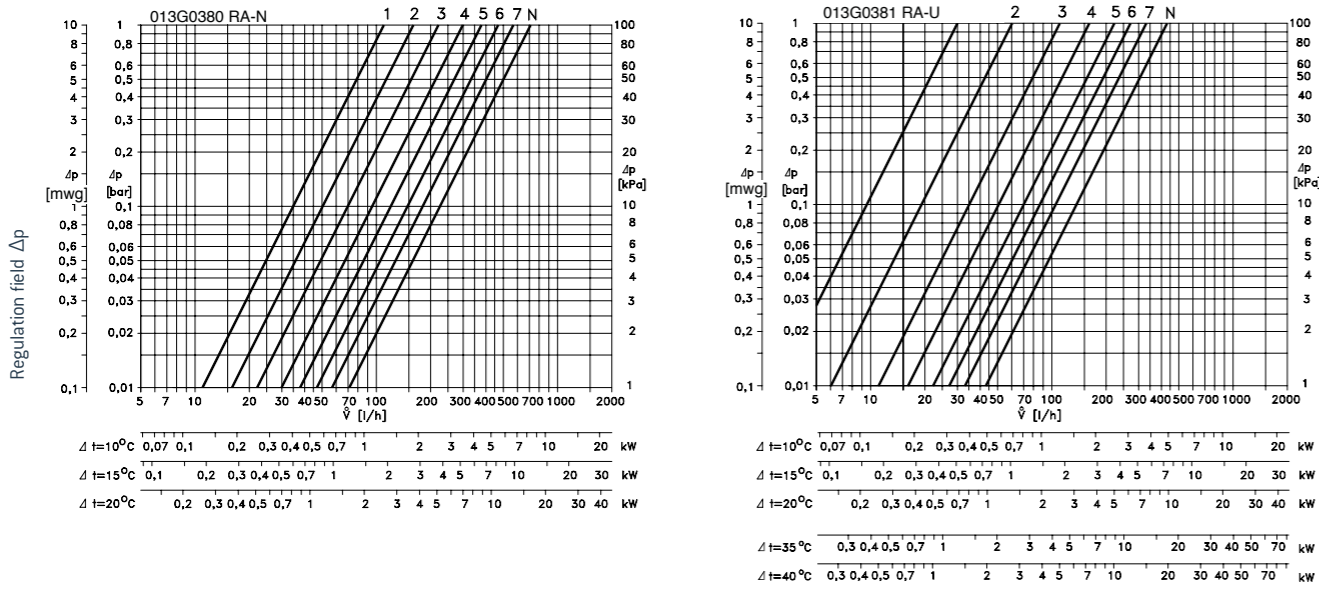
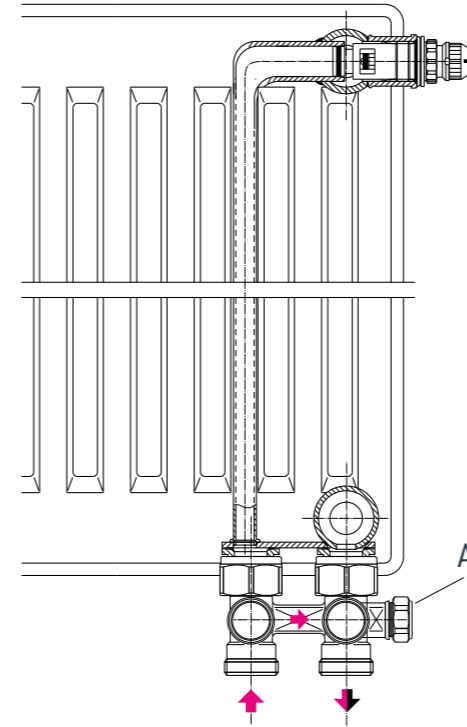


Chart 1



Linear PHD 2.0 Panel with valve, Linear PHD 2.0 Hygiene Panel with valve and Linear PHD 2.0 Panel with valve and central connection

Pressure drop and valve regulation panels with valve (One-Pipe)



For one-pipe installations, a straight or square distributor with adjustable by-pass is required. The Danfoss thermostatic valve must be placed in the N position.

When the percentage flow rate in the radiator is known (with respect to the total flow in the installation), the no. of turns to be set on the by-pass can be obtained from diagram 1.

The by-pass under the cover A of the distributor can then be adjusted using an Allen key by the number of turns indicated in the table.

To know the pressure drop in the radiator, use diagram 2. Once the total flow in the installation and the percentage flow in the radiator are known, the pressure drop in metres of water column or bars can be obtained.

