CROUSE-HINDS SERIES

CEAG GHG25

Safety Switch and Switch Disconnector













Introducing **CEAG GHG25** Safety Switch and Switch Disconnector

Eaton's Crouse-Hinds series CEAG GHG25 safety switch and switch disconnector are designed to provide safe and reliable performance in a wide range of harsh and hazardous area applications within oil and gas, petrochemical, chemical and other heavy industries.

The new series of GHG25 safety switches and switch disconnectors brings higher switching and isolation capacities, improved safety features and modular set-up delivering more protection for your personnel and operations in Ex environments.

The GHG25 safety switches and switch disconnectors feature full AC-3 motor switching capacities and isolating properties, an installationfriendly design, and easily accessible connection terminals. Available in fibreglass-reinforced polyester and stainless steel enclosures, our GHG25 portfolio provides excellent corrosion resistance, impact strength, and IP66 protection.

Look to Eaton for all your harsh and hazardous area switches

Eaton's Crouse-Hinds series portfolio features a broad range of switches for global harsh, hazardous, and industrial environments. Available in a variety of high-quality materials, along with a wide range of sizes, certifications and design options, Eaton can deliver a switch solution that meets your specific application requirements.



CEAG GHG26

For Zone 1 & 2 gas applications



CEAG GHG981

For Zone 22 dust applications



CEAG GHG981

For industrial applications



EID Disconnect switch

For Class I, Division 1 & 2 and Zone 1 & 2 hazardous applications

To browse our full portfolio of switches, please visit eaton.com/switches

Design features:

Improved safety:

- Ensure safe operations of electrical devices during maintenance, cleaning and repair work
- Lockable in "OFF" position with three padlocks
- AC-3 and DC-23 switching capacity for isolating the electrical power supply of devices and other electrically operated equipment during maintenance, cleaning and repair work
- IEC/EN 62626-1 Class 1 compliant. Interlocked design prevents cover from being opened during maintenance

Rugged design that's built to last in harsh and hazardous areas:

- Certified as factory assembled to ATEX and **IECEX** standards
- Operating temperature range of -55°C to +55°C for Gas Group IIC
- Cover threads can be easily removed and replaced if damaged. No need to replace the entire switch

Installation-friendly design:

- Easily accessible connection terminals due to lower side walls on enclosure
- Optional mounting plate for simplified installation to wall, pipe or trellis
- Mounting plate and canopy simply clip on to switch - no tools required



Excellent resistance to environmental challenges:

- High impact and corrosion resistant fibreglass-reinforced polyester or stainless-steel enclosures
- High degree of protection IP66
- Optional canopy provides additional protection from rain and sun exposure



Our GHG25's advanced switchblock improves safety and performance

Approved to the latest International standards:

• Certified as a component to ATEX and IECEX standards





Engineered for safety:

- Higher isolation and motor switching capacities (AC-3 and DC 23)
- Auxiliary contacts close after the main contacts close and open before main contacts open
- Finger-safe IP20 devices and accessories

Simplified installation:

- Retrofittable auxiliary contacts can be easily installed in the field
- Switchblock modularity allows for easy extension to a 6-pole and 8-pole design
- Rail mounting



Flexible termination:

• Terminals with max 16 mm² wire cross section connection offers wide usage possibilities

Applications:

- Provides motor control and disconnect protection for Zone 1, 2, 21 and 22 hazardous areas
- Isolates the power supply on electrical installations and apparatus during maintenance, cleaning and repair work
- Can be protected against inadvertent switching on by our integrated locking design with up to three padlocks in the OFF position
- High isolating and switching capacities for safer operations
- Designed for high-reliability in industrial areas: chemical plants, paint manufacturing plants and oil and gas refineries

Standards:

- IEC 60079-0 / EN IEC 60079-0 general requirements
- IEC 60079-1 / EN IEC 60079-1 flameproof requirements "d"
- IEC 60079-7 / EN IEC 60079-7 increased safety requirements "e"
- IEC 60079-31 / EN 60079 protection by enclosure "t"

Certificates and markings:

- BVS 20 ATEX E 094 X; IECEx BVS 20.0076 X
- ATEX marking:
 II 2G Ex db eb IIC/IIB T6/T5/T4 Gb
 II 2D Ex tb IIIC T80 °C Db
- IECEx marking:
 Ex db eb IIC/IIB T6/T5/T4 Gb
 Ex tb IIIC T80 °C Db









