90 AM

Modualr accessories

The 90 AM range, in addition to auxiliaries common for the all circuit breakers, comprises many modular accessories for the protection, command, programming, measurement and signalling in electrical systems.

Technical characteristics page 125

AUXILIARIES AND ACCESSORIES FOR MODULAR CIRCUIT BREAKERS

ELECTRICAL AUXILIARIES FOR CIRCUIT BREAKERS MTC / MT / MTHP / MDC

GW 96 001

AUXILIARY CONTACT OF OPEN/CLOSED POSITION

Code	Contact rating in AC	Contact rating in DC	Type of contacts	No. of modules EN 50022	Pack Carton
GW 96 001	6 A (230 V) 3 A (400 V)	6 A (24 V) 2 A (60 V) 1.5 A (110 V) 1 A (250 V)	1 Changeover	0.5	1/16

APPLICATIONS: signals the position of circuit breaker contacts, when manually open or tripped.
NOTE: up to max. 2 auxiliary contacts can be fitted to each circuit breaker.

GW 96 006

AUXILIARY CONTACT OF FAULT INDICATOR SWITCH

Code	Contact rating in AC	Contact rating in DC	Type of contacts	No. of modules EN 50022	Pack Carton
GW 96 006	6 A (230 V) 3 A (400 V)	6 A (24 V) 2 A (60 V) 1.5 A (110 V) 1 A (250 V)	1 Changeover	0.5	1/16

APPLICATIONS: signals the automatic trip of the circuit breaker caused by overloading, short-circuiting or earth leakage.
In the event of manual manoeuvring, it does not indicate the change of position of the contacts.
NOTE: up to max. 2 auxiliary contacts can be fitted to each circuit breaker.

GW 96 009

ADJUSTABLE AUXILIARY CONTACT OF FAULT INDICATOR SWITCH OR OPEN/CLOSED POSITION

Code	Contact rating in AC	Contact rating in DC	Type of contacts	No. of modules EN 50022	Pack Carton
GW 96 009	6 A (230 V) 3 A (400 V)	6 A (24 V) 2 A (60 V) 1.5 A (110 V) 1 A (250 V)	1 Changeover	0.5	1/16

APPLICATIONS: using the specific button key, 2 separate functions can be obtained: signalling of automatic trip of the circuit breaker (auxiliary contact of fault indicator switch) or signalling of the circuit breaker contact position (auxiliary contact of position).
NOTE: up to max. 2 auxiliary contacts can be fitted to each circuit breaker.

GW 96 012

SHUNT TRIP RELEASES

Code	Rated voltage (V)	No. of modules EN 50022	Pack Carton
GW 96 011	12-48 ac/dc	1	1/8
GW 96 012	110-125 dc 110-415 ac	1	1/8

APPLICATIONS: used for the remote trip of the coupled circuit breaker.
CHARACTERISTICS: minimum operating voltage: 0.7 Vn min. Maximum operating voltage: 1.1 Vn max.
NOTE: up to max. one release (shunt trip or under voltage) can be fitted to each circuit breaker with an auxiliary contact.

GW 96 016

UNDER VOLTAGE RELEASES (DELAYED)

Code	Rated voltage (V)	No. of modules EN 50022	Pack Carton
GW 96 016	230 ac	1	1/8
GW 96 017	24 ac/dc	1	1/8
GW 96 018	48 ac/dc	1	1/8

APPLICATIONS: constantly controls the effective value of the voltage, and trips the coupled circuit breaker when the voltage falls below its minimum value.
The 300 ms delay allows any tiny blackouts to be avoided, preventing the untimely tripping of circuit breaker.
NOTE: up to max. one release (shunt trip or under voltage) can be fitted to each circuit breaker with an auxiliary contact.

ACCESSORIES FOR CIRCUIT BREAKERS MTC / MT / MTHP / MDC

GW 96 022

SEALABLE SCREW CAPS

Code	Suitable for	Nr. pieces per module	Pack Carton
GW 96 022	MTC/MT/MDC	2	10/100
GW 96 026	MTHP/BDHP	1	10/100

APPLICATIONS: allows for sealing of terminal screws, preventing access to cable connections.

GW 96 042

POLE SEPARATOR

Code	Suitable for	Pack Carton
GW 96 042	MT/MDC	10/100

ELECTRICAL AUXILIARIES FOR RCCB'S - SD

GW 96 007

AUXILIARY CONTACTS FOR OPEN/CLOSED POSITION

Code	Suitable for	Contact rating in AC	Contact rating in DC	Type of contacts	No. of modules EN 50022	Pack Carton
GW 96 003	SD 4P - 3 modules	6 A (230 V) 2 A (400 V)	4 A (24 V) 1 A (110 V)	1 NO - 1 NC	0.5	1/12
GW 96 005	SD 125 A	5 A (230 V) 0.5 A (400 V)		1 NO - 1 NC	0.5	1
GW 96 007	SD B type	5 A (230 V)	0.5 A(220 V)	1 NO - 1 NC	0.5	1

APPLICATIONS: signals the position of circuit breaker contacts, when manually open or tripped.
NOTE: the auxiliary contact GW96003 cannot be used with 2P 2 modules RCCB's.

GW 96 004

AUXILIARY CONTACT OF FAULT INDICATOR SWITCH

Code	Suitable for	Contact rating in AC	Contact rating in DC	Type of contacts	No. of modules EN 50022	Pack Carton
GW 96 004	SD 4P - 3 modules	6 A (230 V) 2 A (400 V)	4 A (24 V) 1 A (110 V)	1 NO - 1 NC	0.5	1/12

APPLICATIONS: signals the automatic trip of the circuit breaker due to an earth leakage. In the event of manual manoeuvring, it does not indicate the change of position of the contacts.
NOTES: cannot be used with 2P RCCB's in 2 modules and type B RCCB's.

GW 96 015

SHUNT TRIP RELEASE

Code	Suitable for	Rated voltage (V)	No. of modules EN 50022	Pack Carton
GW 96 015	SD 4P - 3 modules	230 AC	0.5	1/12

APPLICATIONS: used for the remote trip of the coupled circuit breaker.
NOTES: cannot be used with 2P RCCB's in 2 modules and type B RCCB's.

ACCESSORIES FOR RCCB'S - SD

GW 96 036

COUPLE OF SEALABLE SCREW CAPS

Code	Suitable for	Pack Carton
GW 96 036	SD 2P - 2 modules	1/50
GW 96 038	SD 4P - 3 modules	1/10
GW 96 039	SD 4P - 4 modules	1/10

NOTE: cannot be used with type B RCCB's.

ACCESSORIES FOR MODULAR CIRCUIT BREAKERS

GW 96 041

PADLOCKING LEVER BLOCK

Code	Suitable for	Pack Carton
GW 96 041	MTC/MT/MTHP/MDC	10/100

APPLICATIONS: to lock the control lever in "ON" or "OFF" positions. For padlocks max Ø 8mm.

GW D6 766

SPACER INSERT

Code	No. of modules EN 50022	Pack Carton
GW D6 766	0.5	12

CHARACTERISTICS: it reduces heating when modular devices are installed side-by-side and it allows crossing of wiring cables.

APPLICATIONS: it's suggested the use of spacer insert to separate the elettromechanical devices (e.g. circuit breakers, contactors, latching relays etc...) from electronic devices (e.g. time switches etc...) for optimum operation.

BUSBARS

MONOBLOC BUSBARS

GW 96 504 F

MONOBLOC BUSBARS 2P

Code	Type of main	Type of outgoing	Rated current	Pack Carton
Length: 13 modules				
GW 96 504 F	IDP/MDC/MT 2P	11 MTC 1P+N/2P	63 A	1/10

ACCESSORY SUPPLIED: closing plug (to be used only if the busbar is cut); plumbable screw caps for SD with an adhesive indicating voltage presence.
APPLICATIONS: busbars indicated for domestic enclosures.

BUSBARS FOR CIRCUIT BREAKERS MTC

GW 96 500

PIN BUSBARS

Code	Type	Colour	Rated current	Pack Carton
Length: 13 modules				
GW 96 500	1P	Grey	80 A	1/25
GW 96 501	1P	Blue	80 A	1/25
Length: 1 meter (56 modules)				
GW 96 988	1P	White	80 A	50

NOTE: not compatible with GW96963 end caps.

