

## GAS/2 SERIES

The GAS/2 series of burners covers a firing range from 130 to 3200 kW and they have been designed for use in civil installations of average dimensions, like building areas and large apartment groups or for use in industrial applications, like small or medium plants.

Operation is two stage; the combustion head, that can be set on the basis of required output, allows optimal performance ensuring good combustion and reducing fuel consumption.

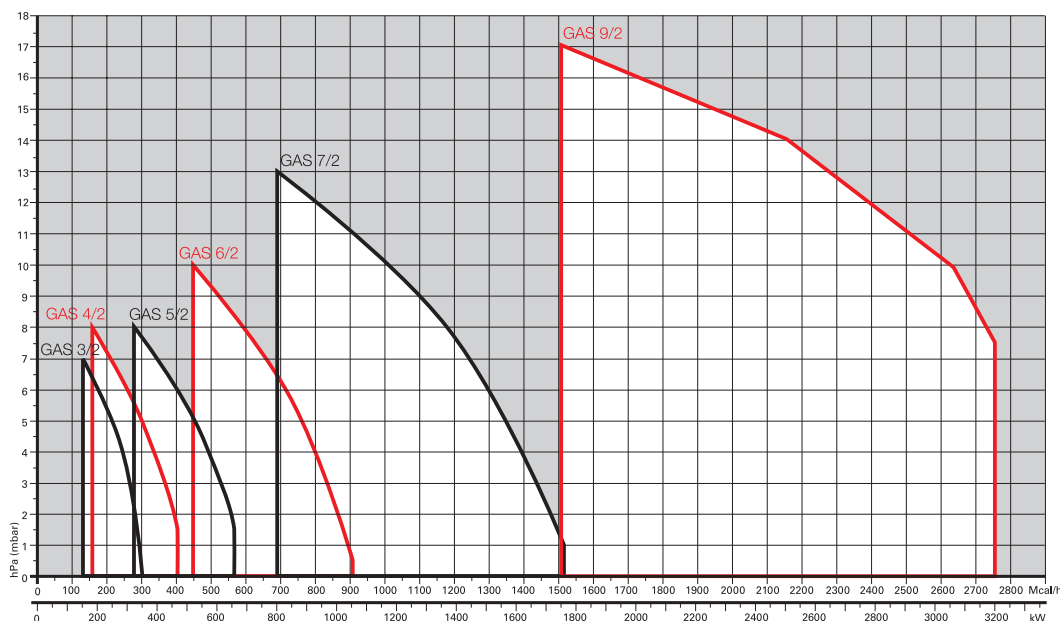
The main feature of these burners is their reliability due to a simple and strong construction, which permits operation without particular maintenance intervention.

Simplified maintenance is achieved by the slide bar system, which allows easy access to all of the essential components of the combustion head. All electrical components are easily accessible only by dismounting a protection panel, thus guaranteeing a quick and simple intervention on components.



<b>GAS 3/2</b>	80/130 ÷	350 kW
<b>GAS 4/2</b>	120/180 ÷	470 kW
<b>GAS 5/2</b>	155/320 ÷	660 kW
<b>GAS 6/2</b>	300/520 ÷	1050 kW
<b>GAS 7/2</b>	400/800 ÷	1760 kW
<b>GAS 9/2</b>	1000/1750 ÷	3200 kW

## FIRING RATES



Useful working field for choosing the burner

Test conditions conforming to EN676  
 Temperature: 20°C  
 Pressure: 1013,5 mbar  
 Altitude: 0 m a.s.l.

