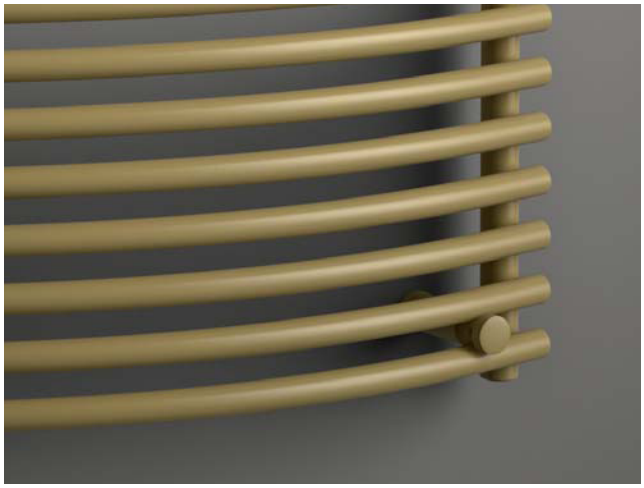
EPECON

ISAN

bathroom and design radiators

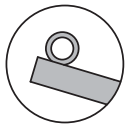
IKARIA RADIUS

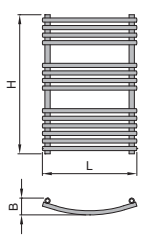


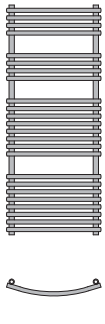
Material	steel pipes Ø 28 mm / steel pipes Ø 22 mm
Connection thread	4 × G1/2"
Testing overpressure	1,3 MPa
Max. operating overpressure	1,0 MPa
Max. operating temperature	110 °C
Number of pipes	14, 24, 36

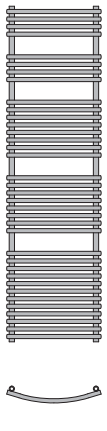
Type H/L [mm]	Depth B [mm]	Weight [kg]	Water capacity [l]	Temperature exponent [n]	Heating Output 75/65/20°C	70/55/20°C	55/45/20°C	Recommended power input paint [W]	chrome [W]	Connection span [mm]
732/50 0	89	6,1	2,8	1,235	349	286	186	300	200	446
732/600	102	7,0	3,2	1,235	400	327	213	400	300	546
1212/500	89	10,4	4,7	1,235	593	485	316	600	400	446
1212/600	102	12,0	5,5	1,235	682	558	363	700	500	546
1772/500	89	15,5	7,1	1,235	878	718	467	900	600	446
1772/600	102	17,9	8,2	1,235	1018	833	542	1000	700	546

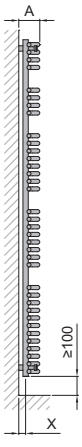
Thermal power measuring follows in accordance with EN 442.
Chrome surface treatment reduces heating capacity by ~ 30 %.

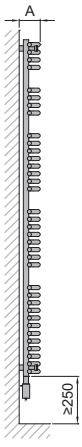












length	A	X
500	111–121	36–46
600	122–132	26–36

DIKR 0732 0500...
DIKR 0732 0600...

DIKR 1212 0500...
DIKR 1212 0600...

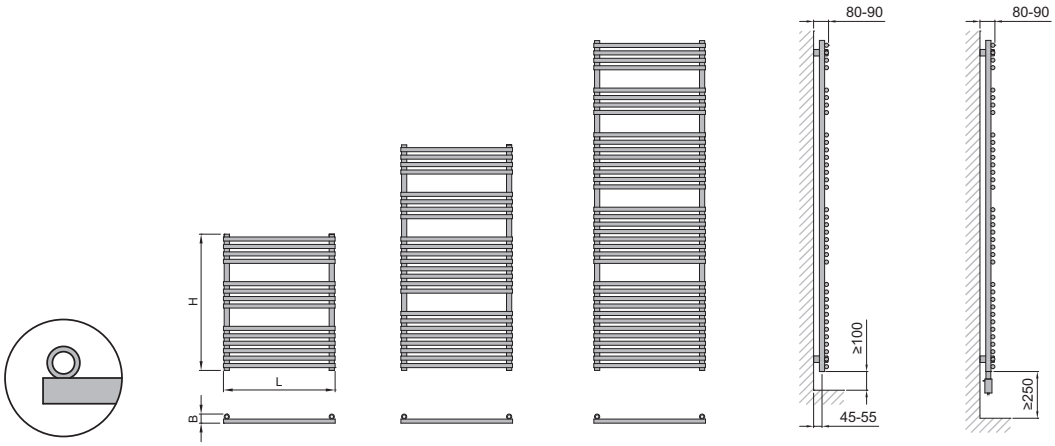
DIKR 1772 0500...
DIKR 1772 0600...

