

GHG 293

GHG 292

**Technical data**

Ex-Control switch Type 292 without and Type 293 with measuring instrument	with GHG 29	with GHG 28
Marking to 94/9/EC	II 2 G Ex ad ia IIC T5/T6 II 2 D Ex tD A21 IP66 T80 °C	II 2 G Ex ad ia IIC T5/T6 II 2 D Ex tD A21 IP66 T80 °C
EC-Type Examination Certificate	PTB 99 ATEX 1163	PTB 99 ATEX 1163
IECEX Certificate of Conformity	IECEX BKI 07.0011	IECEX BKI 07.0011
Marking accord. to IECEx	Ex ed ia IIC T5 or T6 Ex tD A21 IP66 T49 °C	Ex ed ia IIC T5 or T6 Ex tD A21 IP66 T49 °C
Permissible ambient temperature	-20 °C to +40 °C -55 °C to +47 °C (T6) ... +55 °C (T5) option	
Rated voltage	max. 500 V	max. 690 V
Rated current	16 A	20 A
Rated current gold contacts	0.4 A	
Overload range (Type 293 only)	10 fold - 25 sec. 25 fold - 4 sec. 50 fold - 1 sec. indicated 1 : 1.5	
Measuring range (Type 293 only)	max. 0 - 25 A direct / n / 1A	
Accuracy (Type 293 only)	Class 2.5	
Circuit (Type 293 only)	moving iron	
Switch rating AC 3	500 V/10 A	690 V/10 A 500 V/16 A 400 V/20 A
Switch rating DC 13	24 V/6 A / 60 V/0.8 A / 110 V/0.5 A / 230 V/0.3 A	
Connecting terminals	2 x 0.5 - 2.5 mm <sup>2</sup> or 1 x 1.0 - 6.0 mm <sup>2</sup>	
Degree of protection accord. EN 60529	IP66	
Cable glands/Gland plates/Enclosure drilling	1 x M25 (Ø 8 - 17 mm)*	
Dimensions (L x W x H)	170 x 110 x 129 mm	225 x 110 x 129 mm
Weight	approx. 1.10 kg (1 level) approx. 1.25 kg (2 level) approx. 1.40 kg (3 level)	approx. 1.90 kg (1 level) approx. 2.05 kg (2 level) approx. 2.20 kg (3 level)
Enclosure material	glass-fibre-reinforced polyester	
Enclosure colour	black	

\* Brass flange for metal entries available on request (except for II D at date of publication).

## Ex-Control switches



### Ordering code for Control switch (Code 2) Code A - B1 - B2 - C - D - E1 - E2 - F

A	B1	B2	C	D	E	E2	F 1)
GHG 29_	_	_	_	_	_	_	_

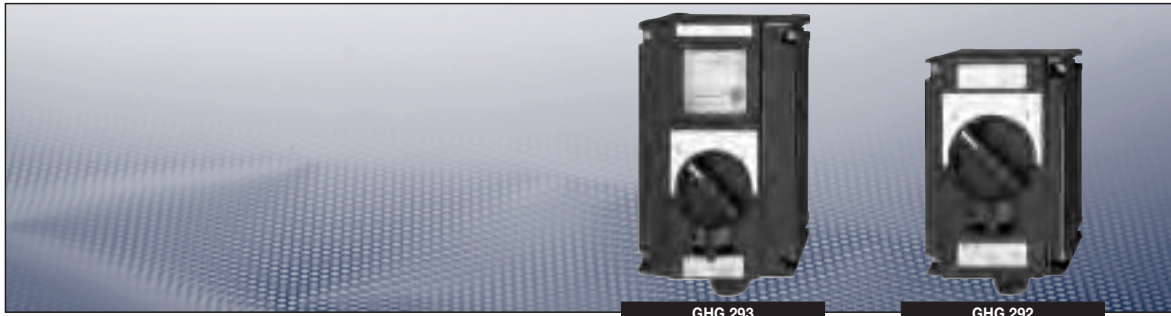
Code	Component	Code
A	Control switch	GHG 292
	Control switch with measuring instrument	GHG 293

Code	Switch mechanism	Code
B1	spring - engaging - spring	4
	engaging - engaging - engaging	5
	engaging - engaging	6
	spring - engaging - engaging	7
	engaging - engaging - spring	8

Code	Contact	Silver contact points	Code	Silver contact points
B2		060		034
		062		037
		065		049
		061		023
		063		019
		067		033
		011		024

Other versions as well as gold contact points are available on request.