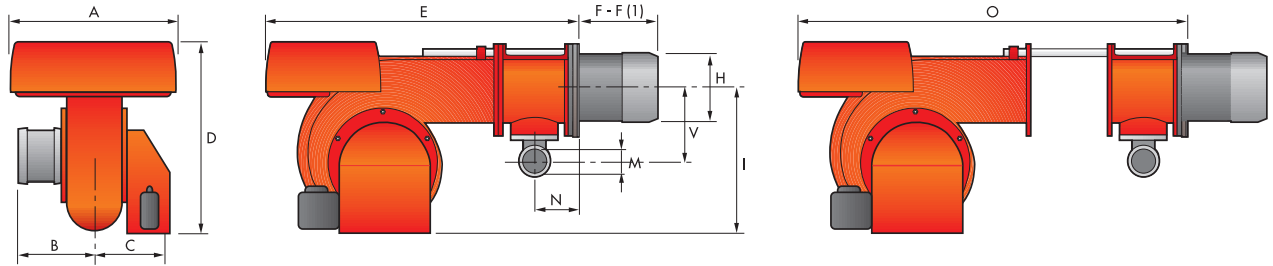
# Two Stage Gas Burners

## GAS/2 SERIES

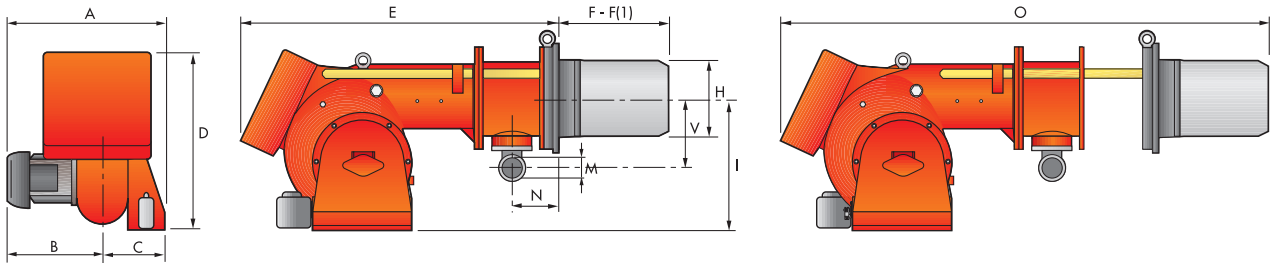
### Overall dimensions (mm)

#### BURNER

GAS 3/2 - 4/2 - 5/2 - 6/2 - 7/2



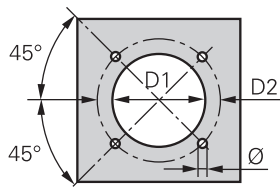
GAS 9/2



MODEL	A	B	C	D	E	F - F (1)	H	I	M	N	O	V
▶ GAS 3/2	410	205	205	397	610	185 - 320	140	292	1 1/2"	97	775	165
▶ GAS 4/2	410	205	205	397	610	187 - 320	150	292	1 1/2"	97	775	165
▶ GAS 5/2	431	226	205	437	645	207 - 365	155	332	1 1/2"	97	810	165
▶ GAS 6/2	463	258	205	485	770	227 - 360	175	370	2"	131	966	195
▶ GAS 7/2	606	358	248	590	920	240 - 400	220	445	2"	140	1142	245
▶ GAS 9/2	780	445	335	680	1200	444 - 574	295	495	2"	168	1627	210

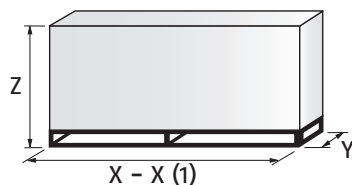
(1) Length with extended combustion head

#### BURNER - BOILER MOUNTING FLANGE



MODEL	D1	D2	Ø
▶ GAS 3/2	155	226	M10
▶ GAS 4/2	165	226	M10
▶ GAS 5/2	165	226	M10
▶ GAS 6/2	185	276	M12
▶ GAS 7/2	230	325	M12
▶ GAS 9/2	300	368	M18

