

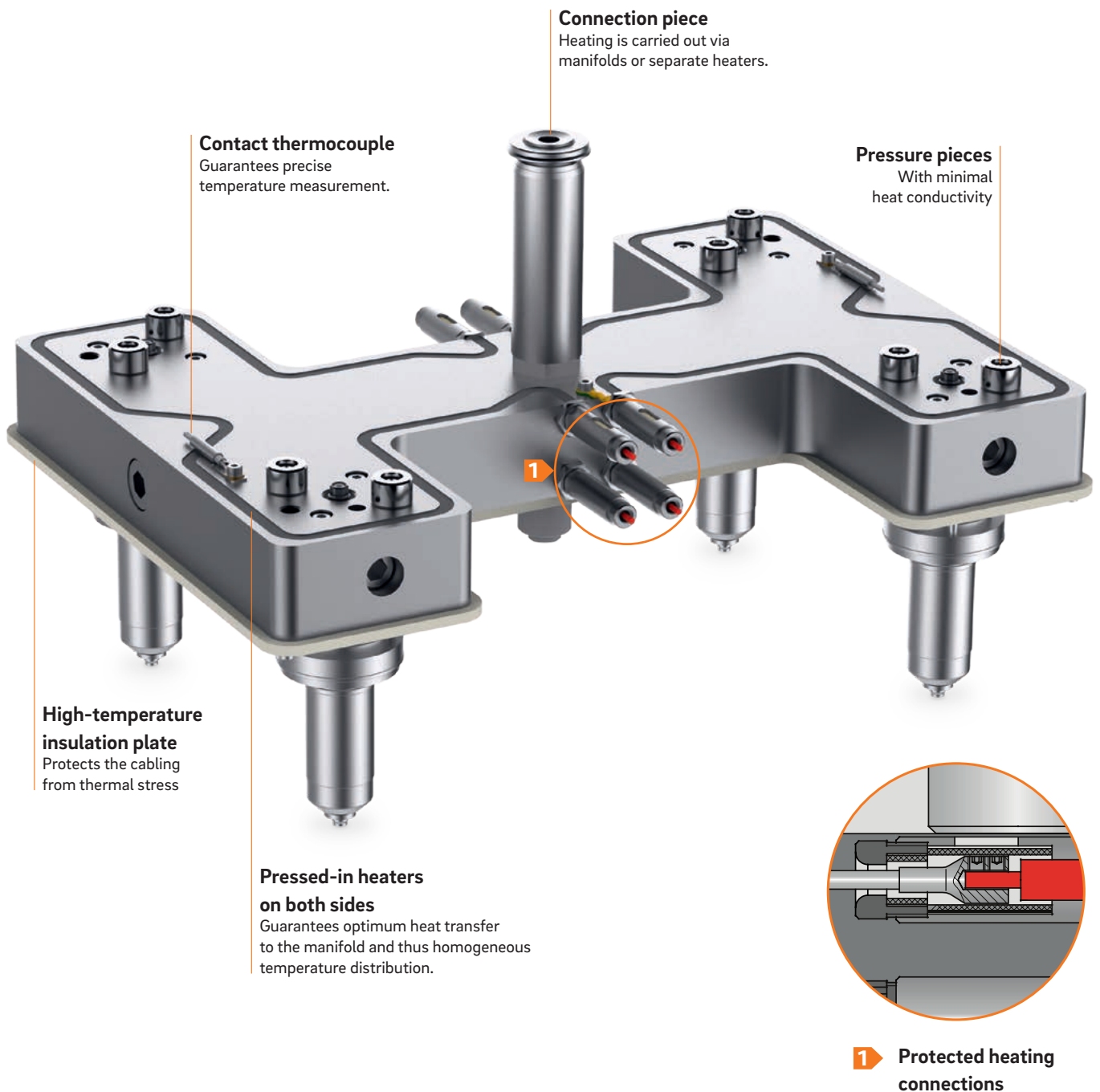


Valve gate systems



Manifold systems

Different manifold versions can be selected for different applications, from partially or fully balanced to customer-specific special solutions. Flexible positioning of hot runner nozzles with a manifold make individualised mould design possible.



HOMOGENEOUS TEMPERATURE MANAGEMENT THANKS TO PRESSED-IN HEATERS

All melt-conducting components are heated externally, which ensures optimum plastic flow with the smallest possible pressure loss. Pressed-in heaters on both sides guarantee optimum heat transfer to the manifold block. This results in homogeneous temperature distribution.

PROTECTED POWER CONNECTIONS – HIGHLY MAINTENANCE FRIENDLY

Steel and ceramic sleeves protect the power connections from damage. Mechanical cleaning of the manifold channels is easy and fast. Cleaning in the fluid bed bath and oven is also possible. The model data in the CADHOC® System Designer library can be configured (and are thus quickly available) for both individual and standard manifolds.

CADHOC® SYSTEM DESIGNER – TOP-NOTCH SOFTWARE PROVIDED FOR YOUR SUPPORT

CADHOC® System Designer enables us to meet your needs for fast provision of product data on everything from individual components to complete hot runner systems, including negative volume.

Among other things, CADHOC® System Designer enables you to:

- Design nozzle sizes in an optimum way
- Select plastic types from a comprehensive list
- Make a direct configuration without any specifications of the processing parameters
- Make an application-based configuration with specifications of the processing parameters

3D CAD models on every hot runner system are available for download in a variety of different data formats. After entering your configuration parameters, you will receive an e-mail with a link to the product data of the configured hot runner system.

THE ADVANTAGES AT A GLANCE

- + Homogeneous temperature distribution
- + Variable nozzle positions
- + Power connections with external damage protection
- + Easy and fast cleaning
- + Model data is stored in the CADHOC® online library