Code	Contact label	Inscription	Code	Inscription	Code
C		0	I	001	0
		I	II	002	I
		STOP	START	003	AUS
		HAND	AUTO	004	AUS
		SENKEN	HEBEN	005	ÖRTLICH
		REMOTE	LOCAL	006	START
		I	0	II	007
		AUS	BETRIEB	EIN	008
		AUS	0	EIN	009
		AUF	0	AB	010
		Entriegelt	0	Verriegelt	011
		OUT	OF	HAND	012
		LOCAL	REMOTE	AUTO	013
		STOP	0	START	014
		HAND	0	AUTO	015
		AUF	AUS	ZU	016
		HAND	AUS	AUTO	017
				II	018
				EIN	019
				AUTO	020
				FERN	021
			STOP	022	
			ON	023	
			AUTO	024	
			START	025	
			AUTO	026	
			STOP	027	
			SENKEN	028	
			ON	029	
			EIN	030	
			AUTO	031	
			OFF	032	
			III	033	



GHG 293

GHG 292

**Ordering code for Control switch (Code 2) Code A - B1 - B2 - C - D - E1 - E2 - F**

Code	Locking facility	Code
D	None <input type="checkbox"/>	0
	Centre <input type="checkbox"/>	1
	Left <input type="checkbox"/>	2
	Right <input type="checkbox"/>	3

Code	Movement	Code
E1	Direct connection	01
	Ct connection 1 /A	02
	Connection 0 - 20/24 mA (scale 0-100% / 120%)	05
	Connection 4 - 20/24 mA (scale 0-100% / 120%)	06
	Moving-coil connection 0 - 20/24 mA (scale 0-100% / 120%)	07
	Moving-coil connection 4 - 20/24 mA (scale 0-100% / 120%)	08

Code	Mesasuring range/scale	Code	Measuring range/scale	Code
E2	0 - 1	002	0 - 75 /112.5 A	013
	0 - 2.5 / 3.75 A <sup>2)</sup>	003	0 - 100 / 150 A	014
	0 - 5 / 7.5 A <sup>2)</sup>	004	0 - 150 / 225 A	015
	0 - 10 / 15 A <sup>2)</sup>	005	0 - 200 / 300 A	016
	0 - 15 / 22.5 A	006	0 - 250 / 375 A	017
	0 - 20 / 30 A <sup>2)</sup>	008	0 - 300 / 450 A	018
	0 - 30 / 45 A	009	0 - 400 / 600 A	019
	0 - 40 / 60 A	010	0 - 500 / 750 A	020
	0 - 50 / 75 A	011	0 - 600 / 900 A	021
	0 - 60 / 90 A	012	0 - 100% / 150%	031

Code	Buil-in components designation		
F1	Entry type	Entry direct in enclosure	GEH
		Entry via plastic flange	FLK
		Entry via metal flange	FLM
F2	Entry element	only threaded entry	BO
		Threaded plug	SV
		Cable entry moulded plastic	GK
		Cable entry metal*	GM*
		Cable entry with plug	GV
			M1 Ø ..
F3	Size	M12, M16, M20, M25, M32, M40	M1 Ø ..
F4	Number	Ø21, Ø26	..
		No. of entries	..

<sup>1)</sup> The code will represent only a selected part of configuration.