Standard materials and finishes:

- Enclosure GRP black (Glass-Fibre Reinforced Polyester) or Stainless Steel (AISI 316L)
- Gasket Silicone, foamed
- Lid screws M4 / M6 captive screws (304 stainless steel)
- Mounting plates and protective canopies Glass-Fibre Reinforced Polyester

Technical specifications:

- Ambient temperature range: -55°C up to +55°C
- 30,000 switching cycles electrical and mechanical lifetime
- · Connecting terminals:

Main contact: $1 \times 2.5 - 16 \text{ mm}^2$, $2 \times 1.5 - 10 \text{ mm}^2$ Auxiliary contact 1NO: $1 \times 0.5 - 2.5 \text{ mm}^2$ (pin cable lug),

1 x 2.5 - 16 mm²

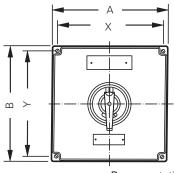
Auxiliary contact: 1 x 0.5 - 2.5 mm², 2 x 0.5 - 1.5 mm²

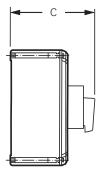
- Environmental degree of protection: IP66
- High impact resistance: IK 09
- Enclosure mounting 4 holes for M4 to M6 screws
- Retrofittable auxiliary contacts

Electrical ratings:

- Rated operating voltage (Ue): 690V 50/60Hz; 60/120V DC
- Rated operating current (le): max 32A
- Back-up fuse 50A gG short circuit current limitation
- Isolating functions (IEC/EN 60947-3), AC-3, DC-23 switching capacity

Enclosure type	A (mm)	B (mm)	C (mm)	X (mm)	Y (mm)	Weight (kg)
GRP Size 1	110	170	129	96	150	1.54
GRP Size 2	140	225	156	123 - 126	197	2.00
GRP Size 3	271	271	200	247	247	3.15
Stainless Steel Size 2	175	392.5	216	109.5	362.5	4.55
Stainless Steel Size 3	312.5	392.5	216	247	362.5	6.44





Representative switch

Ordering details - Switch Disconnector:



	_			Enclosure ma	terial					
Enclosure type	Cross section	20A	Load 25 A	32 A	Auxiliary contact 1No ²	GRP	GRP + internal earth plate + stud	Stainless Steel + ext. earth stud	Cable entries	Order No.
Switch-dis	sconnecto	r 3-pol	le							
Size 1	2.5 mm ²	Х			Х	X			0. 1400 4. 1405	0110050404450000
Size 1	4.0 mm ²	Х	Χ	Χ	Х	Χ			2x M32, 1x M25	GHG2521311R0303
Size 2	6.0 mm ²	Х	Χ	Χ	Х	Χ			2x M32, 1x M25	GHG2521312R0303
Size 3	10.0 mm ²	Х	Χ	Χ	Х	Х			2v M40, 1v M2E	CUC2E21212D0200
Size 3	16.0 mm ²	Х	Χ	Χ	Х	Х			2x M40, 1x M25	GHG2521313R0309
Size 1	2.5 mm ²	Х			Х		Х		Q., MQE 1., MQQ	CUC2E21211D0222
Size 1	4.0 mm ²	Х	Χ	Χ	Х		Х		2x M25, 1x M20	GHG2521311R0322
Size 2	6.0 mm ²	Х	Х	Χ	Х		Х		2x M25, 1x M20	GHG2521312R0322
Size 3	10.0 mm ²	Х	Х	Χ	Х		Х		24 M22 14 M20	GHG2521313R0328
Size 3	16.0 mm ²	Х	Х	Χ	Х		Х		2x M32, 1x M20	
Size 2	2.5 mm ²	Х	Χ		Х			Χ		
Size 2	4.0 mm ²	Х	Χ	Χ	Х			Х	2x M25, 1x M20	GHG2521322R0341
Size 2	6.0 mm ²	Х	Χ	Χ	Х			Х		
Size 3	10.0 mm ²	Х	Χ	Χ	Х			Х	2x M32, 1x M20	GHG2521323R0345
Size 3	16.0 mm ²	Х	Χ	Χ	Х			Х	ZX IVI3Z, TX IVIZU	
Switch-dis	sconnecto	r 4-pol	le							
Size 1	2.5 mm ²	Х				Х			2 M22. 4 M25	GHG2521411R0003
Size 1	4.0 mm ²	Х	Χ	Χ		Χ			2x M32, 1x M25	
Size 2	6.0 mm ²	Х	Χ	Χ		Χ			2x M32, 1x M25	GHG2521412R0003
Size 3	10.0 mm ²	Х	Χ	Χ		Х			Q., NAAQ. 4., NAQE	OUC2524 44 2D0000
Size 3	16.0 mm ²	Х	Х	Χ		Х			2x M40, 1x M25	GHG2521413R0009
Size 1	2.5 mm ²	Х					Χ			
Size 1	4.0 mm ²	Х	Х	Χ			X		2x M25, 1x M20	GHG2521411R0022
Size 2	6.0 mm ²	Х	Χ	Χ			Х		2x M25, 1x M20	GHG2521412R0022
Size 3	10.0 mm ²	Х	Χ	Χ			X			
Size 3	16.0 mm ²	Х	Х	Х			X		2x M32, 1x M20	GHG2521413R0028
Size 2	2.5 mm ²	Х	Х					Х		
Size 2	4.0 mm ²	Х	Χ	Χ				Χ	2x M25, 1x M20	GHG2521422R0041
Size 2	6.0 mm ²	Х	Χ	Χ				Χ		
Size 3	10.0 mm ²	Х	Х	Χ				Χ		011000001
Size 3	16.0 mm ²	Х	Χ	Χ				Х	2x M32, 1x M20	GHG2521423R0045

