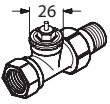
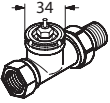


Installation Guide

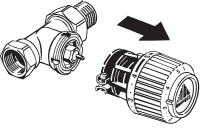
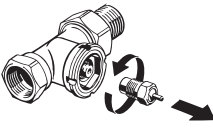


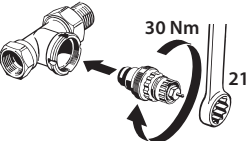
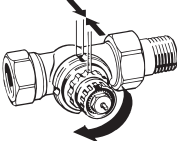
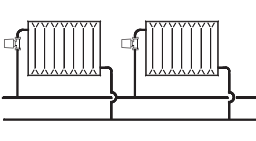
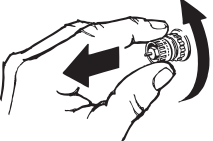
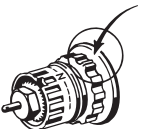
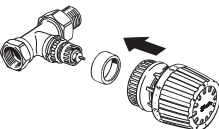
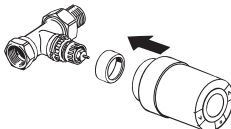


Presetting Inserts for RAVL and RAV Valves

1 Selection and Ordering

Danfoss valve body*	Valve size	Insert	RA 2990 sensor	Combi-set with living eco®	living connect®
 RAVL	DN 10-15 (3/8" - 1/2") DN 20 (3/4")	013G4011 013G4012	013G4017 013G4018	014G0056 014G0057	014G0007 014G0008
 RAV	DN 10-15-20 (3/8" - 1/2" - 3/4")	013G4013	013G4019	014G0058	014G0009

* Inserts for other valve bodies on request.

2 Changing the Insert


 1. Drain the system, then remove the old sensor.	 2. Unscrew the gland seal.	 3. Use an Allen key* to unscrew the old insert.	 4. Clean the valve seat with a cloth.
 5. Screw in the new insert by hand and tighten with a spanner.	 6. Align a notch with a cutout in the valve body to assure correct orientation of the sensor.	 7. Flush and refill the system.	 8. Set the desired flow (default is N = max. flow).
 9. Reference mark for flow setting.	 10a. RA 2990: First mount the deco ring, then the new sensor.	 10b. living®: First mount the deco ring, then the sensor by tightening the Allen screw. Press  for approx. three seconds to fix the thermostat.	

* Dismantling nuts can be used instead of Allen keys (see Accessories).


Installation Guide Presetting Inserts for RAVL and RAV Valves

3 Overview: Insert Combi-sets for RAVL / RAV Valves


Combi-sets with RA 2990 sensor

Valve type	Valve size	k _v -value	Recognized by	Order no.
RAVL	3/8"	0,5 / 0,8	 k _v -value noted on valve body. Bottom screw 13 mm Allen.	013G4017
RAVL	1/2"			
RAVL	3/4"	1,3		013G4018
RAV/8	3/8" - 1/2" - 3/4"	-	Bottom screw 19 mm Allen.	013G4019



Combi-sets with *living eco*® sensor

Valve type	Valve size	k _v -value	Recognized by	Order no.
RAVL	3/8"	0,5 / 0,8	 k _v -value noted on valve body. Bottom screw 13 mm Allen.	013G4056
RAVL	1/2"			
RAVL	3/4"	1,3		013G4057
RAV/8	3/8" - 1/2" - 3/4"	-	Bottom screw 19 mm Allen.	013G4058

Combi-sets with *living connect*® sensor

Valve type	Valve size	k _v -value	Recognized by	Order no.
RAVL	3/8"	0,5 / 0,8	 k _v -value noted on valve body. Bottom screw 13 mm Allen.	013G4007
RAVL	1/2"			
RAVL	3/4"	1,3		013G4008
RAV/8	3/8" - 1/2" - 3/4"	-	Bottom screw 19 mm Allen.	013G4009

4 Accessories

Type		Order no.
	Dismantling nut for RAVL valves with 13 mm Allen bottom screw.	192H2210
	Dismantling nut for RAV valves with 19 mm Allen bottom screw.	192H2310