3.3 Valve gate manifolds

STRAIGHT MANIFOLDS

Page



NGCP
Manifold length (VL) 160-360

30



NGCP
Manifold length (VL) 410-510

40



NGDP
Manifold length (VL) 160-360

50



NGDP
Manifold length (VL) 410-510

60

H-MANIFOLDS



NHCP/NHDP/NHEP

70

CROSS MANIFOLDS



NKCP4/NKDP4
Manifold length (VL) 135-165

80



NKCP4/NKDP4
Manifold length (VL) 180

90



NKCP4/NKDP4
Manifold length (VL) 210

100



NKCP4/NKDP4
Manifold length (VL) 240/270/300

110

STAR MANIFOLDS



NSCP/NSDP/NSEP

120

T-MANIFOLDS

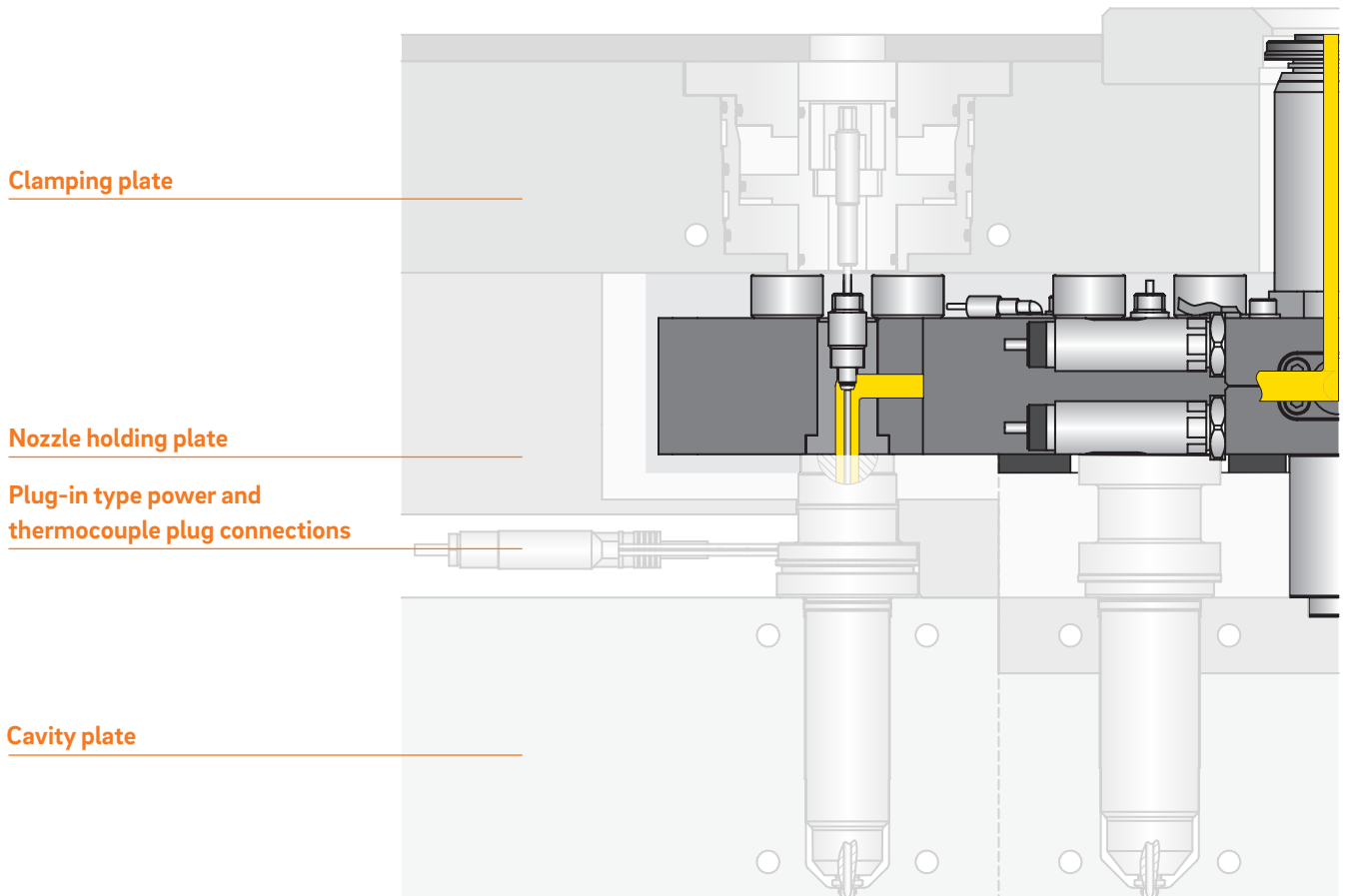


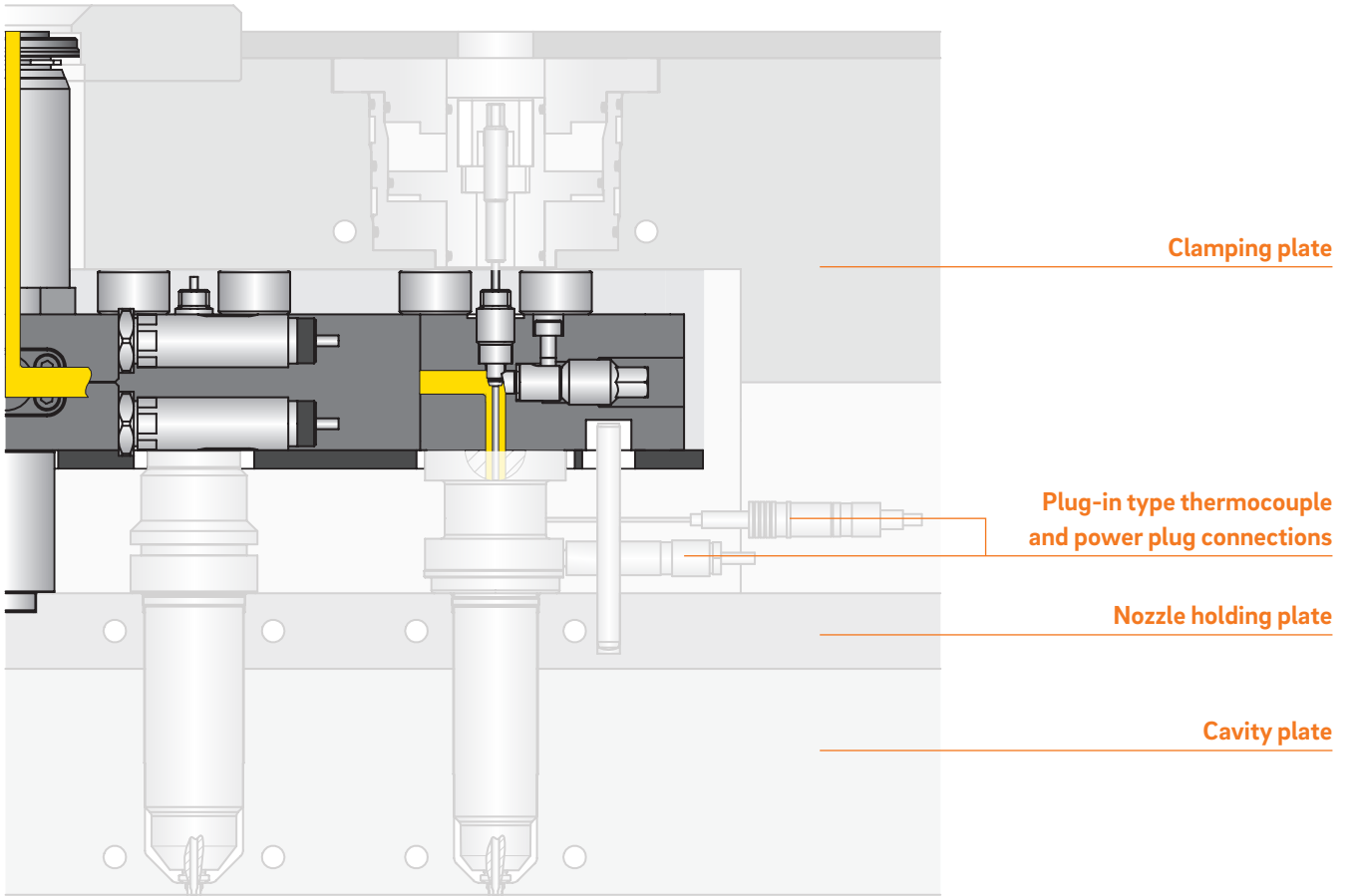
NTCP/NTDP/NTEP

130



Overview of overall design for valve gate manifolds

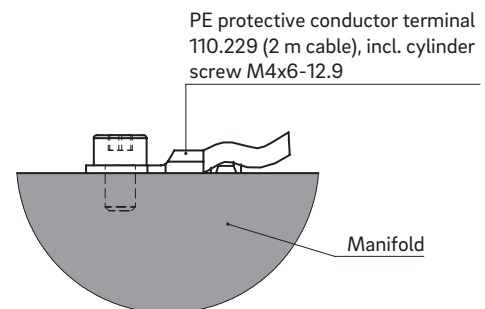
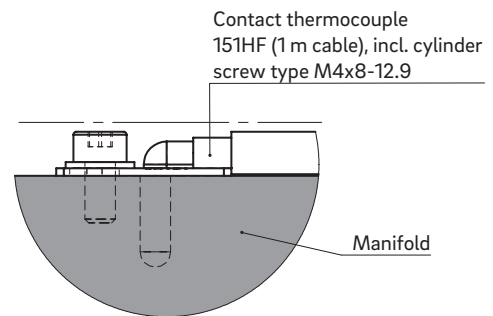
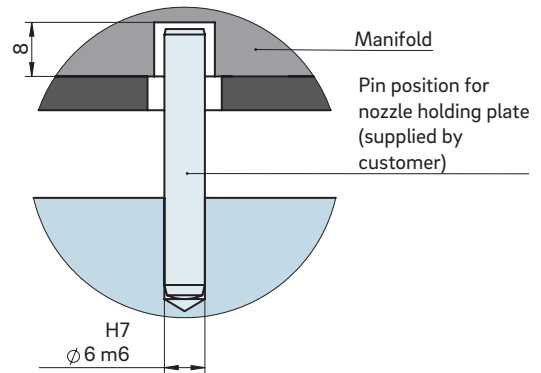






Straight manifold type NGCP

Manifold length (VL) 160-360



TECHNICAL DATA

NGCP VL 160-360

Manifold height (VH) 36 mm

Operating voltage 230 V_{AC} *

| Manifold length (VL) | 160 | 210 | 260 | 310 | 360 |
|--|---------|---------|----------|----------|----------|
| Control circuits | 1 | 1 | 1 | 1 | 1 |
| Power (watts) per control circuit | 2 × 750 | 2 × 950 | 2 × 1000 | 2 × 1350 | 2 × 1500 |

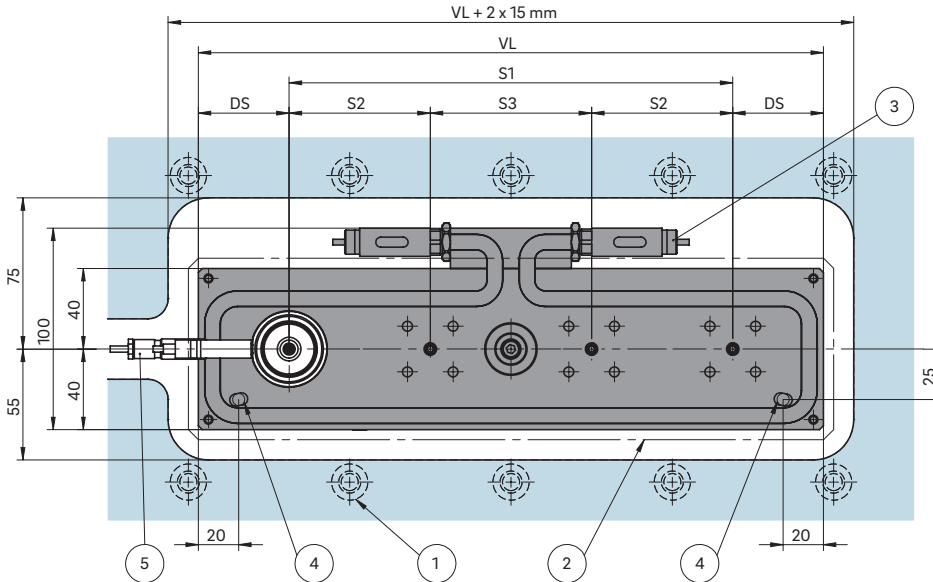
*Volts alternating current

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33010



INSTALLATION

Nozzle tip view



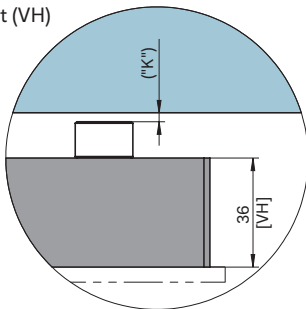
DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8

S1 Largest pitch (max. pitch)
 S2 Pitch between the nozzles (min./max. pitch)