 $^{{\}bf ^2}\,{\rm Auxiliary}$ contact in main switch as NO

Ordering details - Switch Disconnector:



					_	Enclosure material				
Enclosure type	Cross section	20A	Load 25 A	32 A	Auxiliary contact 1No ²	GRP	GRP + internal earth plate + stud	Stainless Steel + ext. earth stud	Cable entries	Order No.
Switch-dis	connecto	r 6-pol	le							
Size 3	2.5 mm ²	Х	Χ			Х				
Size 3	4.0 mm ²	Х	Χ	Χ		Χ				
Size 3	6.0 mm ²	Х	Χ	Χ		Χ			4x M32, 1x M25	GHG2521613R0002
Size 3	10.0 mm ²	Х	Χ	Χ		Х				
Size 3	16.0 mm ²	Х	Χ	Χ		Х				
Size 3	2.5 mm ²	Χ	Χ				Χ			
Size 3	4.0 mm ²	Χ	Χ	Χ			Χ			GHG2521613R0022
Size 3	6.0 mm ²	Χ	Χ	Χ			Χ		4x M25, 1x M20	
Size 3	10.0 mm ²	Χ	Χ	Χ			Χ			
Size 3	16.0 mm ²	Χ	Χ	Χ			Χ			
Size 3	2.5 mm ²	Χ	Χ					Χ		
Size 3	4.0 mm ²	Χ	Χ	Χ				Χ		
Size 3	6.0 mm ²	Χ	Χ	Χ				Χ	4x M25, 1x M20	GHG2521623R0041
Size 3	10.0 mm ²	Χ	Χ	Χ				Χ		
Size 3	16.0 mm ²	Х	Χ	Χ				Χ		
Size 3	2.5 mm ²	Χ	Χ		Х	Χ				
Size 3	4.0 mm ²	Х	Χ	Χ	Х	Χ				
Size 3	6.0 mm ²	Х	Х	Χ	Х	Х			4x M32, 1x M25	GHG2521613R0302
Size 3	10.0 mm ²	Х	Χ	Χ	Х	Х				
Size 3	16.0 mm ²	Х	Х	Χ	Х	Х				
Size 3	2.5 mm ²	Х	X		Х		Х			
Size 3	4.0 mm ²	Х	Х	Χ	Х		Χ			
Size 3	6.0 mm ²	Х	Х	Χ	Х		X		4x M25, 1x M20	GHG2521613R0322
Size 3	10.0 mm ²	Х	X	X	X		X		.,	
Size 3	16.0 mm ²	X	X	X	X		X			
Size 3	2.5 mm ²	X	X		X			X		
Size 3	4.0 mm ²	X	X	X						
					X			X	4. MOE 4 MOC	0110050400050044
Size 3	6.0 mm ²	X	X	X	X			X	4x M25, 1x M20	GHG2521623R0341
Size 3	10.0 mm ²	Х	Х	Х	Х			Х		
Size 3	16.0 mm ²	Х	Χ	Χ	X			Χ		

