

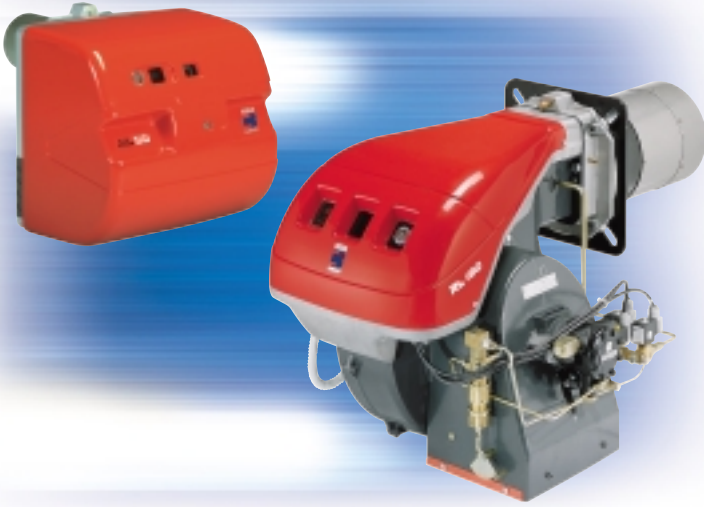


CE

TWO STAGE LIGHT OIL BURNERS

▶ RL SERIES

▶ RL 28	90/166 ÷ 332 kW
▶ RL 38	118/237 ÷ 450 kW
▶ RL 50	148/296 ÷ 593 kW
▶ RL 70	255/474 ÷ 830 kW
▶ RL 100	356/711 ÷ 1186 kW
▶ RL 130	486/948 ÷ 1540 kW
▶ RL 190	759/1423 ÷ 2443 kW



The RL series of burners covers a firing range from 90 to 2443 kW, and they have been designed for use in hot or superheater water boilers, hot air or steam generators, diathermic oil boilers.

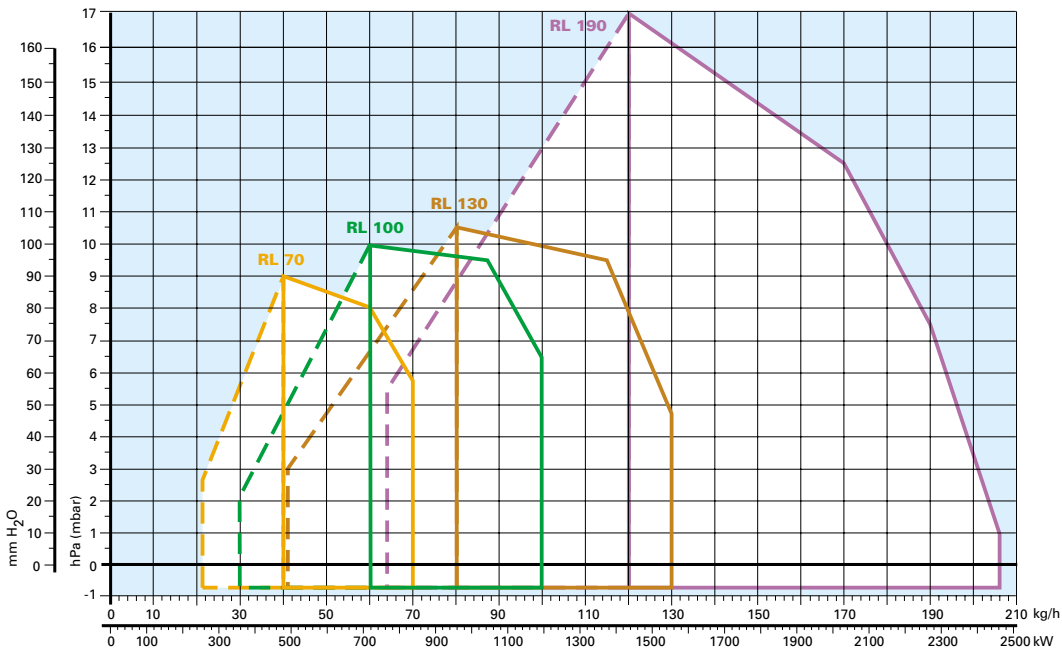
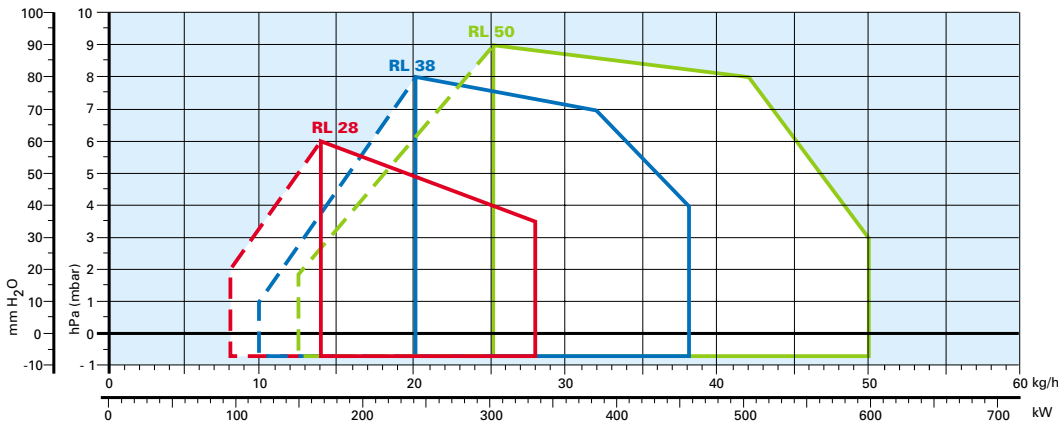
Operation is "two stage"; the burners are fitted with an electronic device which supplies complete diagnostic: hour meter, ignition meter, identification of trouble shooting.