#### PACKAGING

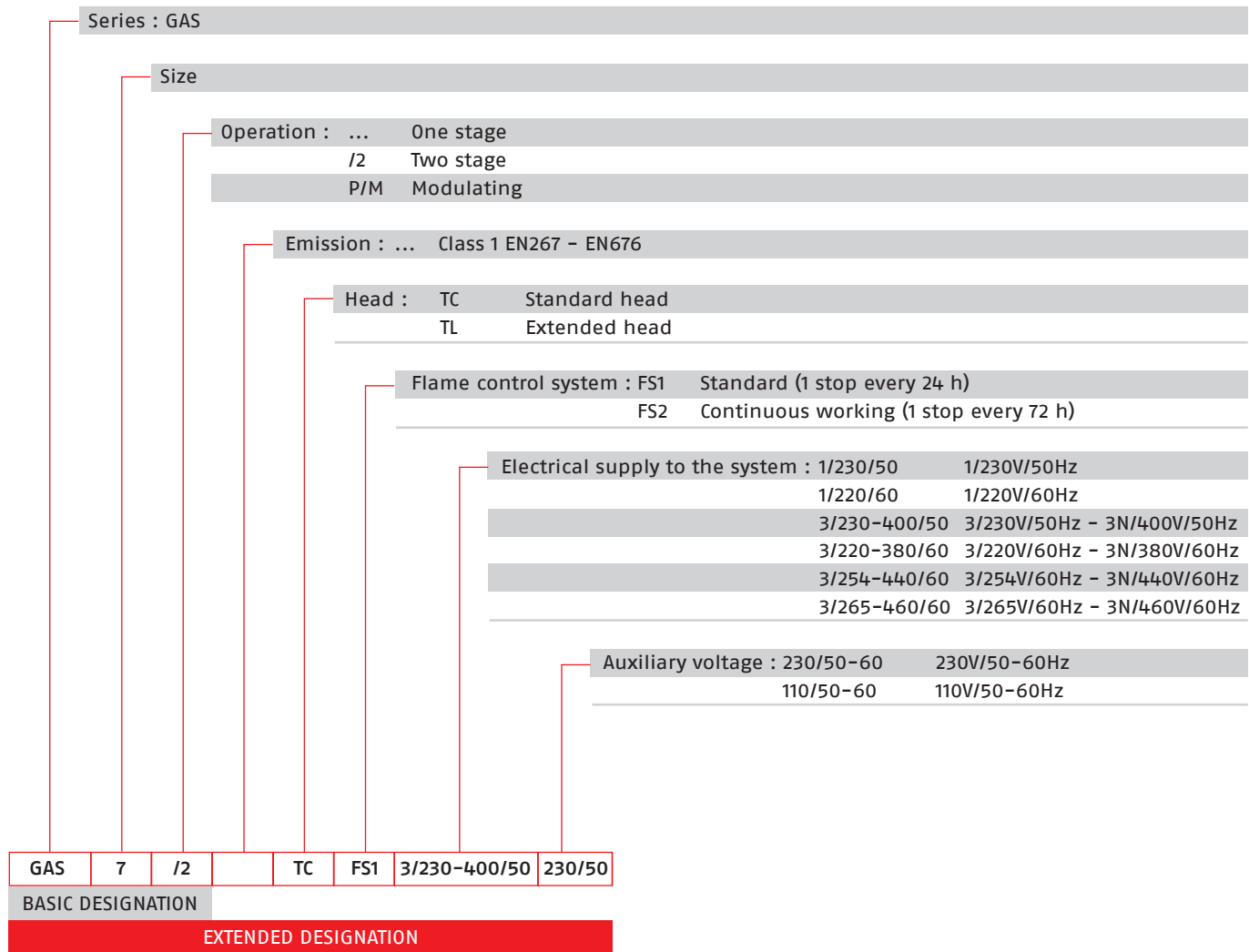


MODEL	X - X (1)	Y	Z	kg
▶ GAS 3/2	850	545	473	34
▶ GAS 4/2	850	545	473	40
▶ GAS 5/2	895	543	520	43
▶ GAS 6/2	1045	543	555	60
▶ GAS 7/2	1400	850	650	98
▶ GAS 9/2	1870	920	910	240

(1) Length with extended combustion head

## Specification

### DESIGNATION OF SERIES



# Two Stage Gas Burners

## GAS/2 SERIES

### Specification

#### STATE OF SUPPLY

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

- Air suction circuit
- Fan with forward curved blades
- Air damper for air setting
- Combustion head, that can be set on the basis of required output, fitted with:
  - stainless steel end cone, resistant to corrosion and high temperatures
  - ignition electrodes
  - flame stability disk
- Minimum air pressure switch
- Single phase or three phases electrical motor
- Microprocessor-based burner safety control box, with diagnostic function
- Flame inspection window
- Slide bars for easier installation and maintenance
- Protection filter against radio interference
- IP X0D (IP 40) protection level.