² Auxiliary contact in main switch as NO

Ordering details - Safety Switches:



					_					- 3
Enclosure Cross type section		Load 20A 25 A 32 A		Auxiliary contact 1No ²	GRP + internal earth plate + GRP stud		Stainless Steel + ext. earth stud	Cable entries	Order No.	
Safety swi	tch 3-pole	е								
Size 1	2.5 mm ²	Х			Х	Х			0 1400 4 1405	0110050004450000
Size 1	4.0 mm ²	Х	Χ	Χ	Х	Х			2x M32, 1x M25	GHG2522311R0303
Size 2	6.0 mm ²	Х	Χ	Χ	Х	Х			2x M32, 1x M25	GHG2522312R0303
Size 3	10.0 mm ²	Х	Χ	Χ	Х	Χ			2 N.4.0. 1 N.42.5	CLIC2E22242B020
Size 3	16.0 mm ²	Х	Χ	Χ	Х	Χ			2x M40, 1x M25	GHG2522313R030
Size 1	2.5 mm ²	Х			Х		Х		2x M25, 1x M20	GHG2522311R032
Size 1	4.0 mm ²	Х	Χ	Χ	Х		Χ		ZX IVIZO, TX IVIZU	GHG2322311hU32.
Size 2	6.0 mm ²	Х	Χ	Χ	Х		Χ		2x M25, 1x M20	GHG2522312R032
Size 3	10.0 mm ²	Χ	Χ	Χ	Х		Х		2x M32, 1x M20	GHG2522313R032
Size 3	16.0 mm ²	Х	Χ	Χ	Х		Х		ZX IVIOZ, TX IVIZO	G11G2G22G1G11GG2G
Size 2	2.5 mm ²	Х	Χ		Х			Χ		
Size 2	4.0 mm ²	Х	Χ	Χ	Х			Χ	2x M25, 1x M20	GHG2522322R0341
Size 2	6.0 mm ²	Х	Χ	Χ	Х			Χ		
Size 3	10.0 mm ²	Х	Χ	Χ	Х			Χ	2x M32, 1x M20	GHG2522323R034
Size 3	16.0 mm ²	X	Х	Х	Х			X	, ,	
EMERGEN	CY STOP	3-pole								
Size 1	2.5 mm ²	Х			Х	Χ			2v M22 1v M2E	CUC2E24211D020
Size 1	4.0 mm ²	Х	Χ	Χ	Х	Χ			2x M32, 1x M25	GHG2524311R0303
Size 2	6.0 mm ²	Х	Χ	Χ	Х	Χ			2x M32, 1x M25	GHG2524312R030
Size 3	10.0 mm ²	Х	Χ	Χ	Х	Χ				
Size 3	16.0 mm ²	Х	Χ	Χ	Х	Х			2x M40, 1x M25	GHG2524313R030
Size 1	2.5 mm ²	Х			Х		Х			
Size 1	4.0 mm ²	Х	Х	Χ	Х		Χ		2x M25, 1x M20	GHG2524311R032
Size 2	6.0 mm ²	Х	Χ	Χ	Х		X		2x M25, 1x M20	GHG2524312R032
Size 3	10.0 mm ²	Х	Х	Х	Х		X			
Size 3	16.0 mm ²	Х	Х	Х	Х		X		2x M32, 1x M20	GHG2524313R032
Size 2	2.5 mm ²	X	X	•	Х			X		
Size 2	4.0 mm ²	X	X	Х	X			X	2x M25, 1x M20	GHG2524322R034
Size 2	6.0 mm ²	X	X	X	X			X		3113202732211034
Size 3	10.0 mm ²	X	X	X	X					
								X	2x M32, 1x M20	GHG2524323R034
Size 3	16.0 mm ²	X	Χ	Χ	X			Χ		

² Auxiliary contact in main switch as NO

Ordering details - Safety Switches:



