



Type 411 83



Type 411 82



Type 411 81

Technical data

Ex-control stations Type 411 81 | Type 411 82 | Type 411 83

Marking accd. to 2014/34/EU	D II 2 G Ex ed ib m IIC T6 D II 2 D Ex tD A21 IP66 T80 °C	
EC-Type Examination Certificate	PTB 00 ATEX 3117	
IECEX Certificate of Conformity	IECEX BKI 04.0003	
Marking accd. to IECEX	Ex e II T6, Ex e ib IIC T6, Ex ed IIC T6 or Ex ed ib IIC T6	
Permissible ambient temperature	-20 °C up to +40 °C -55 °C up to +55 °C (option)	
Rated voltage	690 V AC	
Rated current	16 A	
Rated making-/rated breaking capacity accd. EN 60947-5-1	Ex41 AC-15: U <sub>e</sub> 250 V / I <sub>e</sub> 6 A U <sub>e</sub> 500 V / I <sub>e</sub> 4 A DC-13: U <sub>e</sub> 24 V / I <sub>e</sub> 6 A U <sub>e</sub> 110 V / I <sub>e</sub> 0.5 A	Ex23 AC-15: U <sub>e</sub> 230 V / I <sub>e</sub> 6 A U <sub>e</sub> 500 V / I <sub>e</sub> 4 A DC-13: U <sub>e</sub> 24 V / I <sub>e</sub> 2 A U <sub>e</sub> 230 V / I <sub>e</sub> 0.5 A
Connecting terminals	2 x 2.5 mm <sup>2</sup>	
Protection class	I	
Degree of protection accd. to EN 60529	IP66 (standard)	
Cable glands/Gland plates/Enclosure drilling	1 x M25 cable gland or 1 x M20 thread with brass flange	
Enclosure material	Polyamide	
Enclosure colour	black	
	<b>Type 411 81</b>	
Dimensions (L x W x H)	85 x 85 x 77.5 mm	
Weight (empty)	0.25 kg	
	<b>Type 411 82</b>	
Dimensions (L x W x H)	125 x 85 x 77.5 mm	
Weight (empty)	0.35 kg	
	<b>Type 411 83</b>	
Dimensions (L x W x H)	165 x 85 x 77.5 mm	
Weight (empty)	0.45 kg	
	<b>Type 411 82 with measuring instrument AM 72</b>	
Movement	Moving iron	Moving coil
Marking accd. to 2014/34/EU	D II G Ex e II	D II G Ex ib IIC
Accuracy	Class 2.5	Class 1.5
Overload range	10-fold -25 sec. 25-fold - 4 sec. 50-fold - 1 sec.	10-fold -5 sec.
Measuring range	n / 1A 0 - 25 A direct	0 - 20 mA 4 - 20 mA
Inductance L <sub>i</sub>	-	≤ 0.1 mH
Capacitance C <sub>i</sub>	-	≤ 0.1 nF
Open circuit voltage max. U <sub>i</sub>	-	30 V
Short circuit current max. I <sub>i</sub>	-	150 mA
Connecting terminals	2 x 1.5 - 4 mm <sup>2</sup>	
Weight	0.70 kg	

<sup>1)</sup> Base enclosure can be rotated after wards (entry from top or down)  
Other versions available on request

## Ex-moulded plastic control stations GHG 411



Type 411 81...01



Type 411 81...12



Type 411 81...18



Type 411 81...04

### 4 Ordering details Type 411 81 with 1 built-in component

Content	Built-in components	Weight approx.	Order No.
	1 x pushbutton DRT 1 NO + 1 NC label: "0, I, START, STOP"	0.40 kg	GHG 411 8100 R0001
	1 x mushroom-head pushbutton SGTE 1 NO + 1 NC "Emergency stop"	0.45 kg	GHG 411 8100 R0002
	1 x mushroom-head pushbutton SGTE 1 NO + 1 NC "Emergency stop" with key unlocking	0.50 kg	GHG 411 8100 R0012
	1 x double pushbutton DDT 1 NO + 1 NC label: "0, I, START, STOP"	0.45 kg	GHG 411 8100 R0009
	1 x key-operated switch SLS 2 NO SW 5 "engaging-engaging-engaging" label: "I 0 II"	0.52 kg	GHG 411 8100 R0018
	1 x control switch SCT 1 change-over SW 6 "engaging-engaging" label: HAND - AUTO label: "0 - I" label: "I - II"	0.45 kg 0.45 kg 0.45 kg	GHG 411 8100 R0003 GHG 411 8100 R0004 GHG 411 8100 R0005
	1 x control switch SCT 2 NO SW 5 "engaging-engaging-engaging" label: HAND - 0 - AUTO label: "I 0 II" label: "Local Remote Auto"	0.45 kg 0.45 kg 0.45 kg	GHG 411 8100 R0006 GHG 411 8100 R0007 GHG 411 8100 R0008



