

EWIKON



Valid for controllers
with item number:

68051.004
68051.008
68051.018
(standard controllers)

68051.104
68051.108
68051.118
(controllers with
encoder option)

software version
1.06.0 and higher

EWIKON 02/2014



The next generation controller
for electric drive valve gate systems

EDC-TouchControl Operating manual

EWIKON

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Safety instructions



Before working on or inside the controller, ensure it has been disconnected from the power supply. Set the power switch to OFF and disconnect the mains plug. Connection, repair and maintenance work may only be carried out by qualified skilled personnel.

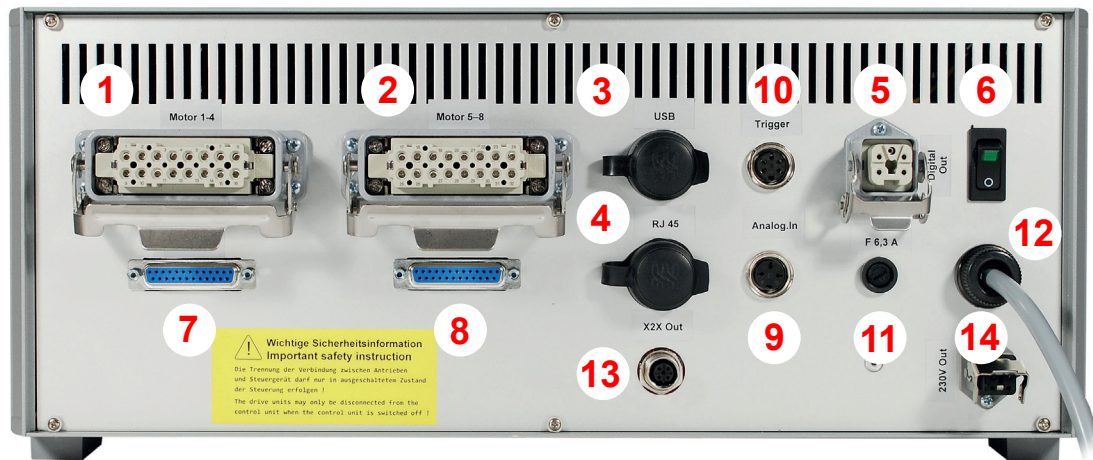
Before starting up the valve gate system, the plant must be checked in accordance with EN 60204 – 1 or generally accepted standards of engineering practice. The connected drive units could get hot and there is also a risk of crushing. Appropriate precautions must be taken for starting up and operation as well as maintenance and repair.

Application range:

This EWIKON control system can be used to operate valve gate nozzles with electrical valve pin drive of EWIKON Heißkanalsysteme GmbH in dry industrial rooms.

Connection and connector pin assignment

The connectors of the valve gate control unit for connecting the trigger signals to the injection moulding machine's controls and the mould (drive units and option encoder feedback) are located on the rear side of the control device. The mains connection, the power switch, the fuse and the signal output socket are also located here.



No.	Name	Function
1	Motor 1 – 4	Connector to connect the drive units to the mould, each socket 4 drives
2	Motor 5 – 8	Connector to connect the drive units to the mould, each socket 4 drives
3	USB	USB socket to connect a USB memory stick for data exchange
4	RJ45	RJ45 socket, Ethernet for PC monitoring
5	Digital out	Digital signal output to the control unit of the injection moulding machine
6	Mains switch	Switch for power supply
7	Encoder unit 1 – 4	Connector to connect the encoder units, each socket 4 encoders
8	Encoder unit 5 – 8	Connector to connect the encoder units, each socket 4 encoders
9	Analogue in	For information about screw position, used for sequential moulding (3-pin)
10	Trigger	Signal input from the injection moulding machine (5-pin)
11	Fuse	Unit fuse, F6.3A
12	Mains connection	Mains connection cable, operating voltage 230V +5/-10%, 50-60Hz
13	X2X Out	Data interface for slave unit
14	230 V Out	Mains connection for slave unit

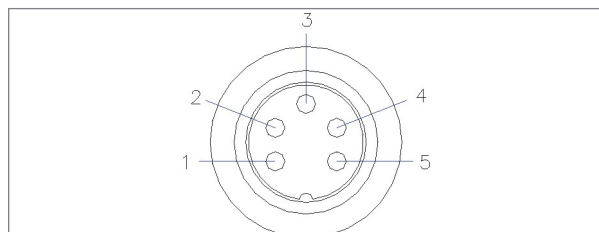
Please use following procedure to connect the control unit in order to avoid possible problems:

At least one trigger signal from the injection moulding machine is required to control the drive units: it triggers the lifting motion of the drive units via the control unit. The signal "start build-up clamping force" is preferably used to open the valve pins, alternatively the "close mould" or "start injection" signal can be used. If a signal is applied (+24V), the valve pins open and remain in this position, if the signal is cancelled (0V) the valve pins close again. If the trigger signal is not made available by the injection moulding machine's controls an adjustment has to be made.