S3 Pitch between the nozzles, taking connecting element and spacer into account (min./max. pitch)

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|---------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |

Design examples/Balancing

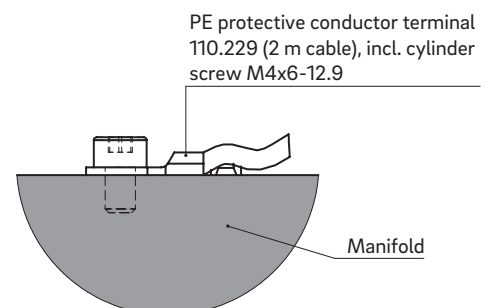
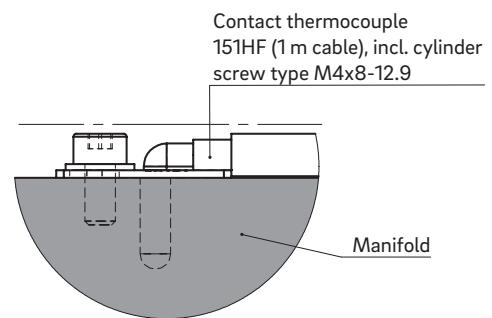
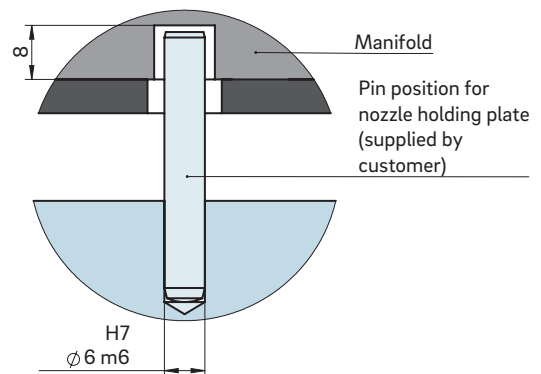
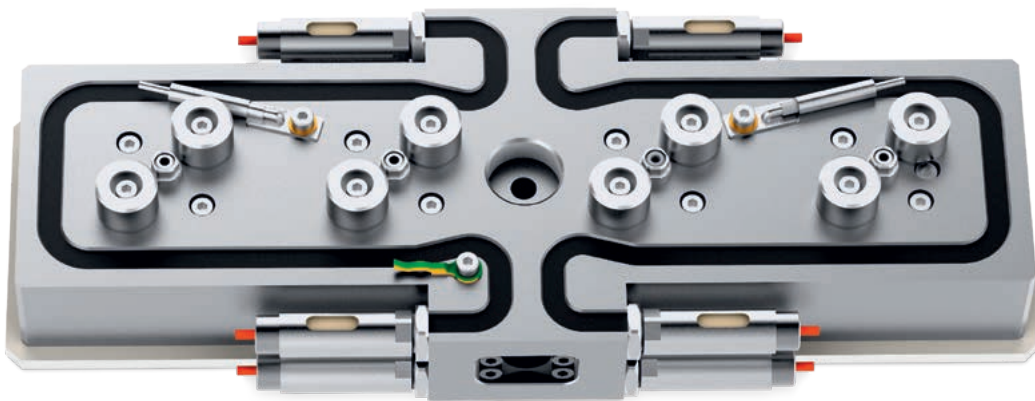
| Type | | Melt channel Ød in mm | Number of drops |
|--------|--|-----------------------|-----------------|
| NGCP1B | | ≤ 8 | 1 |
| NGCP2B | | ≤ 8 | 2 |
| NGCP4B | | ≤ 8 | 4 |
| NGCP8T | | ≤ 8 | 8 |

B = balanced T = partially balanced



Straight manifold type NGCP

Manifold length (VL) 410-510



TECHNICAL DATA

NGCP VL 410-510

Manifold height (VH) 36 mm

Operating voltage 230 V_{AC} *

| | | | |
|----------------------|-----|-----|-----|
| Manifold length (VL) | 410 | 460 | 510 |
|----------------------|-----|-----|-----|

| | | | |
|------------------|---|---|---|
| Control circuits | 2 | 2 | 2 |
|------------------|---|---|---|

| | | | |
|--------------------------------------|------------|------------|-------------|
| Power (watts) per control circuit | 2 × 850 | 2 × 950 | 2 × 1000 |
|--------------------------------------|------------|------------|-------------|

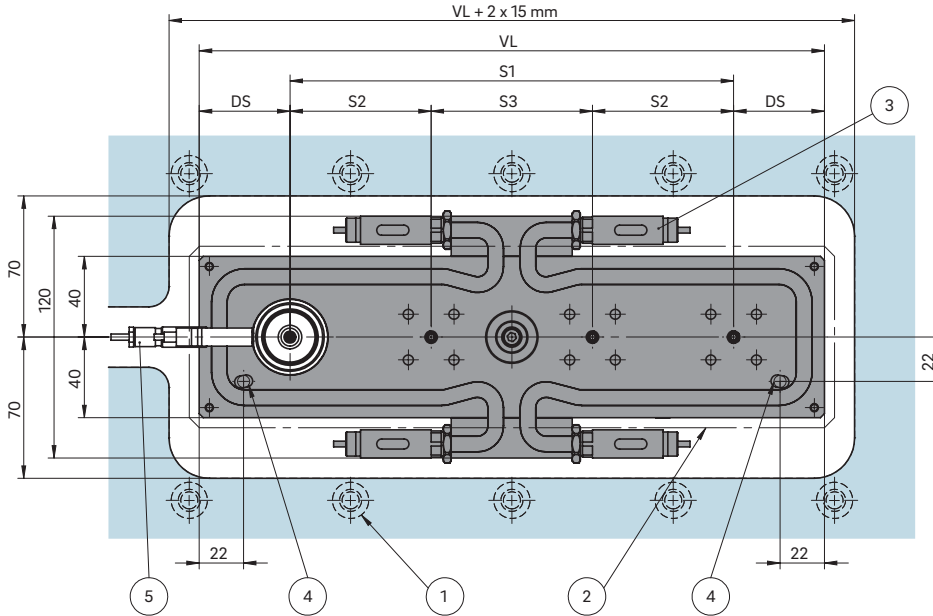
*Volts alternating current

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33020



INSTALLATION

Nozzle tip view



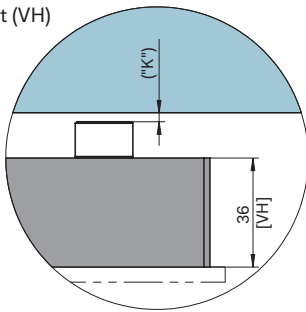
DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8

S1 Largest pitch (max. pitch)
 S2 Pitch between the nozzles (min./max. pitch)

S3 Pitch between the nozzles, taking connecting element and spacer into account (min./max. pitch)

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|---------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |

Design examples/Balancing

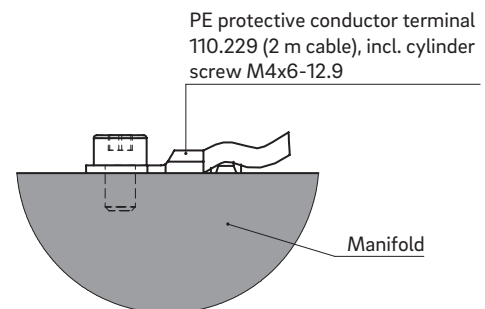
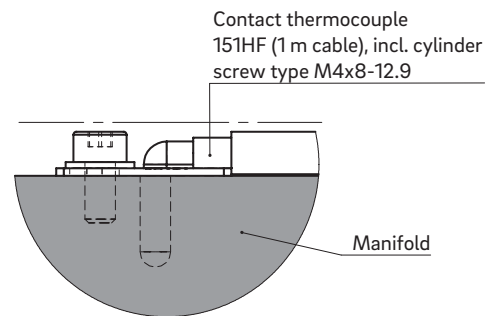
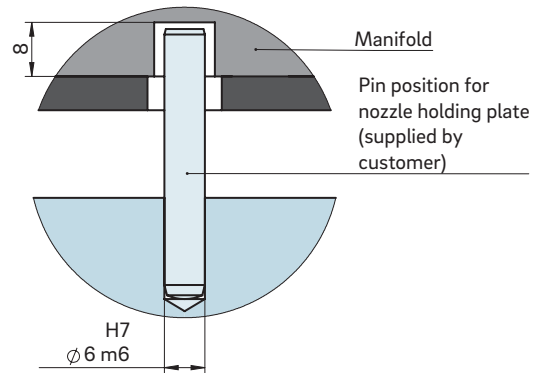
| Type | | Melt channel Ød in mm | Number of drops |
|--------|--|-----------------------|-----------------|
| NGCP1B | | ≤ 8 | 1 |
| NGCP2B | | ≤ 8 | 2 |
| NGCP4B | | ≤ 8 | 4 |
| NGCP6T | | ≤ 8 | 6 |
| NGCP8T | | ≤ 8 | 8 |

B = balanced T = partially balanced



Straight manifold type NGDP

Manifold length (VL) 160-360



TECHNICAL DATA

NGDP VL 160-360

Manifold height (VH) 46 mm

Operating voltage 230 V_{AC} *

| Manifold length (VL) | 160 | 210 | 260 | 310 | 360 |
|-----------------------------------|---------|---------|----------|----------|----------|
| Control circuits | 1 | 1 | 1 | 1 | 1 |
| Power (watts) per control circuit | 2 × 750 | 2 × 950 | 2 × 1000 | 2 × 1350 | 2 × 1500 |