EXAMPLE: Total thermal flow in the loop (5814 Watt)

$\Delta t = 10^\circ\text{C}$ (75/65 $^\circ\text{C}$)

35% water capacity in the exchanger

OBTAIN: by-pass regulation value and pressure lost

in the radiator

SOLUTION: Capacity in the ring $\dot{m} = \frac{Q}{c \times \Delta t} = \frac{5814 \times 0,86}{1 \times 10} = 500 \text{ kg/h}$

From chart 1 : by-pass turning number = 1 + 3/4

From chart 2 $\Delta p = 0,1$ bar

The flow rate in the radiator can be regulated subsequently, including during operation.

The distributor can also be used as a blind bridge if the radiator is mounted subsequently or dismantled, without having to empty the installation.

Chart 2

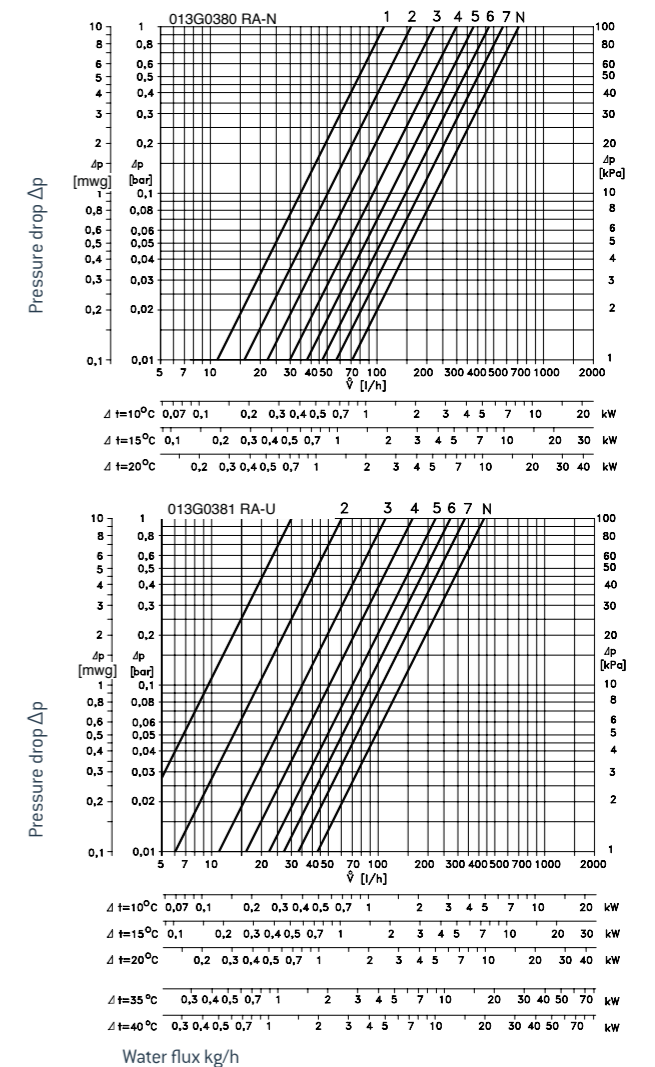
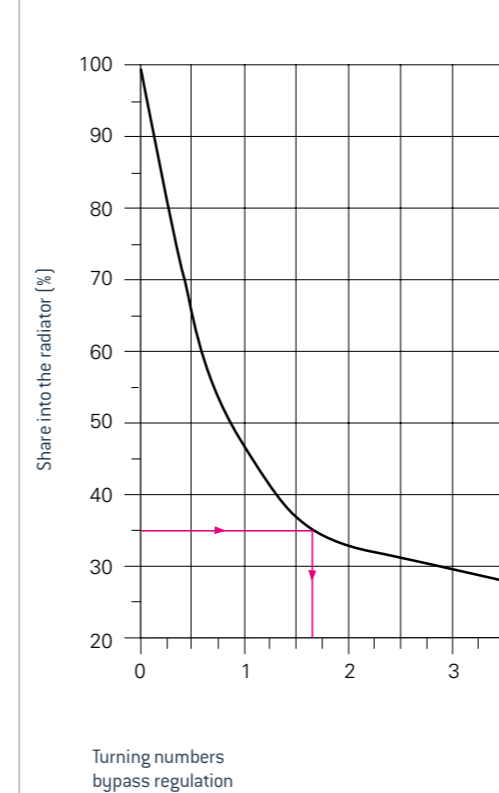
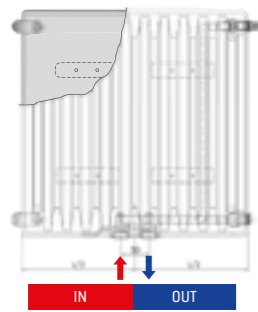


Chart 1



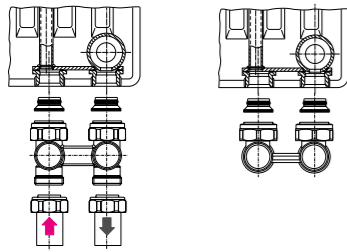
Linear Panels with central connection

Connection methods



The setting for the thermostatic insert (two-pipe connection) is obtained from the flow rate Q diagrams (expressed in kg/h) – Pressure drop Δp (expressed in bars or kPa). Starting from the Δt set in the system and the power of the radiator (EN442 standard output), the intersection with the pressure drop value on the X axis determines the Linear radiators with central connection are supplied with the insert in the N position (valve fully open). Instructions on adjusting the thermostatic insert are provided with every panel. The inlet connection lies always on the left, even by right-valve radiator.