IKARIA

Material	steel pipes ∅ 28 mm / steel pipes ∅ 22 mm
Connection thread	4 × G1/2"
Testing overpressure	1,3 MPa
Max. operating overpressure	1,0 MPa
Max. operating temperature	110 °C
Number of pipes	14, 24, 36

Type H/L [mm]	Depth B [mm]	Weight [kg]	Water capacity [l]	Temperature exponent [n]	Heating Output 75/65/20°C	70/55/20°C	55/45/20°C	Recommended power input paint [W]	chrome [W]	Connection span [mm]
732/50 0	48	6,1	2,7	1,187	337	278	184	300	200	464
732 / 600	48	7,0	3,2	1,187	389	321	212	400	300	564
1212 / 500	48	10,3	4,7	1,187	573	472	312	600	400	464
1212 / 600	48	11,8	5,4	1,187	663	547	362	700	500	564
1772 / 500	48	15,4	7,0	1,187	855	705	466	800	600	464
1772 / 600	48	17,7	8,1	1,187	989	815	539	1000	700	564

Thermal power measuring follows in accordance with EN 442.
Chrome surface treatment reduces heating capacity by ~30 %.

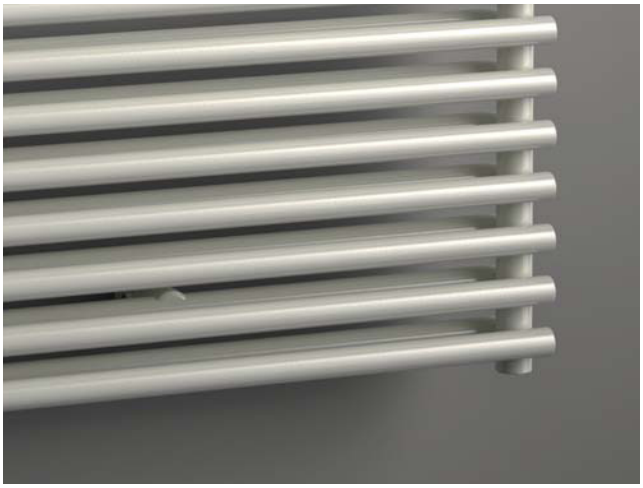


DIKA 0732 0500...
DIKA 0732 0600...

DIKA 1212 0500...
DIKA 1212 0600...

DIKA 1772 0500...
DIKA 1772 0600...

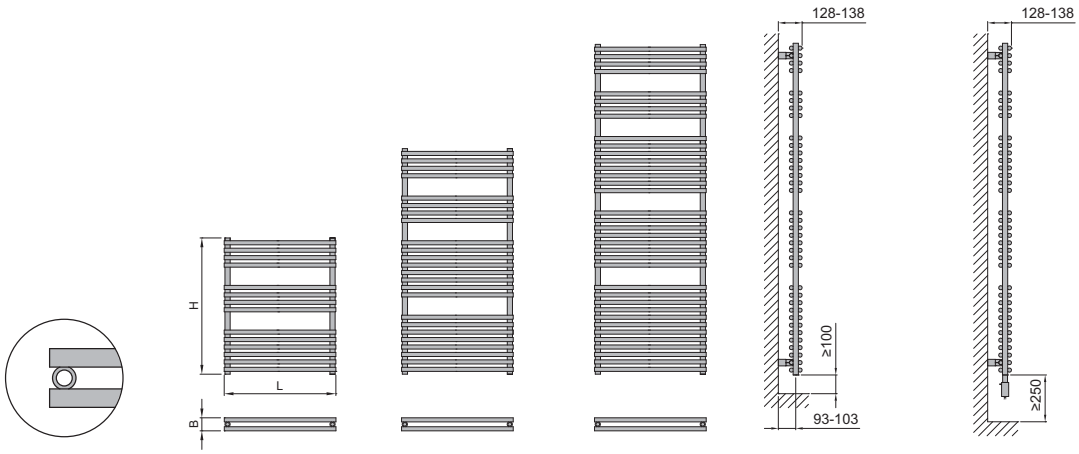
IKARIA DOUBLE



Material	steel pipes ∅28 mm / steel pipes ∅22 mm
Connection thread	4 × G1/2"
Testing overpressure	1,3 MPa
Max. operating overpressure	1,0 MPa
Max. operating temperature	110 °C
Number of pipes	28, 48, 72

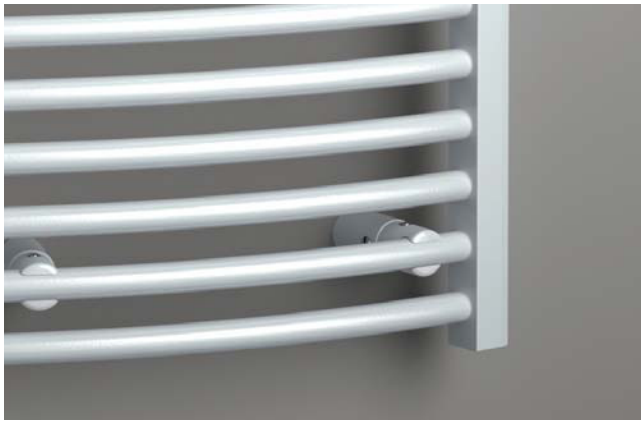
Type H/L [mm]	Depth B [mm]	Weight [kg]	Water capacity [l]	Temperature exponent [n]	Heating Output 75/65/20°C	70/55/20°C	55/45/20°C	Recommended power input paint [W]	chrome [W]	Connection span [mm]
732 / 600	68	12,4	5,7	1,141	591	461	330	600	–	564
1212 / 600	68	21,2	9,7	1,141	955	793	533	900	–	564
1772 / 600	68	31,8	14,6	1,141	1429	1187	798	1200	–	564

Thermal power measuring follows in accordance with EN 442.