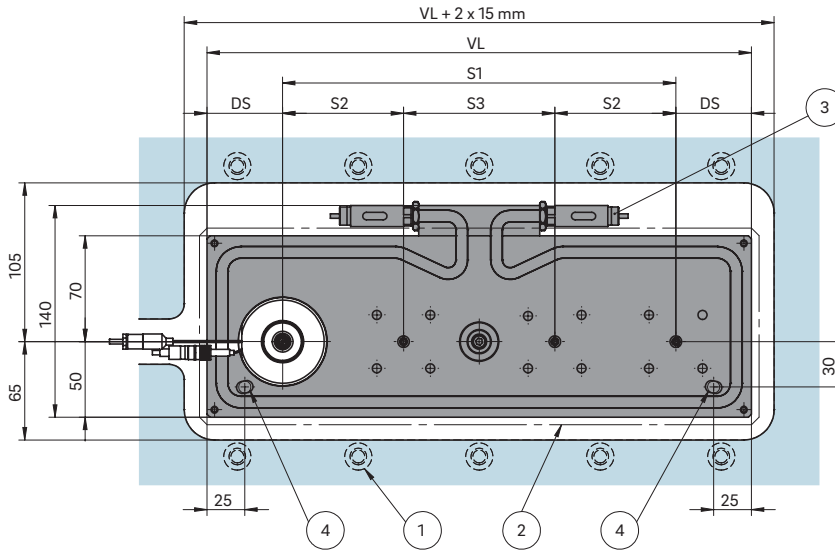
*Volts alternating current

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33030



INSTALLATION

Nozzle tip view



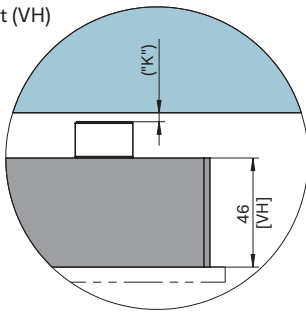
DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

S1 Largest pitch (max. pitch)
 S2 Pitch between the nozzles (min./max. pitch)

S3 Pitch between the nozzles, taking connecting element and spacer into account (min./max. pitch)

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |

Design examples/Balancing

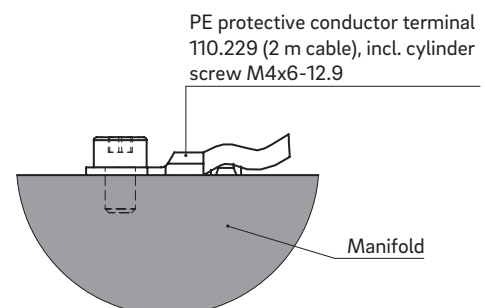
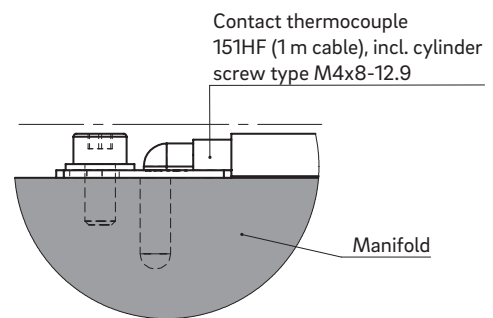
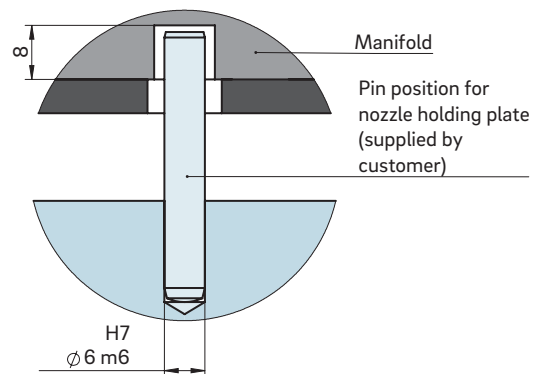
| Type | | Melt channel \varnothing d in mm | Number of drops |
|--------|--|------------------------------------|-----------------|
| NGDP1B | | ≥ 10 to 12 | 1 |
| NGDP2B | | ≥ 10 to 12 | 2 |
| NGDP4B | | ≥ 10 to 12 | 4 |
| NGDP6T | | ≤ 8 | 6 |

B = balanced T = partially balanced



Straight manifold type NGDP

Manifold length (VL) 410-510



TECHNICAL DATA

NGDP VL 410-510

Manifold height (VH) 46 mm

Operating voltage 230 V_{AC} *

| | | | |
|----------------------|-----|-----|-----|
| Manifold length (VL) | 410 | 460 | 510 |
|----------------------|-----|-----|-----|

| | | | |
|------------------|---|---|---|
| Control circuits | 2 | 2 | 2 |
|------------------|---|---|---|

| | | | |
|--------------------------------------|------------|------------|-------------|
| Power (watts) per control circuit | 2 × 850 | 2 × 950 | 2 × 1000 |
|--------------------------------------|------------|------------|-------------|

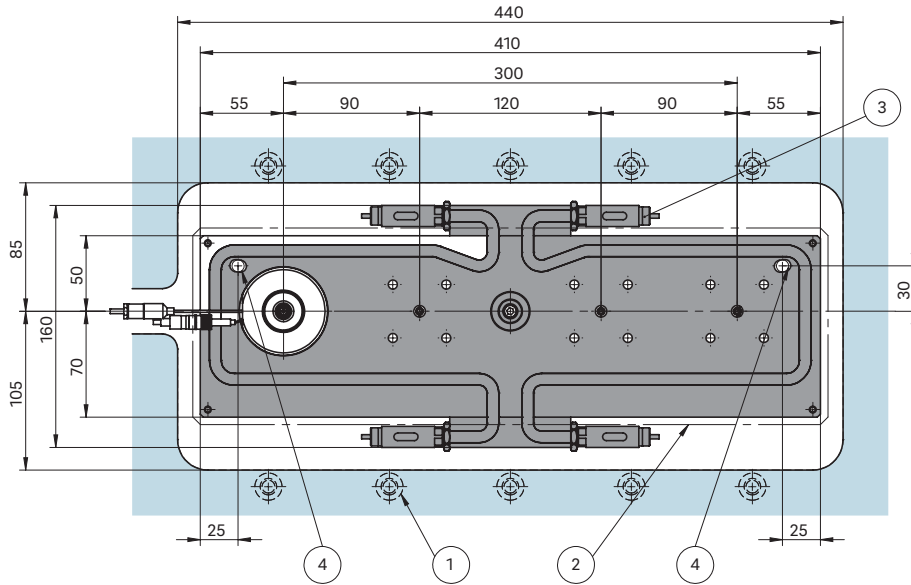
*Volts alternating current

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33040



INSTALLATION

Nozzle tip view

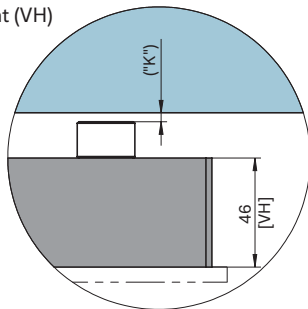


DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

S1 Largest pitch (max. pitch)
 S2 Pitch between the nozzles (min./max. pitch)
 S3 Pitch between the nozzles, taking connecting element and spacer into account (min./max. pitch)

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |

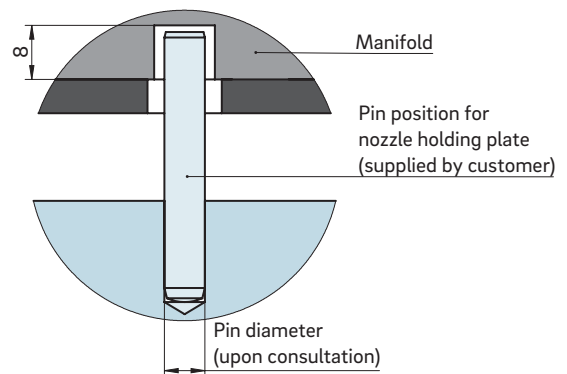
Design examples/Balancing

| Type | | Melt channel \varnothing d in mm | Number of drops |
|--------|--|------------------------------------|-----------------|
| NGDP1B | | ≥ 12 | 1 |
| NGDP2B | | ≥ 12 | 2 |
| NGDP4B | | ≥ 12 | 4 |
| NGDP6T | | ≤ 8 | 6 |
| NGDP8T | | ≥ 12 | 8 |

B = balanced T = partially balanced



H-manifold type NHCP/NHDP/NHEP



TECHNICAL DATA

NHCP/NHDP/NHEP

Manifold height (VH) NHCP: 36 mm
NHDP: 46 mm
NHEP: 56 mm

Operating voltage 230 V_{AC}*

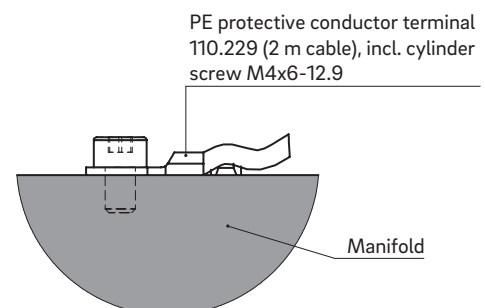
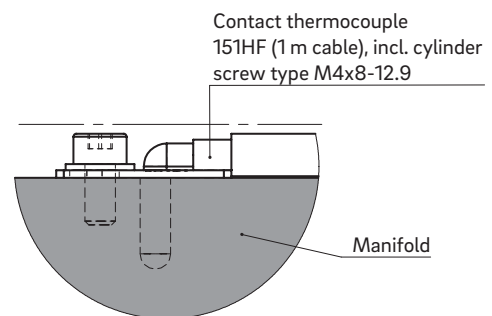
Manifold length (VL) $H + 2 \times DS$

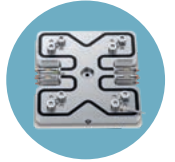
Manifold width (VB) $B + 2 \times DS$

The heating output of each control circuit is calculated individually.

