

# MULTI BOX

Ex eb I, Ex eb IIC, Ex ec IIC, Ex tb IIIC

for Hazardous Area Installations

## Features and Benefits

- Multi Box for use in Group I mining (low impact areas), Group II and Group III applications.
- High-temperature resistance, corrosion resistant and anti-static properties.
- Raised lid facilitates connections to be made clear of the box base.
- A lid with captive screws provides ease of installation.
- Supplied complete with safety securing lid lanyard. Only approved CCG cable glands and Ex e terminals must be used.
- DIN Rail mounting studs are provided for use with terminal blocks. Dust and watertight to IP66/68, when fitted with CCG sealed cable glands.
- Drilling of cable entries to customer requirements. Internal earthing to all entries and rail.

## Technical Data

Type:	Multi Box
Box Material:	Impact corrosion and UV resistant glass reinforced polyester compound
Optional Accessories:	O-ring seals: Silicone or Sarlink seals. Terminals: Wellamid or Wemidd
Note:	Ex Certified Terminals. Blanking plugs are provided
	The installer must check that the materials are suitable for the installation environment.

## Standards and Certifications

Equipment Protection Levels: IECEx/INMETRO: (Finished) Ex eb I Mb / Ex eb IIC T6 Gb / Ex ec IIC T6 Gc / Ex tb IIIC T70°C Db / Ex tc IIIC T70°C Dc  
 IECEx/INMETRO: (Unfinished) Ex eb I Mb / Ex eb IIC Gb / Ex ec IIC Gc / Ex tb IIIC 031 06Db / Ex tc IIIC Dc  
 ATEX/UKEX: (Finished) I M2 / II 2 GD / II 3 GD Ex eb I Mb / Ex eb IIC T6 Gb / Ex ec IIC T6 Gc / Ex tb IIIC T70°C Db / Ex tc IIIC T70°C Dc  
 ATEX/UKEX: (Unfinished) I M2 / II 2 GD / II 3 GD Ex eb I Mb / Ex eb IIC Gb / Ex ec IIC Gc / Ex tb IIIC Db / Ex tc IIIC Dc  
 CCC: (Finished) Ex e IIC T6 Gb, Ex td A21 IP66/67/68 T70°C, Ex td A22 IP66/67/68 T70°C  
 CCC: (Unfinished) Ex e IIC Gb, Ex td A21 IP66/67/68, Ex td A22 IP66/67/68'

Ambient Temperature:

Service Temperature:

Conformance:

IECEX	Standard:	Certificate:	
	IEC 60079 Part 0, 7, 31, IEC 60529	IECEX MSC 20.0003X	(Finished)
	IEC 60079 Part 0, 7, 31, IEC 60529	IECEX MSC 20.0004U	(Unfinished)
ATEX	EN 60079 Part 0, 7, 15, 31	CML 14ATEX3036X	(Finished)
	EN 60079 Part 0, 7, 15, 31	CML 14ATEX4038X	(Finished)
	EN 60079 Part 0, 7, 15, 31	CML 14ATEX3037U	(Unfinished)
	EN 60079 Part 0, 7, 15, 31	CML 14ATEX4039U	(Unfinished)
UKEX	EN/BS 60079 Part 0, 7, 15, 31	CML 21UKEX3008X	(Finished)
	EN/BS 60079 Part 0, 7, 15, 31	CML 21UKEX4010X	(Finished)
	EN/BS 60079 Part 0, 7, 15, 31	CML 21UKEX3007U	(Unfinished)
	EN/BS 60079 Part 0, 7, 15, 31	CML 21UKEX4009U	(Unfinished)
INMETRO (Brazil)	ABNT NBR IEC 60079 Part 0, 7, 15, 31, IEC 60529	TÜV 15.0481X	(Finished)
	ABNT NBR IEC 60079 Part 0, 7, 15, 31, IEC 60529	TÜV 15.0482U	(Unfinished)
TR CU (Russia)	ГОСТ 31610-0, 15, ГОСТ P M9K 60079-7, 31	EA3C RU C-ZA-HA91.B.00243/21	
CCC / CNEx (Chinese)	GB/T3836.1, 3, GB/T3836.31-2021	CNEx 21.3507X	(Finished)
	GB/T3836.1, 3, GB/T3836.31-2021	CCC 2020322313001819	(Finished)
	GB/T3836.1, 3, GB/T3836.31-2021	CNEx 21.3390X	(Unfinished)
	GB/T3836.1, 3, GB/T3836.31-2021	CCC 2020322313002230	(Unfinished)
SANS	SANS/IEC 60079 Part 0, 7, 15, 31, SANS/IEC 60529	MASC S/21-9001X	(Finished)
		MASC S/21-9002U	(Unfinished)
IP66/68 2m Protection	IEC 60529	IECEX CML 15.0071U	
Short Circuit/Cont.Current	IEC 60947-7-2, IEC 62444	CATAPULT OR/15/11677_2	