DIKD 0732 0600... DIKD 1212 0600... DIKD 1772 0600...

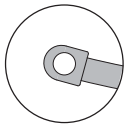
GRENADA RADIUS

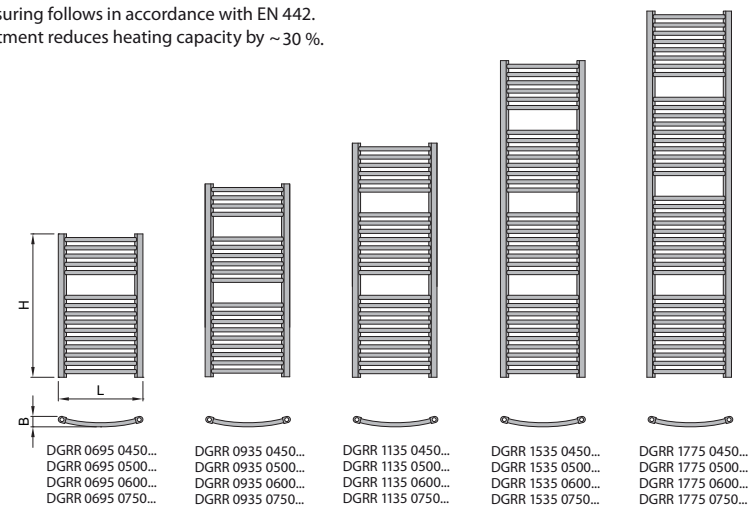


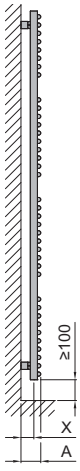
Material	steel profiles D30 × 35 mm / steel pipes ⌀ 20mm
Connection thread	4 × G1/2"
Testing overpressure	1,3 MPa
Max. operating overpressure	1,0 MPa
Max. operating temperature	110 °C
Number of pipes	15, 19, 24, 32, 38

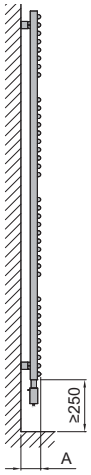
Type H/L [mm]	Depth B [mm]	Weight [kg]	Water capacity [l]	Teplotní exponent [n]	Heating Output 75/65/20°C	70/55/20°C	55/45/20°C	Recommended power input paint [W]	chrome [W]	Connection span [mm]
695 / 450	58	5,3	2,5	1,275	302	245	157	300	200	415
695/50 0	66	5,7	2,7	1,275	331	269	173	300	200	465
695 / 600	86	6,6	3,1	1,275	389	316	203	400	300	565
695 / 750	75	7,9	3,6	1,275	470	382	245	500	300	715
935 / 450	58	7,1	3,4	1,271	396	322	207	400	300	415
935 / 500	66	7,7	3,6	1,271	434	353	227	400	300	465
935/60 0	86	8,9	4,1	1,271	510	415	266	500	400	565
935 / 750	75	10,6	4,9	1,271	627	510	328	600	400	715
1135 / 450	58	8,5	4,1	1,267	473	385	247	500	300	415
1135 / 500	66	9,2	4,4	1,267	518	422	271	500	400	465
1135 / 600	86	10,6	5	1,267	609	496	319	600	400	565
1135 / 750	75	12,7	5,9	1,267	753	613	394	700	500	715
1535 / 450	58	11,4	5,5	1,266	638	520	334	600	400	415
1535 / 500	66	12,3	5,9	1,266	700	570	367	700	500	465
1535 / 600	86	14,2	6,7	1,266	823	670	431	800	600	565
1535 / 750	75	17,0	7,9	1,266	1007	819	527	1000	700	715
1775 / 450	58	13,4	6,4	1,263	759	618	398	700	500	415
1775 / 500	66	14,5	6,9	1,263	832	678	436	800	600	465
1775 / 600	86	16,7	7,8	1,263	978	796	513	1000	700	565
1775 / 750	75	20,1	9,3	1,263	1189	968	623	1200	800	715

Thermal power measuring follows in accordance with EN 442.
Chrome surface treatment reduces heating capacity by ~30 %.









length	A	X
450	103-113	61-71
500	104-114	54-64
600	103-113	32-42
750	121-131	62-72

GRENADA

Material	steel profiles D30 × 35 mm / steel pipes ∅20mm
Connection thread	4 × G1/2"
Testing overpressure	1,3 MPa
Max. operating overpressure	1,0 MPa
Max. operating temperature	110 °C
Number of pipes	15, 19, 24, 32, 38