Optimisation of sound emissions is guaranteed by the use of fans with forward inclined blades and sound deadening material incorporated in the air suction circuit. The elevated performance of the

fans and combustion head, guarantee flexibility of use and excellent working at all firing rates.

The exclusive design ensures reduced dimensions, simple use and maintenance. A wide range of accessories guarantees elevated working flexibility.

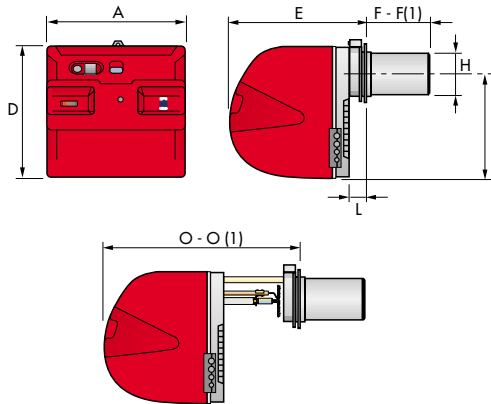
FIRING RATES



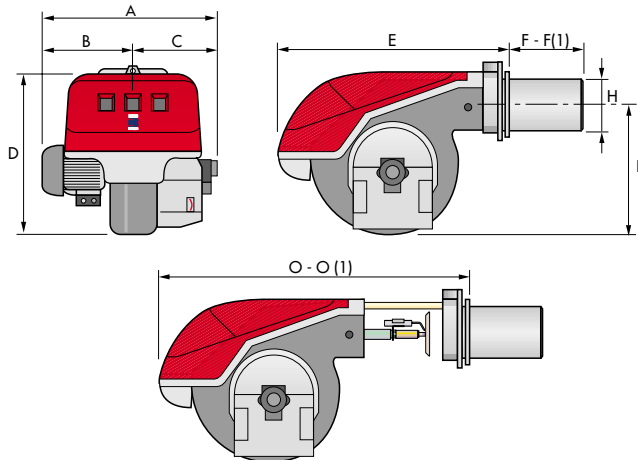
RL series - OVERALL DIMENSIONS (mm)

BURNER

RL 28 - 38 - 50



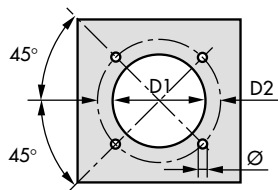
RL 70 - 100 - 130 - 190



Model	A	B	C	D	E	F - F (1)	H	I	L	O - O (1)
▶ RL 28	476	-	-	474	468	216 - 351	140	352	52	672 - 807
▶ RL 38	476	-	-	474	468	216 - 351	140	352	52	672 - 807
▶ RL 50	476	-	-	474	468	216 - 351	152	352	52	672 - 807
▶ RL 70	580	296	284	555	680	250 - 385	179	430	-	951 - 1086
▶ RL 100	599	312	287	555	680	250 - 385	179	430	-	951 - 1086
▶ RL 130	625	338	287	555	680	250 - 385	189	430	-	951 - 1086
▶ RL 190	756	366	390	555	696	370 -	222	430	-	1102 -