BUSBARS FOR CIRCUIT BREAKERS MT / MDC / SD

GW 96 984

PIN BUSBARS

Code	Type	Rated current	Pack Carton
Length: 12 modules			
GW 96 984	1P	63 A	50
GW 96 985	2P	63 A	25
GW 96 986	3P	63 A	25
GW 96 987	4P	80 A	20
Length: 1 meter (56 modules)			
GW 96 988	1P	80 A	50
GW 96 989	2P	63 A	20
GW 96 990	3P	63 A	20
GW 96 991	4P	80 A	15

NOTES: 12 module versions complete with end caps.
The 1P versions are not compatible with GW96963 end caps.
Busbars are suitable also for modular switch-disconnectors with red lever.

GW 96 992

FORK BUSBARS

Code	Type	Rated current	Pack Carton
Length: 12 modules			
GW 96 992	1P	63 A	50
GW 96 993	2P	63 A	25
GW 96 994	3P	63 A	25
GW 96 995	4P	80 A	20
Length: 1 meter (56 modules)			
GW 96 996	1P	63 A	50
GW 96 997	2P	63 A	20
GW 96 998	3P	63 A	20
GW 96 999	4P	80 A	15

NOTES: 12 module versions complete with end caps.
Busbars are suitable also for modular switch-disconnectors with red lever.

GW 96 962

CONNECTION TERMINALS FOR PIN BUSBARS

Code	Suitable for	Type	Length (mm)	Conductors section (mm²)	Pack Carton
GW 96 503	1P busbar for MTC			6-25	1/50
GW 96 961	1P, 2P, 3P busbar for MT/MDC/IDP	Short	14	25	50
GW 96 962	4P busbar for MT/MDC/IDP	Long	27	25	50

GW 96 963

CLOSING CAPS FOR BUSBARS

Code	Type	Pack Carton
GW 96 963	1P	10
GW 96 964	2P	10
GW 96 965	3P	10
GW 96 966	4P	10

APPLICATIONS: to isolate the ends of the connection busbars.
NOTE: code GW96963 is not compatible with push rod 1P busbars.

GW 96 967

TEETH-COVER ROW FOR BUSBARS

Code	No. teeth-cover	Pack Carton
GW 96 967	5	10

APPLICATIONS: to insulate the unused busbar teeth.

PROTECTION

DISCONNECTABLE FUSE-HOLDERS

GW 96 312

DISCONNECTABLE FUSE-HOLDERS

Code	Rated current	Fuse dimension (mm)	No. of modules EN 50022	Rated voltage	Pack Carton
No. of poles: 1P					
GW 96 206	20 A	8.5x31.5	1	400 V ac	12
GW 96 226	20 A	10.3x38	1	1000 V dc	12
GW 96 205	32 A	10.3x38	1	690 V ac	12
GW 96 207	50 A	14x51	1.5	690 V ac	12
No. of poles: 1P+N					
GW 96 216	20 A	8.5x31.5	2	400 V ac	6
GW 96 220	32 A	10.3x38	1	690 V ac	12
GW 96 215	32 A	10.3x38	2	690 V ac	6
GW 96 217	50 A	14x51	3	690 V ac	6
GW 96 218	100 A	22x58	4	690 V ac	2
No. of poles: 2P					
GW 96 301	20 A	8.5x31.5	2	400 V ac	6
GW 96 227	20 A	10.3x38	2	1000 V dc	6
GW 96 302	32 A	10.3x38	2	690 V ac	6
GW 96 303	50 A	14x51	3	690 V ac	6
No. of poles: 3P					
GW 96 306	20 A	8.5x31.5	3	400 V ac	4
GW 96 307	32 A	10.3x38	3	690 V ac	4
GW 96 308	50 A	14x51	4.5	690 V ac	4
No. of poles: 3P+N					
GW 96 311	20 A	8.5x31.5	4	400 V ac	3
GW 96 312	32 A	10.3x38	4	690 V ac	3
GW 96 313	50 A	14x51	6	690 V ac	3
GW 96 314	100 A	22x58	8	690 V ac	1

APPLICATIONS: protection against low voltage overcurrents in industrial and advanced tertiary application in case of high short-circuit currents.
NOTES: the products GW96226 and GW96227 are suitable for the protection and isolation of the photovoltaic strings too (Utilization category DC20B)

FUSES

GW 72 105

CYLINDRICAL FUSES - TYPE GG

Code	Rated current	Rated voltage AC	Breaking capacity AC	Pack Carton
Dimensions (mm): Ø 8.5 x 31.5				
GW 72 111	2 A	400 V	50 kA	10/100
GW 72 112	4 A	400 V	50 kA	10/100
GW 72 113	6 A	400 V	50 kA	10/100
GW 72 114	10 A	400 V	50 kA	10/100
GW 72 115	16 A	400 V	50 kA	10/100
GW 72 116	20 A	400 V	50 kA	10/100
GW 72 117	25 A	400 V	50 kA	10/100
Dimensions (mm): Ø 10.3 x 38				
GW 72 104	2 A	500 V	120 kA	10/100
GW 72 105	6 A	500 V	120 kA	10/100
GW 72 107	10 A	500 V	120 kA	10/100
GW 72 101	16 A	500 V	120 kA	10/100
GW 72 108	20 A	500 V	120 kA	10/100
GW 72 109	25 A	500 V	120 kA	10/100
GW 72 110	32 A	400 V	120 kA	10/100
Dimensions (mm): Ø 14 x 51				
GW 72 121	25 A	690 V	80 kA	10/100
GW 72 122	32 A	500 V	80 kA	10/100
GW 72 123	40 A	500 V	80 kA	10/100
GW 72 124	50 A	400 V	80 kA	10/100
Dimensions (mm): Ø 22 x 58				
GW 72 103	63 A	690 V	80 kA	10/30

GW 72 131

CYLINDRICAL FUSES - TYPE GPV

Code	Rated current	Rated voltage DC	Breaking capacity DC	Pack Carton
Dimensions (mm): Ø 10.3 x 38				
GW 72 131	6 A	1000 V	30 kA	10
GW 72 132	8 A	1000 V	30 kA	10
GW 72 133	10 A	1000 V	30 kA	10
GW 72 134	12 A	1000 V	30 kA	10
GW 72 135	16 A	1000 V	30 kA	10
GW 72 136	20 A	1000 V	30 kA	10

APPLICATIONS: photovoltaic systems.

MOTOR PROTECTION SWITCHES

GW 96 758

MOTOR PROTECTION SWITCHES

Code	Operating current	Rated voltage (V)	No. of modules EN 50022	Pack Carton
No. of poles: 3P				
GW 96 751	0.1-0.16 A	230/400 ac	3	1/4
GW 96 752	0.16-0.25 A	230/400 ac	3	1/4
GW 96 753	0.25-0.4 A	230/400 ac	3	1/4
GW 96 754	0.4-0.63 A	230/400 ac	3	1/4
GW 96 755	0.63-1 A	230/400 ac	3	1/4
GW 96 756	1-1.6 A	230/400 ac	3	1/4
GW 96 757	1.6-2.5 A	230/400 ac	3	1/4
GW 96 758	2.5-4 A	230/400 ac	3	1/4
GW 96 759	4-6.3 A	230/400 ac	3	1/4
GW 96 760	6.3-10 A	230/400 ac	3	1/4
GW 96 761	10-16 A	230/400 ac	3	1/4
GW 96 762	16-25 A	230/400 ac	3	1/4
GW 96 763	25-40 A	230/400 ac	3	1/4

APPLICATIONS: protection of electric motors both in single-phase and 3-phase distribution. Using an adjustment screw, it is possible to set the thermal tripping threshold within an adjustable value range with a ratio of 1:1.6.

ACCESSORIES FOR MOTOR PROTECTION SWITCHES

GW 96 765

AUXILIARY CONTACTS FOR MOTOR PROTECTION SWITCHES

Code	Contacts Description	No. of contacts	Type of contacts	No. of modules EN 50022	Pack Carton
GW 96 764	Position	2	1 NO + 1 NC	0.5	1/12
GW 96 765	Fault/position indicator	2	CHANGE-OVER	0.5	1/12

GW 96 767

SHUNT TRIP RELEASE FOR MOTOR PROTECTION SWITCHES

Code	Rated voltage (V)	No. of modules EN 50022	Pack Carton
GW 96 767	110-415 ac	1	1/6

GW 96 769

UNDER VOLTAGE RELEASE FOR MOTOR PROTECTION SWITCHES

Code	Rated voltage (V)	No. of modules EN 50022	Pack Carton
GW 96 769	230 ac	1	1/6
GW 96 770	400 ac	1	1/6

GW 96 771

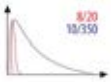
SURFACE-MOUNTING BOX IP54 FOR MOTOR PROTECTION SWITCHES

Code	Description	Pack Carton
GW 96 771	Box with rotary manoeuvre	1

SURGE PROTECTIVE DEVICES LST

GW D6 405

SURGE PROTECTIVE DEVICES TYPE 1+2



Code	Impulse current	Maximum discharge current	Rated voltage AC	No. of modules EN 50022	Aux end-of-life contact	Pack Carton
No. of poles: 1P+N						
GW D6 401	12.5 kA	65 kA	230 V	2	No	1
GW D6 404	25 kA	100 kA	230 V	4	Yes	1
No. of poles: 3P+N						
GW D6 402	12.5 kA	65 kA	400 V	4	No	1
No. of poles: 3P+N						
GW D6 405	25 kA	100 kA	400 V	8	Yes	1

CHARACTERISTICS: SPDs are equipped with extractable cartridges with optic end-of-life signal.