The trigger signal is electrically connected to the machine's control unit by using the attached signal cable, item number 60070.023. Two different versions of wiring are possible:

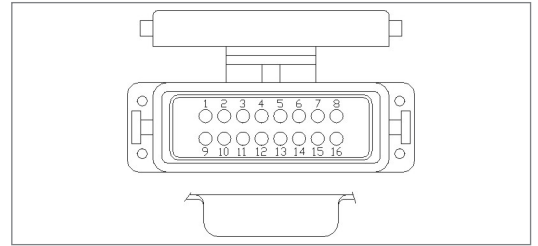
1. The injection moulding machine provides a "+24V DC" output signal:
The output signal (+ 24V DC) is connected to contact 2 (green core)
The machine's ground (GND) is connected to contact 5 (brown core)
2. The injection moulding machine provides a potential-free contact:
The potential-free contact of the injection moulding machine's controls is connected to contact 1 (white core) and contact 2 (green core) of the valve gate control unit.

Contact / core	Name	Use
1 / white	+24V DC	Operating voltage +24V
2 / green	S1 (+24V)	Signal 1 input, start cycle
3 / yellow	S2 (+24V)	Signal 2 input
4 / grey	S3 (+24V)	Signal 3 input
5 / brown	GND	Ground



For connecting the drive units to the control unit in the mould the enclosed cable (item number 60070.024) is used. The cable is especially designed for this application with a screened configuration, it is preassembled ready-to-connect and can be used to connect up to 4 drive units. The assignment of the mould socket is listed in the following table.

Contact	Use	Drive unit cable assignment
1 / 2 / 3 / 4	drive unit 1	red / red white / green / green white
5 / 6 / 7 / 8	drive unit 2	red / red white / green / green white
9 / 10 / 11 / 12	drive unit 3	red / red white / green / green white
13 / 14 / 15 / 16	drive unit 4	red / red white / green / green white

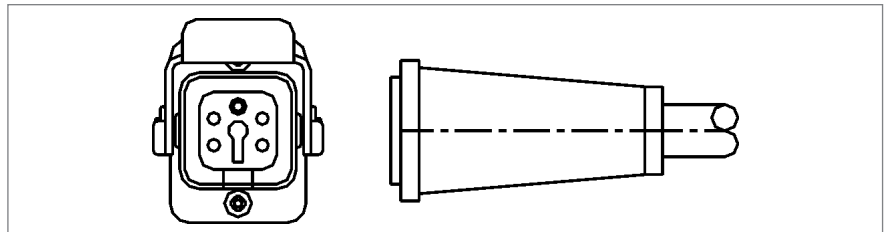


IMPORTANT: The drive unit may only be connected when the control unit is switched off, otherwise the output modules can be damaged! The drive units are supplied with electricity even when they are stopped in order to generate the necessary retention force.



If requested, the digital signal output of the control unit may be connected to the injection moulding machine, in order to report any error (when encoder option is used) or recognize when control unit is "ready" for next cycle. Each signal output provides +24V DC and can be loaded with 0.5A.

Contact	Use
1	+24V DC
2	"ERROR" (+24V)
3	"READY" (+24V)
4	GND
PE	Protective conductor



When using the analogue input of the control unit to use information about screw position or screw volume for sequential moulding there are two options. The input needs to be adjusted in the control unit, menu (F4).

Contact	Use
1	Analogue current output, 0-2.5mA
2	Analogue voltage input, 0-10V
3	Ground

1. Directly connect a signal to input 0-10V DC where the analogue value is in linear relation to the screw position.
2. Connect a linear position transducer with $R = 5 \text{ k}\Omega$, the potentiometer is supplied with the analogue current output and the measured voltage is in relation to screw position.

When using encoder option the used drives must have the necessary equipment. In addition to the standard wiring a special cable (item number 60070.027) between controller unit and mould is required for up to 4 drives. There are also special cables necessary for wiring inside the mould. The connector pin assignment for these sockets is located with the delivered cables (item no. 63050.003). The cables need to be assembled with crimp contacts when wiring the mould.

Option:

For special applications it is possible to extend the signal inputs of the controller. 4 additional signals may be added to trigger the movement of some drives separately from the others. The connection is done with a 7-pin connector and a special cable. Wiring is similar to the standard trigger signal jack.

Contact / core	Name	Use
1 / white	+24V DC	Operating voltage +24V
2 / green	S5 (+24V)	Signal 5 input
3 / yellow	S6 (+24V)	Signal 6 input
4 / grey	S7 (+24V)	Signal 7 input
5 / pink	S8 (+24V)	Signal 8 input
6	not in use	
7 / brown	GND	Ground

IMPORTANT: The valve gate control unit should not be switched on until the hotrunner has reached its set temperature and the plastic to be processed has melted completely! Before inserting the mains connector or connecting the mains connection cable ensure that the supply voltage corresponds with the data given on the type plate.