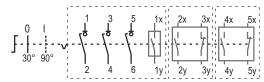
Enclosure material

Enclosure	Cross		Load		Auxiliary contact		GRP + internal	Stainless		
type	section	20A	25 A	32 A	1No ²	GRP	earth plate + stud	Steel + ext. earth stud	Cable entries	Order No.
EMERGEN	CY STOP	6-pole								
Size 3	2.5 mm ²	Х	Χ		Х	Х				
Size 3	4.0 mm ²	Х	Χ	Χ	Х	Х				
Size 3	6.0 mm ²	Х	Χ	Χ	Х	Х			4x M32, 1x M25	GHG2522613R0302
Size 3	10.0 mm ²	Х	Χ	Χ	Х	Х				
Size 3	16.0 mm ²	Х	Χ	Χ	Х	Х				
Size 3	2.5 mm ²	Х	Χ		Х		Χ			
Size 3	4.0 mm ²	Х	Χ	Χ	Х		Х			
Size 3	6.0 mm ²	Х	Χ	Χ	Х		Х		4x M25, 1x M20	GHG2522613R0322
Size 3	10.0 mm ²	Х	Χ	Χ	Х		Х			
Size 3	16.0 mm ²	Х	Χ	Χ	Х		Х			
Size 3	2.5 mm ²	Х	Χ		Х			Х		
Size 3	4.0 mm ²	Х	Χ	Χ	Х			Χ		
Size 3	6.0 mm ²	Х	Χ	Χ	Х			Χ	4x M25, 1x M20	GHG2522623R0341
Size 3	10.0 mm ²	Х	Χ	Χ	Х			Χ		
Size 3	16.0 mm ²	Х	Χ	Χ	Х			Χ		

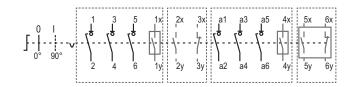
Ordering details: Accessories:

Туре	Description	Order No.					
Auxiliary switches, coupling set and pin cable lugs							
Ex - d Aux switch	1 NC	GHG2593251R0001					
Ex - d Aux switch	1 NO	GHG2593241R0001					
Ex - d Aux switch	1 NO + 1 NC	GHG2593211R0001					
Ex-i Upgrading kit		GHG2501903R0001					
Coupling set for 2x switch blocks		GHG2501901R0001					
Set of pin cable lugs for Aux	(2x 0.5 - 1mm², 2x 1.5 – 2.5mm²)	GHG2501904R0001					
Set of pin cable lugs for Aux	(10x 0.5 - 1mm², 10x 1.5 – 2.5mm²)	GHG2501904R0002					

Circuit diagrams



3pol. Main Switch c/w aux NO / optional aux / optional aux



3pol. Main Switch c/w aux NO / optional aux/ 3pol. Main Switch c/w aux NO / optional aux

Ordering details: Accessories:

Туре	Fixing method	Order No.					
Mounting plate for Size 1 safety switches and switch disconnectors							
Wall mounting	snap on	GHG6101953R0104					
Pipe clamp	snap on	GHG6101953R0105					
Trellis-work mounting	snap on	GHG6101953R0106					
Mounting plate for Size 2 safety switches and switch disconnectors							
Wall mounting	snap on	GHG6101953R0118					
Pipe clamp	snap on	GHG6101953R0110					
Trellis-work mounting	snap on	GHG6101953R0118					
Mounting plate for Size 3 safety switches and switch disconnectors							
Pipe clamp (2X)	screw-on	GHG6101953R0110					



Mounting plate

Туре	OU	Order No.
Mounting plate accessories		
Label holder with type label (blank) for mounting plate size 2 and 3	10	GHG6101953R0057
Mounting hardware for pipes 1" (Ø 27 - 30 mm) for pipe clamp mounting plates	10	GHG6101953R0020

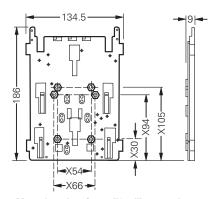
Туре	Application notes	Order No.	
Protective canopy - requires mounting pla	ate for installation		
Canopy for size 1 safety switches and switch disconnectors		GHG6101955R0102	
Canopy for size 2 safety switches and switch disconnectors	installs on pipe clamp mounting plates only	GHG6101955R0104	
Canopy for size 3 safety switches and switch disconnectors		GHG6101955R0106	



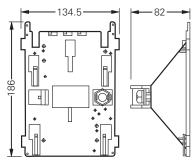
Protective canopy (Requires mounting plate for installation)

