



Technical data

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

Marking to 94/9/EC	⚡ II 2 G Ex ed ib m IIC T6 ⚡ 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 acc. 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 to +40 °C -55 °C 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 _e 250 V / I _e 6 A U _e 500 V / I _e 4 A DC-13: U _e 24 V / I _e 6 A U _e 220 V / I _e 1 A	Ex23 AC-15: U _e 230 V / I _e 6 A U _e 500 V / I _e 4 A DC-13: U _e 24 V / I _e 2 A U _e 230 V / I _e 0.5 A
Connecting terminals	2 x 2.5 mm ²	
Insulation class	I	
Degree of protection accd. EN 60529	IP66 (standard)	
Cable glands/Gland plates/Enclosure drilling	1 x M25 Ex-e cable gland for cables from Ø 8 - 17 mm or 1 x M20 thread	
Enclosure material	Polyamide	
Enclosure colour	Black	

Type 411 81

Dimensions (L x W x H)	85 x 85 x 77.5 mm
Weight (empty)	0.25 kg

Type 411 82

Dimensions (L x W x H)	125 x 85 x 77.5 mm
Weight (empty)	0.35 kg

Type 411 83

Dimensions (L x W x H)	165 x 85 x 77.5 mm
Weight (empty)	0.45 kg

Type 411 82 with measuring instrument AM 72

Movement	Moving iron	Moving coil
Marking to 94/9/EC	⚡ II G Ex e II	⚡ 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 _i	-	≤ 0.1 mH
Capacitance C _i	-	≤ 0.1 nF
Open circuit voltage U _i	-	30 V
Short circuit current I _i	-	150 mA
Connecting terminals	2 x 1.5 - 4 mm ²	
Weight	0.70 kg	

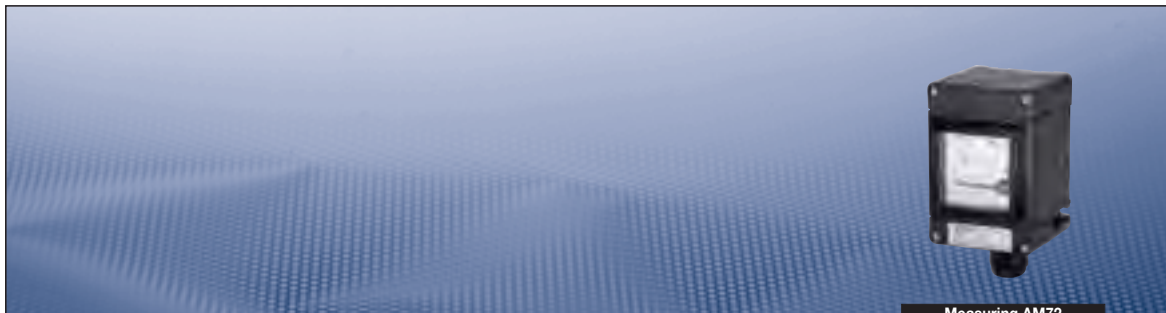
¹⁾ Base enclosure can be rotated afterwards (entry from top or down)
Other versions available on request

Ex-control stations



Ordering details type 411 81 with 1 built-in component

Version	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	0.45 kg	GHG 411 8100 R0003
	label: "0 – I"	0.45 kg	GHG 411 8100 R0004
	label: "I – II"	0.45 kg	GHG 411 8100 R0005
	1 x control switch SCT 2 NO SW 5 "engaging-engaging-engaging" label: HAND – 0 – AUTO	0.45 kg	GHG 411 8100 R0006
	label: "I 0 II"	0.45 kg	GHG 411 8100 R0007
	label: "Local Remote Auto"	0.45 kg	GHG 411 8100 R0008



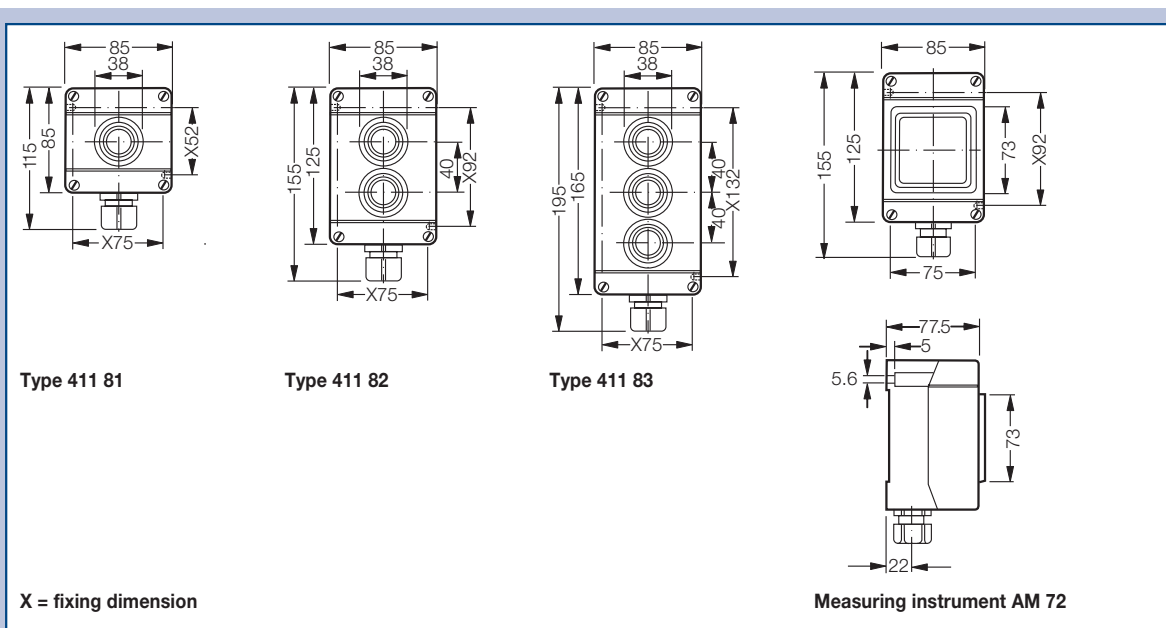
Measuring AM72

Ordering details measuring instrument AM72, type 411 82

Version	Movement	Weight	Order No.
Version direct measurement with 1 x cable entry M25			
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

Version	Movement	Weight	Order No.
Version CT connection n/1A with 1 x entry M25			
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	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



Dimensions in mm