Quick start guide

Faulty settings may result in incorrect function or even damage to the motors!

Before making yourself familiar with the operation of the controller it is important to select the correct drive unit type matching those drive units assembled in the connected mould.

Please select the drive unit types in menu F3 "system settings". Log in as a machine setter using the PIN: 111111 and set the drive unit type used.

How to set up a new system for the first time:

Please make all necessary connections between the controller and the mould and to the injection moulding machine according to this operating manual. Afterwards switch on and set the controller following this list:

Menu (F3) Page 1: - select drive unit type (unless this has already been done)
 - set stroke
 - select movement profile

Menu (F4) Page 2: - configure analogue input, if necessary

Menu (F2) Page 1: - activate all drive units used in the mould
 - set positions and speeds
 Page 2: - set trigger signals to suit the application

Menu (F5) Page 1: - store settings as programme, if necessary

- Switch on hotrunner and heat up to set temperature (also in advance)
- Check signal outlets of the machine for correct connections and function
- Switch on motor power, the motors are now doing their homing procedure
- System is ready for operation, please observe AUTO/SETUP mode!

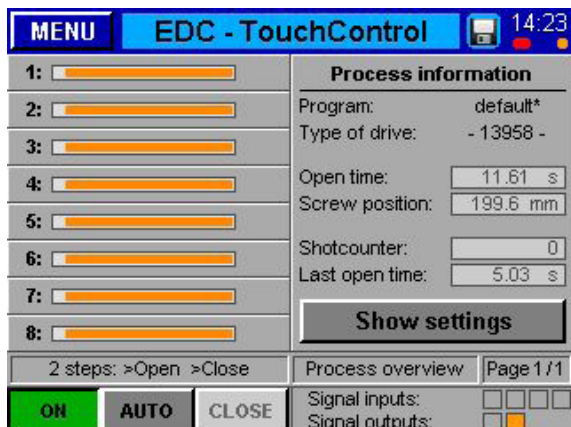
Further use of the control unit, setting up the drive units for the application and adjusting the functions to the control unit of the injection moulding machine take place in accordance with the following description. Before using the electric valve gate control unit for the first time, it is therefore recommended to read the complete instruction manual in order to achieve an optimum function.

Basic settings and operation



The new EWIKON electric valve gate controller system is equipped with a coloured touch screen display that allows all settings to be adjusted without requiring a laptop PC. When switching on the controller, the most important menu (F1), "process overview", is shown, giving general information about the process and the position of up to 8 drives. This menu may be entered with the "EXIT" key, available in any other menu, or after 3 minutes without touch contact.

Description of the menus



The title bar contains the menu button on the left and the time on the right as well as some additional information.

A connected USB stick is shown by a red dot below the time value. An active encoder function is displayed by an orange dot below the minute value.

It is possible to make a screenshot by selecting the "EDC – Touch-Control" panel in the title bar. The panel turns light blue and the saving process is displayed by a floppy disk next to the time display.

The left window displays a bar showing the actual position of each drive unit. The right side of the bar indicates the rear position and the left side indicates front position. The bar is scaled to the maximum stroke of the selected drive unit.

In the event of an error, an alarm icon will appear. There are also different icons to show an abnormal status, such as "Homing" or "Adjusting position close" in different colours (please see appendix).

The right window shows some general process information. First there is the name of the used program, where " * " marks changes to stored settings. Then the used type of drive is shown. After that there is information about the opening time of the running cycle, the current screw position or volume if analogue input is used, the number of shots and the time for the previous cycle.

The general status bar of the control device is shown below both windows. The system status or operating mode, the selected menu and the current page of available pages within used menu is shown here. Please use the left and right orange arrow keys beside the display to page forward/back within a menu. To select any other menu, either the keys (F1) to (F8) around the display may be used or the key "MENU" in the upper left corner opens menu overview.

With the lower keys the power supply for the drives is switched ON and OFF, the mode is switched between AUTO and SETUP and in SETUP mode you can move the drives with corresponding key to "Close" or to "Open" position.

The information about digital input and output status is on the lower right side. The input "signal 1" (S1) is the main trigger to start a cycle. The other inputs are for free use to trigger different events, e. g. some drives open or close separately from the others. In extended hardware version there are up to 8 input signals available.

