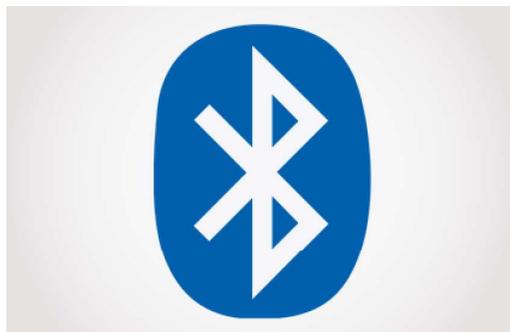




Wide range of programs: standard, impulse, cycle, random and holiday

- Permanent or temporary manual deviation, directly activated with a single touch
- LCD Display with back-lighting
- Up to 900 storable events
- Up to 400 pre-defined cities coordinates
- Accuracy of  $\pm 0.5$  seconds/24h
- Switching solar time/daylight saving time



Bluetooth communication combined with the DBT Timer APP available for Android and iOS ensure smart configuration and quick visualization. This functionality also allows to transfer programs from one device to another simply using the Smartphone.



Time synchronization via DY DCF77 or DY GPS antennas. The DY DCF77 antenna receives scheduled messages transmitted by the atomic clock installed c/o Mainflingen (Germany), near Frankfurt. Thanks to this signal, the time switches are automatically set to: hour, date and proper daylight saving time. The DY GPS antenna receives time from the Global Positioning System, providing an accurate location and time information for an unlimited number of people in all weathers, day or night, anywhere in the world; time is derived from different sources simultaneously that allow the time switch to compensate for propagation delays.

## Control and automation

### DBT Timer digital time switches



DBT Timer

Technical features DBT Timer		DY365	DW1	DW2	DWA1	DWA2	DWTL1
Power supply	[V]	230 AC (-15 % ..+10 %)					
Rated pulsating voltage	[kV]	4					
Contact type		2NO/NC	1NO/NC	2NO/NC	1NO/NC	2NO/NC	1NO/NC
Channel extension		YES	NO	NO	NO	NO	NO
DY DCF77 antenna		YES	NO	NO	NO	NO	NO
DY GPS antenna		YES	NO	NO	NO	NO	NO
250 V contact capacity							
Resistive load	[A]	16					
Inductive load	[A]	10					
Rated frequency	[Hz]	50/60					
Minimum switching		1 min (1 s pulse program)					
Max number of events		900	120	120	120	120	120
Number of channels		2	1	2	1	2	1
Operating accuracy	[sec/ 24h]	± 0,5					
Power consumption	[W]	2.6	2	2	2	2	2
Max. switching power	[VA]	4000					
Switching capacity							
Incandescent	[W]	2000					
Fluorescent	[VA]	600					
Low voltage halogen	[W]	2000					
Halogen	[W]	2000					
Low consumption lamp	[VA]	600					
Led	[W]	500					
Protection degree	[IP]	20					
Max terminal cross-section	[mm <sup>2</sup> ]	2.5					
Tightening torque	[Nm]	0.5					
Installation type		DIN rail					
operating temperature	[°C]	-20...+50					
Storage temperature	[°C]	-25...+70					
Modules	[n°]	4	2	2	2	2	2
Reference standards		EN 60730-1; EN 60730-2-7; ETSI EN 301 489-1; ETSI EN 301 489-17; ETSI EN 300 328					

## Control and automation

### DBT Timer digital time switches

Technical features Accessories for DBT Timer			
		DY DCF77	DY GPS
Rated voltage	[V]	12 DC	12 DC
Antenna sensitivity	[mV/m]	0.05	
Operating temperature	[°C]	0...+50	0...+50
Storage temperature	[°C]	-10...+60	-10...+70
Power consumption	[W]		0.5
Time of the signal		5 sending/min	every 30 min
Protection degree	[IP]	54	54
Max. number of connected devices	[No.]	31	31
Max. wiring length	[m]	100	100
Terminal size for cable	[mm <sup>2</sup> ]	1.5	0.75..1.5
Mounting		wall	wall

Technical features Accessories for DBT Timer			
		DY365 2CE	DY365 4CE
Rated voltage		12/24 V AC/DC	12/24 V AC/DC
Numbers of normally open relays 8A/250V		2	4
Operating temperature		0 - 50°C	0 - 50°C
Storage temperature		-25 - 70°C	-25 - 70°C
Protection degree		IP20	IP20
Mounting		Din rail	Din rail
Modules		2	4