*Volts alternating current

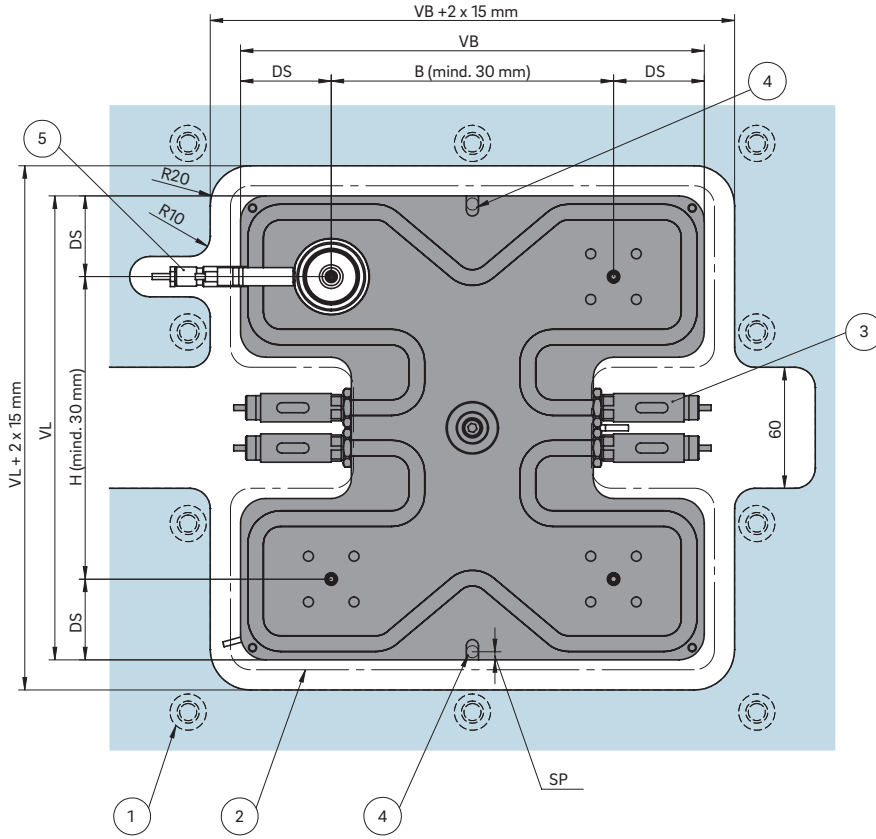
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33050





INSTALLATION

Nozzle tip view

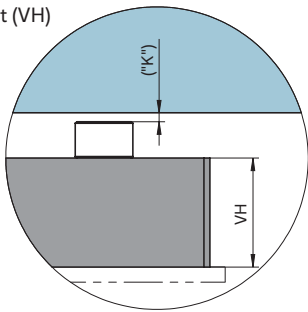


DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

H Pitch between the nozzles
 B Pitch between the manifolds

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
 "SP" = $d/2 + 1$ mm
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |
| 56 mm | K (mm) | 0.046 | 0.097 | 0.150 | 0.203 | 0.258 | 0.311 |

Design examples/Balancing

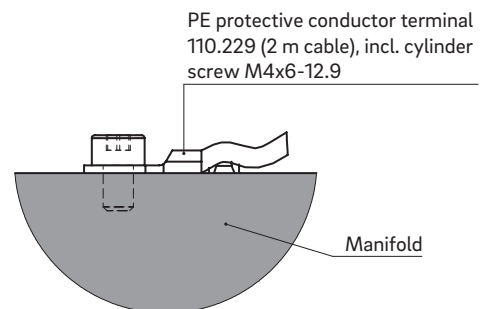
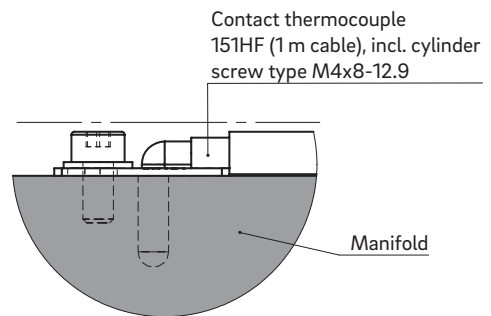
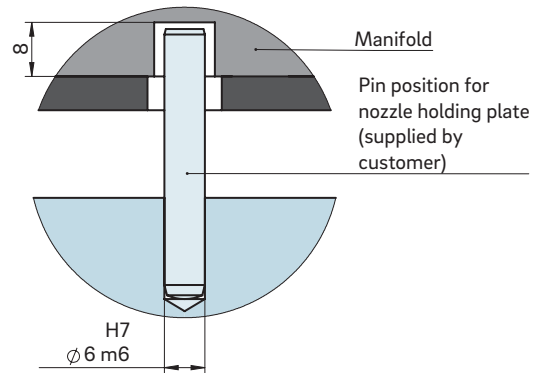
| Type | | NHCP = 36 (VH) Melt channel $\varnothing d$ in mm | NHDP = 46 (VH) Melt channel $\varnothing d$ in mm | NHEP = 56 (VH) Melt channel $\varnothing d$ in mm | Number of drops |
|---------|--|---|---|---|-----------------|
| NH_P4B | | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 4 |
| NH_P6T | | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 6 |
| NH_P6B | | | ≤ 8 | ≤ 10 | 6 |
| NH_P8B | | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 8 |
| NH_P12B | | | ≤ 8 | ≤ 10 | 12 |
| NH_P16B | | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 16 |

B = balanced T = partially balanced



Cross manifold type NKCP4/NKDP4

Manifold length (VL) 135-165



TECHNICAL DATA

NKCP4/NKDP4 135/165

Manifold height (VH) NKCP: 36 mm
NKDP: 46 mm

Operating voltage 230 V_{AC} *

| | | |
|-----------------------------|-----|-----|
| Manifold length (VL) | 135 | 165 |
|-----------------------------|-----|-----|

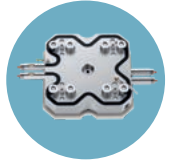
| | | |
|--------------------------|------|------|
| Pin position (SP) | 63.5 | 68.0 |
|--------------------------|------|------|

| | | |
|-------------------------|---|---|
| Control circuits | 1 | 1 |
|-------------------------|---|---|

| | | |
|--|---------|----------|
| Power (watts) per control circuit | 2 × 850 | 2 × 1000 |
|--|---------|----------|