Type H/L [mm]	Depth B [mm]	Weight [kg]	Water capacity [l]	Teplotní exponent [n]	Heating Output 75/65/20°C	70/55/20°C	55/45/20°C	Recommended power input paint [W]	chrome [W]	Connection span [mm]
695 / 450	30	5,2	2,5	1,270	298	242	156	300	200	415
695/50 0	30	5,6	2,7	1,270	327	266	171	300	200	465
695 / 600	30	6,5	3,0	1,270	384	312	201	400	300	565
695 / 750	30	7,9	3,6	1,226	462	379	247	500	300	715
935 / 450	30	7,0	3,3	1,269	391	318	204	400	300	415
935 / 500	30	7,5	3,6	1,269	429	349	224	400	400	465
935/60 0	30	8,7	4,1	1,269	504	410	264	500	400	565
935 / 750	30	10,5	4,8	1,269	612	498	320	600	500	715
1135 / 450	30	8,4	4,0	1,269	467	380	244	500	300	415
1135 / 500	30	9,0	4,3	1,269	512	417	268	500	400	465
1135 / 600	30	10,4	4,9	1,269	602	490	315	600	400	565
1135 / 750	30	12,6	5,7	1,226	742	608	396	700	500	715
1535 / 450	30	11,2	5,4	1,268	632	514	331	600	400	415
1535 / 500	30	12,1	5,8	1,268	693	564	363	700	500	465
1535 / 600	30	13,9	6,5	1,268	815	663	427	800	600	565
1535 / 750	30	16,9	7,7	1,226	991	812	530	1000	700	715
1775 / 450	30	13,1	6,3	1,267	739	601	387	700	500	415
1775 / 500	30	14,2	6,8	1,267	810	659	424	800	600	465
1775 / 600	30	16,4	7,7	1,267	952	775	498	1000	700	565
1775 / 750	30	19,9	9,1	1,226	1170	959	625	1200	800	715

Thermal power measuring follows in accordance with EN 442.
Chrome surface treatment reduces heating capacity by ~ 30 %.

DGRE 0695 0450...
DGRE 0695 0500...
DGRE 0695 0600...
DGRE 0695 0750...

DGRE 0935 0450...
DGRE 0935 0500...
DGRE 0935 0600...
DGRE 0935 0750...

DGRE 1135 0450...
DGRE 1135 0500...
DGRE 1135 0600...
DGRE 1135 0750...

DGRE 1535 0450...
DGRE 1535 0500...
DGRE 1535 0600...
DGRE 1535 0750...

DGRE 1775 0450...
DGRE 1775 0500...
DGRE 1775 0600...
DGRE 1775 0750...

GENERAL INFORMATION ON ISAN RADIATORS

Radiator heating bodies being usually made of steel profiles and tubes are constructed for bathroom and living room heating as well as for operation in all heating systems of housing and series constructions using only treated water as heating medium in forced circulation.

SURFACE TREATMENT

The procedure of surface treatment follows under a strict respect to environmental regulations. The aim is to ensure long-term corrosion resistance, mechanical ruggedness and hygienic compatibility. Radiators ground with sand blast and degreased have been coated with iron phosphate and varnish.
Finish coat is fired powder epoxy-polyester varnish in standard shape snow-white, RAL 9016. For other surcharged shades, see ISAN Colour Atlas. Chromium-plate is only possible in marked types. Chrome coat has been applied on a finished product by the way of electro plating.

PACKING & INSTALLATION

The assembling kit contains elements for installation on the wall and assembly instructions. Radiator anchoring follows by means of consoles in 3 or 4 points. Kit elements: concrete number of consoles, 1 air release valve, 1 dummy plug, screws and masonry expanding plugs in number complying with consoles. Radiators are packed in three-layer- cardboard-cases with plastic corner protection and fixed by shrink foil. Heaters equipped with electric bar bearing an electronic regulator have special packing eliminating a damage of the regulator plastic case.

PERIOD OF RISK

The warranty applies to malfunctions and faults, which have appeared within the period of risk. The period of risk for all radiator variants (varnish, chrome, stainless steel) amounts to five (5) years from the date of delivery. The period of risk for electric bar bearing an electronic regulator amounts to two (2) years from the purchase date. Repairs of electric heaters within the period of risk shall only be performed in a place agreed upon.

