

# Hot runner control technology

New standards in operating comfort



# Hot runner control technology for precise and comfortable process control

The capable EWIKON pro CONTROL range of hot runner controllers allows the comfortable, reliable and precise control of your hot runner system. The quick control behaviour makes pro CONTROL universally usable for standard applications as well as for demanding high-cavitation systems using slim and low-mass hot runner nozzles which are difficult to control. Furthermore, all controllers feature integrated communication interfaces for easy connection to the injection moulding machine and comprehensive support and error detection functions.

### pro CONTROL sets standards

- Unique operating comfort
  - The intuitive, self-explanatory and clearly arranged touch screen user interface allows optimum process control.
- Integrated communication interfaces

Easy connection to the injection moulding machine control via digital signals or extended data exchange via pre-defined communication standards. The latest version EUROMAP 82.2, based on OPC UA, is supported as well.

- Easy maintenance
- Quick and most precise control behaviour

Universal use for all standard applications as well as for demanding high-cavitation systems using slim and low-mass hot runner nozzles which are difficult to control.



## Available housing types

For the control of systems with 6 - 36 control zones the controllers come with compact table top housings in three sizes with swivel-mounted 7" touch screen display or externally mountable 15" touch screen monitor.

For high-cavitation systems with up to 120 control zones a tower housing with 10" touch screen display or a 19" touch screen monitor is available.

Additionally, a particularly cost-efficient version with membrane keyboard is available for systems with 2 or 6 control zones.



### pro CONTROL - Comfortable, clearly arranged, easy to maintain

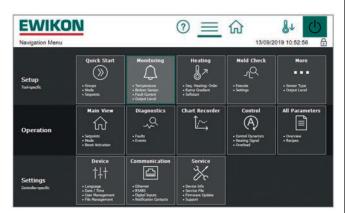
#### Clearly visible

Surrounding LED bar indicates the operating status

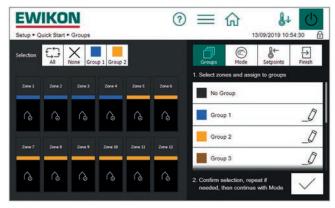


#### Unique operating comfort

Swivel-mounted touch screen display, user interface with innovative features



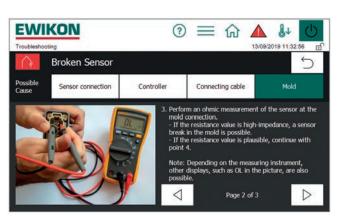
User-oriented design, all functions at a glance



Intuitive operation with clear screen layout



Integrated help function



Illustrated step-by-step troubleshooting guide

#### Easy to maintain

Cooling unit and fuses positioned outside.

Easy exchange of fuses or electronics without opening the housing





#### **Features**

- Comfortable operation via touch screen display
- Several devices can be combined and operated via one display
- Self-explanatory user interface
- · Quick start assistant
- · Operator guidance in plain text
- Index with quick links
- · Integrated help function with step-by-step troubleshooting guide
- . Operating status indication via clearly visible LED bar
- · Compound heating, sequential heating or combination of both functions
- · Easy star/delta rewiring for international use
- · Detailed event logging with export as service file
- Industry 4.0 ready (EM 82.2 via OPC UA)
- Comprehensive monitoring functions
- Integrated communication interfaces
- Fuses positioned outside for enhanced maintenance
- Various selectable languages

For the version pro CONTROL BASIC 69400.002 / .006 not all features are included.

# pro **CONTROL** BASIC Table top housing

Item numbers / Connecting cables / Dimensions

2 - 12

Control zones



|        | Table top housing                        | 2<br>Control zones                                       | 6<br>Control zones                                  | 12<br>Control zones                                 |
|--------|--|--|---|---|
|        | Item number                              | 69400.002  | 69400.006   | 69400.012   |
|        | Power cable                              | 230 V + Thermo<br>63010.102 (4.5 m)                      | 63010.108 (3 m)<br>63020.108 (6 m)                  | 63010.112 (3 m)<br>63020.112 (6 m)                  |
| 230 V  | high flat  Power collective socket       | 230 V + Thermo<br>high<br>63010.009<br>flat<br>63010.001 | high<br>63010.010<br>flat<br>63010.003              | high<br>63010.011<br>flat<br>63010.005              |
| Q      | Thermocouple collective cable            |  | 63110.108 (3 m)<br>63120.108 (6 m)                  | 63110.116 (3 m)<br>63120.116 (6 m)                  |
| Thermo | high flat Thermocouple collective socket |  | high<br>63110.010<br>flat<br>61110.013              | high<br>63110.011<br>flat<br>63110.005              |
|        | Signal cable                             | Digital In / Out: 60070.046 (6 m)                        | Digital In / Out: 60070.046 (6 m)                   | Digital In / Out: 60070.046 (6 m)                   |
|        | Width / Height / Depth                   | 180 / 285 / 430  | 180 / 285 / 430                                     | 210 / 285 / 430                                     |
|        | Weight                                   | 13 kg  | 13 kg   | 15 kg   |
|        | Power output / mains plug*               | 3.5 kW / Schuko 16 A<br>Length of connecting cable: 3 m  | 11 kW / 16 A CEE<br>Length of connecting cable: 3 m | 11 kW / 16 A CEE<br>Length of connecting cable: 3 m |