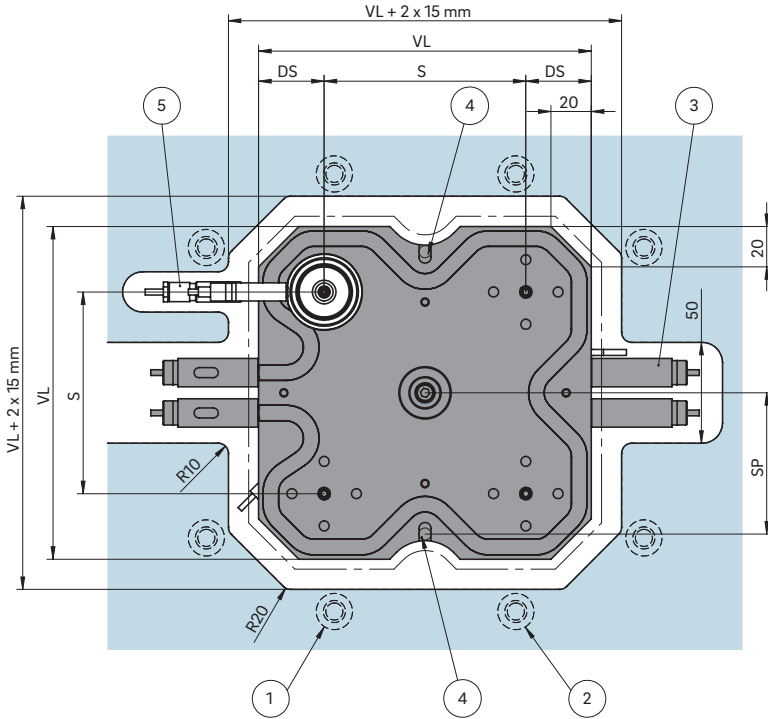
*Volts alternating current

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INSTALLATION

Nozzle tip view

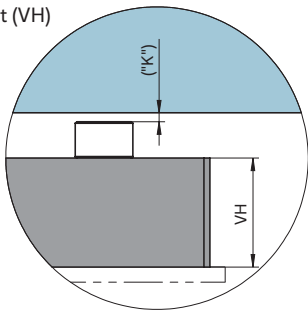


DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

S Pitch between the nozzles

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |

Design examples/Balancing

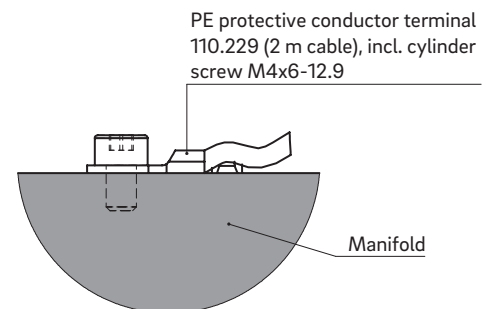
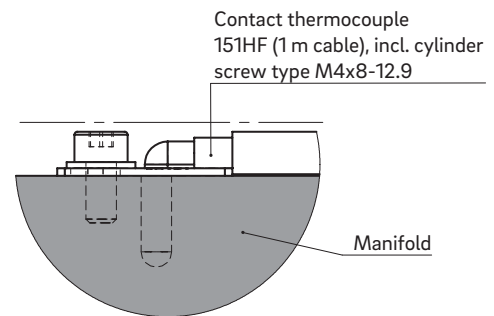
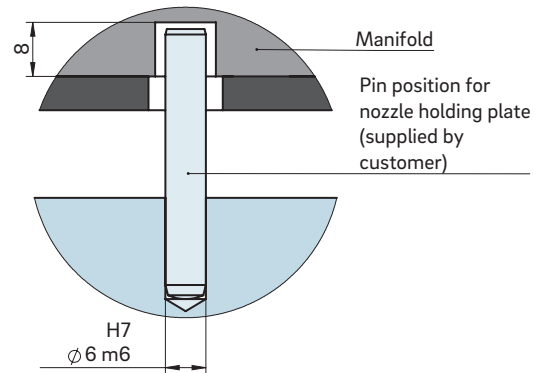
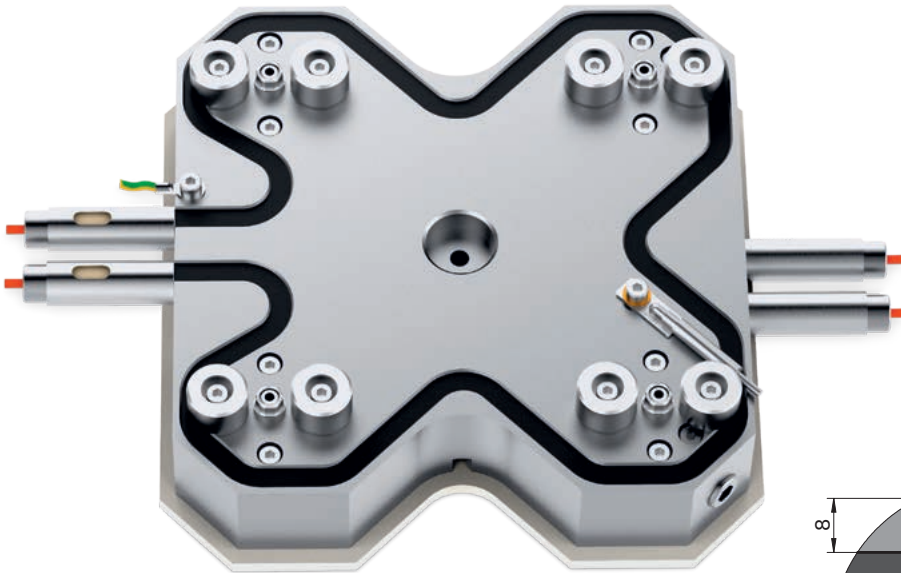
| Type | | NKCP = 36 (VH) Melt channel $\varnothing d$ in mm | NKDP = 46 (VH) Melt channel $\varnothing d$ in mm | Number of drops |
|--------|--|---|---|--------------------|
| NK_P4B | | ≤ 8 DS min. 35 | ≥ 10 to 12 DS min. 50 | 4 |

B = balanced



Cross manifold type NKCP4/NKDP4

Manifold length (VL) 180



TECHNICAL DATA

NKCP4/NKDP4 180

Manifold height (VH) NKCP: 36 mm
NKDP: 46 mm

Operating voltage 230 V_{AC}*

Manifold length (VL) 180

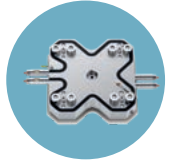
Pin position (SP) 59.0

Control circuits 1

Power (watts) per control circuit 2 ×
1000

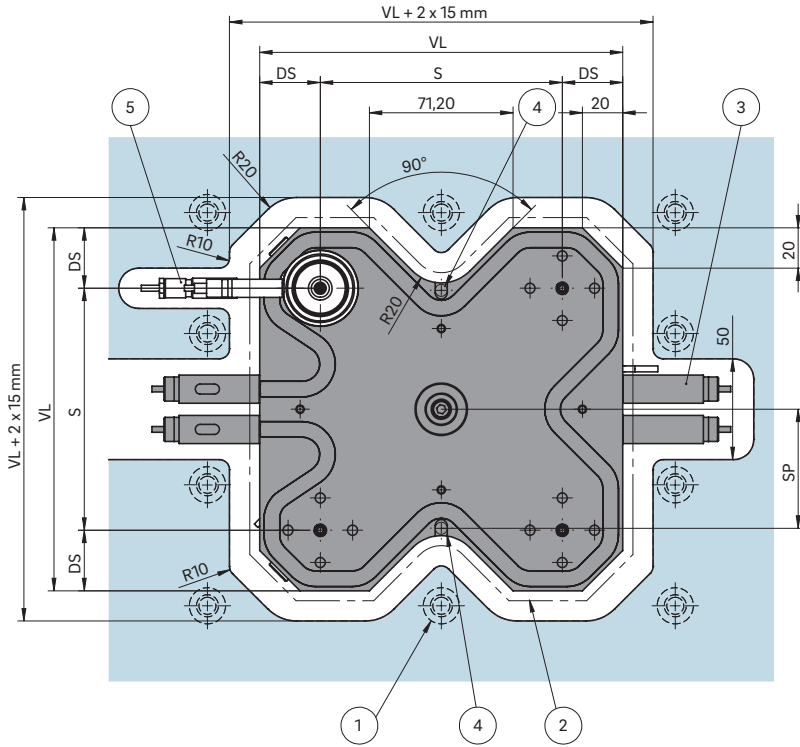
*Volts alternating current

WEBCODE
33070



INSTALLATION

Nozzle tip view

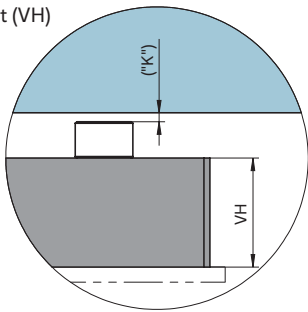


DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

S Pitch between the nozzles

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |

Design examples/Balancing

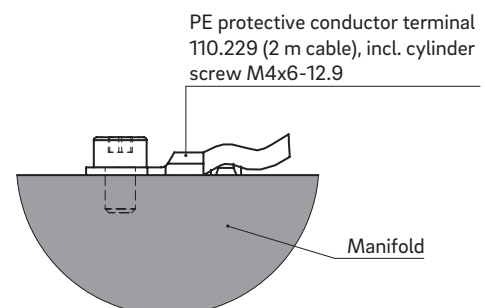
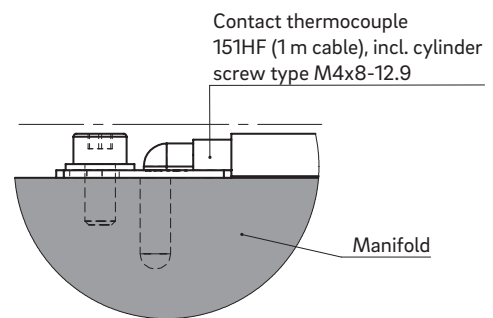
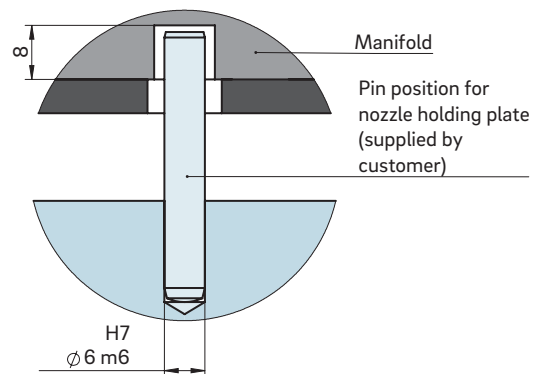
| Type | | NKCP = 36 (VH) Melt channel $\varnothing d$ in mm | NKDP = 46 (VH) Melt channel $\varnothing d$ in mm | Number of drops |
|--------|--|---|---|--------------------|
| NK_P4B | | ≤ 8 DS min. 35 | ≥ 10 to 12 DS min. 50 | 4 |

