



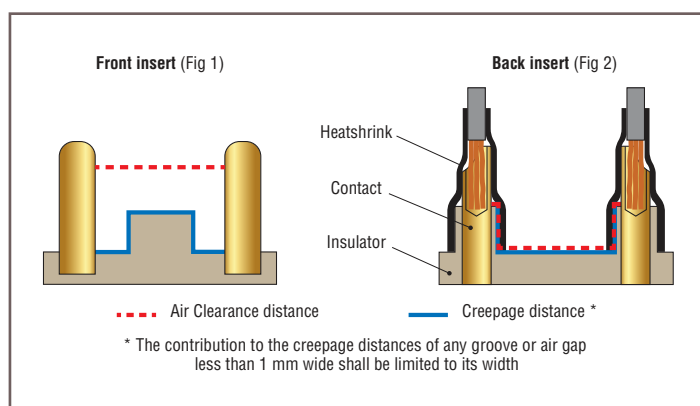
- Introducing 3 New High Voltage configurations (2, 5 & 8 contacts)
- Test Voltage higher than 10 kV AC
- IEC 60601-1 (3<sup>rd</sup> Ed.) Compliant 2 MOPP / 2 MOOP (Means Of Patient / Operator Protection)

REDEL introduces its latest plastic High Voltage connector. These 2, 5 and 8 contacts configurations are the ideal solution for medical and industrial applications.

Building on the 2P series legacy in **medical** applications, these new insert configurations are the ideal solutions for latest high voltage PFA (Pulsed-Field Ablation) and PEF (Pulsed Electrical Field) catheter technologies.

Besides specific applications, new **medical standards** for user safety become mandatory (IEC60601-1, 3<sup>rd</sup> Ed.). This requires extended creepage and clearance distance that can't be matched by commodity multipin connectors.

The inherent safety, high voltage specification (up to 10 kV AC), lightweight design, and IP66 rating make it an ideal candidate for **Industrial and Test/Measurement** segments and applications such as automotive testing and electric cars.



## APPLICATIONS



Medical



Industry



Test & Measurement



Automotive

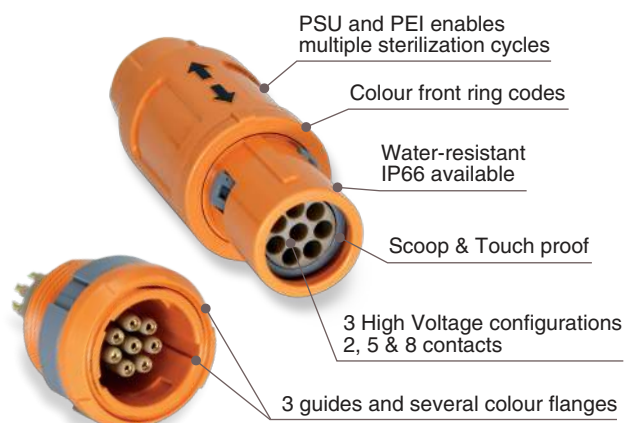


## BENEFITS

- Test Voltage higher than 10 kV AC
- 3 High Voltage configuration (2, 5 & 8 contacts)
- Water-resistant models available up to IP66 when mated
- Several keyings / colour codings
- Meets electrostatic discharge: IEC 60601-1 (3<sup>rd</sup> Ed.) (15 kV)
- RoHS compliant / UL Recognition