Type 411 82...18



Type 411 82...17



Type 411 82...03



Type 411 82...01

Ordering details Type 411 82 with 2 built-in components

Content	Built-in components	Weight approx.	Order No.
	2 x pushbutton DRT 1 NO + 1 NC each label: "0, I, START, STOP"	0.54 kg	GHG 411 8200 R0001
X1—⊗—X2 	1 x signal lamp SIL 20-250 V AC/DC coloured lens cover: „white, red, green, yellow“ 1 x double pushbutton DDT 1 NO + 1 NC label: "0, I, START, STOP"	0.65 kg	GHG 411 8200 R0003
	1 x double pushbutton DDT 1 NO + 1 NC label: "0, I, START, STOP" 1 x mushroom-head pushbutton SGT 1 NO + 1 NC "emergency stop"	0.57 kg	GHG 411 8200 R0016
	1 x control switch SCT 1 change-over SW 6 "engaging-engaging" label: "0 - I" 1 x mushroom-head pushbutton SGTE 1 NO + 1 NC "emergency stop"	0.57 kg	GHG 411 8200 R0017
X1—⊗—X2 	1 x signal lamp SIL 20-250 V AC/DC coloured lens cover: „white, red, green, yellow“ 1 x key-operated switch 2 NO SW 5 "engaging-engaging-engaging" label: "I 0 II"	0.65 kg	GHG 411 8200 R0018

## Ex-moulded plastic control stations GHG 411



Type 411 83...01



Type 411 83...03



Type 411 83...23



Type 411 83...04

### 4 Ordering details Type 411 83 with 3 built-in components

Content	Built-in components	Weight approx.	Order No.
<p>X1 — ⊗ — X2</p>	<p>1 x signal lamp SIL 20-250 V AC/DC coloured lens cover: „white, red, green, yellow“ 2 x pushbutton DRT 1 NO + 1 NC each label: “0, I, START, STOP“</p>	0.76 kg	GHG 411 8300 R0001
<p>X1 — ⊗ — X2</p>	<p>1 x signal lamp SIL 20-250 V AC/DC coloured lens cover: „white, red, green, yellow“ 1 x double pushbutton DDT 1 NO + 1 NC label: “0, I, START, STOP“ 1 x mushroom-head pushbutton SGTE 1 NO + 1 NC “emergency stop“</p>	0.80 kg	GHG 411 8300 R0003
<p>1 — ⊠ — 2</p>	<p>1 x measuring instrument AM72 CT connection n/1A Scale 0 -100%/150% 1 x control switch SCT 1 NO + 1 NC SW 8 “engaging-engaging-spring return“ label: “0 - I“</p>	0.92 kg	GHG 411 8300 R0023
<p>X1 — ⊗ — X2</p>	<p>1 x signal lamp SIL 20-250 V AC/DC coloured lens cover: „white, red, green, yellow“ 1 x double pushbutton DDT 1 NO + 1 NC label: “0, I, START, STOP“ 1 x control switch SCT 1 change-over SW 6 “engaging-engaging“ label: “HAND - AUTO“</p>	0.80 kg	GHG 411 8300 R0004

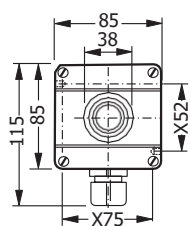


Measuring instrument AM72

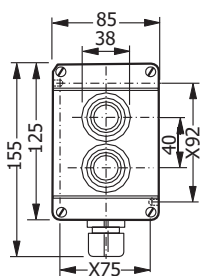
Ordering details measuring instrument AM72, Type 411 82

Content	Movement	Weight	Order No.
<b>Version direct measurement with 1 x entry and cable gland M25</b>			
0 - 1 / 1.5 A	Moving iron	0.70 kg	GHG 411 8281 R0002
0 - 2.5 / 3.75 A	Moving iron	0.70 kg	GHG 411 8281 R0003
0 - 5 / 7.5 A	Moving iron	0.70 kg	GHG 411 8281 R0004
0 - 10 / 15 A	Moving iron	0.70 kg	GHG 411 8281 R0005
0 - 16 / 24 A	Moving iron	0.70 kg	GHG 411 8281 R0007
0 - 20 / 24 mA 0-100% / 120% (Ri =320 Ω)	Moving coil	0.80 kg	GHG 411 8285 R0033
4 - 20 / 24 mA 0-100% / 120% (Ri =320 Ω)	Moving coil	0.80 kg	GHG 411 8286 R0035
<b>Version CT connection n/1A with 1 x entry and cable gland M25</b>			
0 - 1 / 1.5 A	Moving iron	0.70 kg	GHG 411 8282 R0002
0 - 2.5 / 3.75 A	Moving iron	0.70 kg	GHG 411 8282 R0003
0 - 5 / 7.5 A	Moving iron	0.70 kg	GHG 411 8282 R0004
0 - 10 / 15 A	Moving iron	0.70 kg <td GHG 411 8282 R0005	
0 - 15 / 22.5 A	Moving iron	0.70 kg	GHG 411 8282 R0007
0 - 20 / 30 A	Moving iron	0.70 kg	GHG 411 8282 R0008
0 - 30 / 45 A	Moving iron	0.70 kg	GHG 411 8282 R0009
0 - 40 / 60 A	Moving iron	0.70 kg	GHG 411 8282 R0010
0 - 50 / 75 A	Moving iron	0.70 kg	GHG 411 8282 R0011
0 - 60 / 90 A	Moving iron	0.70 kg	GHG 411 8282 R0012
0 - 75 / 112.5 A	Moving iron	0.70 kg	GHG 411 8282 R0013
0 - 100 / 150 A	Moving iron	0.70 kg	GHG 411 8282 R0014
0 - 100% / 150%	Moving iron	0.70 kg	GHG 411 8282 R0001