Two-pipe connection

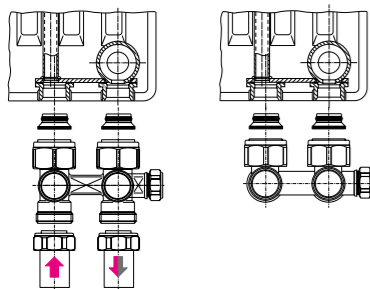


Linear panels with central connection can be connected to a two-pipe installation using a straight or square distributor. Our range of distributors are provided with Eurocone insert for connection to the 3/4" externally threaded connections fitted to Linear radiators with central connection. The nozzle on the distributors provided for draining the radiator can be connected to the draining device.

Distributors Two Pipe

Code	Description
5580013600	H distributor straight - TWO PIPE
5580013600	H distributor straight - TWO PIPE
5580103500	H distributor straight (fit for drainoff) - TWO PIPE
5580103600	H distributor curved (fit for drainoff) - TWO PIPE

One-pipe connection

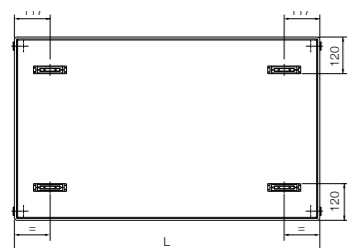


Linear panels with central connection can be connected to a one-pipe installation using a straight or square distributor. Our range of distributors are provided with Eurocone insert for connection to the 3/4" externally threaded connections fitted to Linear radiators with central connection. On the distributor side the by-pass must be regulated to define the water flow entering the radiator and the flow bypassing it to continue in the circuit. Place the thermostatic insert in the N position (fully open) then adjust the number of turns of the bypass.

Distributors One Pipe

Code	Description
5580008200	H distributor straight - ONE PIPE
5580008300	H distributor curved - ONE PIPE

How many brackets are required:



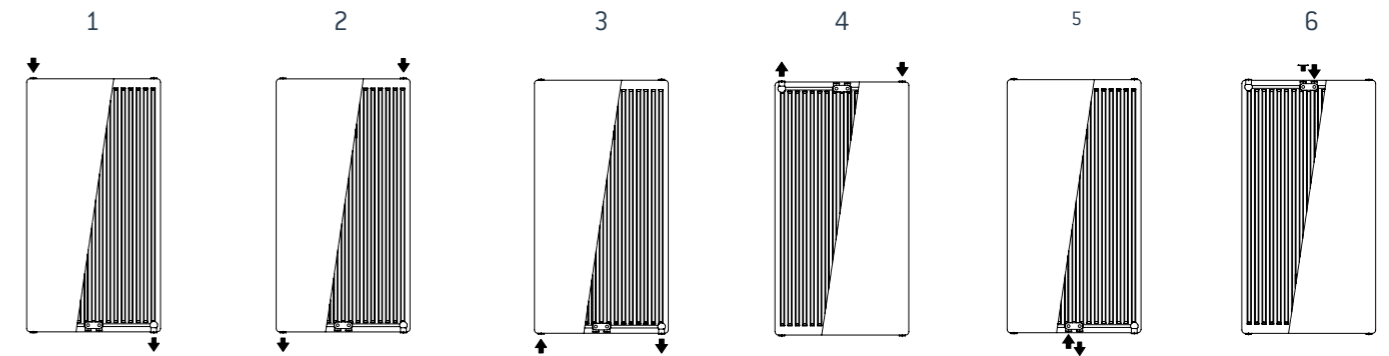
Up to 1600mm, 4 back supports are welded and so 2 brackets (1 set) is required; above 1800mm, 6 back supports are welded and so 3 brackets (2 sets) are required.

Linear Vertical Panel

Connection possibilities

Connection possibilities

Vertical radiators can be connected to a two-pipe connection as follows: top/bottom opposite side (1, 2), bottom/bottom opposite side (3), top/top opposite side (4) connections and in the configuration with bottom (5) or top (6) central connection. The top/top opposite side connection (4) and top central connection (6) are applicable only and exclusively with the panel in configuration AA (top connection) as in this case a deflector is installed in the radiator. - AA Configuration has no grille. Configurations 3, 4, 5 and 6 are symmetrical with respect to the indications in the drawings below (the output and input indicated by the arrows can be reversed). Two-pipe connection with side connections requires a thermostatic valve (possibly with thermostatic head) and lockshield. When connecting with side connections, the central connection must be sealed with two blind caps.

