UNIT FOR PROGRAMMING CONTROLS & FOR ACQUISITION OF MEASUREMENTS, COUNTS, ALARMS & STATUS

D 510
29.02.00

C ← BUS

DAM 675 Eng. C1

- **Timeswitch with annual programming:**
  – 5 On-Off relay controls with independent timed programming, of which :
  2 SPDT and 3 SPST
- **Signalling of status, alarms, measurements & counts** :
  – 7 inputs for measurements & counts or On-Off signalling of alarm or status
  – 3 inputs for On-Off signalling of alarm or status or count
  – 1 relay output for signalling alarm
- **C-Bus compatible**
- **DIN rail compatible.**

CE

1. APPLICATION

DAM 675 finds its application in all boiler plants in which it is necessary to programme On and Off switching of electrically-operated devices (motors, burners, pumps, refrigerator compressors).
By means of the C-Bus interface DAM 675 can be incorporated in a telemanagement system for the acquisition of alarms, status and measurements.

2. FUNCTIONS

The principal functions of DAM 675 are:
- 5 On-Off relay controls with independent programming :
  – Seven 24-hour and five 7-day programmes :
  – 3 annual programmes containing up to five periods with dates
  – 1 special period with dates.
- 7 inputs available for acquisition of :
  – Measurements with alarm options by active or passive detectors, or
  – On-Off alarm signals, or
  – On-Off signals of operational status
- 3 On-Off inputs for acquisition of :
  – alarm status
  – operational status
  – metering of operating time
  – metering of closure pulses:
- Transmission of alarm signals at set times and annual periods for each input
- Transmission of triggered alarms to local sites by means of output contact for activation siren or visible warnings
- Metering degree-days, and degree-days referring to difference between two measurements, during programmed periods.

3. ACCESSORIES

No.	Description		Type	Sensing element	Code	Data sheet
1...7	Water temperature detector	surface	**SCH 010**	NTC 10 kΩ	B 1...7	–
	or	immersion	**SIH 010**	NTC 10 kΩ	B 1...7	–
1...7	Outside or cold air temp.detector		**SAE 001**	NTC 1 kΩ	B 1...7	–
1...7	Flue gases temp. detector		**STF 001**	PT 1 kΩ	B 1...7	–
1...7	High temp. detector	immersion	**STH 420**	4 ... 20 mA	B 1...7	–
1...7	Water pressure detector		**SPW420**	4 ... 20 mA	B 1...7	–
1...7	Presssure gasoil level detector		**LCG 420**	4 ... 20 mA	B 1...7	–
1...7	Ultrasound gasoil level detector		**LGU 420**	4 ... 20 mA	B 1...7	N 510
1...7	Minimum gasoil level detector		**LMG 501**	On-Off	B 1...7	–
1...7	Accesssory for connection active detectors 4...20mA		**ASA 420**		B 1...7	–
1...7	Accessory for connection active detectors 0...10V dc		**ASA 010**		B 1...7	–

4. TECHNICAL DATA

• Electrial

Power supplly	230 V~ ± 10%
Frequency	50 ... 60 Hz
Consumption	5 VA
Protection	IP40
Radio disturbances	VDE0875/0871
Vibration test	with 2g (DIN 40 046)
Voltage-free contacts:	
- maximum switching voltage	250 V~
- maximum switching current	5 (1) A
Construction standard	Italian Electrotechnical Comm. (CEI)

• Mechanical

Case	DIN 6E module
Installation	DIN 35 rail
Materials:	
- base	NYLON
- cover	ABS
Ambient temperature:	
- operation	0 ... 45 °C
- storage	– 25 ... + 60 °C
Ambient humidity	Class F DIN 40040
Dimensions	105 x 115 x 71.5
Weight	1.0 kg

• On-Off relay outputs:

On-Off programmable controls	5
– SPDT	2
– SPST	3
On-Off output for local alarm	1

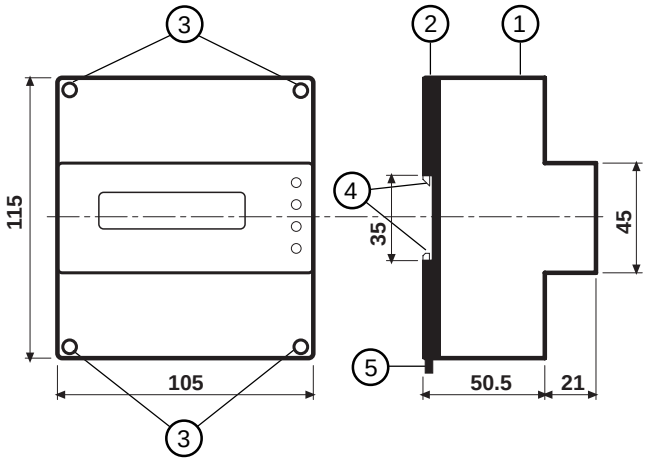
• Measurement inputs

Suitable types of detector:	
- Pt 1 kΩ	0 ... 508 °C
- NTC 1 kΩ	– 30 ... + 40 °C
- NTC 10 kΩ	0...99 °C
- active	4 ... 20 mA. or 0...10 V –