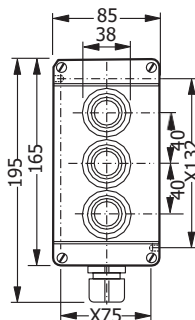
Dimension drawing



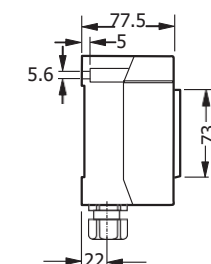
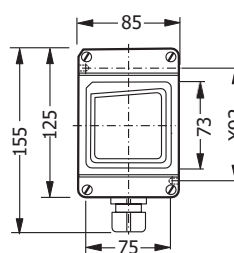
Type 411 81



Type 411 82



Type 411 83



Measuring instrument AM 72

X = fixing dimension

## Accessories for Ex-control stations



Size 1

Size 2

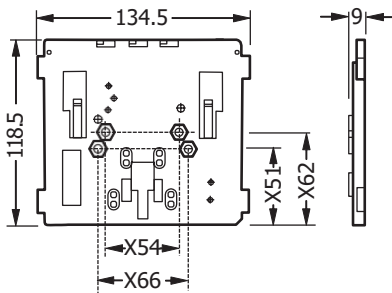
Size 4

### 4 Accessories

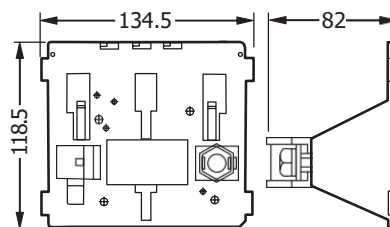
Type	Application	Fixing method	OU	Order No.
<b>Mounting plate for type 411 81</b>				
Size 1	Wall mounting	screwless mounting	1	GHG 610 1953 R0101
Size 1	Pipe clamp	screwless mounting	1	GHG 610 1953 R0102
Size 1	Trellis-work mounting	screwless mounting	1	GHG 610 1953 R0103
Size 4	Wall mounting	snap-on <sup>1)</sup>	1	GHG 610 1953 R0126
Size 4	Trellis-work mounting	snap-on <sup>1)</sup>	1	GHG 610 1953 R0126
Size 4	Pipe clamp	snap-on <sup>1)</sup>	1	GHG 610 1953 R0130
<b>Mounting plate for type 411 82 and 411 83</b>				
Size 2	Wall mounting	screwless mounting	1	GHG 610 1953 R0104
Size 2	Pipe clamp	screwless mounting	1	GHG 610 1953 R0105
Size 2	Trellis-work mounting	screwless mounting	1	GHG 610 1953 R0106
Size 4	Wall mounting	snap-on <sup>1)</sup>	1	GHG 610 1953 R0126
Size 4	Trellis-work mounting	snap-on <sup>1)</sup>	1	GHG 610 1953 R0126
Size 4	Pipe clamp	snap-on <sup>1)</sup>	1	GHG 610 1953 R0130
Plug-in fastener for CEAG modules with 5.5 mm and 11 mm mounting size per 4 pieces			10	GHG 610 1953 R0041

<sup>1)</sup> snap-on with snap-on mounting 5.5 mm

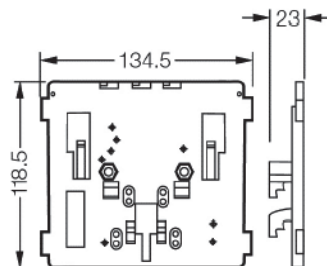
### Dimension drawing



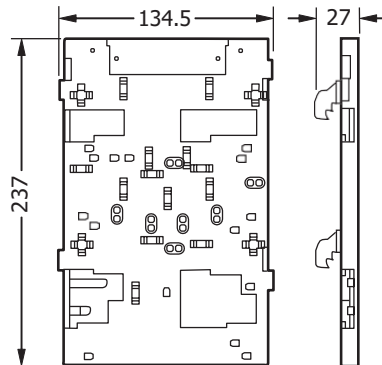
Size 1 wall mounting



Size 1 pipe mounting



Size 1 trellis-work mounting



Size 4 wall mounting

X = fixing dimension

Dimensions in mm