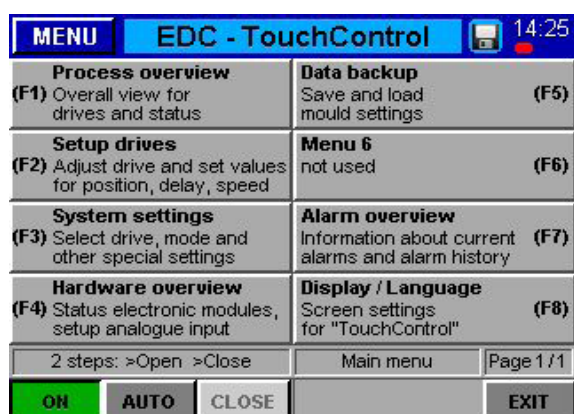
Digital output 1 displays an error in the EDC system to the machine and output 2 is the signal "Ready" for next shot.



The lower button "Show settings" is to reach an overview about all trigger settings for all drives in table form, which had been done in the menu (F2), "Setup drives". Depending on the selected mode, up to 4 steps are shown from top to bottom.

The following information is shown: desired position for this step, the trigger event (signal or screw), trigger level (signal: +24V or 0V; screw: position in mm or ccm) and delay time after trigger happened.

Main menu



Enter by pressing the "MENU" key in the upper left corner of the screen. A short description of the other menus opens. These can be entered either by pressing the touch area on the screen or using the keys (F1) to (F8) around the display.

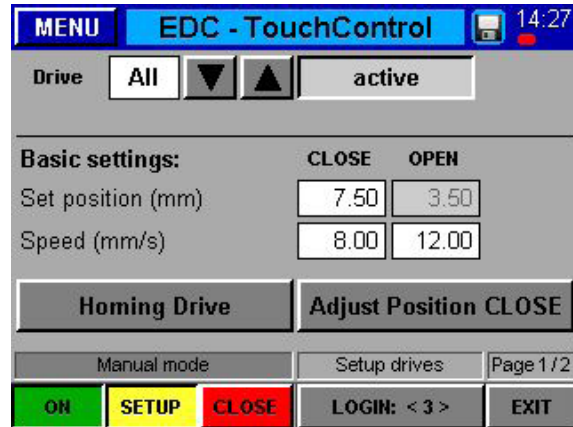
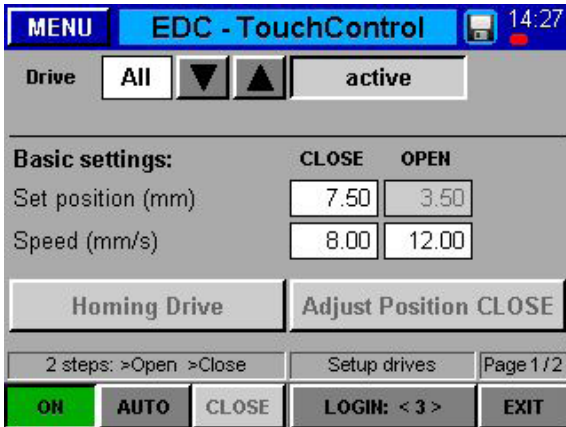
These keys may also be used to switch directly between different menus.

Menu (F1): Process overview



This is the mostly used menu with general process overview as described on page 7. Pictures show different displays, e. g. security request when switching on or off and system in setup mode with manually opened valve pins.

Menu (F2): Set up drives

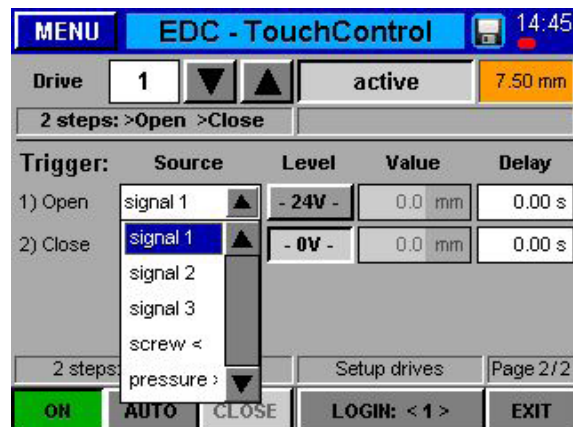
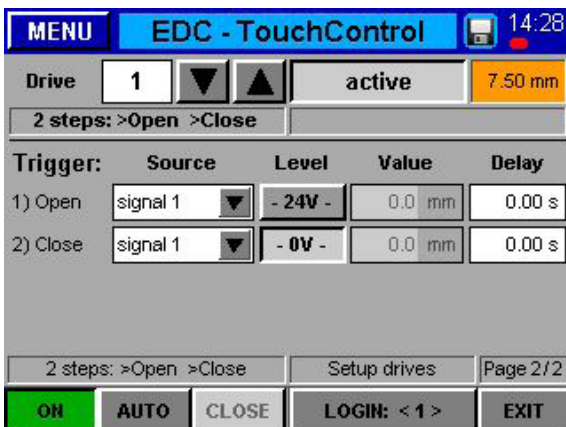


All settings for the trigger can be changed within the setup drives menu, by entering with key (F2) or by pressing one of the drive bars in the process overview. Furthermore, the general settings for each drive can be changed: switch them "active" or "inactive", define the "close" and "open" positions and the speed to reach these, do homing procedure to reference the positioning between controller and drive unit and adjust the closing position to tune gate appearance. In normal cases, when using a common stroke for all drives, the "open" position is calculated by the system. Refer to the setting of the parameter "individual stroke allowed" in the system menu (F3) for a detailed explanation.