• On-Off inputs : alarms or status or counts

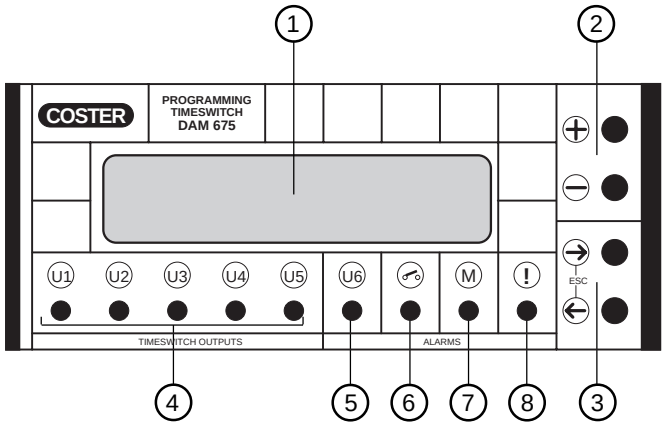
Transmission alarms:	with contact closed or open
Pulse counts :	
– minimum time closure contact	0,25 s
Time count:	
– minimum time resolution:	1 minute

5. OVERALL DIMENSIONS



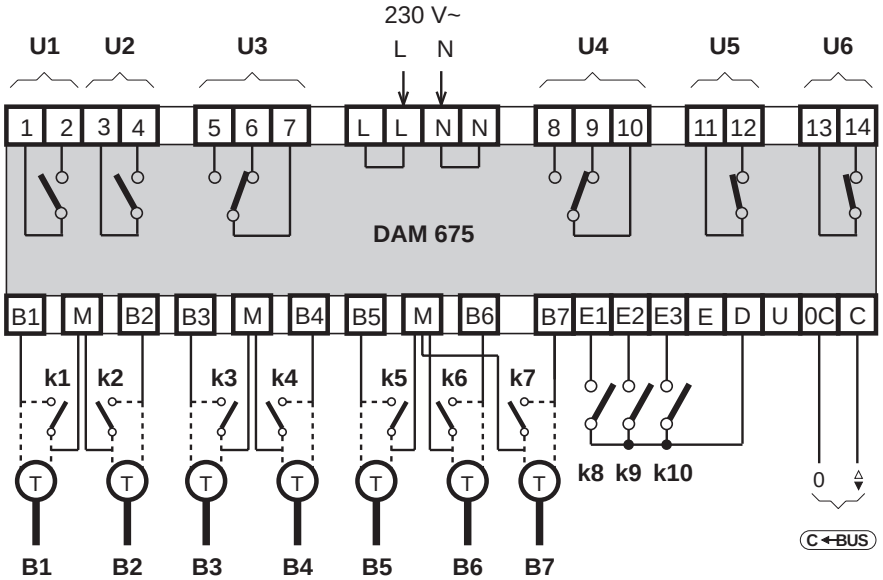
1 – Protective cover for electronic components
2 – Base with transformer, relay and terminal blocks
3 – Screws for fixing cover to base
4 – DIN rail securing elements
5 – DIN rail release lever

6. FACIA



1 – Backlighted two-line alphanumeric display
2 – + and – data modifying keys
3 – Page-scrolling ← and → keys
4 – Status On-Off controls LED
5 – Status local alarm relay LED
6 – On-Off alarms LED
7 – Measurement alarms LED
8 – Fault LED

7. WIRING DIAGRAM



NB: *The contacts of the output relays are shown with the coil de-energised.*

B 1...7 – Measurement detectors (alternative to K1 ... 7)
U 1...5 – On-Off controls.
U6 – On-Off control local alarm
k 1...7 – On-Off control alarm or status (alternatives to B1 ... 7)
k 8...10 – On-Off contacts for alarm, status or count
C-Bus – Telemanagement data transmission

8. SITING OF CONTROLLER

The programming and control unit must be sited in dry spaces which meet the relevant ambiental conditions included under *4. Technical Data*. If sited in spaces classified as "Dangerous" they must be installed in cabinets for electrical appliances constructed according to the standards in force for the danger class involved.
The unit may be installed on DIN rail or in DIN modular enclosure

9. WIRING

Proceed as follows :
- Separate the base and cover
- Mount the base on the DIN rail and check that the securing elements (5.4) hold it firmly in place.
- Carry out the wiring according to the diagram and in observance of the regulations in force. Use following cable types:
  - 1,5 mm^2 for power and relay output controls
  - 1 mm^2 for detectors
  - 1 mm^2 for C-Bus. For cable length limits please see data sheet T 021
- Switch on power (230 V~) and check the voltage across terminals L and N
- Switch off power, replace cover on base and secure it with the four screws supplied (5.3).