B = balanced



Cross manifold type NKCP4/NKDP4

Manifold length (VL) 210



TECHNICAL DATA

NKCP4/NKDP4 210

Manifold height (VH) NKCP: 36 mm
NKDP: 46 mm

Operating voltage 230 V_{AC}*

Manifold length (VL) 210

Pin position (SP) 60.8

Control circuits 1

Power (watts) per control circuit 2 × 1000

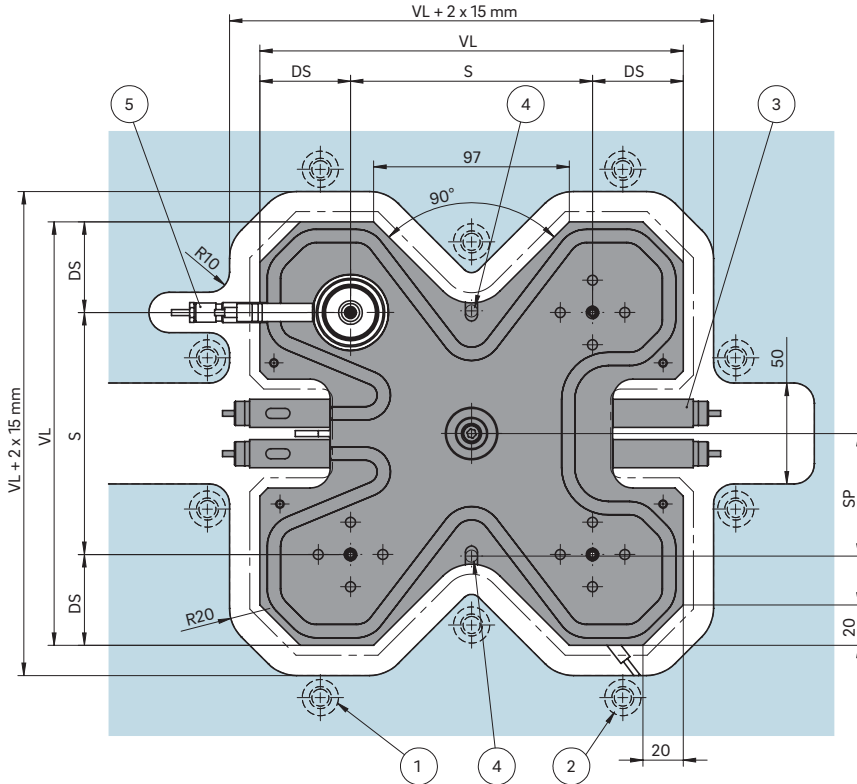
*Volts alternating current

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33080



INSTALLATION

Nozzle tip view

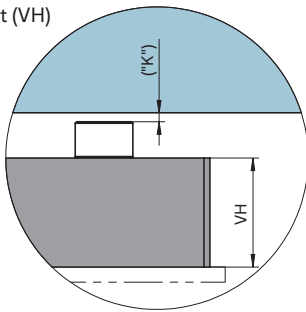


DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

S Pitch between the nozzles

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |

Design examples/Balancing

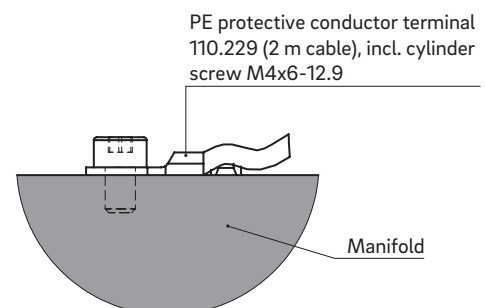
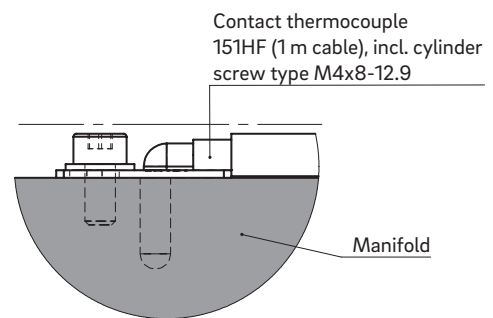
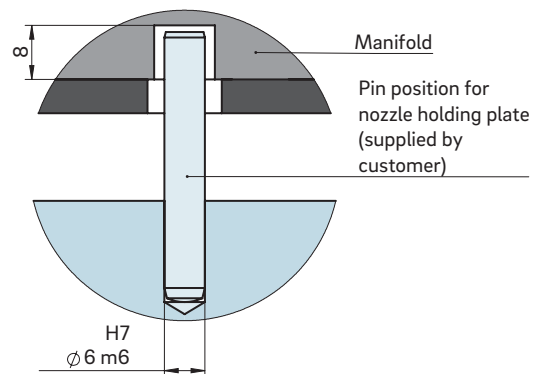
| Type | | NKCP = 36 (VH) Melt channel $\varnothing d$ in mm | NKDP = 46 (VH) Melt channel $\varnothing d$ in mm | Number of drops |
|--------|--|---|---|--------------------|
| NK_P4B | | ≤ 8 DS min. 35 | ≥ 10 to 12 DS min. 50 | 4 |

B = balanced



Cross manifold type NKCP4/NKDP4

Manifold length (VL) 240/270/300



TECHNICAL DATA

NKCP4/NKDP4 240/270/300

Manifold height (VH) NKCP: 36 mm
NKDP: 46 mm

Operating voltage 230 V_{AC} *

| Manifold length (VL) | 240 | 270 | 300 |
|--|----------|----------|----------|
| Pin position (SP) | 81.0 | 87.5 | 101.0 |
| Dimension B | 127.0 | 156.6 | 187.0 |
| Control circuits | 2 | 2 | 2 |
| Power (watts) per control circuit | 2 × 1000 | 2 × 1350 | 2 × 1500 |