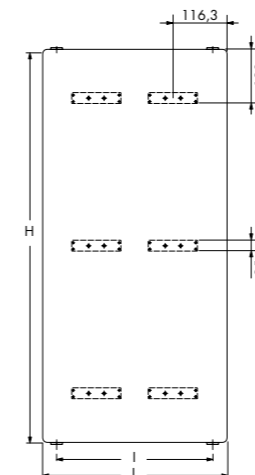


Central connection with valve/lockshield kit

In a two-pipe connection, Vertical radiators can be connected with a central connection using a valve/lockshield group with 50mm tappings centre (to be ordered separately) which can be connected to the central connection of the panel via two 3/4" - 1/2" nipples. The setting for the valve in the valve/lockshield group with 50mm tappings centre (two-pipe connection) is obtained from the flow rate Q diagrams (expressed in kg/h) - Pressure drop Δp (expressed in bars or kPa). Starting from the Δt set in the system and the power of the radiator (EN442 standard output), the intersection with the pressure drop value on the X axis determines the nearest kv at which to set the insert (for example: position 3 or 4). The valve/lockshield group can be thermostatically controlled by fitting the DL Radiators thermostatic head (to be ordered separately).

<p>5567001000 Chrome Danfoss Kit H-valve tappings centre 50mm</p>	<p>5567009900 Ovus chrome valve 1/2" x 24/19</p>	<p>5567011100 Ovus white valve 1/2" x 24/19</p>	<p>5567008600 Kit Ovus 1/2" x 24/19 only two pipe</p>
<p>5567010000 Ovus chrome lockshield valve 1/2" x 24/19</p>	<p>5567011200 Ovus white lockshield valve 1/2" x 24/19</p>	<p>5567011000 Kit Ovus 1/2" x 24/19 only two pipe</p>	

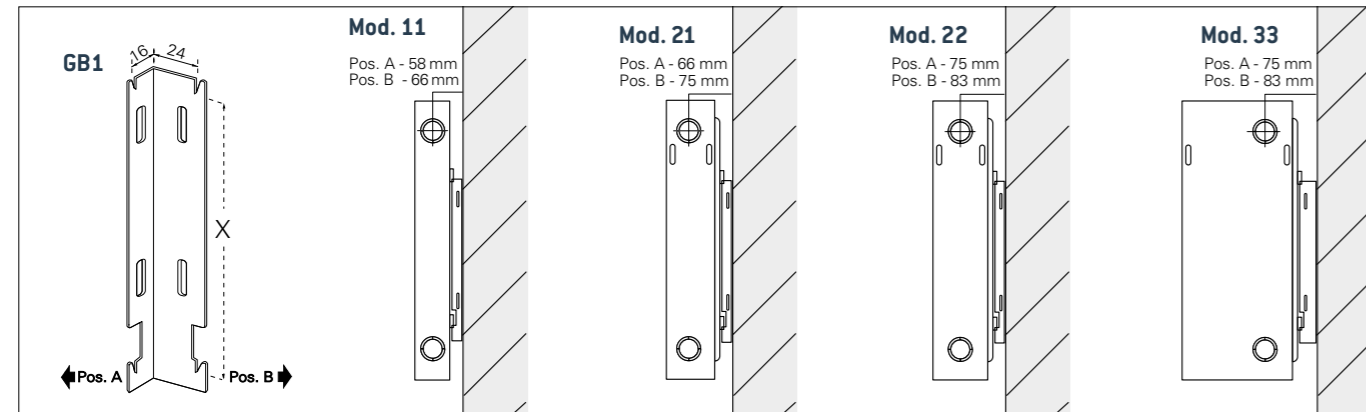
How many brackets are required:



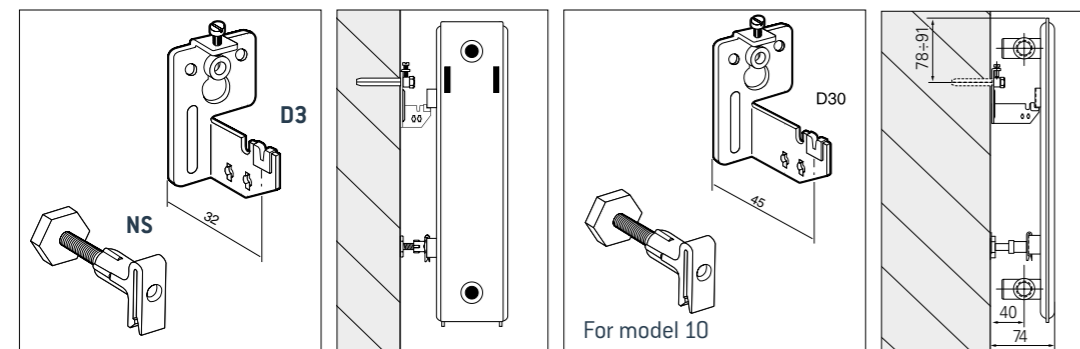
The 300mm wide Vertical radiator needs 1 bracket, (1 set), from the 400mm 2 brackets (2 sets) are required.