It is recommended not to insert more than two cables in a single terminal of the controller and, if necessary, to use external junction boxes.

10. COMMUNICATION

10.1 C-Bus communication for telemanagment (for detailed information please see data sheet T 021)

By means of C-Bus interface DAM 675 can be telemanaged: two-way interchange of data with one or more local PCs and/or a remote central control via telephone network.
From PC or PCs it is possible to see displayed and/or modify :
- data and values set on display pages of the devices and those of connfiguration of the units dedicated exclusively to telemanagement (see *4. Technical Data*).
- the operating status of the plant components (pumps,auxiliaries in general)
- acquire alarms coming from the plant
- read the detector measurements (temperatures: outside,flow, boiler, etc).

10.2 Address for telemanagement

27.1

Address :	1
AddrGroup:	–

In order to be identified by the central PC and/or by the local PCs the controllers must have a progressive address number.
If required, the controllers can be divided into groups.

To cancel values keep + and – keys pressed at same time.

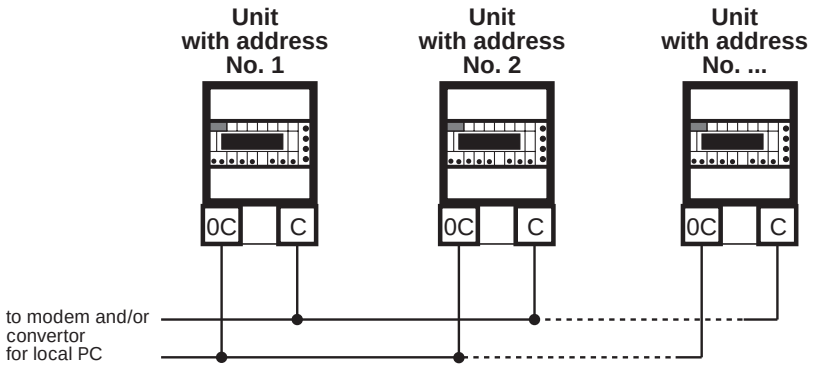
10.3 Sending alarms

27.2

Send alarms	:NO
PassWTeleman	:NO

- **Sending alarms** : NO = alarms not sent
  YES = alarms sent to central PC and indicated by blinking LEDs on controller
- **Teleman password** : NO = password not enabled
  YES = password enabled

10.4 C-Bus wiring



11. OPERATION

DAM 675 is a digital controller with microprocessor for :
- controlling, with 24-hour,7-day or annual programmes, the switching On or Off of five HVAC devices
- signalling operational and alarm status

– perform metering and measuring
By means of its C-Bus interface DAM 675 is able to communicate witha local PC or, by means of a modem and telephone line, with a PC used for telemanagement.

To configure DAM 675 please see *16. Sequence of display pages.*

WARNING: *In the presence of electrical disturbances the output controls may change their status but this will be restored automatically.*

11.1 Configuration inputs and detectors

24.1

```
How many measmnt
inputs used? 7
```

Configure number of inputs to be used (1 ... 7).

24.2

```
Meas 1:PT 1000Ω
B1:------------
```

Meas1 ... Meas7 = Number of measurement input used
PT 1000 Ω = Type of detector used
– *PT 1000 Ω* = Flue gases temperature detector
– *NTC 1 kΩ* = Outside temperature detector
– *NTC 10 kΩ* = Ambient or water temp. detector
– *4 ... 20 mA* = Active detector
– 0 ... 10 V – = Active detector
B 1 : - - - - - = Identifying name of measurement

11.2 Use

21.2

```
Access keynumber
    ----
```

The page appears only if the access keynumber has been entered. To enter it use + and – keys.
Keynumber = number from 1900 to 1999 inclusive

17.0

```
U1:------------
NORMAL  : 24HR 1
```

U1 ... U5 = Number of current output. To change it use + and – keys.
- - - - - - - - = Identifying name of output.
NORMAL = Uses programme shown on right. Permits using three annual programmes and one special period.
ALWAYS = Uses programme shown on right but prevents use of annual programmes and of special period.
24HR 1 = Current programme.