All controllers are available in different country-specific versions:

**D** Germany, 230 V, Y Star / **E** UK, 240 V, Y Star / **J** Japan, 208 V,  $\Delta$  Delta / **U** USA, 240 V,  $\Delta$  Delta

Special configurations e.g. connecting cables according to customer's specification for all controllers available on request.

<sup>\*</sup> Versions J / U (Delta) without mains plug

# pro CONTROL Table top housing

Item numbers / Connecting cables / Dimensions

6 - 36

Control zones



|        | Table top housing                         | 6 / 12<br>Control zones   | 18 / 24<br>Control zones   | 30 / 36<br>Control zones  |
|--------|---|---|--|---|
|        | Item number                               | 69510.006 / .012 Integrated swivel-mounted 7" touch screen display 69511.006 / .012 External 15" touch screen monitor incl. mount and monitor cable (5 m) | 69520.018 / .024 Integrated swivel-mounted 7" touch screen display 69521. 018 / .024 External 15" touch screen monitor incl. mount and monitor cable (5 m) | 69530.030 / .036 Integrated swivel-mounted 7" touch screen display 69531.030 / .036 External 15" touch screen monitor incl. mount and monitor cable (5 m) |
|        | Power cable                               | 63010.112 (3 m)<br>63020.112 (6 m)  | 1 piece per 12 control zones<br>63010.112 (3 m)<br>63020.112 (6 m)   | 1 piece per 12 control zones<br>63010.112 (3 m)<br>63020.112 (6 m)  |
| 230 V  | high flat  Power collective socket        | high<br>63010.011<br>flat<br>63010.005  | 1 piece per 12 control zones<br>high<br>63010.011<br>flat<br>63010.005   | 1 piece per 12 control zones<br>high<br>63010.011<br>flat<br>63010.005  |
| 0      | Thermocouple collective cable             | 63110.116 (3 m)<br>63120.116 (6 m)  | 1 piece per 12 control zones<br>63110.116 (3 m)<br>63120.116 (6 m)   | 1 piece per 12 control zones<br>63110.116 (3 m)<br>63120.116 (6 m)  |
| Thermo | high flat  Thermocouple collective socket | high<br>63110.011<br>flat<br>63110.005  | 1 piece per 12 control zones<br>high<br>63110.011<br>flat<br>63110.005   | 1 piece per 12 control zones<br>high<br>63110.011<br>flat<br>63110.005  |
|        | Signal cable                              | Digital In: 60070.044 (6 m)<br>Digital Out: 60070.045 (6 m)   | Digital In: 60070.044 (6 m)<br>Digital Out: 60070.045 (6 m)  | Digital In: 60070.044 (6 m)<br>Digital Out: 60070.045 (6 m)   |
|        | Width / Height / Depth                    | 386 / 215 / 515   | 386 / 295 / 515  | 386 / 375 / 515   |
|        | Weight                                    | 19 kg   | 23 kg  | 31 kg   |
|        | Power output / mains plug*                | 22 kW / 32 A CEE<br>Length of connecting cable: 3 m   | 22 kW / 32 A CEE<br>Length of connecting cable: 3 m  | 22 kW / 32 A CEE<br>Length of connecting cable: 3 m   |

All controllers are available in different country-specific versions:

**D** Germany, 230 V, Y Star / **E** UK, 240 V, Y Star / **J** Japan, 208 V,  $\Delta$  Delta / **U** USA, 240 V,  $\Delta$  Delta

Special configurations e.g. connecting cables according to customer's specification for all controllers available on request.