## Conditions for Safe Use - X

- In Group I applications, the junction box must only be used in low impact areas and where it is not exposed to oils or greases. Clean only with a damp cloth.
- Suitably certified cable glands and/or plugs shall be used in the enclosure threaded entries.
- Only the following terminals may be used, following the specific installation conditions set down by the terminal manufacturer / terminal certification.

Manufacturer	Certificate No.	Ex Coding	Type	Conductor / Terminal Block Size	Maximum Current	
					≤ 55°C Ambient	≤ 40°C Ambient
Weidmüller	IEC Ex ULD14.0005U Demko 14ATEX1338U CCC 2020322313001819	Ex eb IIC	WDU 2.5, 4, 6, 10, 16, 35 and 70N WPE 2.5, 4, 6, 10, 16, 35 and 70N	2,5 mm²	8,34 A	11,90 A
				4 mm²	11,12 A	15,86 A
				6 mm²	14,25 A	20,33 A
				10 mm²	19,81 A	28,26 A
				16 mm²	26,42 A	37,68 A
				35 mm²	43,46 A	61,98 A
				50 mm²	52,50 A	74,88 A
Weidmüller	IECEX TUR18.0024U TUV 18 ATEX 8221U CCC 2020322313002230	Ex eb IIC	AKZ4 and AKE4	75 mm²	66,75 A	95,21 A
				4mm²	-	-

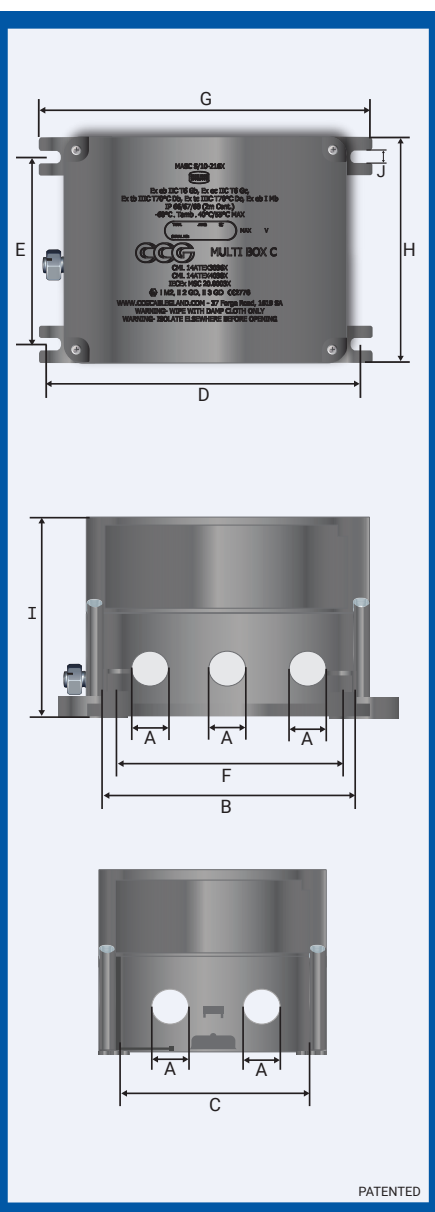
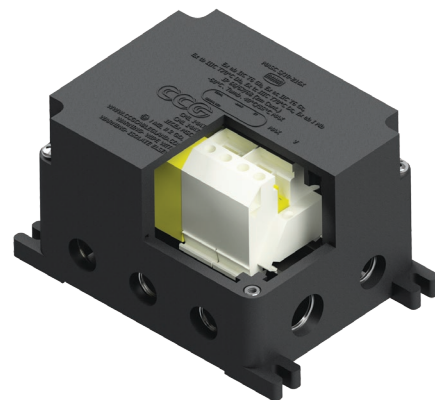
- Terminal blocks shall only be used on the applicable rail and shall allow sufficient space to make connections and to close the cover / lid.
- The creepage and clearance between terminal blocks and from the terminal block to any earthed / bonded metallic part shall comply with the EN60079-7 requirements for the acceptable voltage of the terminal blocks.
- The current in the Multi box is limited by the size of the conductor and shall not exceed the voltage as per Table 2.