17.1

```
U1:Spec : 24HR 1
Fr:--.--to:--.--
```

U1 ... U5 = Number of output in use. To change it use + and – keys.
Spec :24HR 1 = Choice of programme for special period.
– *24HR* :1...7 programmes.
– *7DAY* :1...5 programmes.
– *On* : always On.
– *Off* : always Off.
– *Excluded* : period not used.
Fr:--.-- to:--.-- = Day and month of start and end of special programme. To cancel press + and – keys at same time.

17.2

```
U1:Annu 1:24HR 1
 --.--.--.--.--
```

U1 ... U5 = Number of output in use. To modify it use + and - keys.
Annu1...3 : 24HR1 = Choice of programme to be used in all periods of annual programme.
– *24HR* : 1...7 programmes.
– *7DAY* : 1...5 programmes.
– *ON* : always On
– *OFF* : always Off
– *Exclud* : period not used.
To : --.--.--.--.-- = Periods (max 5) with dates 1... 30 assigned to annual programme.

17.10

```
10.30 WEDNESDAY
24.03.99  GMT
```

Exact time and day of week. To change use + and – keys.
Current date and time period according to "*BST*" dates entered.

12. PROGRAMMES, TIMES, & PERIODS

12.1 24-hour programmes

18.1

```
How many 24hr
programmes ? 1
```

1 = Number of 24-hour programmes to be used (1 ... 7).

18.2

```
Time On    : 7.00
P1 Off     :22.00
```

P1 = Number of current programme.
7.00 = Start time (max 5 for each programme).
22.00 = Stop time (max 5 for each programme).
NB: Four other pages to follow for further start and stop times.
To enter times use + and – keys; to cancel press + and – keys at the same time.

12.2 7-day programmes

19.1
```
How many 7day
programmes ?  1
```
1 = Number of 7-day programmes to be used (0 ... 5).

19.2
```
7day 1: MTWTFSS
24hr P: 1111111
```
7day 1 = Number of 7-day programme (1 ... 5) and days of week.
24hr P: = Programme assigned to each day of week :
- *1...7* : 24hour programmes.
- *A* : always On
- *S* : always Off

12.3 Annual periods

20.1
```
How many annual
periods ?     1
```
1 = Number of periods to be used for annual programmes (0...30).

20.2
```
Annual period  1
Fr:--.--to:--.--
```
1 = Number of annual period in use
Fr : --.-- to : --.-- = Day and month of start and end of annual period.
NB : To enter the data use + an – keys; to cancel press these keys at the same time.

12.4 BST and keynumber

21.1
```
BST
Fr:29.03to:26.10
```
Fr :--.-- to :--.-- = Date of start and end of period.

21.2
```
Choice keynumber
      ----
```
---- = Enter a number from 1901 to 1999 inclusive if you wish to prevent use of + and – keys (Access keynumber).

13. MEASUREMENTS & CALCULATIONS

22.1
```
B1:------------
Measmnt:  000c
```
B1... B7--- = Number and name of measurement input.
000c = Actual value measured.

22.2
```
B1:------------
Min:000 Max:000
```
B1... B7--- = Number and name of measurement input.
Min - Max = Minimum and maximum temperatures measured. To cancel press + and – at same time.

22.15
```
E1:------------
Status: OFF
```
Number and name of input:
– *E1...E3* = On-Off input
– *B1...B7* = Measurement input
Contact status :
– *ON* = Contact closed
– *OFF* = Contact open

22.16
```
E1:------------
PULSES : 00000
```
E1... E3---- = Number and name of input.
- *TIME* : Input used for measuring time.
- *PULSES* : Input used for counting pulses.

22.17
```
D1:------------
TOTAL : 00000
```
D1...D3:----- = Number and name of degree-days metering.
TOTAL = Degree-days metered.

13.1 Measurement inputs

24.1
```
How many measmnt
inputs used ? 7
```
Configure number of inputs used (1...7).

24.2
```
Meas 1:PT 1000Ω
B1:------------
```
Meas 1...Meas 7 = Number of measurement input used.
PT 1000 Ω = Type of detector used.
– *PT 1000 Ω* = Flue gases temperature detector.
– *NTC 1 kΩ* = Outside temperature detector
– *NTC 10 kΩ* = Ambient or water temperature detector
– *4 ... 20 mA* = Active detector
– 0 ...10 V – = Active detector
B 1 : - - - - - = Identifying name of measurement. Use + and – keys to enter letters or digits in place of dashes.

24.3
```
B1:Value :000c
```
000c = Actual value measured by detector:

24.4
B1:AlarmWait:1m
Min:000 Max:000

1m = Delay time for sending alarm.
Min/Max = Minimum and maximum limit values for sending alarm.