Wall brackets

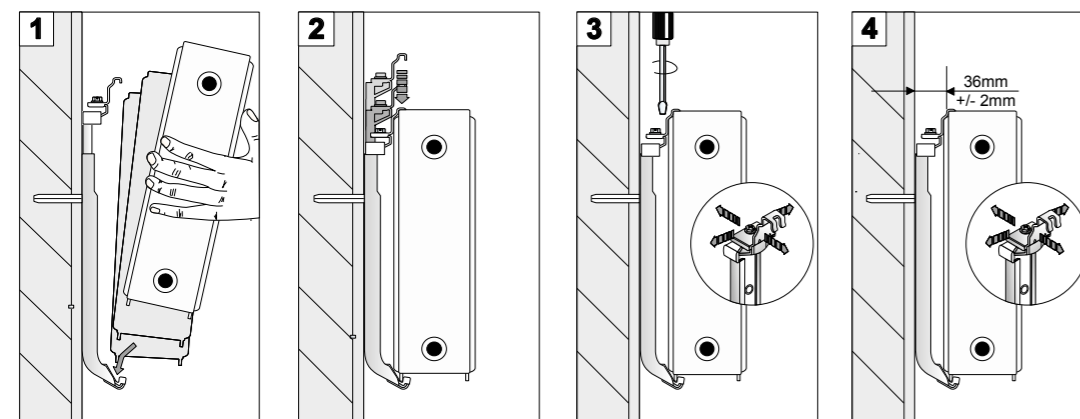
BRACKETS GB1



BRACKETS D3 - D30



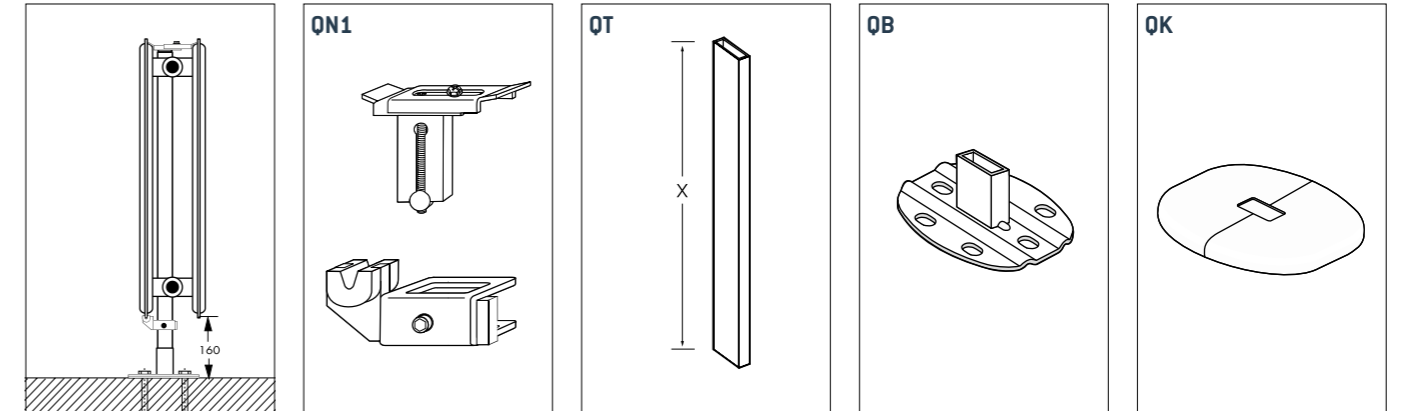
BRACKETS F7



Floor brackets

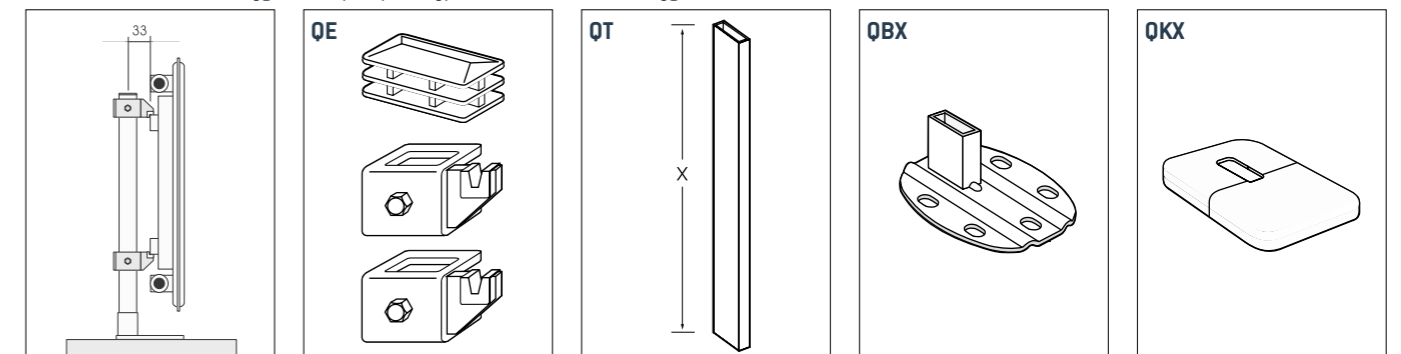
KIT QT with QN1

For models Linear compact panel type 21 - 22 - 33, Linear PHD 2.0 Panel type 21 - 22 - 33, Linear Hygiene Compact panel type 20 - 30 and Linear Hygiene PHD 2.0 type 20 - 30



KIT QT with QE

For models Linear Compact panel type 21 - 22 - 33, Linear PHD 2.0 Panel type 21 - 22 - 33, Linear Panel with central connection 21 - 22 - 33, Linear Hygiene Compact panel type 10 - 20 - 30 and Linear Hygiene PHD 2.0 10 - 20 - 30



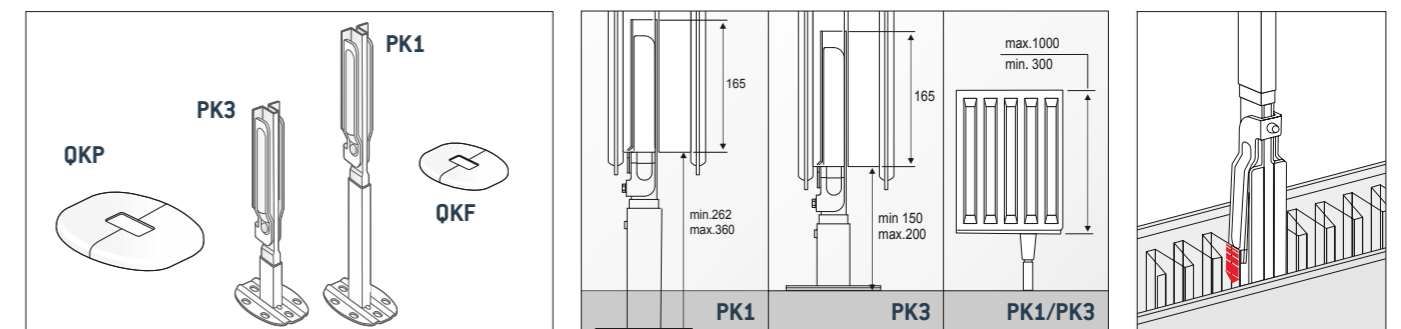
Code	Description
552309	QT floor anchor 460mm (H=300)
552310	QT floor anchor 560mm (H=400)
552311	QT floor anchor 660mm (H=500)
552312	QT floor anchor 760mm (H=600)
552649	QT floor anchor 860mm (H=700)