GW D6 420

SURGE PROTECTIVE DEVICES TYPE 2

Code	Maximum discharge current	Rated voltage AC	No. of modules EN 50022	Aux end-of-life contact	Pack Carton
No. of poles: 1P					
GW D6 411	40 kA	230 V	1	No	1
GW D6 412	40 kA	230 V	1	Yes	1
GW D6 413	40 kA	400 V	1	No	1
No. of poles: 1P+N					
GW D6 407	20 kA	230 V	2	No	1
GW D6 417	40 kA	230 V	2	No	1
GW D6 418	40 kA	230 V	2	Yes	1
No. of poles: 3P+N					
GW D6 409	20 kA	400 V	4	No	1
GW D6 419	40 kA	400 V	4	No	1
GW D6 420	40 kA	400 V	4	Yes	1

CHARACTERISTICS: SPDs are equipped with extractable cartridges with optic end-of-life signal.

GW D6 426

SURGE PROTECTIVE DEVICES TYPE 2 FOR PHOTOVOLTAIC APPLICATIONS

Code	Maximum discharge current	Rated voltage DC	No. of modules EN 50022	Aux end-of-life contact	Pack Carton
GW D6 426	40 kA	600 V	3	No	1
GW D6 428	40 kA	1000 V	3	No	1

CHARACTERISTICS: SPDs are equipped with extractable cartridges with optic end-of-life signal.

GW D6 430

SURGE PROTECTIVE DEVICES FOR TELECOM AND DATALINE

Code	Maximum discharge current	Rated voltage AC	No. of modules EN 50022	Aux end-of-life contact	Pack Carton
GW D6 430	10 kA	50 V	1	No	1

GW D6 433

EXTRACTABLE SPARE CARTRIDGES FOR LST TYPE 1+2

Code	Type	Impulse current	Pack Carton
Suitable for: GWD6401 and GWD6402			
GW D6 451	Phase	12.5 kA	1
GW D6 452	Neutral	25 kA	1
GW D6 453	Neutral	50 kA	1
Suitable for: GWD6404 and GWD6405			
GW D6 433	Phase	25 kA	1
GW D6 434	Neutral	50 kA	1
GW D6 435	Neutral	100 kA	1

CHARACTERISTICS: a fissure on the base of the surge protection devices will help you to insert the cartridges, and prevents the insertion of the phase cartridge in place of the neutral one, or viceversa.

GW D6 436

EXTRACTABLE SPARE CARTRIDGES FOR LST TYPE 2

Code	Type	Maximum discharge current	Rated voltage	Pack Carton
Suitable for: from GWD6407 to GWD6420				
GW D6 436	Phase	20 kA	230 V ac	1
GW D6 438	Neutral	20 kA		1
GW D6 441	Phase	40 kA	230 V ac	1
GW D6 442	Phase	40 kA	400 V ac	1
GW D6 443	Neutral	40 kA		1

CHARACTERISTICS: a fissure on the base of the surge protection devices will help you to insert the cartridges, and prevents the insertion of the phase cartridge in place of the neutral one, or viceversa.

GW D6 446

EXTRACTABLE SPARE CARTRIDGES FOR LST TYPE 2 FOR PHOTOVOLTAIC APPLICATIONS

Code	Maximum discharge current	Rated voltage	Pack Carton
Suitable for: GWD6426 and GWD6428			
GW D6 446	40 kA	600 V dc	1
GW D6 448	40 kA	1000 V dc	1

PERMANENT AND TRANSIENT SURGE PROTECTIVE DEVICES POP

GW D6 467

POP 2 POLES (COMBINED SPD+POP WITH MCB INCLUDED)

Code	MCB rated current	SPD Maximum discharge current	Rated voltage AC	No. of modules EN 50022	Pack Carton
MCB type: MT 60					
GW D6 464	25 A	15 kA (Type 2)	230 V	5	1/4
GW D6 465	32 A	15 kA (Type 2)	230 V	5	1/4
GW D6 466	40 A	15 kA (Type 2)	230 V	5	1/4
GW D6 467	50 A	15 kA (Type 2)	230 V	5	1/4
GW D6 468	63 A	15 kA (Type 2)	230 V	5	1/4
MCB type: MTC 60					
GW D6 474	25 A	15 kA (Type 2)	230 V	4	1/4
GW D6 475	32 A	15 kA (Type 2)	230 V	4	1/4

CHARACTERISTICS: every kit is made up of:
- 1 x shunt trip release (GW96012)
- 1 x miniature circuit breaker (MT or MTC) 1P+N 6000 A curve C
- 1 x combined SPD+POP device.

APPLICATIONS: protection for single-phase electrical supply network overvoltage.
It protects against transient overvoltage (e.g. lightning) as well as voltage increases which last for an indefinitive period (e.g permanent overvoltages due to the distribution network or to the loss of neutral).

RESIDUAL CURRENT RELAY WITH SEPARATE TOROID

GW 96 331

RESIDUAL CURRENT RELAY FOR DIN RAIL EN 50022 WITH SEPARATE TOROID

Code	Rated voltage (V)	No. of modules EN 50022	Pack Carton
GW 96 331	230 ac	3	1/4

CHARACTERISTICS: the tripping (Idn) and delay (dt) thresholds are adjustable:

Idn (A): 0.03 - 0.05 - 0.1 - 0.25 - 0.3 - 0.35 - 0.5 - 1 - 1.5 - 2 - 3.

dt (s): 0 - 0.25 - 0.5 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 10.

NOTE: for the operation of the residual current protection, it is necessary to use: the residual current relay, a suitable toroid, and a release for the associated circuit breaker.

GW 96 332

SEPARATE TOROID FOR RESIDUAL CURRENT RELAY GW96331

Code	Description	Diameter (mm)	Rated current	Pack Carton
GW 96 332	Solid-core toroid	35	125 A	1
GW 96 333	Solid-core toroid	80	400 A	1
GW 96 334	Solid-core toroid	110	630 A	1
GW 96 335	Solid-core toroid	210	1600 A	1
GW 96 336	Split-core toroid	110	630 A	1
GW 96 337	Split-core toroid	210	1600 A	1

COMMAND

SWITCH DISCONNECTORS (EN 60947-3)

GW 96 134

AC SWITCH DISCONNECTORS

Code	Rated current	No. of modules EN 50022	Rated voltage AC	Pack Carton
No. of poles: 1P				
GW 96 104	32 A	1	240 V	6/12
GW 96 105	40 A	1	240 V	6/12
GW 96 146	63 A	1	240 V	6/24
GW 96 147	80 A	1	240 V	6/24
GW 96 148	100 A	1	240 V	6/24
GW 96 149	125 A	1	240 V	6/24
No. of poles: 2P				
GW 96 114	32 A	2	415 V	3/12
GW 96 115	40 A	2	415 V	3/12
GW 96 156	63 A	2	415 V	3/12
GW 96 157	80 A	2	415 V	3/12
GW 96 158	100 A	2	415 V	3/12
GW 96 159	125 A	2	415 V	3/12
No. of poles: 3P				
GW 96 124	32 A	3	415 V	2/8
GW 96 125	40 A	3	415 V	2/8
GW 96 166	63 A	3	415 V	2/8
GW 96 167	80 A	3	415 V	2/8
GW 96 168	100 A	3	415 V	2/8
GW 96 169	125 A	3	415 V	2/8
No. of poles: 4P				
GW 96 134	32 A	4	415 V	1/3
GW 96 135	40 A	4	415 V	1/3
GW 96 176	63 A	4	415 V	1/2
GW 96 177	80 A	4	415 V	1/2
GW 96 178	100 A	4	415 V	1/2
GW 96 179	125 A	4	415 V	1/2

NOTES: they can be combined ONLY with an auxiliary position contact (GW96001 or GW96009, configured for open/closed position).
They can be padlocked with the accessory GW96041, to lock the operating lever in either the "ON" or "OFF" position. For padlock of max Ø 8 mm.