24.5
B1:Alarm:24HR 1
Fr:--.--to:--.--

24HR 1 = Choice of programme to be used
– *24HR*: 1...7 programmes.
– *7DAY*: 1...5 programmes.
– *ALWAYS*
– *NEVER*
Fr :--.-- to : --.-- = Period with dates for sending alarm.

13.2 Metering degree-days

25.1
How many counts
degree-days ? 1

1 = Number of degree-days counts you wish to make (0 ... 3).

25.2
DegreeDays:20-B2
D1:------------

DegreeDays : 20-B2 = Count degree-days between 20 °C and temperature measured by detector B2.
D1...D3--- = Number and identifying name of count. To enter letters or digits use + and – keys.

25.3
D1:Count:24HR 1
Fr:--.--to:--.--

24HR 1 = Choice of programme to be used:
– *24HR*: 1...7 programmes.
– *7DAY*: 1...5 programmes.
– *ALWAYS*
– *NEVER*
Fr :--.-- to :--.-- = Period with dates for metering degree-days.
NB : A further four pages follow for metering of degree-days between detectors B1and B2 and between detectors B3 and B2 if in 25.1 the number 3 has been selected.

14. TIMESWITCH OUTPUTS & ON/OFF INPUTS

14.1 Timeswitch outputs

23.1
How many timesw
outputs used? 1

1 = Number of timeswitch outputs to be used (1 ... 5).

23.2
U1: Name

U1 ... U5 = Number of timeswitch output used.
---------- = Identifying name of timeswitch output. To enter letters or digits in place of dashes use + and – keys.

23.3
U1:On equals
relay:ENERGISED

U1 = Status of relay contact in On mode.
ENERGISED = ENERGISED/NOT ENERG. To change status of relay use + and – keys.
NB : Further pages follow according to number of outputs configured.

14.2 ON/OFF inputs

26.1
How many ON/OFF
inputs used? 1

1 = Number of On/Off inputs to be used.

26.2
E1: ALARM

E1 = Identifying number of input used.
ALARM = Use of contact connected to input:
– *ALARM* : alarm signal
– *STATUS* : status signal
– COUNT : recording of operating time in minutes or number if closure pulses.
------ = Identifying name of input. To enter letters or digits in place of dashes use + and – keys.

26.3
E1: AlarWait :1m
Alarm :CLOSURE

1m = Delay time in sending alarm.
CLOSURE = Type of action of contact:
– *CLOSURE* : alarm status by contact closing.
– *OPENING* : alarm status by contact opening.

26.4
E1:Counts
TIME CLOSED

Counts = Type of count :
– *TIME CLOSED* : time contact closed.
– *NUMBER CLOSURES* : number of times contact closes

26.5

```
E1:Alarm: 24HR 1
Fr:--.--to:--.--
```

Alarm = Type of function of input.
– *Alarm* : Signalling of alarm.
– *Count* : Count.
24HR 1 = Programme for sending alarm or making count:
– *24HR* : 1 ... 7 programmes
– *7DAY* : 1 ... 5 programmes
– *ALWAYS*
– *NEVER*.
Fr :--.-- to : --.-- = Period with dates for sending alarm or for making count.
NB : Identical pages follow for inputs E2 - E3.

26.6

```
B1: ALARM
 ------------
```

B1 = Identifying number of measurement input used as On-Off.
ALARM = Type of use for contact connected to input.
– *ALARM* : signalling of alarm:
– *STATUS* : signalling of status.
---------- = Identifying name of input. To enter letters or digits use + and – keys.

26.7

```
B1:AlarmWait:1m
Alarm :CLOSURE
```

1m = Delay time for sending alarm.
CLOSURE = Type of contact action:
– *CLOSURE* : alarm when contact closed.
– *OPENS* : alarm when contact opens.

26.8

```
B1:Alarm: 24HR 1
Fr:--.--to:--.--
```

24HR 1 = Programme for sending alarm.
– *24HR*: 1...7 programmes
– *7DAY* : 1...5 programmes
– *ALWAYS*
– *NEVER*
Fr :--.-- to :--.-- = Period with dates for sending alarm.