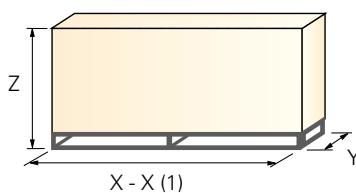
(1) Length with extended combustion head

BURNER - BOILER MOUNTING FLANGE



Model	D1	D2	Ø
▶ RL 28	160	224	M8
▶ RL 38	160	224	M8
▶ RL 50	160	224	M8
▶ RL 70	185	275-325	M12
▶ RL 100	185	275-325	M12
▶ RL 130	195	275-325	M12
▶ RL 190	230	325-368	M16

PACKAGING



Model	X - X (1)	Y	Z	kg
▶ RL 28	760 - 895	540	550	36
▶ RL 38	760 - 895	540	550	38
▶ RL 50	760 - 895	540	550	39
▶ RL 70	960 - 1150	652	600	60
▶ RL 100	960 - 1150	652	600	63
▶ RL 130	960 - 1150	652	600	66
▶ RL 190	1250 -	785	725	75

(1) Length with extended combustion head

RL series - SPECIFICATION

DESIGNATION OF SERIES

Series : R

Fuel : S Natural gas
 L Light oil
 LS Light oil / Natural gas
 N Heavy oil

Size

Operation : /1 One stage
 ... Two stage
 /M Modulating
 /E Electronic cam
 /P Proportioning air/gas valve
 /EV Electronic cam predisposed for variable speed (with inverter)

Emission : ... Class 1 EN267 - EN676
 MZ Class 2 EN267 - EN676
 BLU Class 3 EN267 - EN676
 MX Class 2 EN267
 Class 3 EN676

Head : TC Standard head
 TL Extended head

Flame control system :
 FS1 Standard (1 stop every 24 h)
 FS2 Continuous working (1 stop every 72 h)

Electrical supply to the system :

1/230/50	1/230V/50Hz
3/230/50	3/230V/50Hz
3/400/50	3N/400V/50Hz
3/230/400/50	3/230V/50Hz - 3N/400V/50Hz
1/220-230/60	1/220-230V/60Hz
3/220-230/380-400/60	3/220-230V/60Hz - 3/380-400V/60Hz
3/254-265/440-460/60	3/254-265V/60Hz - 3/440-460V/60Hz

Auxiliary voltage :
 230/50-60 230V/50-60Hz
 110/50-60 110V/50-60Hz

ID : Differential switch

R	L	50			TC	FS1	3/230-400/50	230/50-60	
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BASIC DESIGNATION

EXTENDED DESIGNATION

► **RL series - STATE OF SUPPLY**

Monoblock forced draught oil burner, two stage operation, made up of:

- Air suction circuit lined with sound-proofing material
- Fan with reverse curve blades (forward curve blades on the 190 model)
- Air damper for air setting, driven by the adjustable hydraulic ram
- Combustion head, that can be set on the basis of required output
- Gears pump for high pressure fuel supply
- Oil safety valves
- Two oil valves (1st and 2nd stage)
- Photocell for flame detection
- Flame control panel
- Electronic device to check all burners operational modes
- Burner on/off switch
- Manual 1st and 2nd stage switch
- Plugs for electrical connections (RL 28-38-50)
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP 44 electric protection level.

Standard equipment:

- 2 flexible pipes for connection to the oil supply network
- 2 gaskets for the flexible pipes
- 2 nipples for connection to the pump
- 1 thermal screen
- 2 slide bar extensions (for the extended head models and the RL 190 model)
- 4 screws for fixing the burner flange to the boiler
- 3 fairleads for electrical connections (RL 28 and RL 38 single-phase)
- 4 fairleads for electrical connections (RL 38 three-phase and RL 50)
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