Some settings become available after changing to SETUP mode or when moving more than 2 steps within a cycle, other settings if access level is higher than "LOGIN: <0>". To reach a higher access level press the corresponding key on the lower screen side. An input pad will appear where the code ("111111" for LOGIN: <1>) may be entered.

The individual drives may be selected either by using the keys "Up" or "Down" or by touching the drive number and entering the value directly in the input pad. With drive no. "All" the given values become valid for all zones. Furthermore, the status of each drive is shown in written form in contrast to the icons in process overview and internal messages.

On the second page the settings for the trigger events can be entered, if being in access level "LOGIN: <1>" or higher. For each step the trigger source can be chosen from one of the digital signals or the analogue signal. Depending on the selected trigger source the signal level, "- 24V -" or "- 0V -", or the comparative value becomes valid. A delay time may be added to each trigger event to cause a time-shifted reaction of the drives.



The orange field displays the current position of the drive. If drives with encoder are used, the actual value is shown, if drives without encoder are used, the value is calculated.

Menu (F3): System settings

MENU EDC - TouchControl 14:46	
Access level	Level 0: Operator
Shot counter	0
Type of drive	13957 (57x57 mm)
Individual stroke allowed	no
Common Stroke (mm)	4.00
Steps of move	1: >Op >Cl
2 steps: >Open >Close System settings Page 1/2	
ON	AUTO CLOSE LOGIN: < 0 > EXIT

In this menu most settings are protected with a password, the current access level is shown on top of the page. Here it is possible to reset the shot counter and select the drive unit type.

9 predefined drives in 3 different sizes can be connected to the control device:

- flange size 43 x 43 mm, max force 350 N
 - drive no. 13953 (stroke 6.00 mm)
- flange size 57 x 57 mm, max force 800 N
 - drive no. 13957 (stroke 8.00 mm)
 - drive no. 13958 (stroke 8.00 mm, with encoder)
 - drive no. 19857 (stroke 11.00 mm)
 - drive no. 19858 (stroke 11.00 mm, with encoder)
- flange size 87 x 87 mm, max force 1600 N
 - drive no. 13987 (stroke 10.00 mm)
 - drive no. 13988 (stroke 10.00 mm, with encoder)
 - drive no. 19887 (stroke 11.00 mm)
 - drive no. 19888 (stroke 11.00 mm, with encoder)

Furthermore, it is possible to select whether an individual stroke is allowed. If not, all drives move with the value of common stroke from position CLOSE to OPEN. If so, all drives are allowed to move to individual positions. This option becomes interesting if operating with conical valve pins and gates.

MENU EDC - TouchControl 14:47	
Access level	Level 1: Mould setter
Shot counter	1: >Op >Cl
Type of drive	2: >P3 >Op >Cl
Individual stroke allowed	3: >Op >P3 >Cl
Common Stroke (mm)	4: >Op >Cl >Op >Cl
Steps of move	5: >Op >Cl >P3 >Cl
Standby System settings Page 1/2	
OFF	AUTO CLOSE LOGIN: < 1 > EXIT


The last setting on this first page is to select the steps within each injection cycle (5 different possibilities): the first choice is to simply move to position OPEN in a first step and to position CLOSE in a second step. Two additional options are available using a 3rd position P3, e.g. to fix an inlet during priming the cavity.

Furthermore, there are 2 more options to open more than once within each cycle or to move to a 3rd position, possibly to act as an ejector or to use only single drives to open twice.

MENU EDC - TouchControl 09:42	
Encoder feedback	off
Limit "error output"	5
Limit "drive off"	10
Limit "position deviation"	0.01 mm
Automatic homing	off
Data recording	off
Inactive System settings Page 2/2	
OFF	AUTO CLOSE LOGIN: < 0 > EXIT

On the next page of the menu special functions of the controller are activated and/or parameterised. All values require "access level 2" or higher in order to be modified.