15. TELEMANAGEMENT DATA

27.1

```
Address  :  1
AddrGroup :  –
```

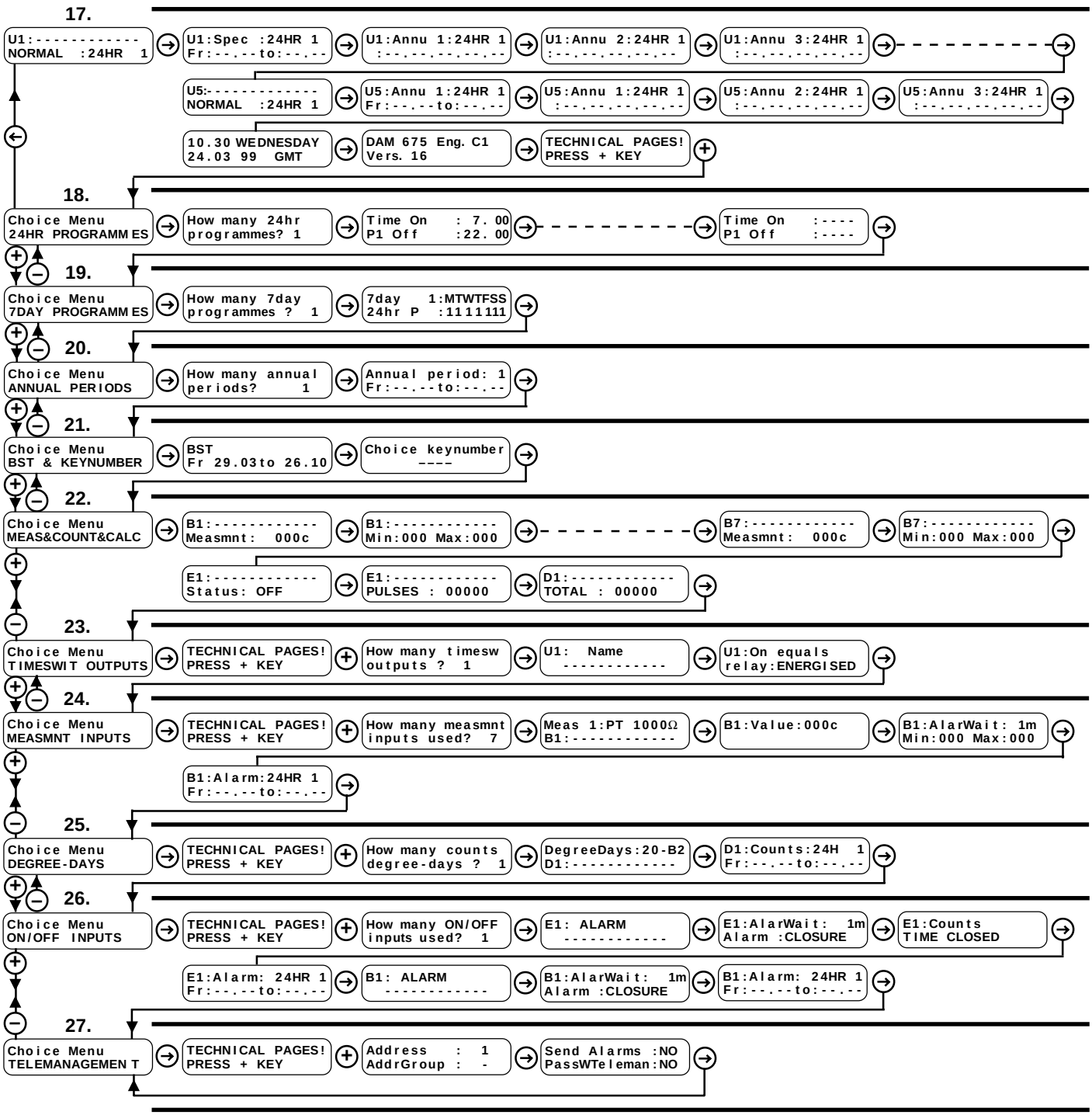
Address = Telematic address of controller (1 ... 239); indispensable for C-Bus connection.
Group = Group to which controller assigned.

27.2

```
Send Alarms:YES
PassWTeleman:NO
```

YES = Alarms sent to a PC.
NO = Alarms are not sent.
YES = Telemanagement password enabled.
NO = Telemanagement password not enabled.

16. SEQUENCE OF DISPLAY PAGES (the data and functions are those in memory at time of delivery)



⊖ ⊕ Keys for scrolling the display pages and positioning the cursor ▮ on data which can be modified on these pages.

The modifiable data in the following descriptive list of display pages are highlighted thus

By pressing these keys at the same time for a few seconds, or in any event after 15 minutes the first page returns to the display

U1:------------
NORMAL : 24HR 1

⊖ ⊕ Keys for : - changing the values highlighted by the cursor ▮

– displaying the configuration options of a function eg : U1:------------ NORMAL : 24HR 1 or U1:------------ NORMAL : 7DAY 1

– passing directly from one menu (series of pages) to another.