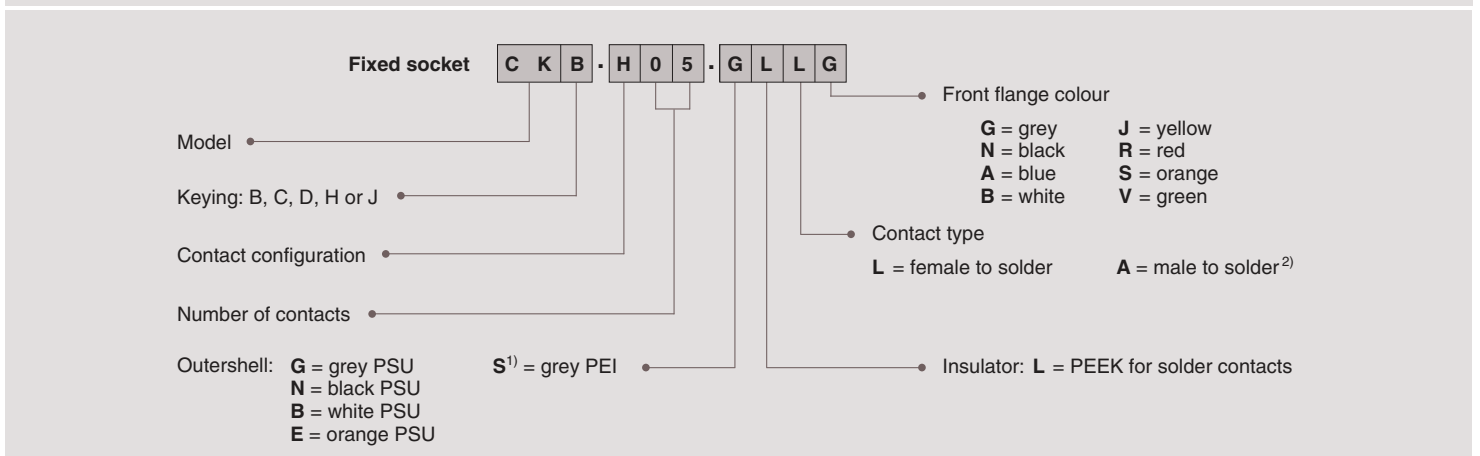
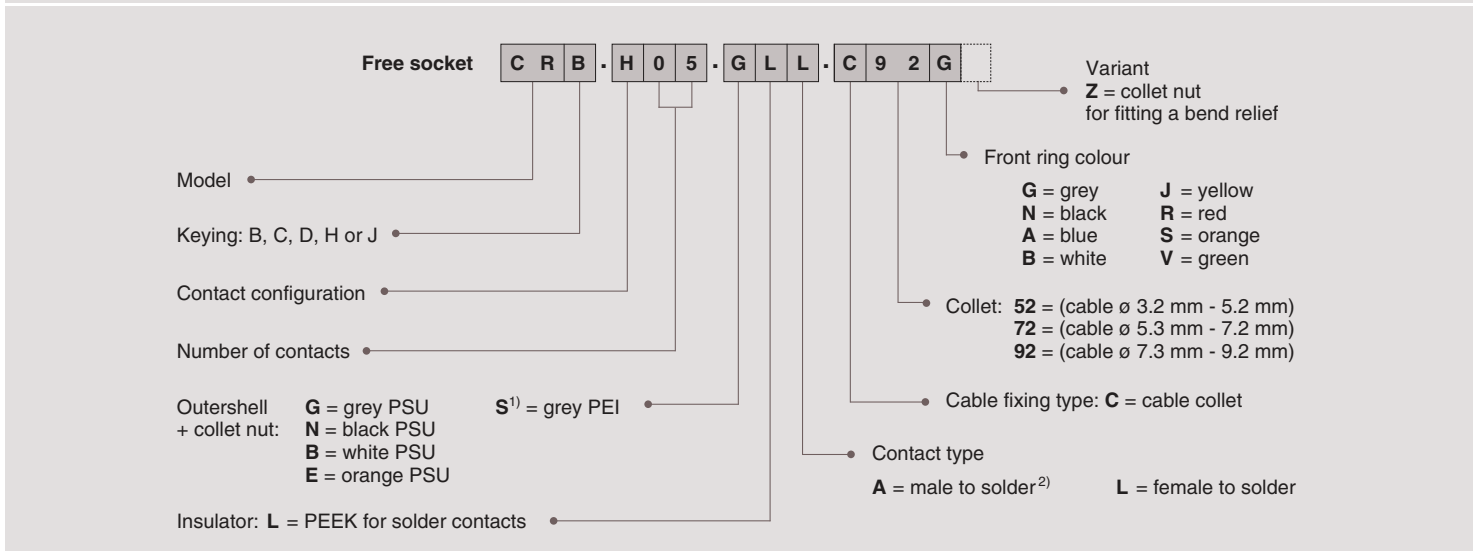