<sup>\*</sup> Versions J / U (Delta) without mains plug

# pro **CONTROL**Tower housing

Item numbers / Connecting cables / Dimensions

36 - 120

Control zones



|             | Tower housing                            | 36 - 120<br>Control zones  |  |
|-------------|--|--|--|
| Item number |  | 69550 Integrated 10" touch screen display  69551  External 19" touch screen monitor incl. stand and monitor cable (1 m)  ( = number of control zones, e.g. 048, in 6 zone steps) |  |
|             | Power cable                              | 1 piece per 12 control zones<br>63010.112 (3 m)<br>63020.112 (6 m)   |  |
| 230 V       | high flat Power collective socket        | 1 piece per 12 control zones<br>high<br>63010.011<br>flat<br>63010.005   |  |
| Thermo      | Thermocouple collective cable            | 1 piece per 12 control zones<br>63110.116 (3 m)<br>63120.116 (6 m)   |  |
|             | high flat Thermocouple collective socket | 1 piece per 12 control zones<br>high<br>63110.011<br>flat<br>63110.005   |  |
|             | Signal cable                             | Digital In: 60070.044 (6 m)<br>Digital Out: 60070.045 (6 m)  |  |
|             | Width / Height / Depth                   | 500 / 1160 / 650   |  |
|             | Weight                                   | 96 kg (60 control zones)<br>130 kg (120 control zones)   |  |
|             | Power output / mains plug*               | 43 kW / 63 A CEE up to 60 control zones<br>86 kW / 125 A CEE up to 120 control zones<br>Length of connecting cable: 3 m  |  |

All controllers are available in different country-specific versions:

**D** Germany, 230 V, Y Star / **E** UK, 240 V, Y Star / **J** Japan, 208 V,  $\Delta$  Delta / **U** USA, 240 V,  $\Delta$  Delta

Special configurations e.g. connecting cables according to customer's specification for all controllers available on request.

## Technical data

| Housing:               | Metal housing, powder coated, IP20, lockable castors for tower housing   |
|------------------------|--|
| Power supply:          | 3 x 400 V AC, N, PE (+5 / -15 %, 50 - 60 Hz)<br>3 x 230 V AC, PE (+5 / -15 %, 50 - 60 Hz)  |
| Power output:          | max. 16 A per zone for 80 % on-time, pulse operation or phase angle control  |
| Thermocouple:          | Fe-CuNi Type J / NiCr-Ni Type K  |
| Control accuracy:      | Better 1 °C, self optimizing   |
| Control range:         | 50 - 500 °C  |
| Operating temperature: | 5 - 35 °C  |
| Features:              | <ul> <li>Signal inputs: increase, power out ON/OFF, enable, stand by</li> <li>Signal outputs: warning, alarm, optionally expandable</li> <li>Data interfaces: USB 3.0, Ethernet CAT5, RS 485</li> </ul>  |
| Operation, display:    | 7 segment display and membrane keyboard, 7" (integrated), 10" (integrated), 15" or 19" LCD with touch monitor, depending on version. 19" monitor mounted on the controller, 15" monitor suitable for split installation up to 10 m away from the controller.  - Permanent display of setpoint and actual values plus power outputs for all zones  - Languages: English, German, French, Italian, Spanish, Japanese, Chinese, Czech, Polish, Russian, more languages in preparation |

Spare parts and accessories

- Stable design
- Shelf for storing documents
- Large storage tray for cables
- Lockable castors



## Trolley for pro CONTROL table top controllers 1

| Technical data  | Item number |
|---|-------------|
| For table top controllers with up to 36 control zones  Dimensions (Width / Height / Depth):  430 / 865 / 600  Weight: 22,4 kg | 60040.506   |

### General accessories

| Description  | Item number |
|--|-------------|
| Signal cable pro CONTROL Digiln, L = 6 m           | 60070.044   |
| Signal cable pro CONTROL DigiOut, L = 6 m          | 60070.045   |
| Signal cable pro CONTROL BASIC Digiln/Out, L = 6 m | 60070.046   |

## General spare parts

| Description                          | Item number |
|--------------------------------------|-------------|
| Power board pro CONTROL 6 zones      | 60040.500   |
| Fuse holder cap pro CONTROL          | 18401       |
| Fuse pro CONTROL 16 A(gRL) 6.3x32 mm | 18402       |
| Fuse pro CONTROL 16 A (T) 6.3x32 mm  | 18403       |
| Housing feet pro CONTROL, pluggable  | 18404       |

# Spare parts for 694xx

| Description                             | Item number |
|---|-------------|
| Processor board CONTROL BASIC for 694xx | 60040.402   |

## Spare parts for 695xx

| Description                                   | Item number   |
|---|---------------|
| Processor board pro CONTROL 695xx, internal   | 60040.501     |
| Processor board pro CONTROL 695xx, external   | 60040.502     |
| Control panel pro CONTROL 7" complete         | 60040.503     |
| Mount pro CONTROL for 15" monitor             | 60040.504     |
| Stand pro CONTROL for 19" monitor             | 60040.505     |
| Monitor cable pro CONTROL, L = 1 m, external  | 60070.047-V01 |
| Monitor cable pro CONTROL, L = 5 m, external  | 60070.047-V05 |
| Monitor cable pro CONTROL, L = 10 m, external | 60070.047-V10 |
| Operating monitor pro CONTROL 15"             | 69500.150     |
| Operating monitor pro CONTROL 19"             | 69500.190     |