RL series - AVAILABLE BURNER MODELS

Code	Model		Heat output		Total electrical power (kW)	Certification	Note	Price
			(kW)	(kg/h)				
3473220	RL 28	TC FS1 1/230/50	230/50-60	90/166-332	8/14/28	0,37	DIN BN 5G224/98	
3473221	RL 28	TL FS1 1/230/50	230/50-60	90/166-332	8/14/28	0,37	DIN BN 5G224/98	
3473222	RL 28	TC FS1 1/230/50	230/50-60	90/166-332	8/14/28	0,37	DIN BN 5G224/98	
3473223	RL 28	TL FS1 1/230/50	230/50-60	90/166-332	8/14/28	0,37	DIN BN 5G224/98	
in progress	RL 28	TC FS1 1/220-230/60	230/50-60	90/166-332	8/14/28	0,37	in progress	
in progress	RL 28	TL FS1 1/220-230/60	230/50-60	90/166-332	8/14/28	0,37	in progress	
3474120	RL 38	TC FS1 1/230/50	230/50-60	118/237-450	10/20-38	0,6	DIN BN 5G225/98	
3474121	RL 38	TL FS1 1/230/50	230/50-60	118/237-450	10/20-38	0,6	DIN BN 5G225/98	
3474122	RL 38	TC FS1 1/230/50	230/50-60	118/237-450	10/20-38	0,6	DIN BN 5G225/98	
3474123	RL 38	TL FS1 1/230/50	230/50-60	118/237-450	10/20-38	0,6	DIN BN 5G225/98	
in progress	RL 38	TC FS1 1/220/230/60	230/50-60	118/237-450	10/20-38	0,6	in progress	
in progress	RL 38	TL FS1 1/200/230/60	230/50-60	118/237-450	10/20-38	0,6	in progress	
3474320	RL 38	TC FS1 3/230/400/50	230/50-60	118/237-450	10/20-38	0,6	DIN BN 5G225/98	
3474321	RL 38	TL FS1 3/230/400/50	230/50-60	118/237-450	10/20-38	0,6	DIN BN 5G225/98	
3474322	RL 38	TC FS1 3/230/400/50	230/50-60	118/237-450	10/20-38	0,6	DIN BN 5G225/98	
3474323	RL 38	TL FS1 3/230/400/50	230/50-60	118/237-450	10/20-38	0,6	DIN BN 5G225/98	
in progress	RL 38	TC FS1 3/220-230/380-400/60	230/50-60	118/237-450	10/20-38	0,6	in progress	
in progress	RL 38	TL FS1 3/220-230/380-400/60	230/50-60	118/237-450	10/20-38	0,6	in progress	
in progress	RL 38	TC FS1 3/254-265/440-460/60	230/50-60	118/237-450	10/20-38	0,6	in progress	
in progress	RL 38	TL FS1 3/254-265/440-460/60	230/50-60	118/237-450	10/20-38	0,6	in progress	
3474620	RL 50	TC FS1 3/230/400/50	230/50-60	148/296-593	12,5/25-50	0,75	DIN BN 5G226/98	
3474621	RL 50	TL FS1 3/230/400/50	230/50-60	148/296-593	12,5/25-50	0,75	DIN BN 5G226/98	
3474622	RL 50	TC FS1 3/230/400/50	230/50-60	148/296-593	12,5/25-50	0,75	DIN BN 5G226/98	
3474623	RL 50	TL FS1 3/230/400/50	230/50-60	148/296-593	12,5/25-50	0,75	DIN BN 5G226/98	
in progress	RL 50	TC FS1 3/220-230/380-400/60	230/50-60	148/296-593	12,5/25-50	0,75	in progress	
in progress	RL 50	TL FS1 3/220-230/380-400/60	230/50-60	148/296-593	12,5/25-50	0,75	in progress	
in progress	RL 50	TC FS1 3/254-265/440-460/60	230/50-60	148/296-593	12,5/25-50	0,75	in progress	
in progress	RL 50	TL FS1 3/254-265/440-460/60	230/50-60	148/296-593	12,5/25-50	0,75	in progress	