Product Code	Entry Thread 'A' (Multiple Configurations)	Inside Dim 'B'	Inside Dim 'C'	Mounting Centres 'D'	Mounting Centres 'E'	Rail Mounting Centres 'F'	Overall Length 'G'	Overall Width 'H'	Overall Height 'I'	Mounting Groove Width 'J'
10050B	M16 to M32	144.0	111.0	176.0	110.0	126.0	196.0	132.0	109.0	7.0
10050C	M16 to M40	210.0	179.0	254.0	171.0	188.0	278.0	200.0	117.0	8.5

All dimensions are in mm.

CCG reserves the right to make alterations to the technical data, dimensions, designs and products available without notice. The illustrations cannot be considered binding. Please contact CCG for assistance.

MultiBoxEx-HB080322



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## Wiring and Installation instructions for Multi Box without components

- When fitted with any internal components the assembly must be re-certified and the cover re-marked accordingly.

## Wiring and Installation instructions for Multi Box with components

- Installation must be carried out by a competent person.
- Do not install under live current conditions.
- The box must not be modified in any way, as this will invalidate the certification.
- All wiring must be carried out in accordance with the relevant Codes of Practice.
- The wiring insulation must not extend by more than 1.0mm from the metal face of the terminal as shown in Figure 1.
- The voltage and current value of the box must not be exceeded. See relevant certificate for current limitations for conditions of use/schedule of limitations.
- Only those terminals shown in the terminal schedule may be incorporated in the box, refer Table 1.
- Inner cable bedding must protrude into the box by a minimum of 20mm past the cable entry point.
- Not more than one single or multiple strand lead shall be connected into either side of the terminals.
- Only earth conductors of equal size shall be connected with rail mounted terminals.
- All terminal screws used and unused shall be tightened.
- A parallel shaft screwdriver of the correct size should be used for rail-mounted terminals screws.
- Where cables enter the box they must be secured by CCG Cable Glands appropriate to the makeup of the cable.
- Unused entry apertures must be blanked with certified CCG Blanking Plugs.
- To maintain IP66/68 a thread seal gasket between the box and cable gland must be installed.
- Before replacing the lid, ensure the lid gasket is in place.

### TABLE 1

Box Type	Terminal Type and Size	Max Quantity	Rail Size
Multi Box B	2.5mm <sup>2</sup>	20	35
Multi Box B	4mm <sup>2</sup> mini terminal	16	15
Multi Box B	4mm <sup>2</sup>	16	35
Multi Box B	6mm <sup>2</sup>	12	35
Multi Box B	10mm <sup>2</sup>	10	35
Multi Box B	16mm <sup>2</sup>	8	35
Multi Box C	2.5mm <sup>2</sup>	30	35
Multi Box C	4mm <sup>2</sup> mini terminal	26	15
Multi Box C	4mm <sup>2</sup>	28	35
Multi Box C	6mm <sup>2</sup>	20	35
Multi Box C	10mm <sup>2</sup>	16	35
Multi Box C	16mm <sup>2</sup>	14	35
Multi Box C	35mm <sup>2</sup>	10	35
Multi Box C	50mm <sup>2</sup>	8	35

### TABLE 2

#### VOLTAGE PER TERMINAL CONFIGURATION

Terminals	Volt	Earth Terminals
AKZ 4	275V	AKE 4
WDU 2.5	550V	WPE 2.5
WDU 4	550V	WPE 4
WDU 6	550V	WPE 6
WDU 10	550V	WPE 10
WDU 16	550V	WPE 16
WDU 35	550V	WPE 35
WDU 70 N	550V	WPE 70 N

### FIGURE 1

The wiring insulation must not extend by more than 1.0mm from the metal face of the terminal as shown below.