17. NORMAL USE

Ref.	Display	Description	Notes	Sect.
17.0	U1:- - - - - - - - - - - - NORMAL : 24HR 1	Number & name of current output Setting: *NORMAL*: *ALWAYS*: Choice of programme:*24HR 1... 7*; *7DAY 1...5; ON; OFF.*	+ and – keys to change output Name entered in **23.2**	**11.2**
17.1	U1:Spec : 24HR 1 Fr:- - .- - -to:- - .- - -	Number of current output. Choice of programme: *24HR 1...7; 7DAY 1...5; ON; OFF; EXCLUD.* Dates of start & end of special period.	+ and – keys to change: output number; current programme and dates of start & end of special period.	**11.2**
17.2	U1:Annu 1:24HR 1 to:- - .- - .- - .- - .- -	Number of current output. Choice of programme: *24HR 1 ... 7*; *7DAY 1...5; ON; OFF; EXCLUD.* Periods with dates 1 ... 30 (max usable 5).	+ and – keys to change: output number; current programme and entering periods with dates.	**11.2**
17.10	10.30 WEDNESDAY 24.03.99 GMT	Setting: Time, day of week and date. Current time period: GMT or BST.	Dates BST set in **21.1**	**11.2**
17.11	DAM 675 Eng C1 Vers.xx	Identifying data of regulator.		

18. 24HR PROGRAMMES

Ref.	Display	Description	Notes	Sect.
18.1	How many 24hr programmes ? 1	Number of 24-hour programmes to be used (1...7).		**12.1**
18.2	Time On : 7.00 P1 Off :22.00	Definition of 24-hour programmes: Start time (max. 5). Stop time (max. 5).	Further four pages follow for other *P1 events*.	**12.1**

19. 7DAY PROGRAMMES

Ref.	Display	Description	Notes	Sect.
19.1	How many 7day programmes ? 1	Number of 7-day programmes to be used (0...5).		**12.2**
19.2	7day 1: MTWTFSS 24hr P:1111111	Programme assigned to each day of week From *1...7* days: always *ON* or always *OFF*.	Further pages follow according to number of programmes chosen.	**12.2**

20. ANNUAL PERIODS

Ref.	Display	Description	Notes	Sect.
20.1	How many annual periods ? 1	Number of periods (0 ... 30) to be used in annual programmes.		**12.3**
20.2	Annual period 1 Fr:- - .- - to:- - .- -	Day and month of start and end of annual period	Further pages follow according to total number of periods chosen.	**12.3**

21. BST & KEYNUMBER

Ref.	Display	Description	Notes	Sect.
21.1	BST Fr:29.03to:26.10	Dates of start & end of BST period.		**12.4**
21.2	Choice keynumber - - - -	Choice of keynumber to prevent use of + and – keys; a number from *1901 to 1999* inclusive.	To eliminate keynumber press + and – keys at same time.	**12.4**

22. MEASUREMENTS & COUNTS

Ref.	Display	Description	Notes	Sect.
22.1	B1:- - - - - - - - - - - - Measmnt: 000c	Number and name of measurement Actual temp. measured by detector.	Further pages of readings follow according to number of inputs configured (*1...7*).	**13**
22.2	B1:- - - - - - - - - - - - Min:000 Max:000	Number and name of measurement input. Minimum & maximum temp. values measured	Further pages of readings follow according to number of inputs configured (*1...7*).	**13**
22.15	E1:- - - - - - - - - - - - Status: OFF	Type, number and name of input used. Status of contact connected to input.	Type input: *E* = On-Off; *B* = measurement *On* contact closed; *Off* contact open.	**13**
22.16	E1:- - - - - - - - - - - - PULSES : 00000	Type, number & name of input used. Type of use of input.	Use input: *TIME* = time count; *PULSES*= pulse count	**13**
22.17	D1:- - - - - - - - - - - - TOTAL: 00000	Number & name of degree-days metered. Total degree-days metered.		**13**

23. TIMESWITCH OUTPUTS

Ref.	Display	Description	Notes	Sect.
23.1	How many timesw outputs used? 1	Number of outputs to be used (1 ... 5).	To change use + and – keys.	14.1
23.2	U1: Name ----------	Number & identifying name of output.	Use + and – keys to enter letters or digits in place of dashes.	14.1
23.3	U1:On equals relay:	Number of output & relay status in On mode *ENERGISED–NOT ENERG*	Use + and – keys to make changes; Further pages follow (*23.2* and *23.3*) according to number of outputs used (*23.1*).	14.1