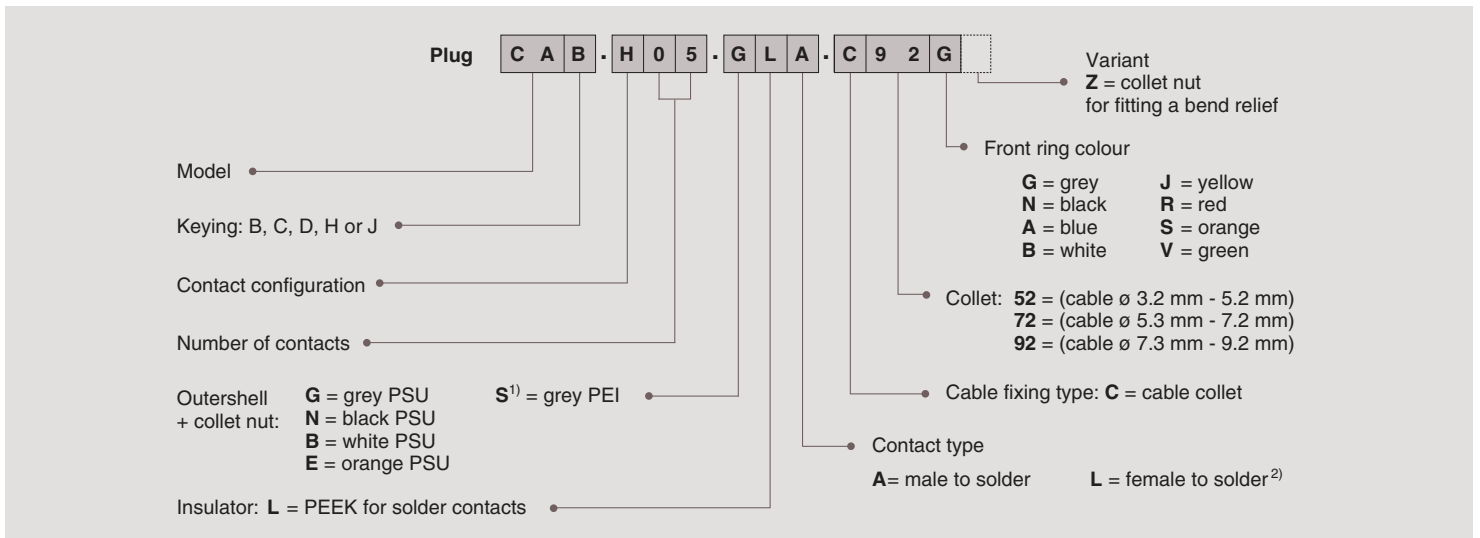
## FEATURES