GW 96 187

DC ROTARY SWITCH DISCONNECTORS

Code	No. of poles	Rated current	Rated voltage DC	No. of modules EN 50022	Pack Carton
GW 96 186	2P	25 A	600 V	3.5	1
GW 96 187	4P	32 A	1000 V	3.5	1

NOTE: utilisation category DC21B. These switch disconnectors cannot be combined.

ISOLATING SWITCHES (EN 60669-2-4)

GW 96 538

COMPACT ISOLATING SWITCHES

Code	Rated current	No. of modules EN 50022	Rated voltage	Pack Carton
No. of poles: 1P				
GW 96 531	16 A	1	250 V	3/12
GW 96 532	32 A	1	250 V	3/12
No. of poles: 2P				
GW 96 533	16 A	1	250-415 V	3/12
GW 96 534	32 A	1	250-415 V	3/12
No. of poles: 3P				
GW 96 535	16 A	1	250-415 V	1/12
GW 96 536	32 A	1	250-415 V	1/12
No. of poles: 4P				
GW 96 537	16 A	1	250-415 V	1/12
GW 96 538	32 A	1	250-415 V	1/12

NOTES: switch disconnectors cannot be combined.
They can be padlocked with the accessory GW96041, to lock the operating lever in either the "ON" or "OFF" position. For padlocks max Ø 8 mm.

ON-OFF SWITCHES

GW 96 542

ON-OFF SWITCHES WITH INDICATOR LAMP

Code	Rated current	Characteristics	No. of modules EN 50022	Rated voltage	Pack Carton
No. of poles: 1P					
GW 96 539	16 A	With red indicator lamp	1	230 V	3/12
GW 96 540	32 A	With red indicator lamp	1	230 V	1/12
No. of poles: 2P					
GW 96 541	16 A	With red indicator lamp	1	230 V	1/12
GW 96 542	32 A	With red indicator lamp	1	230 V	1/12

ACCESSORIES SUPPLIED: indicator light with LED.
NOTE: they can be padlocked with the accessory GW96041, to lock the operating lever in either the "ON" or "OFF" position. For padlocks with max Ø 8 mm.

LEVER SWITCHES

GW 96 554

LEVER SWITCHES

Code	Rated current	No. of poles	No. of modules EN 50022	Rated voltage	Pack Carton
Type: Change-over switch (1-2)					
GW 96 551	16 A	1P	1	250 V	3/12
GW 96 552	16 A	2P	1	250 V	1/12
Type: Three-way switch (1-0-2)					
GW 96 553	16 A	1P	1	250 V	3/12
GW 96 554	16 A	2P	1	250 V	1/12
Type: Two-ways switch (1-2)					
GW 96 555	16 A	2P (1NO+1NC)	1	250 V	3/12
GW 96 556	32 A	2P (1NO+1NC)	1	250 V	1/12

NOTE: they can be padlocked with the accessory GW96041, to lock the operating lever in either the "ON" or "OFF" position. For padlocks with max Ø 8 mm.

ROTARY SWITCHES

GW 96 851

VOLTMETER SWITCHES

Code	Description	Characteristics	Rated current	Rated voltage	No. of modules EN 50022	Pack Carton
GW 96 851	4 positions	Phase - Neutral	16 A	690 V	3	1/4
GW 96 852	4 positions	Phase - Phase	16 A	690 V	3	1/4
GW 96 853	7 positions	Phase - Phase and Phase - Neutral	16 A	690 V	3	1/4

GW 96 856

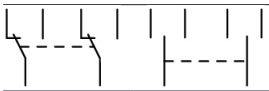
AMMETER SWITCH

Code	Description	Rated current	Rated voltage	No. of modules EN 50022	Pack Carton
GW 96 856	4 positions	16 A	690 V	3	1/4

NOTES: the GW96856 can also be used as a single-pole command three-way switch with 4 positions.

GW 96 951

LINE SWITCHES



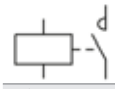
Code	Description	Characteristics	Rated current	Rated voltage	No. of modules EN 50022	Pack Carton
No. of poles: 2P						
GW 96 951	2 positions		16 A	690 V	3	1/4
GW 96 952	3 positions	0 central	16 A	690 V	3	1/4
GW 96 953	3 positions	With 0 return position	16 A	690 V	3	1/4

APPLICATIONS: DIN rail three-way switches usable for motor, pump and fan command.

CONTACTORS CTR

GW D6 703

CONTACTORS



Code	Contacts	Control coil voltage (V)	No. of modules EN 50022	Pack Carton
Rated current (AC-1/AC-7a): 20 A - CTR20				
GW D6 701	1NO	230 ac	1	6/24
GW D6 702	2NO	24 ac	1	6/24
GW D6 703	2NO	230 ac	1	6/24
GW D6 705	2NC	230 ac	1	6/24
GW D6 706	1NO+1NC	24 ac	1	6/24
GW D6 707	1NO+1NC	230 ac	1	6/24
GW D6 708	3NO	230 ac	2	3/12
GW D6 709	4NO	230 ac	2	3/12
Rated current (AC-1/AC-7a): 25 A - CTR25				
GW D6 711	2NO	24 ac/dc	2	3/12
GW D6 712	2NO	230 ac - 220 dc	2	3/12
GW D6 713	3NO	230 ac - 220 dc	2	3/12
GW D6 714	4NO	24 ac/dc	2	3/12
GW D6 715	4NO	230 ac - 220 dc	2	3/12
GW D6 716	4NC	24 ac/dc	2	3/12
GW D6 717	4NC	230 ac - 220 dc	2	3/12
GW D6 718	3NO+1NC	230 ac - 220 dc	2	3/12
Rated current (AC-1/AC-7a): 40 A - CTR40				
GW D6 721	2NO	230 ac - 220 dc	3	2/8
GW D6 722	3NO	230 ac - 220 dc	3	2/8
GW D6 723	4NO	24 ac/dc	3	2/8
GW D6 724	4NO	230 ac - 220 dc	3	2/8
GW D6 725	2NO+2NC	230 ac - 220 dc	3	2/8
Rated current (AC-1/AC-7a): 63 A - CTR63				
GW D6 731	2NO	230 ac - 220 dc	3	2/8
GW D6 732	3NO	230 ac - 220 dc	3	2/8
GW D6 733	4NO	24 ac/dc	3	2/8
GW D6 734	4NO	230 ac - 220 dc	3	2/8
GW D6 735	3NO+1NC	230 ac - 220 dc	3	2/8

APPLICATIONS: they are used for automatic control of electrical devices with high number of operations. The switching of contacts happens when the coil is both energized and de-energized. For other applications than AC-1/AC-7a utilization category, please consult the technical pages.

CHARACTERISTICS: they can be combined with auxiliary contacts and sealing terminal covers.

NOTE: it's suggested the use of a spacer insert between adjacent contactors to ensure optimum operation.

GW D6 742

MANUAL CONTROL CONTACTORS

Code	Contacts	Control coil voltage (V)	No. of modules EN 50022	Pack Carton
Rated current (AC-1/AC-7a): 20 A - CTRM20				
GW D6 741	2NO	24 ac	1	6/24
GW D6 742	2NO	230 ac	1	6/24
GW D6 743	2NC	230 ac	1	6/24
GW D6 744	1NO+1NC	230 ac	1	6/24
Rated current (AC-1/AC-7a): 25 A - CTRM25				
GW D6 751	2NO	230 ac - 220 dc	2	3/12
GW D6 752	3NO	230 ac - 220 dc	2	3/12
GW D6 753	4NO	24 ac/dc	2	3/12
GW D6 754	4NO	230 ac - 220 dc	2	3/12

APPLICATIONS: they have a three positions built-in toggle handle switch (A - O - I) to enable permanent opening or closing manually leaving out normal contactor function

Position A: working as normal contactor

Position O: working as manual control contactor (contacts locked mechanically)

Position I: working as manual control contactor (contacts are switched without control coil voltage). When coil is energized the toggle handle switch is automatically set to position A maintaining the previuos contacts status.

CHARACTERISTICS: they can be combined with auxiliary contacts and sealing terminal covers

NOTE: it's suggested the use of a spacer insert between adjacent contactors to ensure optimum operation.