552313	QT floor anchor 1060mm (H=900)

Code	Description
552314	QT base for QB
5580013400	QKP base cover
552317	2 x QE fixing with tube cover
5580005700	QN1 fixing for type 20, 30

radiators up to 1600 mm long: two kits required;
1800 mm long: three kits required

PK anchor

For models Linear Compact panel type 21 - 22 - 33, Linear PHD 2.0 Panel type 21 - 22 - 33



5580103300 Kit 2 x PK3 adjustable feet + base cover QKP
Height from floor adjustable from 150 - 200 mm

5580104400 Kit 2 x PK1 adjustable feet + base cover QKF
Height from floor adjustable from 262 - 360 mm

All the colours of warmth

PEARL SHINE



PEARL SHINE WHITE ..



PEARL SHINE SILVER ..



PEARL SHINE GOLD ..



PEARL SHINE COPPER ..

BRILLIANT



BRILLIANT STARS ...



BRILLIANT DESERT ROSE ...



BRILLIANT GREY ..

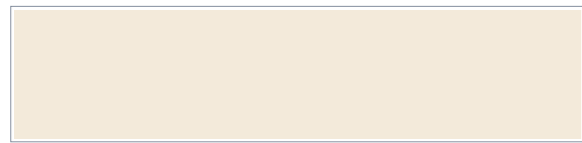


BRILLIANT CHOCOLATE ..

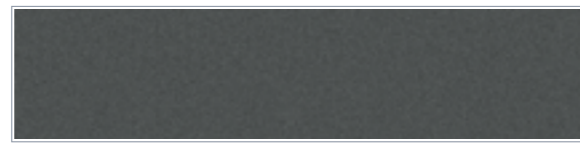


TITANIUM ..