- Push-Pull quick and secure locking
- Sterilizable by gas or by steam
- Blind mating (3 guides)
- Scoop & Touch proof
- Lightweight and compact design for space savings
- Temperature range -50°C to 170°C
- UL94 V-0 certified as auto-extinguishable
- For cable range up to  $\varnothing$  9.2 mm





**PART NUMBERING SYSTEM**

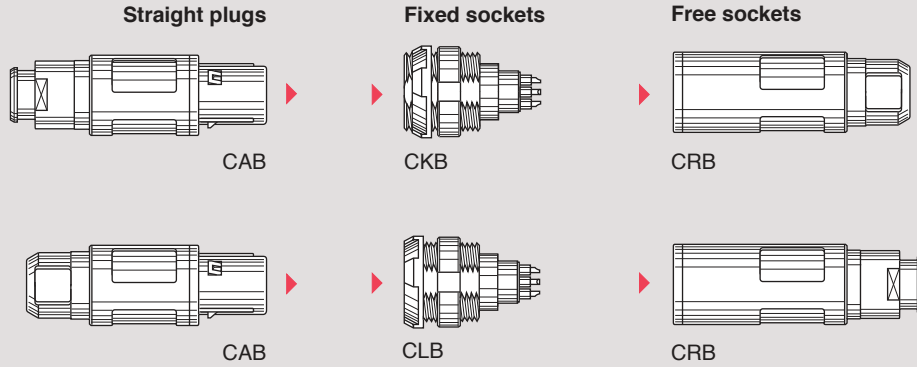


**Note:** <sup>1)</sup> for extensive steam sterilization we propose polytherimide ULTEM® (PEI).  
<sup>2)</sup> model available only with H and J keying (inverted contacts).

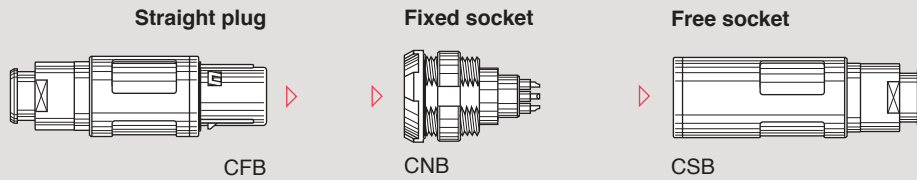


**PRODUCT RANGE**

**Standard models**



**IP66 Water-resistant models**



**KEYING**

Keying (plug front view)					
Reference	<b>B</b>	<b>C</b>	<b>D</b>	<b>H</b>	<b>J</b>
Contact type for plug	male	male	male	female	female
Contact type for socket	female	female	female	male	male
Availability	●	○	○	●	○

**OUTERSHELL**

Material	Ref.	Colour	Temperature	Availability
PSU	G	Grey	-50° / +150°C	●
	N	Black		●
	B	White		●
	E	Orange		●