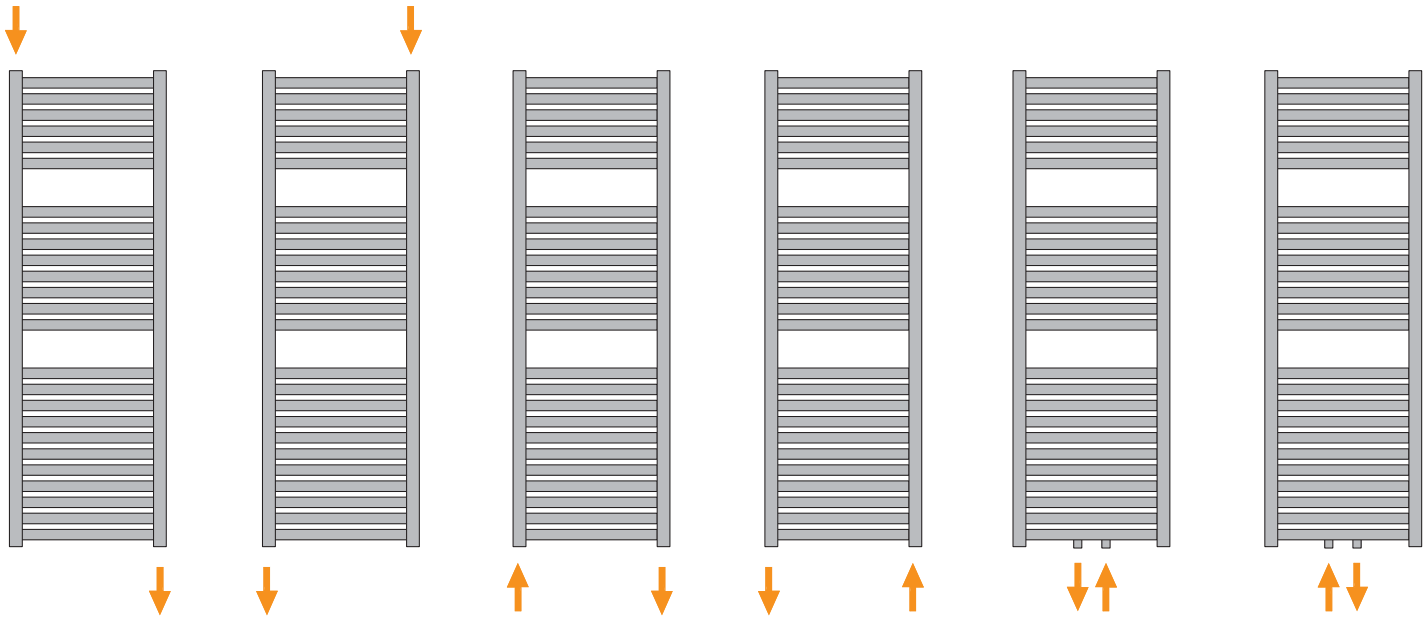
CUSTOMER LOOSES ANY CLAIM FOR WARRANTY SERVICE IN CASE THAT THE HEATING BODY WAS

- installed in a building, facility or room with high humidity, such as public W C, car washing room, stable, cowshed, indoor swimming pool and the like;
- stored outdoor or under a temperature lower than – 5 ° C;
- damaged by inside corrosion due to unsuitable chemical composition of the heating medium, having caused a leaking;
- deformed due to inappropriate transport or exceeding of working pressure maximum;
- damaged mechanically or due to inappropriate handling by customer or carrier;
- damaged willingly or when defaults appeared due to a natural disaster or other impact;
- used and kept in operation in spite of the claimed default, whereas the usage of so faulty product has inflicted the state thereof in so far that the claimed default cannot be assessed accordingly;
- unprofessionally installed or when a modification has followed without prior seller's consent;
- used for other than the intended purpose, such as for drying of wet textiles directly on the convector body, which has lead to damage of the surface treatment;
- damaged by using of unsuitable cleaners, not recommended for the given radiator surface;
- purchased against a reduced price due to a default, the customer was noticed of.

Any warranty claim shall be refused, if the Warranty Certificate is not filled in, shows unauthorized changes or is not available. The warranty does not apply to unordinary wear and tear. If no default caused by the manufacturer is found out, the warranty conditions are taken as unfulfilled and costs connected with experts' travel shall be borne by customer. Products being the objects of claim and sent to manufacturer by postal service shall be possibly delivered in original packing or dully packed, to eliminate any further damage due to transportation. Damages caused by such transportation of a claimed product shall not be taken in consideration.

HEATING POWER & CONNECTION

Heating power changes in dependence on heater's interconnection in the heating system. Lower connection downwards decreases heating power by ~ 10 %, upper connection upwards should be totally eliminated. Heating power also changes in dependence on heater's placing (e.g. when installed in other than peripheral wall), position or using of coverings and different window sills. Chromium-plate as surface treatment reduces heating power by nearly ~ 30 %. Connection alternations are available as per special orders



REGULATION UNITS

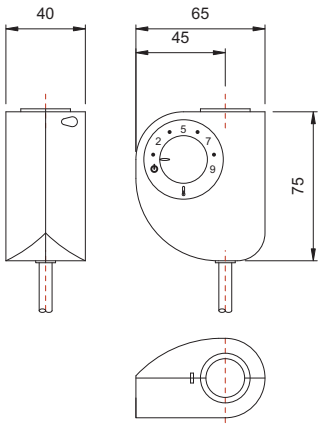
MINI and FORTE thermostats are attached to the heating rod and are set after the radiators are installed with heating rods. TVR1 is inserted with the heating rod and is installed together with the radiator.

MINI

A basic heat regulator with a thermostat. The dial is used to regulate the temperature to between 7 and 35°C. In the lowest pos ition the thermostat is deactivated, in the highest position it is constantly on. Installation on the lower right conductor (on the left for KORO, KORO EXTRA).