3475020	RL 70	TC FS1 3/230/400/50	230/50-60	255/474-830	21,5/40-70	1,4	DIN BN 5G424/99	
3475021	RL 70	TL FS1 3/230/400/50	230/50-60	255/474-830	21,5/40-70	1,4	DIN BN 5G424/99	
3475022	RL 70	TC FS1 3/230/400/50	230/50-60	255/474-830	21,5/40-70	1,4	DIN BN 5G424/99	
3475023	RL 70	TL FS1 3/230/400/50	230/50-60	255/474-830	21,5/40-70	1,4	DIN BN 5G424/99	
in progress	RL 70	TC FS1 3/220-230/380-400/60	230/50-60	255/474-830	21,5/40-70	1,4	in progress	
in progress	RL 70	TL FS1 3/220-230/380-400/60	230/50-60	255/474-830	21,5/40-70	1,4	in progress	
in progress	RL 70	TC FS1 3/254-265/440-460/60	230/50-60	255/474-830	21,5/40-70	1,4	in progress	
in progress	RL 70	TL FS1 3/254-265/440-460/60	230/50-60	255/474-830	21,5/40-70	1,4	in progress	
3475220	RL 100	TC FS1 3/230/400/50	230/50-60	356/711-1186	30/60-100	1,8	DIN BN 5G425/99	
3475221	RL 100	TL FS1 3/230/400/50	230/50-60	356/711-1186	30/60-100	1,8	DIN BN 5G425/99	
3475222	RL 100	TC FS1 3/230/400/50	230/50-60	356/711-1186	30/60-100	1,8	DIN BN 5G425/99	
3475223	RL 100	TL FS1 3/230/400/50	230/50-60	356/711-1186	30/60-100	1,8	DIN BN 5G425/99	
in progress	RL 100	TC FS1 3/220-230/380-400/60	230/50-60	356/711-1186	30/60-100	1,8	in progress	
in progress	RL 100	TL FS1 3/220-230/380-400/60	230/50-60	356/711-1186	30/60-100	1,8	in progress	
in progress	RL 100	TC FS1 3/254-265/440-460/60	230/50-60	356/711-1186	30/60-100	1,8	in progress	
in progress	RL 100	TL FS1 3/254-265/440-460/60	230/50-60	356/711-1186	30/60-100	1,8	in progress	
3475420	RL 130	TC FS1 3/230/400/50	230/50-60	486/948-1540	41/80-130	2,6	DIN BN 5G426/99	
3475421	RL 130	TL FS1 3/230/400/50	230/50-60	486/948-1540	41/80-130	2,6	DIN BN 5G426/99	
3475422	RL 130	TC FS1 3/230/400/50	230/50-60	486/948-1540	41/80-130	2,6	DIN BN 5G426/99	
3475423	RL 130	TL FS1 3/230/400/50	230/50-60	486/948-1540	41/80-130	2,6	DIN BN 5G426/99	
in progress	RL 130	TC FS1 3/220-230/380-400/60	230/50-60	486/948-1540	41/80-130	2,6	in progress	
in progress	RL 130	TL FS1 3/220-230/380-400/60	230/50-60	486/948-1540	41/80-130	2,6	in progress	
in progress	RL 130	TC FS1 3/254-265/440-460/60	230/50-60	486/948-1540	41/80-130	2,6	in progress	
in progress	RL 130	TL FS1 3/254-265/440-460/60	230/50-60	486/948-1540	41/80-130	2,6	in progress	
3475611	RL 190	TC FS1 3/230/400/50	230/50-60	759/1423-2443	64/120-206	5,87	DIN BN 5G861/98	
in progress	RL 190	TC FS1 3/220-230/380-400/60	230/50-60	759/1423-2443	64/120-206	5,87	in progress	
in progress	RL 190	TC FS1 3/254-265/440-460/60	230/50-60	759/1423-2443	64/120-206	5,87	in progress	

