

## 4

### Control engineering

# General safety precautions for electrical products

Operate the respective product only as described in the operating instruction.

Only authorized electricians are allowed to carry out any kind of maintenance work or technical service!

It is absolutely necessary to ground all moulds!





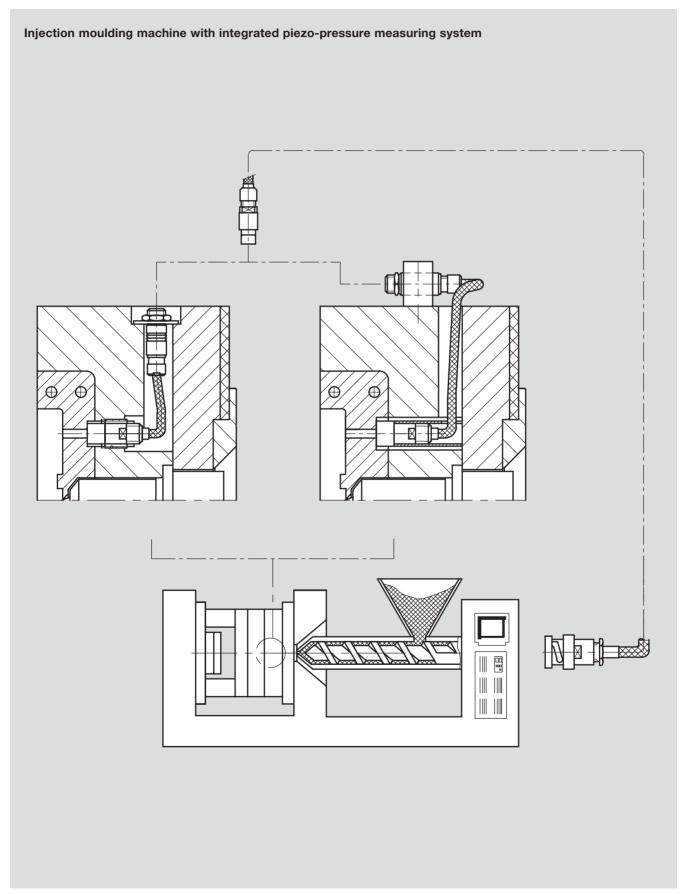




Cartridge heaters, Connecting power/signal cable, Microprocessor temperature control units, Thermocouples, Pressure- and temperature measuring devices



### Control engineering



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#### Control engineering

Ordering example: Z 110 / 6,5 x 40 / 125
Cartridge heater Cartridge Ø Cartridge length Watt



4.1

New product



Z 110 /...\*

Cartridge heater cylindrical

≈ DIN 44921



Z 1167/... 4.10

Protective earth line for grounding of moulds and Z 106/...; Z 10600/...;



Z 1226/...\* 4.16

Power/signal adapter
Conductor: Copper/
Fe-CuNi conforming
to VDE 0100



Z 111/...\* 4.6
Cartridge heater
tapered
with taper 1:50



Z 1168/... 4.11
Compensating line for thermocouples
Fe-CuNi suitable for Z 101 and Z 1295



Z 1227/...\* 4.17
Connection housing
Pins: Brass/Fe-CuNi
conforming to
VDE 0100



Z 1133/... 4.7 **Heater band**used for heating
up of sprue bushing
Z 1055/...



Microprocessor
control unit
1 control circuit
3600 W/16 A
3x230/400V~/50...60Hz

Z122/1/1/... 4.12



Z 1228/...\* 4.18
Connection housing
Pins: Brass/Fe-CuNi
conforming to
VDE 0100



Z1134/... 4.7

Heater band
with integrated
thermocouple,
same application as
Z1055/...



Z 122/1/2/... 4.12

Microprocessor control unit
2 control circuits
3600 W/16 A
3x230/400V~/50...60Hz



Z1229/... 4.18
Plug insert
spare part for
Z1227/... and
Z1228/...



Assembly set contains pliers, cables and connectors for electrical installations

4.8

Z116/...\*



Z 122/1/4/... 4.13

Microprocessor control unit
4 control circuits
3600 W/16 A
3x230/400V~/50...60Hz

Z 122/1/6/... 4.13



Z 128/... 4.19
Coupling
multi-polar design
230 V/10 Amp.



Z 1161/...\* 4.8 Extension cable for cartridge heaters and heated nozzles



Microprocessor control unit
6 control circuits
3600 W / 16 A
3x230/400V~/50...60Hz



Z 1281/... 4.19
Free connector
DIN IEC 603-11



Z 1162/...\* 4.9
Crimp type bracket
DIN 46237
for electrical wiring



Microprocessor control unit
9 control circuits
max. 21600 W/16 A
3x230/400V~/50...60Hz

Z122/1/9/... 4.14



Z 1295 / 1 4.20
Thermocouple
Mat.: Fe-CuNi



Z 1165/...\* 4.9

Butt joint

DIN 46341-1

for extenting

of electrical cables



Z 1224/... 4. Socket insert spare part for Z 1225/... and Z 1226/...