Technical features Accessories for DBT Timer	
	DWS
Threshold	3 ÷ 500 lux
Hysteresis	1 ÷ 50 lux
Delay	1 second ÷ 30 minutes

#### Selection table

Digital time switches	DY365	DWA1	DWA1	DW1	DW2	DWTL1
Weekly	x	■	■	■	■	■
Yearly	■	x	x	x	x	x
Standard function	■	■	■	■	■	■
Astro function	■	■	■	x	x	■
Twilight sensor	x	x	x	x	x	■
Numbers of channels	2	1	2	1	2	1
DY GPS/DY DCF77	■	x	x	x	x	x
Bluetooth	■	■	■	■	■	■
2 or 4 channel extension	■	x	x	x	x	x

Standard function includes: standard, impulse, random cycle and holiday programs.

## Control and automation

### DBT Timer digital time switches



DY365

#### DBT Timer digital time switches

The unique design, with white backlight LCD display, and extreme ease of use with only four buttons, make DBT Timer ideal to automate the installation functions. The possibility to configure all digital devices via DBT Timer APP and Bluetooth connection makes the configuration and installation time even shorter. DBT Timer digital time switches are equipped with large capacity internal battery to maintain operation without power supply in order to avoid the risk of program loss and to maintain the time settings in case of power failure, respective of its duration. DBT Timer digital time switches are equipped with various functions such as the impulse, cycle, random and holiday function.



DW1

#### Digital yearly time switch - DY365

DY365 is the digital yearly time switch with 2 channels from DBT Timer range. Thanks to the two extension channel units DY365 4CE and DY365 2CE, DY365 is able to control up to 8 channels. DY365 can be coupled with DY GPS antenna to allow synchronization received from the Global Positioning System or with DY DCF77 antenna that allows an automatic synchronization of the digital time switch with the Frankfurt DCF77 time signal.



DWA1

#### Digital weekly time switch - DW

DW1 and DW2 are weekly digital time switches with 1 and 2 channels, respectively. They allow exclusion of the normal weekly program in every week with the same mode.

#### Digital weekly astronomical time switch - DWA

The astronomical switches DWA1 and DWA2, respectively, with 1 and 2 channels, automatically control lighting circuits depending on the time of sunrise and sunset, greatly increasing energy efficiency. The programming is in fact based on a mathematical algorithm able to calculate the time of the rising and setting of the sun in a certain location for each day of the year. Once powered the device, simply insert date, time, geographical coordinates and time zone so that it is ready to work. These settings can also be automatically defined using the DBT Timer APP. The installation of astronomical digital time switches is particularly useful when using a twilight switch with external sensor is not recommended because it may be subject to malfunctions caused by air pollution, excessive brightness or vandalism. DWA1 and DWA2 are also indicated for the control of public lighting, shop windows of shops, neon signs, monuments, facades, illuminated fountains, ...



DWTL1

#### Digital weekly twilight time switch - DWTL1

DWTL1 is digital time switch with astronomical function and external luminosity probe DWS indicated for the management of the lighting system, luminous signs.

Digital weekly twilight switch with 1 channel allows the exclusion of the weekly programming. DWTL1 can be configured as astronomical with probe switch which initial configuration requires the activation of the load from sunset to sunrise and during the daytime hours in case of low light. Also, it can be used as programmable twilight switch in which activation of the load occurs when the probe detects a low light condition in case that daily or weekly programming requires it.

Channels no.	Bbn	Order details		Price 1 piece	Weight 1 piece kg	Pack unit pc.
	8012542	EAN	Type code			
2	212010	DY365	2CSM221201R1000	0.250	1	
1	225317	DW1	2CSM222531R1000	0.129	1	
2	225218	DW2	2CSM222521R1000	0.152	1	
1	225119	DWA1	2CSM222511R1000	0.129	1	
2	225010	DWA2	2CSM222501R1000	0.152	1	
1	224914	DWTL1	2CSM222491R1000	0.160	1	

## Control and automation

### DBT Timer digital time switches



DY DCF77



DY GPS



DY365 2CE



DY365 4CE



DWS

#### Accessories for DBT Timer digital time switches

The DY365 2CE and DY365 4CE are extension channel units with 2 and 4 outputs relays.

They are respectively coupled to the DY365 in order to expand number of contacts managed from 2 to maximum 8.