INSTALLATION RELAYS RLM

GW D6 601

INSTALLATION RELAY 16 A

Code	Contacts	Control coil voltage (V)	No. of modules EN 50022	Pack Carton
GW D6 601	1NO	8 ac	1	6/24
GW D6 602	1NO	12 ac	1	6/24
GW D6 603	1NO	24 ac	1	6/24
GW D6 604	1NO	230 ac	1	6/24
GW D6 606	1 Changeover	8 ac	1	6/24
GW D6 608	1 Changeover	12 ac/dc	1	6/24
GW D6 610	1 Changeover	24 ac/dc	1	6/24
GW D6 611	1 Changeover	230 ac	1	6/24
GW D6 617	1NO+1NC	12 ac	1	6/24
GW D6 618	1NO+1NC	24 ac	1	6/24
GW D6 619	1NO+1NC	230 ac	1	6/24
GW D6 624	2NO	230 ac	1	6/24
GW D6 626	2 Changeover	8 ac	2	3/12
GW D6 627	2 Changeover	12 ac	2	3/12
GW D6 629	2 Changeover	24 ac/dc	2	3/12
GW D6 630	2 Changeover	230 ac	2	3/12
GW D6 632	4NO	12 ac	2	3/12
GW D6 633	4NO	24 ac	2	3/12
GW D6 634	4NO	230 ac	2	3/12

CHARACTERISTICS: relay with single stable state; the contacts are maintained in switched position only while the control coil is supplied.

APPLICATIONS: command of low voltage circuits with high number of switchovers (lighting, heating and ventilation systems). they have a three positions built-in toggle handle switch (A - O - I) to enable permanent opening or closing manually independently of the external commands:

Position A: automatic operation as a momentary relay.

Position O: operation as a manually commanded momentary relay (contacts locked mechanically in the rest state).

Position I: operation as a manually commanded momentary relay (contacts switched without the need for a remote control with return to automatic on A as soon as the lever is released).

ACCESSORIES FOR CTR CONTACTORS AND RLM INSTALLATION RELAYS

GW D6 761

AUXILIARY CONTACTS

Code	Contacts	Contact rating in AC-15	No. of modules EN 50022	Pack Carton
GW D6 761	2NO	6 A (230 V) 4 A (400 V)	0.5	1/12
GW D6 762	1NO+1NC	6 A (230 V) 4 A (400 V)	0.5	1/12

APPLICATIONS: used in order to signal the contacts position (open or closed).

NOTE: each device can be associated with 1 auxiliary contact. The devices with a AC/DC powered coil cannot be provided with accessories.

GW D6 766

SPACER INSERT

Code	No. of modules EN 50022	Pack Carton
GW D6 766	0.5	12

APPLICATIONS: used in order to have a better heat dissipation when more contactors/relay are installed in adjacent position.

SUGGESTIONS FOR AN OPTIMAL HEAT DISSIPATION:

- Room temperature up to 40°C: 1 spacer every 3 side-by-side devices.
- Room temperature between 40°C and 55°C: 1 spacer every 2 side-by-side devices.

News

GW D6 764

SEALING TERMINAL COVERS

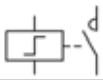
Code	Suitable for contactor	No. of pieces	Pack Carton
GW D6 763	1 mod. width	2	1/10
GW D6 764	2 mod. width	2	1/10
GW D6 765	3 mod. width	2	1/10

APPLICATIONS: they enable to seal terminal screws, preventing access to cable connections.

LATCHING RELAY RLB

GW D6 652

LATCHING RELAY 16 A



Code	Contacts	Control coil voltage (V)	No. of modules EN 50022	Pack Carton
GW D6 641	1NO	8 ac	1	6/24
GW D6 642	1NO	12 ac	1	6/24
GW D6 643	1NO	24 ac	1	6/24
GW D6 644	1NO	230 ac	1	6/24
GW D6 646	1 Changeover	8 ac	1	6/24
GW D6 647	1 Changeover	12 ac	1	6/24
GW D6 648	1 Changeover	24 ac	1	6/24
GW D6 649	1 Changeover	24 dc	1	6/24
GW D6 650	1 Changeover	230 ac	1	6/24
GW D6 652	1NO+1NC	12 ac	1	6/24
GW D6 653	1NO+1NC	24 ac	1	6/24
GW D6 654	1NO+1NC	230 ac	1	6/24
GW D6 657	2NO	12 ac	1	6/24
GW D6 658	2NO	24 ac	1	6/24
GW D6 659	2NO	230 ac	1	6/24
GW D6 663	2 Changeover	24 ac	2	3/12
GW D6 664	2 Changeover	230 ac	2	3/12
GW D6 667	4NO	12 ac	2	3/12
GW D6 668	4NO	24 ac	2	3/12
GW D6 669	4NO	230 ac	2	3/12

CHARACTERISTIC: relay with 2 stable states; every impulse to the coil switches over the contacts position that is maintained until the next signal.

APPLICATIONS: control of lighting circuits in residential and commercial installations.

It is possible to inhibit the remote command thanks to the ON/OFF frontal selector.

The lever idicates the contacts status and it could be used in order to manual command the relay.

News

ACCESSORIES FOR LATCHING RELAY RLB

GW D6 676

AUXILIARY CONTACTS

Code	Contacts	Contact rating in AC-15	No. of modules EN 50022	Pack Carton
GW D6 676	1 Changeover	4A (230V)	0.5	1/20
GW D6 677	1NO+1NC	4A (230V)	0.5	1/20
GW D6 678	2NO	4A (230V)	0.5	1/20

APPLICATIONS: used in order to signal the contacts position (open or closed).
NOTE: it is possible to use 1 auxiliary contact for each contactor/relay with AC coil. It is not possible to use accessories with DC coil relays.

GW D6 671

CENTRALIZED COMMAND

Code	Functions	No. of modules EN 50022	Pack Carton
GW D6 671	Central command	0.5	1/20
GW D6 672	Group command	0.5	1/20

NOTE: It is not possible to use accessories with DC coil relays.
APPLICATIONS:
- GWD6671: used to centralize the command in only one point allowing to simultaneously turning ON and OFF 2 or more relays independently by their position. In order to use this function every relay has to mount this accessory.
- GWD6672: used to realize the simultaneously command of 2 or more groups of centralized relays from one point. In order to obtain this function it is necessary to install this accessory for each group of centralized relay.

EXAMPLE: It is possible to centralize the command of a group of relay installed on a building floor (every relay has a GWD6671 coupled). With the GWD6672 it is possible to command from one point 2 or more groups of centralized relays installed on the different buildings floors.

GW D6 766

SPACER INSERT

Code	No. of modules EN 50022	Pack Carton
GW D6 766	0.5	12

APPLICATIONS: used in order to have a better heat dissipation when more contactors/relay are installed in adjiacent position.
SUGGESTIONS FOR AN OPTIMAL HEAT DISSIPATION:
- Operating temperature up to 40°C: no limitations.
- Operating temperature between 40°C and 55°C: No limitation for AC coils, 1 spacer every 3 adjacent relays with DC coils:
- Operating temperature between 55°C and 70°C: 1 spacer every 3 adjacent relays with AC coils. It is not possible the adjacent installation of relay with DC coil.

News

MONITORING RELAYS

GW 96 906

CURRENT MONITORING RELAY - 1 PHASE AC ELECTRICAL SYSTEM

Code	Rated voltage (V)	Controlled current (A)	Output contacts	Contact capacity (A)	No. of modules EN 50022	Pack Carton
GW 96 906	230 ac	10	1 Changeover	5	1	1/8

APPLICATIONS: overcurrent control: the output contact changes status when the measured current exceeds the "MAX" set value.
Undercurrent control: the output contact changes status when the measured current falls below the "MIN" set value.
Window function: the output contact changes status when the measured current is not within the "MIN"-"MAX" set range.
Adjustment of contact switchover delay, from minimum 0.1s to maximum 10s.
For the three operating modes, there is a memory function for exceeding the set threshold.
NOTE: if you need to monitor currents greater than 10A, use a current transformer (CT).
If necessary, connect the output contact with a device (usually a contactor) suitable for the needs of the line to be commanded.

GW 96 907

PHASE MONITORING RELAY - 3 PHASE ELECTRICAL SYSTEM

Code	Rated voltage (V)	Controlled voltage (V)	Adjustable asymmetry	Output contacts	Contact capacity (A)	No. of modules EN 50022	Pack Carton
GW 96 907	230/400 ac	230/400 ac	5% ... 25%	1 Changeover	5	1	1/8

APPLICATIONS: phase sequence check: if the check shows that the phases are not in the correct sequence, the output contact will change its status.
Phase and neutral failure: if one of the three phases or the neutral fails, the output contact will change its status.
Asymmetry check: if the measured asymmetry value exceeds the set threshold, the output contact will change its status.
NOTE: if necessary, connect the output contact with a device (usually a contactor) suitable for the needs of the line to be commanded.