## Ex-Control switches



GHG 292

GHG 293

### Example for ordering code (Code 2)

Control switch with silver contact points, Switch mechanism „5“, Contact arrangement „063“,

Label „HAND-0-AUTO“, can be locked at „0“,

Measuring instrument AM72 for Ct connection „n/1A“, Scale „0 - 50/75 A“,

Cable entry 1 x threaded entry M25 on bottom direct entry.

Code	B1	B2	C	D	E1	E2	F1	F2	F3	F4
GHG 295 /	5 /	063 /	015 /	1 /	2 /	011 /	GEH /	BO /	M25 /	1

### Ordering details

Switching mechanism	Contact system	Code	Label inscription	Order No.
Control switch Type 294 with silver contacts Version with locking facility in „0“-, or position „right (Code 3)“, cable entry 1 x M25 on bottom.				
6		062	0 I	<b>GHG 292 1000 R0001</b>
6		065	0 I	<b>GHG 292 1000 R0002</b>
4		067	0 I	<b>GHG 292 1000 R0003</b>
8		067	0 I	<b>GHG 292 1000 R0004</b>
4		037	0 I	<b>GHG 292 2000 R0002</b>
8		037	0 I	<b>GHG 292 2000 R0003</b>
5		024	I 0 II	<b>GHG 292 2000 R0004</b>
5		023	HAND OFF AUTO	<b>GHG 292 2001 R0001</b>

Switching mechanism	Contact system	Code	Label inscription	Order No.
Control switch with measuring instrument Type 295 with silver contacts Version with locking facility in „0“-, or "left" position, Measuring instrument AM 72 for CT connection n/1A, Scale 0 - 100/150 %. 1 x M32 on bottom.				
6		062	0 I	<b>GHG 293 1000 R0001</b>
6		065	0 I	<b>GHG 293 1000 R0002</b>



GHG 293

GHG 292

### Ordering details

Measuring range	Order No.
<b>Measuring instrument AM 72, direct measurement</b>	
Version with 1 x cable entry M25	
0 - 1 / 1.5 A	GHG 412 8281 R0002
0 - 2.5 / 3.75 A	GHG 412 8281 R0003
0 - 5 / 7.5 A	GHG 412 8281 R0004
0 - 10 / 15 A	GHG 412 8281 R0005
0 - 16 / 24 A	GHG 412 8281 R0007
0 - 20 / 24 mA 0-100% / 120% (Ri = 320 Ω)	GHG 412 8285 R0033
4 - 20 / 24 mA 0-100% / 120% (Ri = 320 Ω)	GHG 412 8286 R0035
<b>Measuring instrument AM 72, Ct connection n/1A</b>	
Version with 1 x cable entry M25	
0 - 1 / 1.5 A	GHG 412 8282 R0002
0 - 2.5 / 3.75 A	GHG 412 8282 R0003
0 - 5 / 7.5 A	GHG 412 8282 R0004
0 - 10 / 15 A	GHG 412 8282 R0005
0 - 15 / 22.5 A	GHG 412 8282 R0006
0 - 20 / 30 A	GHG 412 8282 R0008
0 - 30 / 45 A	GHG 412 8282 R0009
0 - 40 / 60 A	GHG 412 8282 R0010
0 - 50 / 75 A	GHG 412 8282 R0011
0 - 60 / 90 A	GHG 412 8282 R0012
0 - 75 / 112.5 A	GHG 412 8282 R0013
0 - 100 / 150 A	GHG 412 8282 R0014
0 - 150 / 225 A	GHG 412 8282 R0015
0 - 200 / 300 A	GHG 412 8282 R0016
0 - 250 / 375 A	GHG 412 8282 R0017
0 - 300 / 450 A	GHG 412 8282 R0018
0 - 400 / 600 A	GHG 412 8282 R0019
0 - 500 / 750 A	GHG 412 8282 R0020
0 - 600 / 900 A	GHG 412 8282 R0021
0 - 100% / 150%	GHG 412 8282 R0031