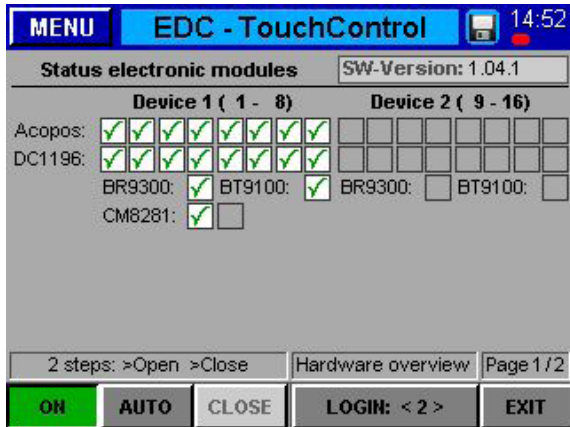
The encoder feedback is activated, if the controller and the drive units are equipped accordingly. The failure indication limit value defines after how many position errors in a row the failure indication outlet of the control unit is activated to report this problem to the higher-level injection moulding machine. The "limit drive OFF" defines when the motor concerned is switched off if position errors occur to avoid any damage.

 **When using the encoder feedback it is strongly recommended to also connect both outlets of the controller to the injection moulding machine and to analyse the data.**

In order to offset measuring tolerances of the encoder system the limit value particularly for larger drives (e.g. 13988) can be increased to filter minor measuring errors (e.g. measuring resolution: 13958 per 0.0013 mm / 13988 per 0.0038 mm). The "Automatic homing = ON" setting defines that the drive units do a homing procedure every time the control is switched on (shrinkage of material while cooling down).

If you activate the menu item "data recording", the EDC will create a CSV file which the position data of up to 8 drives are written to. After the end of a cycle or a max time of 5 s the file is stored on the internal F drive in the "Record" directory. If the controller is connected to a network, this file can be exported via an FTP client and evaluated using a spreadsheet program. The file containing the old values is overwritten by the current data after the next cycle.

Menu (F4): Hardware overview

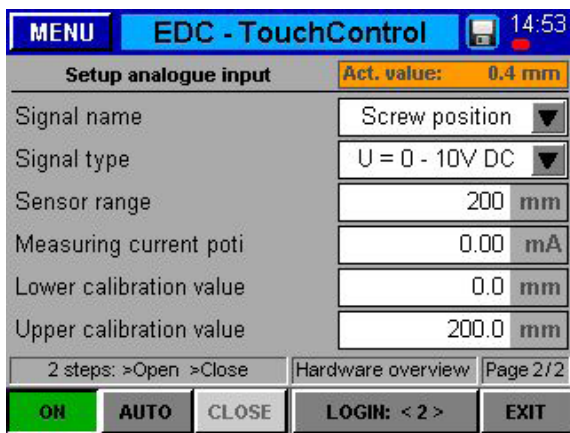


The first page displays all assembled modules. A green checkmark displays a valid, faultlessly working module, a grey square indicates modules which are not available in the system, i. e. either a controller for fewer drives or a possibly damaged module.

The modules BR9300, CM8281 and BT9100 are required for all systems. The Acopos modules act as output modules for two of the motors each and are used depending on the expansion stage.

For controllers with encoder feedback the modules DC1196 are used additionally. The quantity of these depends on the quantity of the Acopos modules.

Upper right field displays current software version of the used control device. Please have this information ready, should you need to ask for trouble-shooting.



The second page of the hardware menu is to adjust the analogue input to the application, settings are available in "LOGIN: <1>".

Firstly, the signal name is selected, depending on this the unit for analogue value changes.

Options are:

- "Screw position" in measuring unit "mm"
- "Screw volume" in measuring unit "ccm"
- "Mould inside pressure" in measuring unit "bar"

Next step is to choose which type of sensor is connected, either a signal 0-10V DC or linear position transducer and the range of the sensor. Depending on these settings the sensor must be adjusted or not. For transducers the measuring current could be changed to calibrate tolerances and use full input range.

At least the measured values of EDC unit could be scaled to the machine values, if adjustment is necessary.

Menu (F5): Data backup



On page 1 of this menu it is possible to save the settings for up to 20 different moulds in the storage of the EDC system, i.e. a CFMemoryCard, or to upload them from there. For this purpose you will find a drive (F:) on the memory card. This drive can contain the file folders "Alarms", "Backup", "Record" and "ScrShot". The created mould data are stored in the "Backup" folder; at the same time a CSV file containing the mould data in the selected user language is created in the subfolder "Print". This file is created or updated every time a write access is made, when copying mold data to a USB stick the relevant information file is transferred as well (see next section regarding second page). An explanation on how to use a CSV file has already been given in the description of menu (F3).

A message window confirms a successfully completed storage process.



The second page deals with the data exchange with an external USB stick. The left window displays files on the internal memory card, the right one those files available on the USB stick.