GW 96 908

UNDERVOLTAGE MONITORING RELAY - 1 PHASE AC/DC ELECTRICAL SYSTEM

Code	Rated voltage (V)	Controlled voltage (V)	Output contacts	Contact capacity (A)	No. of modules EN 50022	Pack Carton
GW 96 908	24 ac/dc - 230 ac	24 ac/dc - 230 ac	1 Changeover	5	1	1/8

APPLICATIONS: undervoltage check: when the measured voltage falls below the set value, the output contact will change its status.
The contact switches back again when the measured voltage exceeds the set value plus the hysteresis.
NOTE: if necessary, connect the output contact with a device (usually a contactor) suitable for the needs of the line to be commanded.

GW 96 909

UNDERVOLTAGE MONITORING RELAY - 3 PHASE AC ELECTRICAL SYSTEM

Code	Rated voltage (V)	Controlled voltage (V)	Output contacts	Contact capacity (A)	No. of modules EN 50022	Pack Carton
GW 96 909	230/400 ac	230/400 ac	1 Changeover	5	1	1/8

APPLICATIONS: undervoltage check with variable threshold: when the measured voltage of one of the phases falls below the set value, the output contact will change its status.
The undervoltage threshold can be adjusted from 160 V to 240 V (Phase - Neutral).
NOTE: if necessary, connect the output contact with a device (usually a contactor) suitable for the needs of the line to be commanded.

LOAD MANAGEMENT RELAY P-COMFORT

GW 96 916

LOAD MANAGEMENT RELAY

Code	Rated voltage (V)	Rated current	Relay contact	Contact capacity (A)	No. of modules EN 50022	Pack Carton
GW 96 916	230 ac	32 A	1 NC	16 A AC1	2	1/6

APPLICATION: the P-Comfort relay manages the power of the electrical system up to 6 kW.
In the event of overloading, P-Comfort prevents any electricity supply interruption, disconnecting only the not-preferential loads.
After a predefined time lapse, P-Comfort automatically reactivates them, avoiding any inconvenience for the user.

BIOCOMFORT MAIN DISCONNECTION SWITCH

GW 96 339

MAIN DISCONNECTION SWITCH WITH SELF LEARNING FUNCTION

Code	Rated voltage (V)	Rated current	Monitoring voltage (V)	No. of modules EN 50022	Pack Carton
GW 96 339	230 ac	16 A	5 - 230 dc	1	1/2

APPLICATIONS: the BIOCOMFORT disconnection switch reduces the voltage of the electrical system when the loads connected to it in the sleeping area are switched off. It is not necessary to manually adjust the relay tripping threshold because the main disconnection switch, thanks to the self-learning function, automatically learns the value of the current absorbed by the loads and applies it as the tripping threshold. During operation of the disconnection switch, the line downstream of BIOCOMFORT is powered by a continuous monitoring voltage (5-230 V dc). This voltage prevents the formation of electromagnetic fields in the sleeping area and is necessary for restoring the mains voltage (230 V ac) at any moment when a load is switched on.

GW 96 340

BASE LOAD

Code	Rated voltage (V)	Pack Carton
GW 96 340	230 ac	1/5

NOTE: base load necessary for fluorescent lamps, low consumption lamps, halogen lamps with transformer, dimmers, electronic transformers or loads with absorption lower than 30 mA (e.g. loads with stand-by).

PROGRAMMING

TIMERS

GW 96 814

MULTIFUNCTION TIMER

Code	Rated coil voltage (V)	Regulation field	Type of contacts	Contact rating - In	No. of modules EN 50022	Pack Carton
GW 96 814	24....240 ac/dc	0.05 s - 100 h	1 Changeover	8 A	1	1/8

APPLICATIONS: allows to activate and deactivate the power supply to a load for a time set.
NOTE: cannot be used with illuminated push-buttons.

GW 96 815

ASYMMETRICAL CYCLE TIMER

Code	Rated coil voltage (V)	Regulation field	Type of contacts	Contact rating - In	No. of modules EN 50022	Pack Carton
GW 96 815	12....240 ac/dc	0.05 s - 100 h	1 Changeover	8 A	1	1/8

APPLICATIONS: allows to activate and deactivate the power supply to a load, for a time set with different ON and OFF times.
NOTE: cannot be used with illuminated push-buttons.

GW 96 810

STAIRCASE LIGHTING TIME DELAY SWITCHES

Code	Rated voltage (V)	Regulation field	Type of contacts	Contact rating - In	No. of modules EN 50022	Pack Carton
GW 96 810	230 ac	30 s - 20 min	1 NO	16 A	1	1/8
GW 96 813	230 ac	30 s - 20 min	1 NO	16 A	1	1/8

APPLICATIONS: timed management of the lights in passageway environments (stairs, corridors, entrances, etc.).
NOTE: the GW96813 timer has a switch-off warning signalled by the brief opening of the contact.

TIME SWITCHES

GW 96 831

ANALOGUE TIME SWITCHES

Code	Type	Type of contacts	Rated voltage (V)	Charge reserve	No. of modules EN 50022	Pack Carton
GW 96 830	Daily	1 NO	230 ac	No	1	1/8
GW 96 836	Daily	1 NO	230 ac - 110 dc	50 h	1	1/8
GW 96 831	Daily	1 Changeover	230 ac - 130 dc	150 h	3	1/4
GW 96 832	Weekly	1 Changeover	230 ac - 110 dc	150 h	3	1/4

APPLICATIONS: command and management of circuits according to pre-established daily or weekly programming; particularly useful where it is necessary to time the functions and optimise the level of comfort (ventilation, lighting, heating).

NOTE: minimum adjustment of the time switch: 30 minutes (daily), 3 hours (weekly).

GW 96 844

DAILY AND WEEKLY DIGITAL TIME SWITCHES

Code	No. memories	Type of contacts	Rated voltage (V)	Charge reserve	No. modules	Pack Carton
GW 96 846	50	1 Changeover	230 ac	3 years	1	1/4
GW 96 844	50	1 Changeover	230 ac	3 years	2	1/4
GW 96 845	50	2 Changeover	230 ac	3 years	2	1/4

APPLICATIONS: allow the optimal management of circuits such as lighting and heating, to improve comfort levels and reduce electricity consumption.

NOTE: each time memorised is a memory occupied. Minimum adjustment - 1 minute.

CHARACTERISTICS: backlit shield and battery replacement by means of a slide mechanism for codes GW96844 and GW96845.

TWILIGHT SWITCHES

GW 96 891

TWILIGHT SWITCHES (WITH OUTDOOR PROBE)

Code	Rated voltage (V)	Type of contacts	Brightness control	No. memories	No. of modules EN 50022	Pack Carton
GW 96 891	230 ac	1 Changeover	2...500 lux	50	3	1/2
GW 96 892	230 ac	1 NO	2...500 lux		1	1/2

CHARACTERISTICS: GW96891 also includes a digital time switch with charge reserve of 3 years and 1 minute as minimum setting.

APPLICATIONS: command the ON/OFF switching of external lighting devices depending on outside lighting.

The switchover delay prevents untimely interventions.

GW 96 895

OUTDOOR PROBE FOR TWILIGHT SWITCHES (SPARE PART)

Code	Suitable for	Pack Carton
GW 96 895	Twilight switches	1

NOTE: maximum length of the cable connecting the sensor 100 m.

ASTRONOMICAL SWITCH

GW 96 821

ASTRONOMICAL SWITCH (WITHOUT OUTDOOR PROBE)

Code	Rated voltage (V)	Type of contacts	Charge reserve	No. modules	Pack Carton
GW 96 821	230 ac	1 Changeover	3 years	2	1/4

APPLICATIONS: commands the switching ON and OFF of external lighting equipment like a twilight switch but does not require an outdoor probe. Simply select one of the pre-set locations to make the product operate correctly.

CHARACTERISTICS: backlit shield and battery replacement by means of a slide mechanism.

MEASUREMENT

VOLTMETERS

GW 96 861

SINGLE-PHASE ANALOGUE VOLTMETERS WITH DIRECT CONNECTION - 40/60 HZ

Code	Scale	Accuracy	No. of modules EN 50022	Pack Carton
GW 96 861	0-300 V	1.5	3	1/4
GW 96 862	0-500 V	1.5	3	1/4

GW 96 867

SINGLE-PHASE DIGITAL VOLTMETER WITH DIRECT CONNECTION

Code	Scale	Supply voltage	Accuracy	No. of modules EN 50022	Pack Carton
GW 96 867	0-500 V	230 V ac	0.5	2	1/4

AMMETERS

GW 96 871

ANALOGUE AMMETERS - 40/60 HZ

Code	Capacity	Connection	Accuracy	No. of modules EN 50022	Pack Carton
GW 96 871	10 A	Direct	1.5	3	1/4
GW 96 872	20 A	Direct	1.5	3	1/4
GW 96 873	30 A	Direct	1.5	3	1/4
GW 96 878	5 A	Using C.T./5 A	1.5	3	1/4

NOTE: GW96878 does not have a scale. Select the most suitable interchangeable scale based on the primary current of the C.T..