Z 1295/3 4.20
Thermocouple
Mat.: Fe-CuNi



22227

Z1166/...\* 4.10
Cable end sleeve
DIN 46228-1
for electrical wiring



Z 1225/...\* 4.16

Power/signal cable
Conductor: Copper/
Fe-CuNi plugs conform
to VDE 0100



Z 1295/5 4.21 Thermocouple Mat.: Fe-CuNi

<sup>\* =</sup> For technical details please refer to INFO-section

<sup>\*\* =</sup> Product to be phased out

#### Control engineering

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Z 1296/... 4.21 Coupling nipple used for Z 1295/3



Z 1382/...\* 4.29 Connection cable for all pressure and force transducers max. 300°C



Z 1395/...\* 4.34

Retaining plate

Mat.: 3.4365
for Z 1381/... or
Z 1382/...



Z 1297/... 4.21 Fastening nipple used for Z 1295/5



Z 1383/...\* 4.30 Connection cable for connecting of mould with Z 1384/1 and Z 1384/2



Z 1396/...\* 4.35 Spacer tube
Mat.: 1.7225
Installation aid for pressure transducer
Z 1370/...



Z 131/...\* 4.22
Wiring box
250 V~
used for prewiring of hotrunner moulds



Z1384/1\* 4.30

Charge amplifier for conversion of signals for the machine control system



Z 1397/...\* 4.35

Mounting nut

Mat.: 1.7225
for securing pressure transducer Z 1370/...



Z1312/... 4.26 Thermal insul. sheet Mat.: Synthetic resin/ Glass fibre  $\lambda = 0,13$  W/mK used for Z131/...



Z1385/2\* 4.31

Data converter for recording measurements including software



Z 1398/...\* 4.36
Tubular wrench
Mat.: 1.7225
for mounting of
nut Z 1397/...



Z1370/...\* 4.27

Pressure transducer for direct measurement of the cavity pressure



Z 1387/...\* 4.3. Connection cable for connecting of Z 1384/1 or Z 1384/2 with moulding maschine



Z1399/...\* 4.36
Insertion tool
Mat.: 1.7218
for fitting Z1381/...
with Z1372/...



Z 1371/...\* 4.27

Measuring tongue

Pressure transducer for indirect measurement of cavity pressure



Z 1391/...\* 4.32 **Dummy**Mat.: 1.2312 installed if Z 1371/... is not used



Z140/... 4.37 Limit switch for electronic mouldsafety device



Z 1372/...\* 4.28 Miniature measuring tongue

Pressure transducer for indirect measurement of cavity pressure



Z1392/...\* 4.33

Bracket

Mat.: 1.1203

used with Z1371/...

and Z1391/...



Z 1401/... 4.38 Connection cable with straight plug used for Z 140/... and Z 1471/...; Z 1473/...; Z 1475/...



Z1373/...\* 4.28 Force transducer for indirect measurement of the cavity pressure



Z 1393/...\* 4.33 **Dummy**Mat.: 1.2312 installed if Z 1372/... is not used



Z1402/... 4.38 Connection cable with 90°-design plug used for Z140/...; Z1471/...; Z1475/...;



Z 1381/...\* 4.29 Connection cable for all pressure and force transducers max. 200°C



Z1394/...\* 4.34 Bracket
Mat.: 3.4365
for mounting pipe
Z1399/...



Z 141/... 4.39 **Tester** for checking/adjusting of Z 140/...

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<sup>\* =</sup> For technical details please refer to INFO-section

 $<sup>^{**}</sup>$  = Product to be phased out

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Z 145 /...\* 4.39 Infrared control unit 230 V ~ for Infrared-Savety Device



Z 1471/...\* 4.44 Inductive proximity switch threaded max. 75°C



Z 2511/...\* 4.49
Temperature feeler
Mat.: NiCrNi
used with Z 251/2



Z 1451/...\* 4.40
Infrared transmitter
90° design
for Infrared-Savety
Device



Z 1473/...\* 4.44 Inductive proximity switch smooth max. 75°C



Z 2512/...\* 4.49

Temperature feeler

Mat.: NiCrNi
used with Z 251/2



Z 1452/...\* 4.40
Infrared receiver
90° design
for Infrared-Savety
Device



Z 1475/...\* 4.45 Inductive proximity switch square max. 75°C



Z 2515/...\* 4.50
Temperature feeler
Mat.: NiCrNi
used with Z 251/2



Z1453/...\* 4.41
Infrared transmitter
straight
for Infrared-Savety
Device



Z 240 /...\* 4.46

Pneumatic control unit for controlling of pneumatic operated fixtures



Z252/...\* 4.50

Pocket temperature measuring device with multi-pupose feeler

Mat.: NiCrNi



Z 1454/...\* 4.41
Infrared-receiver
straight
for Infrared-Savety
Device

Z1455/...\* 4.42

Bracket

Mat.: 3.4365

Z1381/...

for Z1471/... or



Z 2401/... 4.46

Rocker arm valve
3/2 ways valve
for pneumatic circuits



Z 2411/... 4.47

Lubro-control unit
with pressure adjustment, water separater
filter and lubricator



Z 1457/...\* 4.42 Wiring box for Infrared-Savety Device



Z 2412/... 4.47 **Lubro-control unit** with pressure adjustment, and filter



Z 1458/...\* 4.43 Connection cable for connecting of Z 145/... with Z 1457/...



Z 2416/... 4.48 Silencer spare part for Z 240/...



Z 1460/...\* 4.43

Thermal insul. sheet

Mat.: synthetic resin/
Glass fibre  $\lambda = 0.13 \text{ W/mK}$ for Z 1457/...



Z 251/2 \* 4.48

Temperature measuring device

Mat.: NiCrNi used for surface and immers. measurements

222227

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