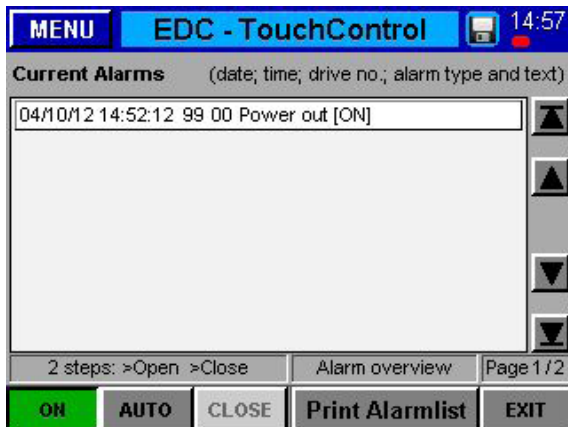
When you copy a file to a USB stick for the first time the system creates folder "Backup" containing subfolder "Print" in the directory "EDC".

By using the push buttons underneath data can be exchanged between the media. The information files mentioned above are always copied as well.

With an FTP client program it is possible to gain access to the system storage via the rear RJ45 connection and an Ethernet cable. You need a so-called CrossOver ethernet cable to establish a direct connection.

If you want to make use of this option, please ask EWIKON for the terminal settings.

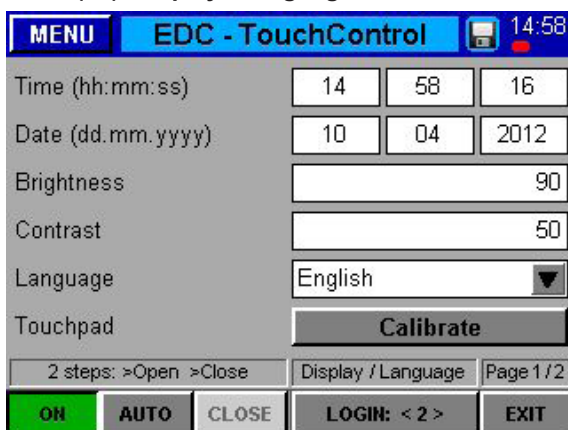
Menu (F7): Alarm overview



If the system generates an alarm, it can be displayed with date, time, drive, alarm type and alarm text for a more exact analysis by selecting this menu item.

On page 2 the alarm history consisting of the last 100 events is displayed.

Menu (F8): Display / Language



In this menu settings for date, time, brightness and contrast as well as the language of the display unit of the EDC-Touch Control system can be changed. Furthermore, a calibration of the touch screen may be done if necessary. It is recommended to login with higher access level to change some of the values.

On the second page there is some information about inside system and CPU temperature, IP and node address and the internal memory space.

A lithium coin cell in the control panel will buffer the clock and the set values of the controller, if no voltage is applied.

Should variations in the set values or the clock occur after you have re-applied voltage, please check the alarm list for the entry "battery empty". If so, please replace the battery (EWIKON item no. 13689).

Menu: Show settings

You can reach the overview of the trigger settings from the process overview (menu F1) by touching the "Show settings" button where the settings of all moves / steps with the corresponding trigger event and possible delays are displayed in a tabular form. Please take your time to study the given examples and get familiar with the system possibilities.



Example 1

Step 1

- all drives move to position 3.5mm (Open) with event "S1 = 24V", no delay

Step 2

- all drives move to position 7.5mm (Close) with event "S1 = 0V", no delay

This is the simplest operation, all drives move together in 2 steps with only one signal from the machine. First step to position OPEN, second step to position CLOSE, as shown in the status bar.

MENU		EDC - TouchControl						11:05	
3.5 mm S1 - 24V - 0.00 s	3.5 mm S1 - 24V - 0.00 s	3.5 mm S1 - 24V - 0.10 s	3.5 mm S1 - 24V - 0.10 s	3.5 mm S2 - 24V - 0.00 s	3.5 mm S2 - 24V - 0.00 s	3.5 mm S3 - 24V - 0.00 s	3.5 mm S3 - 24V - 0.00 s		
7.5 mm S1 - 0V - 0.20 s	7.5 mm S1 - 0V - 0.20 s	7.5 mm S1 - 0V - 0.20 s	7.5 mm S1 - 0V - 0.20 s	7.5 mm S1 - 0V - 0.20 s	7.5 mm S1 - 0V - 0.20 s	7.5 mm S1 - 0V - 0.20 s	7.5 mm S1 - 0V - 0.20 s		
2 steps: >Open >Close		Trigger settings				Page 1 / 1			
ON	AUTO	CLOSE	Drives 1 - 8				EXIT		

Example 2

Step 1

- drives 1 to 4 open with event "S1 = 24V", drives 3 and 4 are delayed by 0.10 sec.
- drives 5 and 6 open with event "S2 = 24V"
- drives 7 and 8 open with event "S3 = 24V"

Step 2

- all drives close with event "S1 = 0V" with a delay of 0.20 seconds

Operation with different signals and delay times, e.g. required for sequential moulding.

