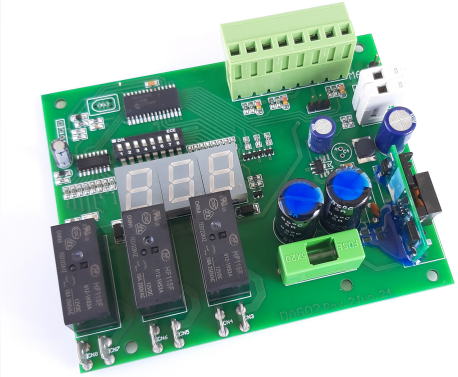
CAR WASH SERIES

DAG02_24

TOKEN TIMER FOR CAR WASH SYSTEMS

Times the activation of a load from the pulse of a coin acceptor: it counts tokens, shows the remaining time and logs working hours and tokens inserted.

90–520 Vac · 3 seven-segment displays · DIP-switch timing · Made in Italy



POWER SUPPLY	THREE-PHASE	SINGLE-PHASE	MAX TIME
90–520 Vac	**4** kW	**3** kW	**635 s · 127** min

FEATURES

- Timed load activation on each coin-acceptor pulse
- Number of tokens inserted on the display (Gxx), then remaining time of the current token
- LED signalling relay activation
- Pause and resume counting with an external button
- Manual activation and deactivation of the load
- Emergency stop input with display signalling
- Working hours (not resettable) and token total (resettable)
- 12 Vdc output for auxiliary loads, fixed or cut off by the emergency

TECHNICAL DATA

Power supply	**90–520 Vac, 50/60 Hz, automatic detection**
Load	**Three-phase up to 4 kW · single-phase up to 3 kW**
Auxiliary output	**12 Vdc, max 150 mA**
Protection	**F1 500 mA board fuse**
Dimensions (L×W×H)	**115 × 92 × 30 mm**
Weight	**150 g**

DISPLAY MESSAGES

DISPLAY	MEANING
Gxx	Number of tokens inserted
PAU	Counting paused (KEYIN button)
EME	Emergency triggered: cycle ended, credits cleared
HOURS	Working hours display
GET	Total tokens inserted display
CLR	Token total cleared

CAR WASH

DESIGNED AND MADE IN ITALY

DAG02_24 · Setting the time per token

Time per token = sum of the weights of DIPs 1–7 set to **OFF** × time base (DIP 8). A DIP set to ON counts 0.

SETTING THE TIME PER TOKEN (DIP SWITCH)

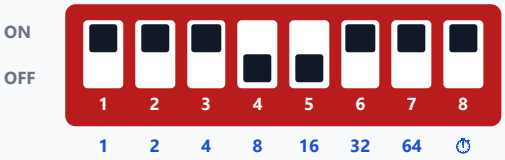
DIP	BINARY WEIGHT (WHEN OFF)	FUNCTION
DIP 1	**1**	OFF = 1 · ON = 0
DIP 2	**2**	OFF = 2 · ON = 0
DIP 3	**4**	OFF = 4 · ON = 0
DIP 4	**8**	OFF = 8 · ON = 0
DIP 5	**16**	OFF = 16 · ON = 0
DIP 6	**32**	OFF = 32 · ON = 0
DIP 7	**64**	OFF = 64 · ON = 0
DIP 8	—	**Time base**: OFF = 1 minute · ON = 5 seconds

MAXIMUM VALUES

DIP 8 ON	127 × 5 s = 635 seconds
DIP 8 OFF	127 × 1 min = 127 minutes

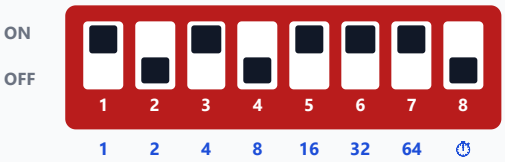
EXAMPLES

120-second token



DIP 4 (8) + DIP 5 (16) OFF = **24** × 5 s (DIP 8 ON) = **120 s**

10-minute token



DIP 2 (2) + DIP 4 (8) OFF = **10** × 1 min (DIP 8 OFF) = **10 min**

WORKING CYCLE

1. When a token is inserted the display shows the number of tokens inserted (Gxx) and the relay starts; the LED on the board signals it.
2. The display shows the decreasing time of the single token: remaining seconds with DIP 8 ON, remaining minutes with DIP 8 OFF.
3. More tokens can be inserted during the working time: the display always shows the time of the current token (e.g. 3 tokens of 60 s = three 60 s cycles) and the relay never releases when passing from one token to the next.