#### Standard equipment:

- 1 gas train flange
- 1 flange gasket
- 1 insulating screen
- 8 screws for fixing the burner flange to the boiler
- Instruction handbook for installation, use and maintenance
- Spare parts catalogue.

### Available models

#### Burners

CODE	MODEL		HEAT OUTPUT		TOTAL ELECTRICAL POWER (kW)	CERTIFICATION	NOTE
			NATURAL GAS (kW)	(Nm <sup>3</sup> /h)			
3752182	GAS 3/2	TC FS1 1/220/60 220/60	80/130-340	8/13-34	0,4	-	
3752118	GAS 3/2	TC FS1 1/230/50 230/50	80/130-350	8/13-35	0,4	CE 0085AQ0707	
3752218	GAS 4/2	TC FS1 1/230/50 230/50	120/180-470	12/18-47	0,54	CE 0085AQ0707	
3752282	GAS 4/2	TC FS1 3/220-380/60 220/60	115/180-470	11,5/18-47	0,6	-	
3752382	GAS 5/2	TC FS1 3/220-380/60 220/60	155/320-660	15,5/32-66	1,1	-	
3752318	GAS 5/2	TC FS1 3/230-400/50 230/50	155/320-660	15,5/32-66	0,85	CE 0085AQ0707	
3752482	GAS 6/2	TC FS1 3/220-380/60 220/60	300/520-1050	30/52-105	1,9	-	
3752418	GAS 6/2	TC FS1 3/230-400/50 230/50	300/520-1050	30/52-105	1,7	CE 0085AQ0707	
3752582	GAS 7/2	TC FS1 3/220-380/60 220/60	400/800-1760	40/80-176	3,8	-	
3752518	GAS 7/2	TC FS1 3/230-400/50 230/50	400/800-1760	40/80-176	3,4	CE 0085AQ0707	
20014057	GAS 9/2	TC FS1 3/230-400/50	1000/1750-3200	100/175-320	9	-	
20014058	GAS 9/2	TL FS1 3/230-400/50	1000/1750-3200	100/175-320	9	-	
on demand	GAS 9/2	TC FS1 3/254-440/60	1000/1750-3200	100/175-320	9	-	
on demand	GAS 9/2	TL FS1 3/254-440/60	1000/1750-3200	100/175-320	9	-	

Natural gas G20 net calorific value: 10 kWh/Nm<sup>3</sup> - Density gas G20: 0,71 kg/Nm<sup>3</sup>

The burners of GAS/2 series are in according to 2009/142 - 2004/108 - 2006/95 - 2006/42 EC Directive and EN 676 Norm.

## Available models

### Gas Trains

CODE	GAS TRAIN			VPS CODE	ADAPTER CODE						
	MODEL	Ø	C.T.		GAS 3/2	GAS 4/2	GAS 5/2	GAS 6/2	GAS 7/2	GAS 9/2	
3970084*	MB 405/2 - RSD 20	Rp 1/2"	-	3010123	20044756		●	●	●	●	
3970537*	MB 407/2 - RSD 20	Rp 3/4"	-	3010123	3000824			●	●	●	
3970556*	MB 407/2 - RT 20	Rp 3/4"	-	3010123				●	●	●	
3970534*	MB 410/2 - RSD 20	Rp 3/4"	-	3010123				3000824+		●	●
3970557*	MB 410/2 - RT 20	Rp 3/4"	-	3010123				3000843		●	●
3970152*	MB 412/2 - RT 20	Rp 1" 1/2	-	3010123	-	-	-	3000843		●	
3970183*	MB 415/2 - RT 20	Rp 1" 1/2	-	3010123	-	-	-	3000843		●	
3970184*	MB 420/2 - RT 20	Rp 2"	-	3010123	3000822			-	-	●	
3970185**	MB 420/2 CT RT 20	Rp 2"	◆	-				-	-	-	-
3970153*	CB 512/2 - RT 32	Rp 1" 1/2	-	3010125	-	-	-	3000843			
20045590**	CB 512/2 CT RT 32	Rp 1" 1/2	◆	-	-	-	-	3000843			
3970154*	CB 520/2 - RT 32	Rp 2"	-	3010125	3000822			-	-	-	
20045591**	CB 520/2 CT RT 32	Rp 2"	◆	-				-	-	-	-
3970155*	CB 5065/2 - FT 32	DN 65	-	3010123	●	3000825					
3970167**	CB 5065/2 CT FT 32	DN 65	◆	-	●						
3970156*	CB 5080/2 - FT 32	DN 80	-	3010123	●	●	3000826+	3000826			
3970168*	CB 5080/2 CT FT 32	DN 80	◆	-	●	●	3000822				
3809901	CBF 65/2	DN 65	◆	-	●	●	●	●	●	●	
3809902	CBF 80/2	DN 80	◆	-	●	●	●	●	●	●	