INTERCHANGEABLE SCALES FOR GW96878 ANALOGUE AMMETER

Code	Scale (A)	Pack Carton
GW 96 971	40	1/10
GW 96 972	50	1/10
GW 96 973	60	1/10
GW 96 974	100	1/10
GW 96 975	150	1/10
GW 96 976	250	1/10
GW 96 977	400	1/10
GW 96 978	600	1/10
GW 96 979	1000	1/10
GW 96 980	1200	1/10
GW 96 981	1500	1/10

GW 96 879

DIGITAL AMMETER FOR CONNECTION USING CURRENT TRANSFORMER

Code	Capacity	Supply voltage	Accuracy	No. of modules EN 50022	Pack Carton
GW 96 879	5-999 A	230 V ac	0.5	2	1/4

NOTE: connection using a current transformer (up to 1000 A) with secondary of 5 A.

ENERGY METERS

GW D6 801

SINGLE-PHASE DIGITAL ENERGY METER FOR DIRECT CONNECTION

Code	No. digits	Accuracy	I max (A)	Rated voltage (V)	No. of modules EN 50022	Pack Carton
GW D6 801	5 unit + 2 decimals	1	32 A	230 ac	1	1/5

APPLICATIONS: allows the measurement and visualisation on the display of the active energy values (supplied and absorbed), instantaneous active power (supplied and absorbed), voltage, current, power factor and frequency.
If used with the KNX GW90876 interface, the measured values can be sent on the KNX BUS.

GW D6 808

THREE-PHASE DIGITAL ENERGY METERS - IP20 - DIN RAIL MOUNTING

Code	No. digits	Accuracy	Connection	Rated voltage (V)	No. of modules EN 50022	Pack Carton
GW D6 806	6 unit + 2 decimals	1 (active energy) 2 (reactive energy)	Direct (I max=80 A)	400 ac	4	1/2
GW D6 808	6 unit + 2 decimals	1 (active energy) 2 (reactive energy)	Using C.T./5 A	400 ac	4	1/2

APPLICATIONS: allow the measurement and the visualization on display of the active and reactive energy values (exported and imported), and instantaneous active and reactive power values (exported and imported). If used with the KNX interface GW90876, it allows to communicate on the KNX BUS system the measured values.
CHARACTERISTICS: the meters have two impulse outputs for remote energy consumption control.

GW 90 876

KNX INTERFACE FOR SINGLE-PHASE AND THREE-PHASE ENERGY METERS

Code	No. of modules EN 50022	Pack Carton
GW 90 876	1	1/5

CHARACTERISTICS: to be configured with ETS software.
APPLICATIONS: uses the KNX BUS to send the energy and power values measured by the energy meters GWD6801, GWD6806 and GWD6808. The KNX interface is optically coupled with the energy meters if installed side-by-side.
NOTES: equipped with a coupling terminal for connection to the BUS.

HOUR COUNTER

GW 96 881

HOUR COUNTER

Code	No. digits	Accuracy	No. of modules EN 50022	Pack Carton
GW 96 881	5 unit + 2 decimals	1/100 h (36 s.)	2	1/4

APPLICATIONS: computing the operating hours of electrical devices (motors, machines, tools, adjustment devices etc.).

MULTIMETER

GW 96 897

VOLTAGE/CURRENT MULTIMETER

Code	Type of display	Rated voltage (V)	Measured sizes	Accuracy	No. of modules EN 50022	Pack Carton
GW 96 897	LED 3 units on 3 lines	230 ac	V, I	0.5	2	1/4

NOTE: connection using current transformers (up to 1000 A) with secondary of 5 A.

NETWORK ANALYSER

GW 96 899

NETWORK ANALYSER

Code	Type of display	Measured sizes	Accuracy	No. of modules EN 50022	Pack Carton
GW 96 899	LCD	V, I, F, W, VAR, VA, kWH, kVARH	2	4	1/2

NOTE: connection using current transformers with secondary of 5 A. It allows remote communication of all measured sizes via RS485 (MODBUS RTU).

CURRENT TRANSFORMERS

GW 96 452

CURRENT TRANSFORMERS WITH 5 A SECONDARY

Code	Primary current	Primary circuit with bar	Primary circuit with cable	Performance	Accuracy	Pack Carton
GW 96 441	15 A	Wound		3 VA	1	1
GW 96 442	25 A	Wound		3 VA	1	1
GW 96 443	40 A	Busbar 30x10 mm max	Cable Ø 23 mm max	2 VA	3	1
GW 96 444	50 A	Busbar 30x10 mm max	Cable Ø 23 mm max	2 VA	3	1
GW 96 445	60 A	Busbar 30x10 mm max	Cable Ø 23 mm max	3 VA	3	1
GW 96 446	100 A	Busbar 30x10 mm max	Cable Ø 23 mm max	3 VA	1	1
GW 96 447	150 A	Busbar 30x10 mm max	Cable Ø 23 mm max	3 VA	0.5	1
GW 96 448	250 A	Busbar 30x10 mm max	Cable Ø 23 mm max	5 VA	0.5	1
GW 96 449	400 A	Busbar 30x10 mm max	Cable Ø 23 mm max	6 VA	0.5	1
GW 96 450	600 A	Busbar 30x10 mm max	Cable Ø 23 mm max	10 VA	0.5	1
GW 96 451	1000 A	Busbar 64x20 mm max	Cable Ø 50 mm max	20 VA	0.5	1
GW 96 452	1200 A	Busbar 64x20 mm max	Cable Ø 50 mm max	20 VA	0.5	1
GW 96 453	1500 A	Busbar 64x20 mm max	Cable Ø 50 mm max	30 VA	0.5	1

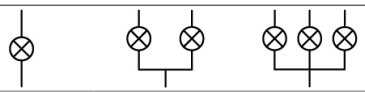
CHARACTERISTICS: two types of primary circuit: wound type (supplied with busbar or primary terminal already available) and through type (with a hole through which the busbar, or the cable constituting the primary, is passed). Transformers up to 600 A can be installed on DIN rail.
APPLICATIONS: allow the measurement of high currents by analogue and digital ammeters; provide a current to the secondary which is proportional to the primary current.

SIGNALLING

INDICATOR LIGHTS

GW 96 592

INDICATOR LIGHTS



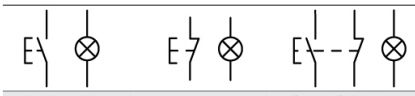
Code	Type	Colour	No. of modules EN 50022	Pack Carton
Rated voltage: 12-24-48 V ac/dc				
GW 96 586	Single	Red	1	1/12
GW 96 587	Single	Green	1	1/12
GW 96 588	Single	Yellow	1	1/12
GW 96 589	Single	Blue	1	1/12
GW 96 590	Single	White	1	1/12
Rated voltage: 230 V ac				
GW 96 581	Single	Red	1	3/12
GW 96 582	Single	Green	1	3/12
GW 96 583	Single	Yellow	1	3/12
GW 96 584	Single	Blue	1	3/12
GW 96 585	Single	White	1	3/12
GW 96 591	Double	Green / red	1	1/12
GW 96 592	Triple	Red	1	1/12

CHARACTERISTICS: indicator light with LED.

ILLUMINATED PUSH-BUTTONS

GW 96 568

ILLUMINATED PUSH-BUTTONS



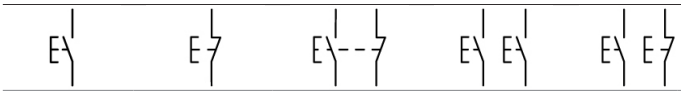
Code	Contacts	Indicator light colour	Characteristics	Rated current	No. of modules EN 50022	Pack Carton
Rated lamp voltage: 12-24-48 V ac/dc						
GW 96 570	1 NO	Green	Single push-button	16 A	1	1/12
GW 96 571	1 NC	Red	Single push-button	16 A	1	1/12
Rated lamp voltage: 230 V ac						
GW 96 566	1 NO	Green	Single push-button	16 A	1	1/12
GW 96 567	1 NC	Red	Single push-button	16 A	1	1/12
GW 96 568	1 NO + 1 NC	Green	Single push-button	16 A	1	1/12
GW 96 569	1 NO + 1 NC	Red	Single push-button	16 A	1	1/12

CHARACTERISTICS: indicator light with LED.