MENU		EDC - TouchControl						07:47	
3.5 mm S1 - 24V - 0.00 s	3.5 mm SCREW 120 0.00 s	3.5 mm SCREW 100 0.00 s	3.5 mm SCREW 80 0.00 s	3.5 mm S1 - 24V - 0.00 s	3.5 mm SCREW 120 0.00 s	3.5 mm SCREW 100 0.00 s	3.5 mm SCREW 80 0.00 s		
7.5 mm SCREW 110 0.00 s	7.5 mm SCREW 90 0.00 s	7.5 mm SCREW 70 0.00 s	7.5 mm S2 - 24V - 0.00 s	7.5 mm SCREW 110 0.00 s	7.5 mm SCREW 90 0.00 s	7.5 mm SCREW 70 0.00 s	7.5 mm S2 - 24V - 0.00 s		
3.5 mm SCREW 60 0.00 s	3.5 mm SCREW 60 0.00 s	3.5 mm SCREW 60 0.00 s	7.5 mm S2 - 24V - 0.00 s	3.5 mm SCREW 60 0.00 s	3.5 mm SCREW 60 0.00 s	3.5 mm SCREW 60 0.00 s	7.5 mm S2 - 24V - 0.00 s		
7.5 mm S2 - 24V - 0.00 s	7.5 mm S2 - 24V - 0.00 s	7.5 mm S2 - 24V - 0.00 s	7.5 mm S2 - 24V - 0.00 s	7.5 mm S2 - 24V - 0.00 s	7.5 mm S2 - 24V - 0.00 s	7.5 mm S2 - 24V - 0.00 s	7.5 mm S2 - 24V - 0.00 s		
4 steps: >Op >Cl >P3 >Cl		Trigger settings				Page 1 / 1			
ON	AUTO	CLOSE	Drives 1 - 8				EXIT		

Example 3

Step 1

- drives 1 and 5 open immediately with "S1 = 24V"
- drives 2 and 6 open when "screw < 120mm"
- drives 3 and 7 open when "screw < 100mm"
- drives 4 and 8 open when "screw < 80mm"

Step 2

- drives 1+5 close when "screw < 110mm"
- drives 2+6 close when "screw < 90mm"
- drives 3+7 close when "screw < 70mm"
- drives 4+8 do not close as "S2 = 24V" means end of cycle

Step 3

- drives 1, 2, 3, 5, 6 and 7 open again when "screw < 60mm", drives 4 and 8 are still open

Step 4

- drives 1, 2, 3, 5, 6 and 7 close again with "S2 = 24V" and drives 4 and 8 close as well (steps 2, 3 and 4)

This example shows the full ability of the new EDC-Touch Control system to handle different signals and more than one opening per cycle for selected drives. The valve pins open and close alternately, depending on the screw position or volume or any other analogue input signal. Digital signals may be used to trigger some of the moving steps, furthermore, delays may be added to open or close with same event at different times.

With the simple trick that for drives 4 and 8 the position P3 equals position CLOSE, this drive opens only one time each cycle while other drives open twice. For these drives the settings for position P3 equals position OPEN.

APPENDIX:

Symbols shown on the process display and their meaning:

- 1: = Drive off
- 1: = Drive on standby
- 1: = Setup mode activated
- 1: = Homing or adjusting position "CLOSE"
- 1: = Drive unit type error or position warning
- 1: = Position error

We hereby confirm that the products described below conform to the essential protection requirements of the following European Directives

2006/95/EC "Low Voltage Directive"

and

2004/108/EC "EMC Directive"

with respect to their design type. This requires that the products are used for their intended purpose and that the assembly and operating instructions are observed.

Alterations made to the product will void the declaration of conformity.

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Product: **EDC E-Drive-Control step motor control**
for the operation of linear actuators in hotrunner valve gate systems

SDC Servo-Drive-Control servo motor control
for the operation of linear drives in hotrunner valve gate systems

Type: **68050.001** ; SDC controller, 1-zone

68051.004 ; EDC controller, 4-zone

68051.104 ; EDC controller, 4-zone

68051.008 ; EDC controller, 8-zone

68051.108 ; EDC controller, 8-zone

68051.018 ; EDC controller, 8-zone

68051.118 ; EDC controller, 8-zone

Applied standards: DIN EN 61010-1: 2011-07 "Safety requirements for electrical equipment for measurement, control, and laboratory use - part 1"

DIN EN 61000-6-2: 2006-03 "Immunity for industrial environments"

DIN EN 61000-6-4: 2007-09 "Emission for industrial environments"

Note: It is necessary to use genuine connecting cables outside the device to meet the requirements according to DIN EN 61000-6-2 and DIN EN 61000-6-4.

Frankenberg, 02 April 2012



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