Please see designation of Gas Train Series in the page before the Catalogue index.

\* 230V/50Hz -220V/60Hz electrical supply.

\*\* 230V/50Hz electrical supply.

The valve seal control device is compulsory (conforming to EN 676) on gas trains to burners with a maximum output over 1200 kW.

To select the gas train please refer to the technical data leaflet and/or instruction manual.

C.T. Gas leak detection control device:

- gas train not equipped with leak detection control device; this device can be ordered separately - see VPS column - and installed later.

◆ gas train equipped with leak detection control device.

VPS Valve leak detection control device. Supplied separately from the gas train (please see Gas train accessories paragraph for both 50 Hz and 60 Hz codes).

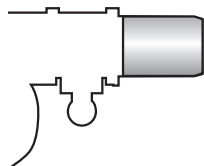
● Not available.

# Two Stage Gas Burners

## GAS/2 SERIES

### Burner accessories

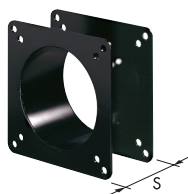
#### Extended head kit



"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
▶ GAS 3/2	185	320	3000605
▶ GAS 4/2	187	320	3000606
▶ GAS 5/2	207	365	3000607
▶ GAS 6/2	227	360	3000608
▶ GAS 7/2	240	400	3000678

#### Spacer kit



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

BURNER	SPACER THICKNESS S (mm)	KIT CODE
▶ GAS 3/2 - 4/2 - 5/2 - 6/2	142	3000755
▶ GAS 7/2	102	3000722
▶ GAS 9/2	130	3000723

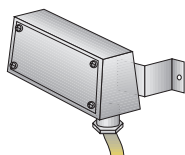
#### Continuous ventilation kit



If the burner requires continuous ventilation in the stages without flame, a special kit is available as given in the following table.

BURNER	KIT CODE
▶ GAS 3/2 - 4/2 - 5/2 - 6/2 - 7/2 - 9/2	3010030

#### Post-ventilation kit

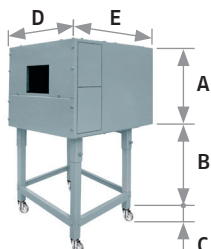


To prolong ventilation for approximately 5 seconds after opening of thermostats chain, a special kit is available.

BURNER	KIT CODE
▶ GAS 3/2 - 4/2 - 5/2 - 6/2 - 7/2 - 9/2	3010004

## Burner accessories

### Sound proofing box

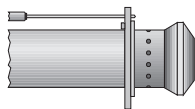


If noise emission needs reducing even further, sound-proofing boxes are available. In case of generator heights, where a lower dimension "B" is required, ask for the Box Support Kit code 20065135. The useful dimensions are 40 mm less than the total dimensions indicated in the table (A, D, E). Not suitable for outdoor use.

BURNER	BOX TYPE	A (mm)	B (mm) min-max	C (mm)	D (mm)	E (mm)	[dB(A)] (*)	BOX CODE
▶ GAS 3/2 - 4/2 ▶ GAS 5/2 - 6/2	C1/3	650	372 - 980	110	690	770	10	3010403
▶ GAS 7/2	C4/5	850	160 - 980	110	980	930	10	3010404
▶ GAS 9/2	C7	1255	160 - 980	110	1140	1345	10	3010376

(\*) Average noise reduction according to EN 15036-1 standard

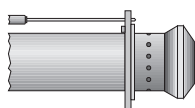
### LPG kit



For burning LPG gas, a special kit is available.