ROUGH



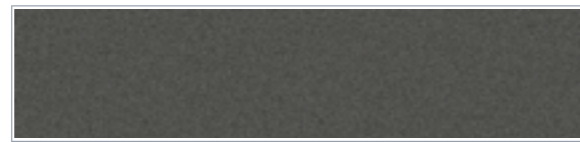
ROUGH VINTAGE ..



ROUGH DARK GREY ..



ROUGH TAUPE ..



ROUGH ANTHRACITE ..

REAL



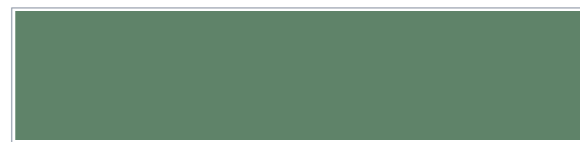
REAL GYPSUM ..



REAL RED LEAF ..



REAL GOLD CURRY ..



REAL GREEN MINT ..

TEXTILE



SILKY GOLD ...



SILKY VIOLET ...

HAMMERED



HAMMERED COPPER ..



HAMMERED GREY ..

SPECIAL TEXTURE



INOX ...



CORTEN ..

RAL



RAL 9010

gloss - satin - matt



RAL 1002

gloss - satin - matt



RAL 9016

gloss - satin - matt



RAL 1023

gloss - satin - matt



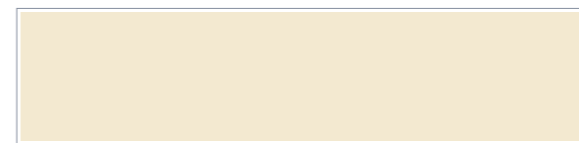
RAL 9001

gloss - satin - matt



RAL 1004

gloss



RAL 1013

gloss - satin - matt



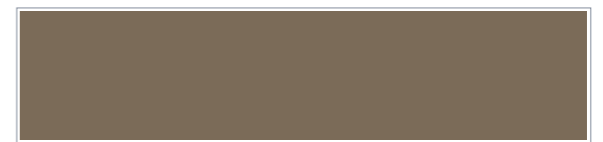
RAL 1019

gloss - satin - matt



RAL 1015

gloss - satin - matt



RAL 7006

gloss - satin - matt

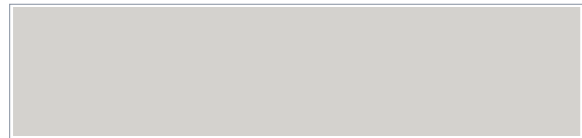


All the colours of warmth

RAL



RAL 9018 gloss - satin - matt •



RAL 7047 gloss - satin - matt •



RAL 7035 gloss - satin - matt •



RAL 7038 gloss - satin - matt •



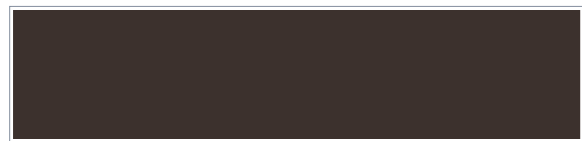
RAL 7030 gloss - satin - matt •



RAL 7042 gloss - satin - matt •



RAL 8011 gloss - satin - matt •



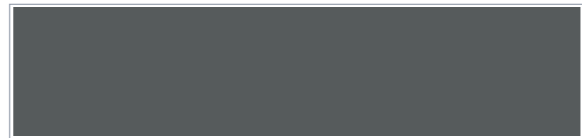
RAL 8019 gloss - satin - matt •



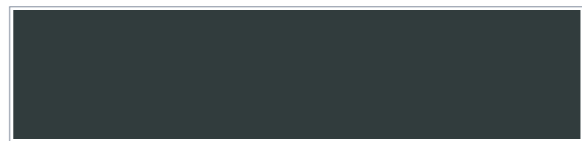
RAL 9005 gloss - satin - matt •



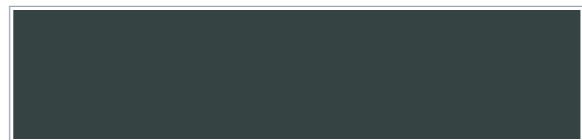
RAL 7015 gloss - satin - matt •



RAL 7011 gloss - satin - matt •



RAL 7016 gloss - satin - matt •



RAL 7026 gloss - satin - matt •



RAL 5010 gloss - satin - matt •



RAL 6027 gloss - satin - matt •



RAL 3000 gloss - satin - matt •

Finishing can be custom made. DL Radiators can offer this option thanks to the new and advanced in-house painting line. Our customers will be able to choose between our wide range of colours divided into themed colour groups or their own colour (RAL) code for a unique product. In this way, we can satisfy any individual requirement and need, and do so in a short time.