Technical data:

Working voltage: ..... 230V/50 Hz
Max. output of the heating rod ..... 2000 W
Protection category: I
Protection: IPX4
Working temperature ..... 0–50 °C
Working humidity: ..... 0–85 % (without condensation)
Temperature range ..... 15–30 °C
Connection thread: .... G1/2" outer (on the heating rod)
Connection : .... straight electric flex 120 cm ended by plug
Color: .....White (White flex)
..... Silver (Grey flex)
Zone: 3

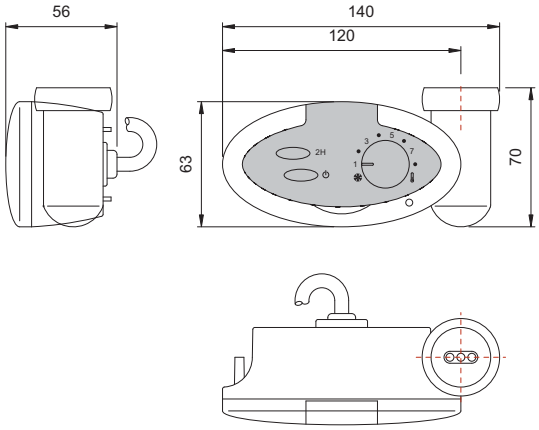


FORTE

A basic heat regulator with a thermostat. The dial is used to regulate the temperature to between 7 and 35°C. In the lowest position the thermostat is deactivated, in the highest position it is constantly on. Installation on the lower right conductor (on the left for KORO, KORO EXTRA).

Technical data:

Working voltage: ..... 230V/50 Hz
Max. output of the heating rod ..... 2000 W
Protection category: I
Protection: IPX4
Working temperature ..... 0–50 °C
Working humidity: ..... 0–85 % (without condensation)
Temperature range ..... 7 °C, 15–30 °C
Connection thread: .... G1/2" outer (on the heating rod)
Connection : .... straight electric flex 120 cm ended by plug
Color: .....White (White flex)
..... Silver (Grey flex)
Zone: 3

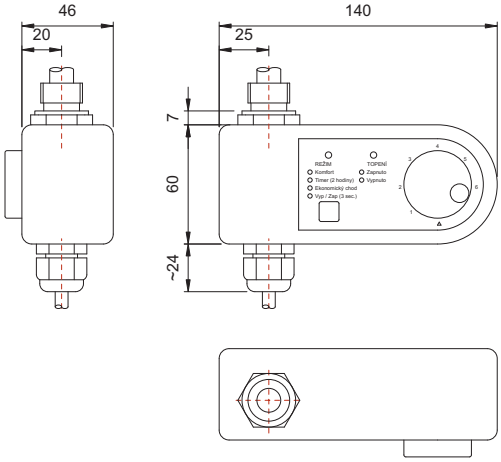


TVR1

Thermostat with a multifunction button and a dial for setting temperatures from 18 to 25°C. The thermostat is activated by pressing the button for 3 seconds. The required regime is set by pressing the button again as follows: Komfort – LED is green
Timer – thermostat is set for 2 hours at full power – LED is red along with the HEATING LED, then it returns to its original setting
Economy – the LED flashes green, it will heat approx. 3.5°C less than the dial setting.
The HEATING diode is red whilst the rod is heating the heating medium. The thermostat is deactivated by pressing the button for 3 seconds.
Installation on the lower left of the conductor (on the right for KORO, KORO EXTRA).

Technical data:

Working voltage: ..... 230V/50 Hz
Max. output of the heating rod ..... 2000 W
Protection category: I
Protection: IP44
Working temperature ..... 0–50 °C
Working humidity: ..... 0–85 % (without condensation)
Temperature range ..... 18–25 °C
Connection thread: .... G1/2" outer (on the heating rod)
Connection : .... straight electric flex 120 cm ended by plug
Color: .....White (White flex)
..... Graphit (Grey flex)
Zone: ..... 2 a 3



ELECTRICAL CONNECTIONS

The chosen type of radiator marked with a symbol can be operated as a separate electric or combined heating radiator. The radiator is fitted with a heating rod of the appropriate output and a regulation unit.

ELECTRIC RADIATORS

Electric radiators come with a preinstalled heating rod, the radiator is filled with anti-corrosive antifreeze fluid (effective up to –5 °C) and is tested and sealed. The radiator can be used immediately after being purchased and correctly installed.

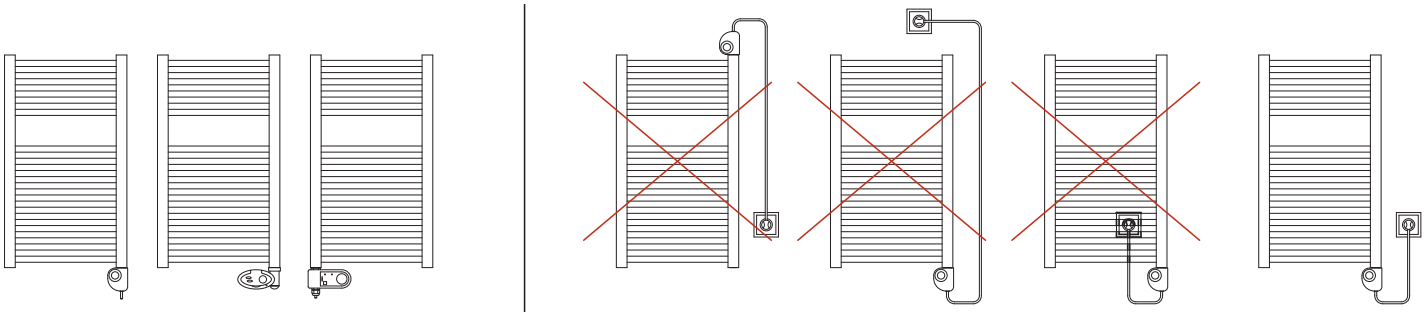
COMBINED RADIATORS

The radiator comes with the basic apparatus. The heating rod and thermostat are enclosed. The unit includes a chrome T-piece for connection to the heating system. The thermostatic valve is installed on the opposite side to the thermostat. When operated electrically it is necessary to close the thermostatic valve so the hot water does not leak into the heating system.