Dimensions: Mounting plates and canopies

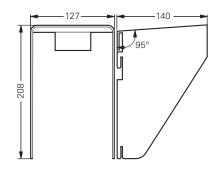
For size 1 safety switches and switch disconnectors



Mounting plate for wall/trellis mounting



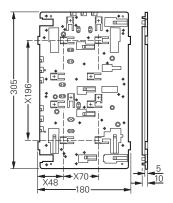
Mounting plate for pipe mounting



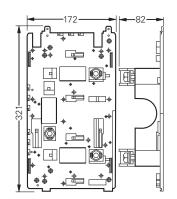
Protective canopy for wall, trellis and pipe clamp mounting plates

Dimensions: Mounting plates and canopies

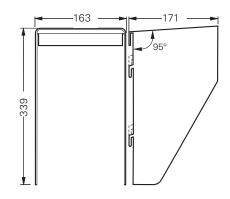
For size 2 safety switches and switch disconnectors



Mounting plate for wall/trellis mounting

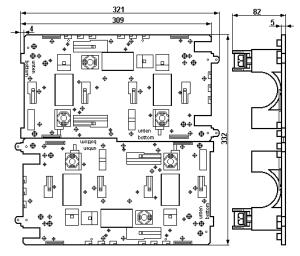


Mounting plate for pipe clamp mounting

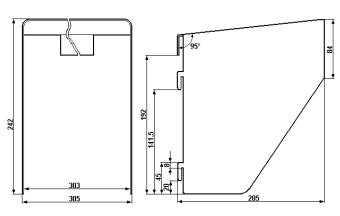


Protective canopy for pipe clamp mounting plates

For size 3 safety switches and switch disconnectors



Mounting plate for pipe clamp mounting (2 plates installed horizontally)



Protective canopy for pipe mounting plates

Notes

Eaton's Crouse-Hinds, B-Line and Oil & Gas Division

The safety you rely on.

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U.S. (Global Headquarters): Eaton's Crouse-Hinds Business

1201 Wolf Street Syracuse, NY 13208

(866) 764-5454 FAX: (315) 477-5179 FAX Orders Only: (866) 653-0640

CrouseCustomerCTR@Eaton.com

For more information:

If further assistance is required, please contact an authorized Eaton Distributor, Sales Office, or Customer Service Department.

Australia

Phone +61-2-8787-2777 Fax +61-2-9609-2342 crousehindsanz@eaton.com

China

Phone +86-21-2899-3600 Fax +86-21-2899-4055 ECHsales@eaton.com

Great Britain

Phone +44-247-630-89 30 Fax +44-247-630-10 27 sales5@eaton.com

India

Phone +91-124-4683888 Fax +91-124-4683899 cchindia@eaton.com

Canada

Toll Free +1-800-265-0502 Fax +1-800-263-9504 Fax orders only: +1-866-653-0645

Korea

Phone +82-2-3484-6783 Fax +82-2-3484-6778 CCHK-sales@ cooperindustries.com

Mexico/Latin America/

Caribbean
Phone +52-555-804-4000
Fax +52-555-804-4020
mxmercadotecnia@
cooperindustries.com

Spain

Phone +34-9-37362710 Fax +34-9-37835055 sales.CCH.es@ cooperindustries.com

Middle East (Dubai)

Phone +971-4-427-2522 / 2500 Fax +971-4-429-8521 CHMEsales@Eaton.com

The Netherlands

Phone +31-10-2452145 Fax +31-10-2452121 CHRD_mail@Eaton.com

Norway

Phone +47-32-244600 Fax +47-32-244646 CHLloffice@eaton.com

Singapore:

Phone +65-6645-9888 Fax +65-6297-4819 CHSI-Sales@Eaton.com

Turkey

Phone +90-216-464-20-20 Fax +90-216-464-20-10 infoEGTurkey@eaton.com

Russia

Phone +7-495 510-24-27 Fax +7-495 510-24-28 info@cooper.ru.com www.cooper-russia.ru

Eaton's Crouse-Hinds Division

1201 Wolf Street Syracuse, NY 13208 (866) 764-5454 CrouseCustomerCTR@Eaton.com

Eaton

1000 Eaton Boulevard Cleveland, OH 44122 United States Eaton.com

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