DY DCF77 antenna, used in conjunction with the device, enables it to be automatically synchronized with the official DCF77 Frankfurt time signal, broadcast via long wave radio.

DY GPS antenna is available to ensure good coverage around the world in any weather condition. This antenna uses the synchronization from the Global Positioning System and provides more precise values than terrestrial transmissions.

DWS is external probe for light intensity which is coupled with digital weekly twilight switch, DWTL1.

Version	Bbn	Order details		Price	Weight	Pack
	8012542	EAN	Type code	1	1 piece	unit
			Order code	piece	kg	pc.
DCF77 antenna	504214	DY DCF77	2CSM250421R1000		0.100	1
GPS antenna	504115	DY GPS	2CSM250411R1000		0.080	1
2 channel extension	211914	DY365 2CE	2CSM221191R1000		0,185	1
4 channel extension	211815	DY365 4CE	2CSM221181R1000		0,486	1
DWS external sensor	224815	DWS	2CSM222481R1000		0.021	1

## Control and automation

### AG Timer electro-mechanical time switches



AD1NO-R-15m



AD1CO-15m

		Technical features							
		AD1NO-15m	AD1NO-R-15m	AD1CO-30m	AD1CO-R-30m	AW1CO-R-210m	AD1CO-15m	AD1CO-R-15m	AW1CO-R-120m
Rated voltage	[V]	230 AC							
Contact type		1NO	1NO	1NO/NC					
Resistive load	[A]	16							
Inductive load	[A]	4							
Rated frequency	[Hz]	50/60							
Setting step (tappet)	[min]	15	15	30	30	210	15	15	120
Number of tappets		96	96	48	48	48	96	96	84
Running reserve	[h]	-	100	-	150	150	-	150	150
Power consumption	[W]	0.5							
Max. switching power	[VA]	4000							
Incandescent	[W]	2500	2500	3000					
Fluorescent	[VA]	1200	1200	1200					
Low voltage halogen	[VA]	2000	2000	2000					
Halogen (230 V ~)	[W]	2500	2500	3000					
Low consumption lamp (CFL)	[VA]	900	900	900					
LED	[VA]	100	100	200					
Protection degree		IP20							
Max. terminal cross-section	[mm <sup>2</sup> ]	4							
Tightening torque	[Nm]	0.3	0.3	0.5					
Terminals		with captive screws							
Installation type		on DIN rail							
Operating temperature	[°C]	-10...+45	-10...+45	-10...+50					
Storage temperature	[°C]	-20...+60	-20...+60	-20...+70					
Modules	[n°]	1	1	2	2	2	2.5	2.5	2.5
Reference standards		EN 60730-2-7							

#### AG Timer electro-mechanical time switches

These analog timers are designed for installation on DIN-rail. They control circuit opening and closing according to the scheduled program. Available both on daily and weekly versions and equipped with a 16 A contact. They can be set on the scheduled program or on the permanent ON-OFF function. The AD1NO-R-15m, AD1CO-R-15m, AW1CO-R-120m, AD1CO-R-30m, AW1CO-R-210m versions are equipped with a built-in battery, charged by the network voltage, which allows the devices to maintain the set time also in case of long (up to 150 h) power supply failures. The products fit applications such as control of lighting systems of shops or commercial buildings, heating and ventilation systems as well as control of automatic irrigation systems of private or external gardens.

Contacts	Version	Bbn 8012542	Order details		Price 1	Weight 1 piece	Pack unit
			EAN	Type code			
1NO	Daily time switch without reserve	224716	AD1NO-15m	2CSM222471R1000		0.072	1
1NO	Daily time switch, running reserve	224617	AD1NO-R-15m	2CSM222461R1000		0.075	1
1NO/1NC	Daily time switch without reserve	224518	AD1CO-30m	2CSM222451R1000		0.105	1
1NO/1NC	Daily time switch, running reserve	224419	AD1CO-R-30m	2CSM222441R1000		0.109	1
1NO/1NC	Weekly time switch, running reserve	224310	AW1CO-R-210m	2CSM222431R1000		0.109	1
1NO/1NC	Daily time switch without reserve	224211	AD1CO-15m	2CSM222421R1000		0.112	1
1NO/1NC	Daily time switch, running reserve	081517	AD1CO-R-15m	2CSM208151R1000		0.116	1
1NO/1NC	Weekly time switch, running reserve	081418	AW1CO-R-120m	2CSM208141R1000		0.116	1