24. MEASUREMENT INPUTS

Ref.	Display	Description	Notes	Sect.
24.1	How many measmnt inputs used? 7	Number of inputs used (1...7).	To change use + and – keys.	13.1
24.2	Meas 1:PT 1000Ω B1:----------	Number of input & type of detector connected : *PT 1000 Ω flugas temp.; NTC 1kΩ outside temprature; NTC 10 kΩ water or ambient temp; 4...20 mA active & 0...10 V- active.* Identifying name of measurement.	Use + and – keys to change type detector connected & to enter letters or digits in place of dashes.	13.1
24.3	B1:Value :000c	Value measured by detector.		13.1
24.4	B1:AlarWait : 1m Min:000 Max:000	Delay time for sending alarm (minutes) Minimum & maximum temperature thresholds for sending alarm.	To change use + and – keys.	13.1
24.5	B1:Alarm: 24HR 1 Fr:--.--to:--.--	Programme for sending alarm:*24HR (1...7);7DAY (1...5); ALWAYS, NEVER.* Period with dates for sending alarm.	To chenge use + and – keys. Further pages follow as above according to number of inputs programmed.	13.1

25. DEGREE-DAYS

Ref.	Display	Description	Notes	Sect.
25.1	How many counts degree-days ? 1	Number of degree-day counts you wish to make (0...3).		13.2
25.2	DegreeDays:20-B2 D1:----------	Count degree-days between 20 °C and temperature measured by detector B2. Identifying number of count. Identifying name of count.	Use + and – keys to enter letters or digits in place of dashes.	13.2
25.3	D1:Count: 24HR 1 Fr:--.--to:--.--	Programmes for metering degree-days: *24HR (1...7); 7DAY (1...5); ALWAYS, NEVER.* Period with dates for metering degree-days.	Use + and – keys to make changes; further pages follow as above for metering degree-days between temperatures measured by detectors (B1 - B2) and (B3 - B2)	13.2

26. ON / OFF INPUTS

Ref.	Display	Description	Notes	Sect.
26.1	How man ON/OFF inputs used? 1	Number of inputs used. Besides inputs (*E1,2,3*) you can use also(*B1 ... 7*) not used for measurements.	To make changes use + and – keys.	14.2
26.2	E1: ALARM ----------	Number input & type of use of contact connected to input: *ALARM*, *STATUS* or *COUNT*. Identifying name of input.	Use + and – keys to change use & to enter letters and digits in place of dashes.	14.2
26.3	E1:AlarWait: 1m Alarm : CLOSURE	Delay time for sending alarm (minutes). Type of contact action*: CLOSURE* (alarm when contact closes), *OPENING* (alarm when contact opens).	To change use + and – keys.	14.2
26.4	E1: Counts TIME CLOSED	Type of count: *TIME CLOSED* (time contact remains closed), *TIMES CLOSING* (number of times contact closes).	To change use + and – keys.	14.2
26.5	E1:Alarm: 24HR 1 Fr:--.--to:--.--	Type of function of input: *ALARM* (alarm signalled), *COUNT* (count). Programmes for sending alarm or for making counts: *24HR (1 ... 7)*; *7DAY (1 ... 5)*; *ALWAYS*; *NEVER*. Period with dates for sending alarm or making count.	Use + and – keys to modify current programme & to enter letters or digits in place of dashes. Further pages follow as above for inputs E2 and E3.	14.2
26.6	B1: ALARM ----------	Identifying number of measurement input used as *On-Off*. Type of use of contact connected: *ALARM* (signalling alarm). *STATUS* (signalling status). Identifying name of input.	Use + and – keys to change type of use of contact & to enter letters or digits in place of dashes.	14.2

26. ON / OFF INPUTS

Ref.	Display	Description	Notes	Sect.
26.7	B1:AlarWait: 1m Alarm : CLOSURE	Delay time for sending alarm (in minutes). Type of contact action: *CLOSURE* (alarm when contact closes, *OPENING* (alarm when contact opens).	To change use + and – keys.	14.2
26.8	B1:Alarm: 24HR 1 Fr:---.---to:---.---	Type of input function: *ALARM* (signalling alarm), *COUNT* (count). Programmes for sending alarm or for making count: *24HR (1 ... 7)*; *7DAY (1 ... 5)*; *ALWAYS*; *NEVER* Period with dates for sending alarm.	Use + and – keys to change current programme & to enters letters or digits in place of dashes. Identical pages follow for inputs B2... B7.	14.2

27. TELEMANAGEMENT

Ref.	Display	Description	Notes	Sect.
27.1	Address : 1 AddrGroup : –	Telemanagement address of controller. Group to which assigned.	To change use + and – keys. Only if wired in C-Bus.	15
27.2	Send alarm :YES PassWTeleman:NO	Enabling alarms to send to teleman. PC Enabling telemanagement keynumber	To change use + and – keys. Only if wired in C-Bus.	15

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