Packaging and safety of the product

The following images are indicative of the packaging used for DL Radiators products.

Vertical transport



DL Radiators Plattella panels are packed with cardboard strips reinforced at the top and bottom and further reinforced by plastic corner elements to avoid damage to the corners. The complete packaging is covered with heat shrink tape for storage in damp conditions.

The images illustrate vertical and horizontal stacking on pallets (the stacking shown and pallets used in these photographs are not standard DL Radiators, nor exclusive, but merely illustrative. Palletising is part of commercial agreements).

Linear steel panels are packed with tough cardboard strips at the top and bottom. On the front they are packed with cardboard and plastic foam. Then they are finished with heat shrink tape to protect from damp.

The accessories included in the packaging, if so, (brackets, screws, ecc.) are packed in plastic bag.

Horizontal transport



Model	Pieces for pallet
30, 32, 33	7
22	10
21	11
20, 10, 11	14

Warranty

GENERAL CONDITIONS

The warranty conditions set forth in this section shall be valid for all products comprising the DL Radiators Srl range (otherwise denominated DLR). Any derogation from these conditions shall require DL Radiators' prior written consent.

WARRANTY

The supplier guarantees, starting from the invoice date, for a period of X years (the number of years guaranteed depends on the product category. Each Warranty period is shown at the beginning of each product category):

- The good quality of the materials supplied
- The good workmanship of invoiced and supplied materials.

The supplier undertakes, within the warranty period, to repair or replace, at its own discretion, and on a gratuitous basis, those parts that, with respect to the specifications, exhibit material defects, construction faults or deformities, such as to render the component unsuitable for use. The supplier shall not accept other replacement costs.

The warranty shall take effect after the examination of the defects and their causes, by DLR and at the premises it shall indicated. New or repaired material shall be supplied EXW supplier's warehouse.

Any work forming part of the warranty shall not extend or renew the original warranty term.

WARRANTY INVALIDITY

- if the buyer does not comply with the agreed payment conditions;
- if a claim against warranty is not lodged within the terms indicated and in accordance to law;
- if the product is installed by unqualified persons and/or in a manner contrary to the supplier's instructions;
- if the use and/or maintenance of the system has not been carried out according to the suppliers' instructions.
- if the product has been tampered with by adjustments or repairs conducted without the supplier's prior written authorisation;
- if the products incurs accidental damage or damage caused by natural calamities;
- if the products incurs damages caused by shipping not organized by DL Radiators;
- if the presence of air and/or the lack of liquid in the circuit is detected;

RESERVATIONS

DLR reserves the rights to make modification to products, technical data and sizes at any time and without prior notice. DLR shall remain proprietor of the product until such time as Customer makes full payment.

General sales conditions

The Customer implicitly accepts the following payment conditions when he receives the confirmation of the order by DL Radiators Srl.

PAYMENT CONDITIONS

- Unless contrary expressed agreement, delivery terms shall always be understood as approximate;
- Goods are transported at the Customer's own risk, even if sold carriage paid;
- Special packaging not otherwise provided for shall be invoiced separately;
- Delays in delivery attributable to the carrier shall not be the liability of DLR;
- Extraordinary events, natural calamities or other causes of force majeure shall release DL Radiators from any mandatory delivery terms.

TRANSPORT OF GOODS, PACKAGING AND CONSIGNMENT

- Unless contrary expressed agreement, delivery terms shall always be understood as approximate;
- Goods are transported at the Customer's own risk, even if sold carriage paid;
- Special packaging not otherwise provided for shall be invoiced separately;
- Delays in delivery attributable to the carrier shall not be the liability of DLR;
- Extraordinary events, natural calamities or other causes of force majeure shall release DL Radiators from any mandatory delivery terms.

CLAIMS AND RETURNED GOODS

- Claims for visible defects must be made within 8 days from the receipt of goods;
- For other defects the foregoing warranty conditions shall remain valid;
- The prices are subject to revision according to variations that may come into effect prior to delivery;
- No claims shall be accepted for goods altered or damaged by third parties or the Customer;
- Goods must be returned at the Customer's expense to DL Radiators Srl (or Moimacco UD or Fossalta di Piave VE - ITALY);
- DL Radiators Srl disclaims any obligation to replace its radiators for defects attributable to insufficient surveillance or irregular maintenance;
- The installer must take out insurance against any damage that water may determine.

TECHNICAL DATA

- The surface areas, performance, weights and all other data referring to the radiators, as stated in pricelists and catalogues, shall be understood as indicative and comprehend working tolerances that are not subject to price adjustments;
- DL Radiators Srl reserves the right to replace its radiator models without prior notice.

COURT WITH JURISDICTION

For any controversy the sole court with jurisdiction shall be the Court of Treviso (Italy), excluding any derogations.



RADIATORS

ITALIAN PREMIUM HEATING

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