PROPORTIONING THE HEATING ROD

The proportion of the heating rod is as close as possible to the power in the heating system at temperatures of 75/65/20°C.

PROPORTIONING THE HEATING ROD

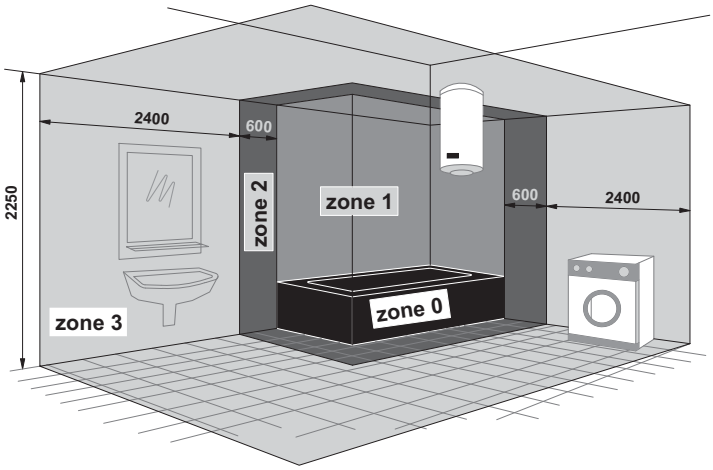


LOCATION OF THE ELECTRIC RADIATOR IN THE BATHROOM

Electric bathroom radiators and combined heating radiators shall be positioned in zones 2 and 3 (in accordance with EN norms). Electric radiator can be connected only to nominal voltage 230 V 50/60 Hz to corresponding socket in compliance with EN norms.

Radiators fitted with individual rods can be placed as high as the given protection zones allow:

MINI	protection IPX4	zone 3
FORTE	protection IPX4	zone 3
TVR1	protection IP44	zone 2 and 3

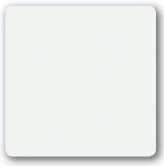


BASIC RULES FOR INSTALLATION AND USING ELECTRIC AND COMBINED RADIATORS

- The thermostat must be installed in a vertical position with the mains line attached from below
- The output of the heating rod is selected based on the recommendations for the individual radiator. The use of heating rods with a higher output does not increase the thermal output, on the contrary it shortens its lifespan
- The radiator binding plugs must not be loosened
- Radiators intended for bathrooms must be installed so that persons in the bath or shower cannot touch the contact makers or other control appliances. Incorrect installation could damage the appliance or cause electric shock or burns
- The radiator must not be placed directly below a plug socket. The suitability of the plug socket should be tested by a professional electrician
- The radiator must be installed at least 25 cm from the floor.
- The relevant national legislation should be observed when assembling the radiator outside of the Czech Republic.
- Thermostats are connected to the 230V 50Hz electrical mains using a movable terminal with a plug and normalized socket installed pursuant to ČSN. The appliance must be protected by a (differential) fuse with a 30 mA release current.
- Protection against electric shock must be provided pursuant to national legislation
- Should the appliance be permanently attached to the mains a circuit breaker must be fitted to the thermostat terminal and be accessible for servicing.
- Connection to the electrical mains and testing of correct installation must be performed by a professional electrician.

ISAN REFERENCE COLOUR ATLAS

color line:	RAL9016
tint:	snow-white
surface:	-
extra charge:	-
ordering code:	01



color line:	RAL9010
tint:	white
surface:	-
extra charge:	-
ordering code:	02

color line:	RAL9001
tint:	ivory
surface:	-
extra charge:	10 %
ordering code:	04

color line:	RAL1015
tint:	jasmín
surface:	-
extra charge:	10 %
ordering code:	12

color line:	S09
tint:	snow-white
surface:	texture
extra charge:	20 %
ordering code:	68

color line:	S08
tint:	ivory
surface:	texture
extra charge:	20%
ordering code:	67

color line:	S07
tint:	bamboo
surface:	-
extra charge:	20 %
ordering code:	66

color line:	S06
tint:	sunshine
surface:	texture
extra charge:	20 %
ordering code:	65

color line:	S04
tint:	gold
surface:	metallic
extra charge:	30 %
ordering code:	63

color line:	S18
tint:	curry
surface:	texture
extra charge:	20 %
ordering code:	77

color line:	S16
tint:	chilli
surface:	-
extra charge:	20 %
ordering code:	75

color line:	S17
tint:	firebrick
surface:	texture
extra charge:	20 %
ordering code:	76