PUSH-BUTTONS WITHOUT LIGHTING

GW 96 565

PUSH-BUTTONS



Code	Contacts	Characteristics	Rated current	No. of modules EN 50022	Pack Carton
Rated voltage: 230 V ac					
GW 96 561	1 NO	Single push-button	16 A	1	3/12
GW 96 562	1 NC	Single push-button	16 A	1	3/12
GW 96 563	1 NO + 1 NC	Single push-button	16 A	1	1/12
GW 96 564	1 NO / 1 NO	Double push-button (grey / grey)	16 A	1	1/12
GW 96 565	1 NO / 1 NC	Double push-button (green / red)	16 A	1	1/12

BELLS AND BUZZERS

GW 96 402

BELLS

Code	Rated voltage	Power loss	No. of modules EN 50022	Pack Carton
GW 96 401	12 V	5 VA	1	12
GW 96 402	230 V	10 VA	1	12
GW 96 403	230 V	6.1 VA	2	6

CHARACTERISTICS: GW96403 incorporates a transformer with a very low safety voltage of 24 V~.
APPLICATIONS: acoustic signal of an operation in the domestic and commercial sectors.

GW 96 408

BUZZERS

Code	Rated voltage	Power loss	No. of modules EN 50022	Pack Carton
GW 96 406	12 V	5 VA	1	12
GW 96 407	230 V	10 VA	1	12
GW 96 408	230 V	6.1 VA	2	6

CHARACTERISTICS: GW96408 incorporates a transformer with a very low safety voltage of 24 V~.
APPLICATIONS: acoustic signal of an operation in the domestic and commercial sectors.

GW 96 411

COMBINED TRANSFORMER-BELL-BUZZER

Code	Rated voltage	Power loss	No. of modules EN 50022	Pack Carton
GW 96 411	230 V	3.8 VA	2	4

CHARACTERISTICS: GW96411 iincorporates a transformer with a very low safety voltage of 24 V.

TRANSFORMERS

GW 96 421

BELLS TRANSFORMERS (FOR DISCONTINUOUS USE)

Code	Rated power	Primary voltage	Secondary voltage	No. of modules EN 50022	Pack Carton
GW 96 421	6 VA (12 V) 4 VA (8 V) 2 VA (4 V)	230 V	4+8=12 V	2	6
GW 96 422	6 VA (24 V) 3 VA (12 V)	230 V	12+12=24 V	2	6
GW 96 423	10 VA (12 V)/6.6 VA (8 V)/3.3 VA (4 V)	230 V	4+8=12 V	2	6
GW 96 424	10 VA (24 V)/5 VA (12 V)	230 V	12+12=24 V	2	6
GW 96 425	15 VA (12 V)/10 VA (8 V)/5 VA (4 V)	230 V	4+8=12 V	2	6
GW 96 426	15 VA (24 V)/7.5 VA(12 V)	230 V	12+12=24 V	2	6
GW 96 431	30 VA (12 V)/20 VA (8 V)/10 VA (4 V)	230 V	4+8=12 V	3	4
GW 96 432	30 VA (24 V)/15 VA (12 V)	230 V	12+12=24 V	3	4
GW 96 433	40 VA (12 V)/27 VA (8 V)/13 VA (4 V)	230 V	4+8=12 V	3	4
GW 96 434	40 VA (24 V)/20 VA (12 V)	230 V	12+12=24 V	3	4

APPLICATIONS: distribution and realisation of SELV very low voltage safety circuits, with a value lower or equal to 24 V.

They allow electrical separation between the primary and secondary circuits, thus allowing the supply of bells and similar discontinuous operation signalling devices. They can also be used to supply the shunt trip release GW96011 with a rated voltage up to 24 V ac. To know the maximum number of releases that can be supplied with the transformers, refer to the technical characteristics.

GW 96 781

TRANSFORMERS FOR BELLS AND BUZZERS (SWITCH OFF TYPE)

Code	Rated power	Primary voltage	Secondary voltage	No. of modules EN 50022	Pack Carton
GW 96 781	8 VA	230 V	8 V	2	1/6
GW 96 782	12 VA	230 V	24 V	4	1/3

GW 96 783

TERMINAL COVERS

Code	Suitable for	Pack Carton
GW 96 783	GW96781	1/50

GW 96 323

SAFETY TRANSFORMERS

Code	Rated power	Primary voltage	Secondary voltage	No. of modules EN 50022	Pack Carton
GW 96 321	15 VA (12/24 V)	230 V	12+12=24 V	3	4
GW 96 322	25 VA (12/24 V)	230 V	12+12=24 V	3	4
GW 96 323	40 VA (12/24 V)	230 V	12+12=24 V	4	1
GW 96 324	63 VA (12/24 V)	230 V	12+12=24 V	6	1

OTHER ACCESSORIES

ACCESSORIES FOR MOUNTING ON DIN RAIL EN 50022

GW 96 523

SOCKET-OUTLETS FOR MOUNTING ON DIN RAIL EN 50022

Code	No. of poles	Standard	Rated voltage (V)	Rated current	No. of modules EN 50022	Pack Carton
GW 96 522	2P+E	German	250 V ac	16 A	2.5	2/8
GW 96 523	2P+E	German, with lid	250 V ac	16 A	2.5	2/8
GW 96 524	2P+E	French	250 V ac	16 A	2.5	2/8
GW 96 525	2P+E	Italian / German	250 V ac	10/16 A*	2.5	2/8
GW 96 526	2P+E	Danish	250 V ac	16 A	2.5	2/8

* 10 A italian standard / 16 A german standard

CHORUS RANGE COMPONENTS AND SUPPORTS FOR MOUNTING ON DIN RAIL EN 50022

GW 10 204

ITALIAN/GERMAN STANDARD SOCKET-OUTLETS - 250 V AC

Code	Description	Earth pit	Socket-out type	For plug pins	No. Chorus modules	Pack Carton
GW 10 204	2P+E - 16 A Dual amperage	Side and central	P30-P17	Ø 4 / 4.8 / 5 mm	2	6/48

CHARACTERISTICS: with safety shields.

GW 10 661

EXTRACTABLE ANTI BLACK-OUT LAMP

Code	Supply voltage	Power supply batteries	Minimum autonomy	Lamp	Pack Carton
GW 10 661	230 V ac - 50/60 Hz	Ni - Mh	2 h	LED	1/6

CHARACTERISTICS: equipped with a 3-position selector on the front panel, for anti black-out inhibition and night functioning.
To be inserted in any socket-outlet of the Italian, German or French type. Highly efficient, white LED lamp.

GW 16 841

SUPPORTS FOR ASSEMBLING CHORUS DEVICES ON DIN EN 50022 RAIL

Code	Description	No. DIN modules	Pack Carton
GW 16 841	1 gang	1.5	5/300
GW 16 842	2 gang	3	5/150
GW 16 843	3 gang	4	5/50

CHARACTERISTICS: manual release system for Chorus devices, without the need for tools.

NOTES: pay attention when using particularly deep devices (2P three-way switches, electronic one-way switches for heavy-duty loads, movement detectors and IR receivers, relays, German standard socket-outlets with front tightening, quick wiring terminals, British standard socket-outlets, interlocked switched socket-outlet, shaver socket-outlets, USB power supplies, USB and HDMI adapters, miniature circuit breakers and residual current circuit breakers, anti black-out and emergency lamps, ringers and buzzers, thermostats and timed thermostats, programmers, water and gas detectors, power supplies, timers, dimmers, touch commands, electronic push-buttons with interlock, KNX flush-mounting timed thermostats, etc.) as they may interfere with the DIN rail, preventing the correct passage of the wires.

SYSTEM RANGE COMPONENTS AND SUPPORTS FOR MOUNTING ON DIN RAIL EN 50022

GW 20 246

ITALIAN/GERMAN STANDARD SOCKET-OUTLETS - 250 V AC

Code	Description	Earth pit	Type	For plug pins	No. SYSTEM modules	Pack Carton
GW 20 246	2P+E - 16 A Dual amperage	Side and central	P30 - P17	Ø 4 / 4.8 / 5 mm	2	30/120

CHARACTERISTICS: with safety shields.

GW 20 833

EXTRACTABLE ANTI BLACK-OUT LAMP

Code	Supply voltage	Power supply batteries	Autonomy	Type of lamp	No. SYSTEM modules	Pack Carton
GW 20 833	230 V ac - 50/60 Hz	Ni-Mh	2 h	White Led	2	1/4

CHARACTERISTICS: equipped with inhibition selector on the front. Replaceable batteries (use battery pack 4.8 V 40 mAh).

GW 26 409

SUPPORTS FOR ASSEMBLING SYSTEM DEVICES ON DIN RAIL EN 50022

Code	Description	No. of modules EN 50022	Pack Carton
GW 26 409	1 gang	1.5	5/300
GW 26 410	2 gang	3	5/150