Net calorific value: 11,8 kWh/kg - 10200 kcal/kg - Viscosity at 20°C: 4-6 mm²/s (cSt).

The burners of RL series are in according to 89/336 - 73/23 - 92/42 - 89/392 EEC Directive and EN 267 Norm.

WARNING: nozzles are supplied as accessories that must be ordered separately; please refer to the "Burner Accessories" section.

RL series - BURNER ACCESSORIES

Nozzles type 60° B

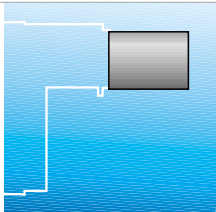


The following list shows the features and codes on the basis of the maximum required fuel output.

NOTE: each burner needs N° 2 nozzles.

Burner	Rated delivery (kg/h) at 12 bar	GPH	Nozzle code	Price
RL 28	8,5	2,00	3042126	
RL 28-38	10,6	2,50	3042140	
RL 28-38-50	12,7	3,00	3042158	
RL 28-38-50	14,8	3,50	3042162	
RL 38-50	17	4,00	3042172	
RL 38-50	19,1	4,50	3042182	
RL 38-50-70	21,2	5,00	3042192	
RL 50-70	23,3	5,50	3042202	
RL 50-70	25,5	6,00	3042212	
RL 50-70	27,6	6,50	3042222	
RL 70-100	29,7	7,00	3042232	
RL 70-100	31,8	7,50	3042242	
RL 70-100	33,9	8,00	3042252	
RL 70-100	36,1	8,50	3042262	
RL 70-100-130	40,3	9,50	3042282	
RL 70-100-130-190	42,4	10,00	3042292	
RL 70-100-130-190	46,7	11,00	3042312	
RL 100-130-190	50,9	12,00	3042322	
RL 100-130-190	55,1	13,00	3042332	
RL 100-130-190	59,4	14,00	3042352	
RL 100-130-190	63,6	15,00	3042362	
RL 100-130-190	67,9	16,00	3042382	
RL 130-190	72,1	17,00	3042392	
RL 130-190	76,4	18,00	3042412	
RL 130-190	80,6	19,00	3042422	
RL 130-190	84,8	20,00	3042442	
RL 190	93,3	22,00	3042462	
RL 190	101,8	24,00	3042472	
RL 190	110,3	26,00	3042482	
RL 190	118,8	28,00	3042492	

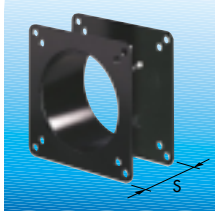
Extended head kit



"Standard head" burners can be transformed into "extended head" versions, by using the special kit.

Burner	Standard head length (mm)	Extended head length (mm)	Kit code	Price
RL 28	216	351	3010073	
RL 38	216	351	3010074	
RL 50	216	351	3010075	
RL 70	250	385	3010114	
RL 100	250	385	3010115	
RL 130	250	385	3010116	
RL 190	370	-	-	

Spacer kit



If burner head penetration into the combustion chamber needs reducing, varying thickness spacers are available, as given in the list:

Burner	Spacer thickness S (mm)	Kit code	Price
RL 28 - 38 - 50	90	3010095	
RL 70 - 100 - 130	135	3010129	
RL 190	110	3000722	

Sound proofing box



If noise emission needs reducing even further, sound-proofing boxes are available.

Burner	Box type	Average noise reduction [dB(A)]	Box code	Price
RL 28 - 38 - 50	C1	8	3000776	
RL 70 - 100 - 130	C3	14	3000778	
RL 190	C4	14	3000779	

Degasing unit



To solve problem of air in the oil sucked, two versions of degasing unit are available.

Burner	Filter	Filtering degree (µm)	Degasing unit code	Price
RL 28 - 38 - 50 RL 70 - 100	With filter	50 - 75	3010055	
RL 28 - 38 - 50 RL 70 - 100	Without filter	-	3010054	

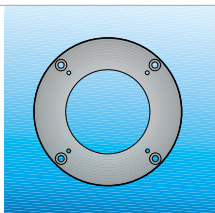
Biodiesel kit



For burning Biodiesel fuel, a special kit is available.

Burner	Kit code	Price
RL 28	3010289	
RL 38	3010290	
RL 50	3010291	
RL 70	3010292	
RL 100	3010358	
RL 130	3010358	
RL 190	-	

Connection flange kit



A kit is available for use where the burner opening on the boiler is of excessive diameter.

Burner	Kit code	Price
RL 28 - 38 - 50	3010138	

RL series - BURNER ACCESSORIES

Interface adapter kit



To connect the flame control panel to a personal computer for the transmission of operation, fault signals and detailed service information, an interface adapter with PC software are available.

Burner	Kit code	Price
RL 28 - 38 - 50 - 70 - 100 - 130 - 190	3002719	

Status panel kit



The RS burners can be equipped with an exclusive electronic device "Status Panel" which continuously monitors and displays all the burner operational modes and picks up any anomalies during the operational cycle.

Burner	Kit code	Price
RL 28 - 38 - 50 - 70 - 100 - 130 - 190	3010322	