FUNCTIONS

Pause / resume	Pressing KEYIN during the cycle deactivates the output and pauses counting (`PAU`). Pressing it again restarts the cycle from where it was paused, keeping the loaded credit. *MAN jumper open.*
Manual start / stop	With the MAN jumper closed the board switches to manual mode, starting with the output off: each press of KEYIN toggles the output, activating or deactivating the relays without tokens. Reopen the MAN jumper to exit.
Emergency	Use a normally closed emergency button. It has a dual function: hardware, cutting off the power relay drive; software, signalling the event (`EME`). The output is deactivated, the cycle ends and all credits of the current cycle are lost. Inserted tokens are still counted in the totalizer.

VIEWING SAVED DATA

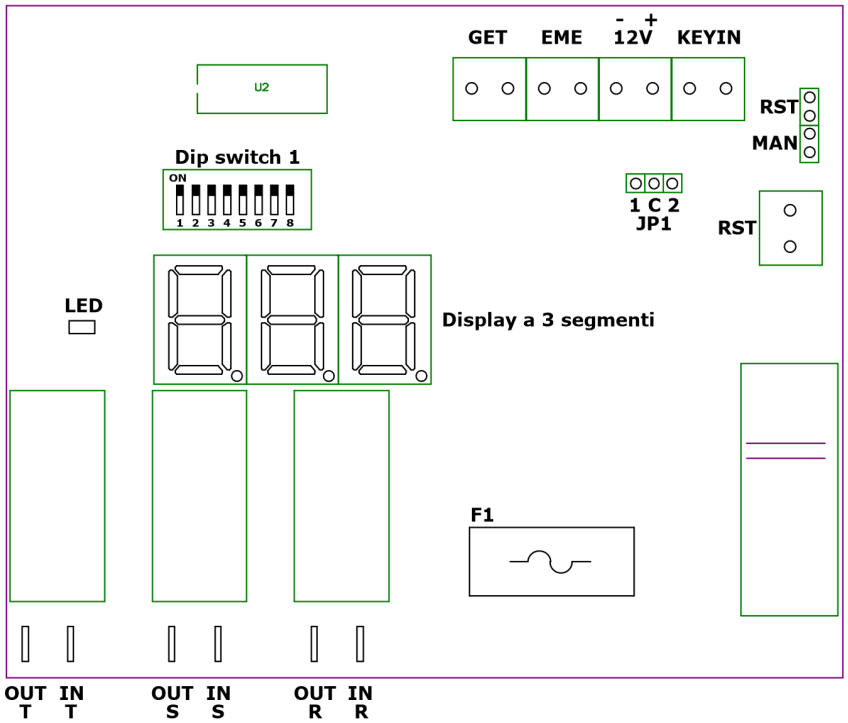
The running counter is saved to non-volatile memory with a time base of seconds, but only working hours are displayed (minutes and seconds remain hidden).

1. Switch the equipment on with the RST jumper closed, or holding down the external button connected to the RST terminal.
2. `HOURS` is shown for 5 seconds, then the hours: in turn the two highest digits, the two intermediate digits and the two lowest digits; the sequence repeats.
3. Press KEYIN for about one second to move to the token total, marked by `GET`, displayed in the same way.
4. While the tokens are displayed, holding KEYIN for at least 10 seconds clears the total (`CLR`) and the hour display restarts.
5. Reopen the jumper to exit: the equipment does not need to be switched off.

Note: Working hours cannot be reset by the end user.

CONNECTIONS AND JUMPERS

REF.	FUNCTION
FASTON IN R, S, T	Power input 90–520 Vac 50/60 Hz · in single phase do not use T
FASTON OUT R, S, T	Load output
F1	500 mA board protection fuse
GET	Coin acceptor input, NO contact
EME	Emergency mushroom input, NC contacts
12V	12 Vdc output
KEYIN	FUNCTION button input, NO contact
LED	Relay activation signal
JP1	12 Vdc output: 1+C always present · 2+C cut off by emergency · no jumper = output disabled
MAN	KEYIN input function: open = pause/resume counting · closed = start/stop relay without tokens
RST	On-board jumper or terminal for external button: open = normal operation · closed at power-up = hours and tokens display
DIP 1–8	Time-per-token and time-base selector



Power supply between 90 and 520 Vac 50/60Hz

FASTON IN R,S,T - Power input, in single phase do not use T
FASTON OUT R,S,T - Load output
F1 - 500mA board protection fuse

GET - Coin acceptor input contact NO
EME - Emergency mushroom input NC contacts
12V - 12Vdc output max load 200mA
KEYIN - Input for FUNCTION button contact NO

LED - Relay activation signal

JP1 - 12Vdc output selection jumper, always present or excluded by EME intervention:
1+C always present
2+C excluded from EME intervention
No Jumper output disabled.

MAN - CHI input FUNCTION selection jumper
Open: Pause / Resume token counting
Closed: Start / Stop relay without token insertion (manual operation)
RST - Jumper on board or terminal for any external button
Open: Normal operation
Closed: Displaying working hours and tokens inserted when given voltage to the board

Dip switch - Base time multiplication selector.

Legend in English as per manufacturer's diagram · Drawing not to scale