Material	Ref.	Colour	Temperature	Availability
PEI	S	Grey	-50° / +170°C	●

**Note:** for extensive steam sterilization we propose polytherimide ULTEM® (PEI).

**FRONT FLANGES / RING COLOUR**

G	N	A	B	J	R	S	V
grey	black	blue	white	yellow	red	orange	green
●	●	●	●	●	●	●	●

**Note:** ● Standard / ○ On demand

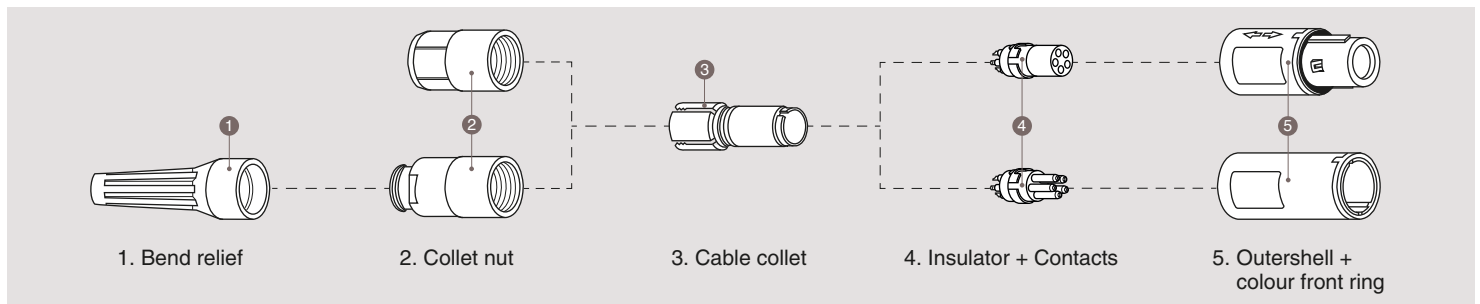


**INSERT CONFIGURATION**

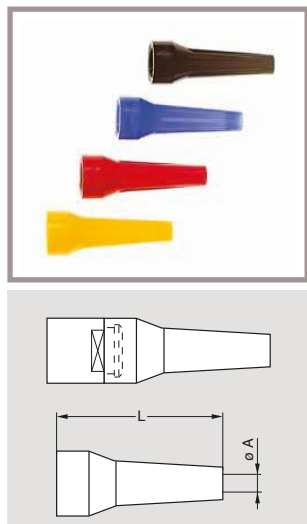
Male solder contacts	Female solder contacts	Reference	Number of contacts	Contact $\phi$ (mm)	Solder bucket $\phi$ (mm)	Crimp bucket $\phi$ (mm)	Contact type				Test voltage (kV rms) <sup>1)</sup> Contact-contact	Air clearance min <sup>2)</sup> (mm) Creepage distance min (mm)	Rated current (A)
							Solder	Crimp	Print (straight)	Print (elbow)			
		<b>H02</b>	2	0.7	0.8	-	•	-	-	12.7	8.90	11.0	
		<b>H05</b>	5	0.7	0.8	-	•	-	-	11.6	7.96	8.0	
		<b>H08</b>	8	0.7	0.8	-	•	-	-	10.3	7.42	6.5	

**Note:** 1) The use of potting type Epoxy\* (insert config. H02, H05 and H08) or adhesive-lined heatshrink tubes over each termination (only H02 and H05) is necessary to guarantee the indicated Test voltage.  
 2) The use of potting type Epoxy\* (insert config H02, H05 and H08) or heatshrink tubes over each termination (only H02 and H05) is necessary to guarantee the indicated Air Clearance and Creepage distance values.  
 Adhesive-lined heatshrink tube can improve these values. IEC 60601-1 Compliant, 2 MOOP / 2 MOPP (Means Of Operator/Patient Protection).  
 \* Minimum characteristics: Dielectric constant ( $\epsilon_r$ , 50Hz, 25°C) >4 and Volume resistivity ( $\rho$ , 25°C) < 10<sup>14</sup>  $\Omega$ cm

**EXPLODED VIEW (PLUG AND FREE SOCKET)**



**BEND RELIEF**



A bend relief absorbs the force that may be exerted on cables. These are designed for plugs and free sockets with cable collet and nut.

Part Number	Dimensions (mm)				Material	Temperature range	
	Bend relief		Cable $\phi$			in dry atmosphere	in water steam
	A	L	max.	min.			
<b>GMA.2B.040.DG</b>	4.0	36	4.5	4.0	TPU (Thermoplastic Polyurethane)	-40°C, +80°C	-
<b>GMA.2B.045.DG</b>	4.5	36	5.0	4.5			
<b>GMA.2B.050.DG</b>	5.0	36	5.5	5.0			
<b>GMA.2B.060.DG</b>	6.0	36	6.5	6.0			
<b>GMA.2B.070.DG</b>	7.0	36	7.7	7.0			
<b>GMA.2B.080.DG</b>	7.8	36	8.8	7.8			
<b>GMA.2B.040.RG</b>	4.0	41	4.4	4.0	Silicone elastomer VMQ	-60°C, +200°C	+140°C
<b>GMA.2B.045.RG</b>	4.5	41	5.0	4.5			
<b>GMA.2B.051.RG</b>	5.1	41	5.6	5.1			
<b>GMA.2B.057.RG</b>	5.7	41	6.2	5.7			
<b>GMA.2B.063.RG</b>	6.3	41	7.0	6.3			
<b>GMA.2B.071.RG</b>	7.1	41	7.9	7.1			
<b>GMA.2B.080.RG</b>	8.0	41	9.0	8.0			

Ref.	Colours
<b>A</b>	blue
<b>B</b>	white
<b>G</b>	grey
<b>J</b>	yellow
<b>M</b>	brown
<b>N</b>	black
<b>R</b>	red
<b>S</b>	orange
<b>V</b>	green

**Note:** the last letter «G» of the part number indicates a grey colour, see the adjacent table and replace letter «G» by the letter of the colour required.