color line:	S13
tint:	sandstone
surface:	texture
extra charge:	20 %
ordering code:	72

color line:	S14
tint:	rush
surface:	texture
extra charge:	20 %
ordering code:	73

color line:	RAL6019
tint:	pistachio
surface:	-
extra charge:	10 %
ordering code:	45

color line:	S12
tint:	ice
surface:	texture
extra charge:	20 %
ordering code:	71

color line:	S11
tint:	blue sky
surface:	-
extra charge:	20 %
ordering code:	70

color line:	S15
tint:	steel blue
surface:	-
extra charge:	20 %
ordering code:	74

color line:	S20
tint:	transparent lack
surface:	-
extra charge:	20 %
ordering code:	84

color line:	S03
tint:	copper
surface:	metallic
extra charge:	30 %
ordering code:	62

color line:	S19
tint:	brass
surface:	-
extra charge:	20 %
ordering code:	83

color line:	S01
tint:	aluminium
surface:	metallic
extra charge:	30 %
ordering code:	60

color line:	S05
tint:	silver
surface:	metallic
extra charge:	30 %
ordering code:	64

color line:	RAL9006
tint:	grey
surface:	-
extra charge:	10 %
ordering code:	20

color line:	RAL7024
tint:	dark grey
surface:	-
extra charge:	10 %
ordering code:	39

color line:	RAL8017
tint:	chocolate
surface:	-
extra charge:	10 %
ordering code:	46

color line:	S10
tint:	slate
surface:	texture
extra charge:	20 %
ordering code:	69

color line:	S02
tint:	anthracit
surface:	metallic
extra charge:	30 %
ordering code:	61

color line:	RAL9005
tint:	black
surface:	-
extra charge:	10 %
ordering code:	19

CHROME:	satin
same price like chrome	
ordering code:	82

INOX:	stainless steel
prices are listed with the individual radiator types	
ordering code:	81

CHROME:	
chrome prices are listed with the individual radiator types	
ordering code:	80

ABOUT ISAN

Isan Radiátory s.r.o. is the biggest manufacturer of bathroom tubular radiators in the Czech Republic, exporting about 90% of its production, supplying mainly the European Community markets. ISAN trade mark represents a traditional supplier with over 50 years' experience delivering a broad range of ISAN MELODY bathroom and design radiators, ISAN EXACT radiating convectors and lamellar radiators, ISAN EXACT ECOLITE convectors with lamellar exchangers, ISAN TERMO and ISAN OPLFLEX floor convectors, ISAN ATOL element radiators and ISAN SPIRAL finned tube radiators. Top modern technological procedures and progressive thinking of the Company's staff guarantee design and technical parameters of the best quality. ISAN is a specialist for manufacturing of radiators tailored to customer's needs and wishes.
ISAN's policy is primarily focused to customer's satisfaction. Ecological processing with greatest respect to environmental protection is taken for granted. The Company has introduced and maintains Quality Management System as per the ISO 9001:2008 standard. All the heating bodies comply with certification demands according to the actual rigorous legislative standards applicable in the supplied countries. Certification procedure for territory of the Czech Republic was performed by Strojírenský zkušební ústav (Engineering Testing Institute), Brno, a notificated body ES1015.

Kan kombineras med etthålsventil från MMA

Användningsområden

RFA 38/VBB används till radiatorer, konvektorer och handdukstorkar. OBS! används ej på VVC-system.
Ventilerna kan regleras med termostat eller handratt M28x1,5 (se flik 2).

Beskrivning

RFA 38 har dold förinställning under packboxen. Injustering av 2-rörssystem görs med nyckel FN2 eller förinställningsverktyg FV5 (se baksidan). Ventilen har anslutning M22x1,5 mot rörsystemet. Insticksnippelns anslutning mot radiatorn är R1/2". Ventilen levereras som 2-rörsventil men kan ställas om till 1-rörs. Tag då bort den blå plastproppen från by-passventilen och skruva ut käglan med en 2,5 mm insexnyckel. Med by-passventilen ställer man in fördelningen mellan radiatorn och by-pass (se baksidan). Ventilens retur stängs av med en spindel under locket och tilloppet stängs av med termostat eller handratt.
Vid avstängning stängs inte by-passen.

Måttuppgifter

	A	c/c
RFA 38	58	40

Teknisk data

Tryckklass
PN10

Max differenstryck (stängningstryck)
150 kPa

Max vattentemperatur
100° C

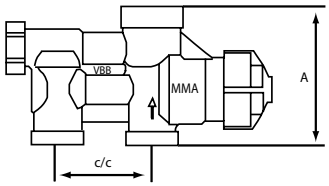
Min vattentemperatur
0°C

Material
Mässing, EPDM-gummi, rostfritt stål

Vid 2-rörs

K_V-värde	K_{VS}-värde
0,01-0,7	1,2

Vikt
350 g



THE FOLLOWING SYMBOLS REPRESENT

- radiator to be connected to central heating system
- combined heating radiators can also be used for connection to central heating system and also for electric heating
- electric radiator
- middle connection option (if not covered in the standard version)
- optional chrome surface treatment design
- accessories
- side connection
- bevelling
- one-sided spatial fixing