BURNER	KIT CODE FOR STANDARD HEAD	KIT CODE FOR EXTENDED HEAD
▶ GAS 3/2	3000657	3000807
▶ GAS 4/2	3000658	3000808
▶ GAS 5/2	3000659	3000809
▶ GAS 6/2	3000753	3000810
▶ GAS 7/2	3000806	3000811
▶ GAS 9/2	3000876	3010028

### Town Gas kit



For burning Town Gas, a special kit is available.

BURNER	KIT CODE FOR STANDARD HEAD (*)	KIT CODE FOR EXTENDED HEAD (*)
▶ GAS 3/2	3000742	-
▶ GAS 4/2	3000754	-
▶ GAS 5/2	3000759	-
▶ GAS 6/2	3000768	-
▶ GAS 7/2	3000769	-
▶ GAS 9/2	3010298	-

(\*) Without CE certification

# Two Stage Gas Burners

## GAS/2 SERIES

### Burner accessories

#### PC Interface kit



To connect the control box 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
► GAS 3/2 - 4/2 - 5/2 - 6/2 - 7/2 - 9/2	3002719

#### Protection kit (electromagnetic interferences)









When the burner is installed in a room particularly subject to electromagnetic interference (signals emitted over 10 V/m) due for example to INVERTER presence or in systems where the lengths of the thermostat connections is over 20 meters, this specific protection kit is available as an interface between the thermostatic controls and the burner.

BURNER	KIT CODE
► All models	3010386

## Gas train accessories

### Adapters

In certain cases, an adapter must be fitted between the gas train and the burner, when the diameter of the gas train is different from the set diameter of the burner. Below are given the available adapters; please see on the Gas Train list the correct adapter codes to select.

ADAPTER	LENGTH mm	ADAPTER CODE
2"  1" 1/2	70	3000822
3/4"  1" 1/2	31	3000824
DN 65  2" 1/2  2"	300	3000825
DN 80  2" 1/2  2"	300	3000826
1" 1/2  2"	35	3000843
1/2"  1" 1/2	31	20044756



## Gas train accessories

### Seal control kit



To test the valve seals on the gas train, a special "seal control kit" is available.

BURNER	GAS TRAIN	KIT CODE for 50 Hz operation	KIT CODE for 60 Hz operation
▶ GAS 3/2	MB 407/2 - 410/2 - 412/2	3010123	20050030
	MB 415/2 - CB 512/2	3010125	20050033
▶ GAS 4/2	MB 410/2 - 412/2	3010123	20050030
	MB 415/2 - 420/2 - CB 512/2 - 520/2	3010125	20050033
▶ GAS 5/2	MB 410/2 - 412/2	3010123	20050030
	MB 415/2 - 420/2 - CB 512/2 - 520/2	3010125	20050033
▶ GAS 6/2	MB 410/2 - 412/2	3010123	20050030
	MB 415/2 - 420/2 - CB 512/2 - 520/2 - 5065/2	3010125	20050033
▶ GAS 7/2	MB 415/2 - 420/2 - CB 512/2 - 520/2 - 5065/2 - 5080/2	3010123	20050030
	MB 420/2	3010125	20050033
▶ GAS 9/2	CB 520/2 - 5065/2 - 5080/2	3809900	20050034

### Stabiliser spring



Accessory springs are available to vary the pressure range of the gas train stabilisers.

GAS TRAIN	SPRING COLOUR	SPRING PRESSURE RANGE mbar	SPRING CODE
▶ CB 512/2	Red	25 - 55	3010131
	Black	60 - 110	3010157
	Pink	90 - 150	3090486
▶ CB 520/2	Red	25 - 55	3010132
	Black	60 - 110	3010158
	Pink	100 - 150	3090487
▶ CB 5065/2 - 5080/2	Red	25 - 55	3010133
	Black	60 - 110	3010135
	Pink	100 - 150	3090456
	Grey	140 - 200	3090992