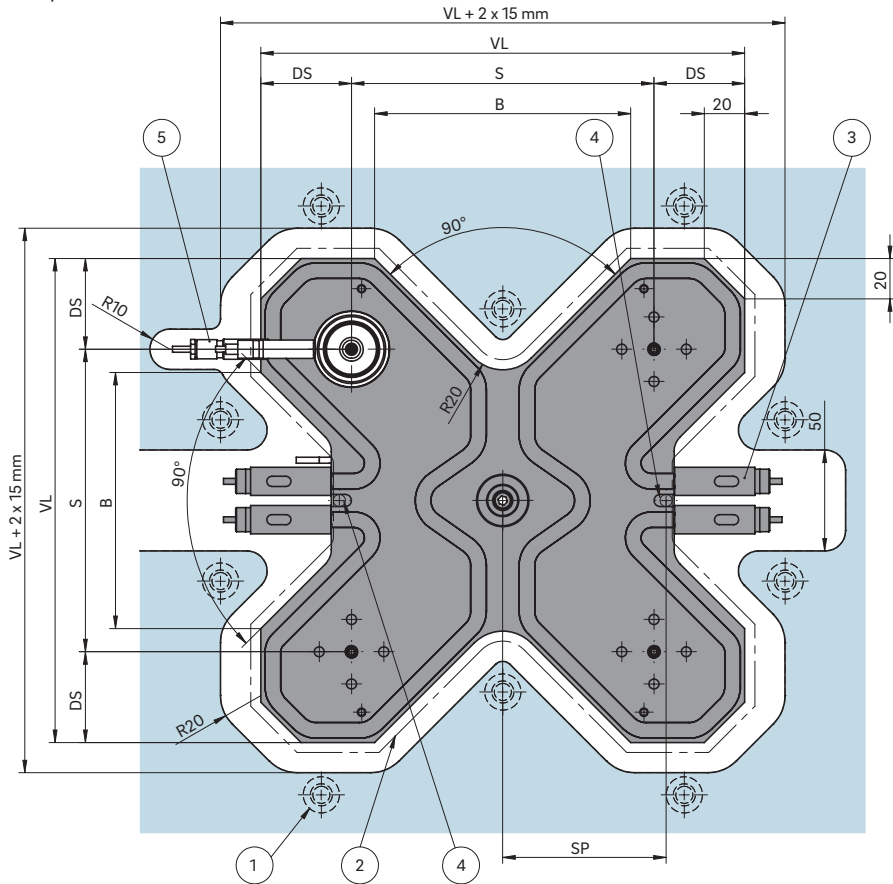
*Volts alternating current

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33090



INSTALLATION

Nozzle tip view

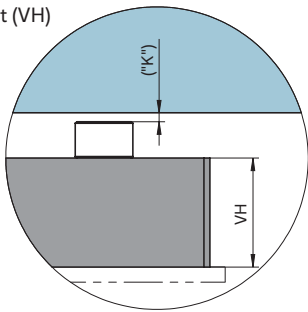


DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

S Pitch between the nozzles

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |

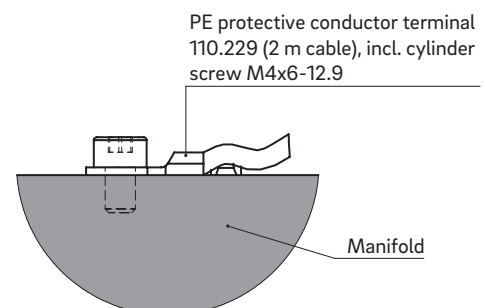
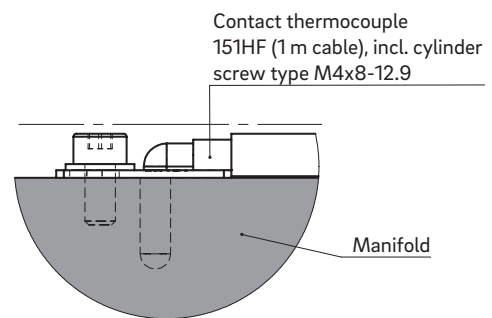
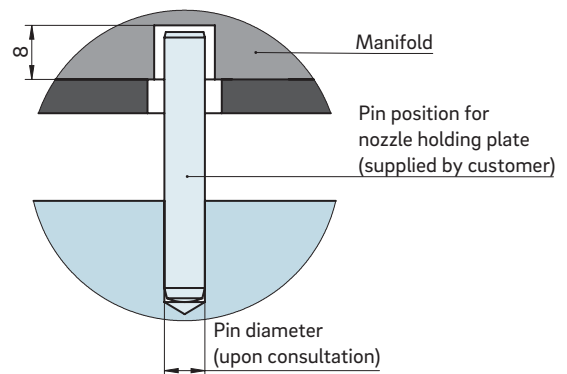
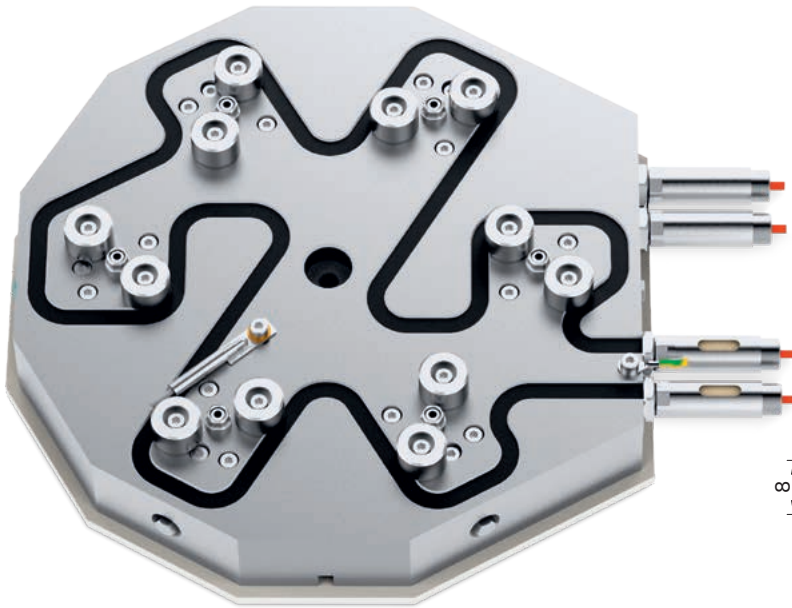
Design examples/Balancing

| Type | | NKCP = 36 (VH) Melt channel $\varnothing d$ in mm | NKDP = 46 (VH) Melt channel $\varnothing d$ in mm | Number of drops |
|--------|--|---|---|--------------------|
| NK_P4B | | ≤ 8 DS min. 35 | ≥ 10 to 12 DS min. 50 | 4 |

B = balanced



Star manifold type NSCP/NSDP/NSEP



TECHNICAL DATA

NSCP/NSDP/NSEP

Manifold height (VH) NSCP: 36 mm
NSDP: 46 mm
NSEP: 56 mm

Operating voltage 230 V_{AC}*

Manifold length (VL) ØTK + 2 × DS

The heating output of each control circuit is calculated individually.

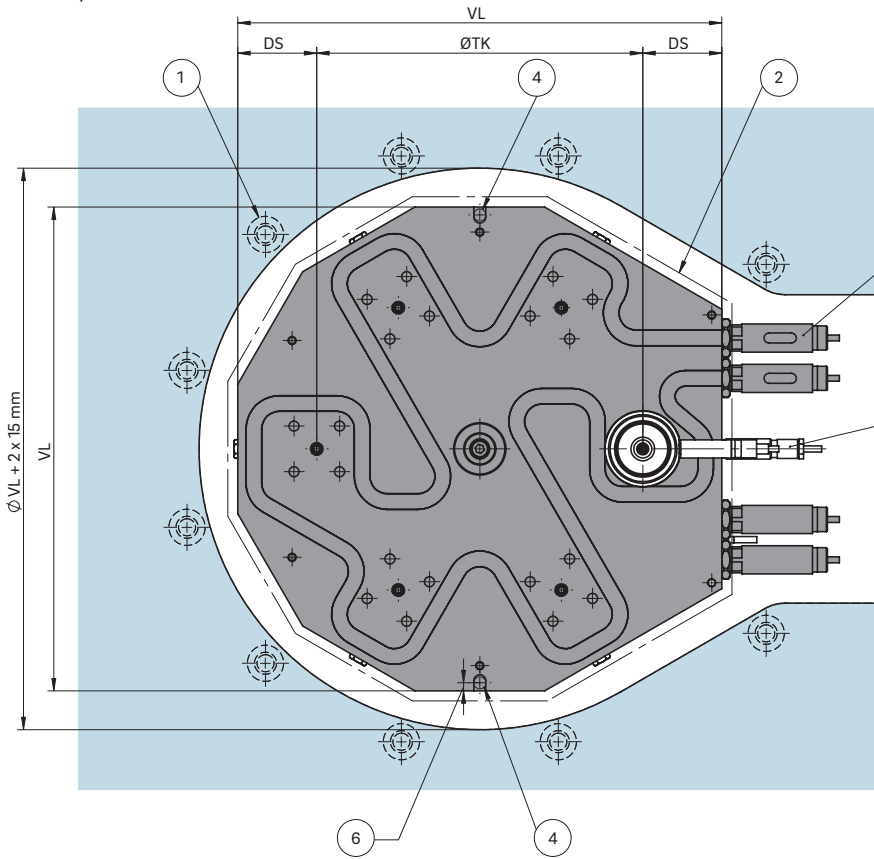
*Volts alternating current

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33100



INSTALLATION

Nozzle tip view

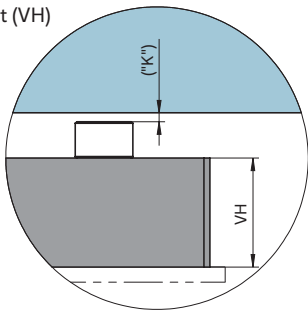


DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

ØTK Pitch circle diameter

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Heating connections
- ④ Possible pin position
- ⑤ Opening and plug location dependent upon nozzle type
- ⑥ Pin position "SP" = $d/2 + 1$ mm

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad ($12 + 0.1$ mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |
| 56 mm | K (mm) | 0.046 | 0.097 | 0.150 | 0.203 | 0.258 | 0.311 |

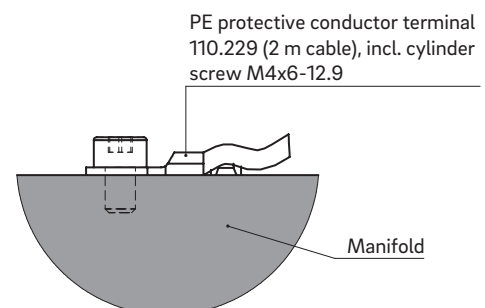
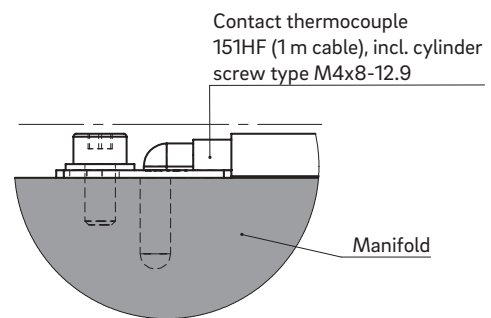
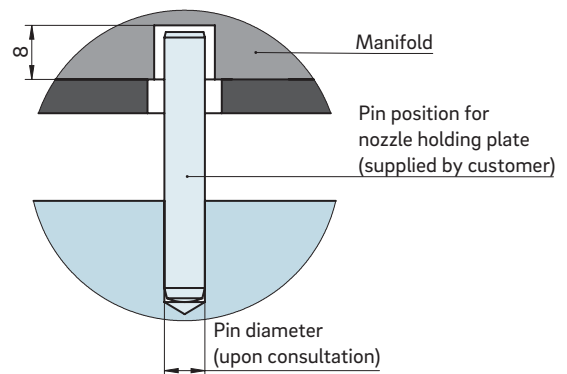
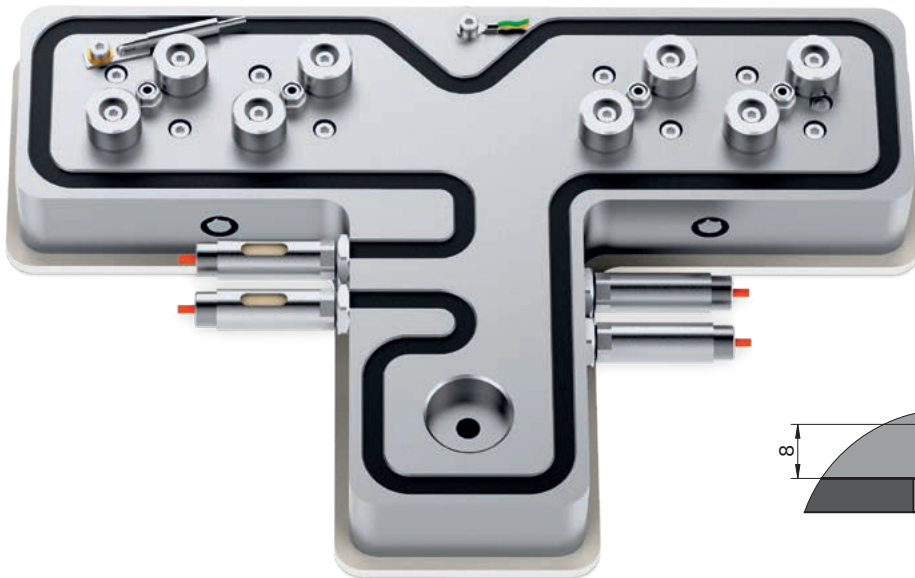
Design examples/Balancing

| Type | | NSCP = 36 (VH) Melt channel Ød in mm | NSDP = 46 (VH) Melt channel Ød in mm | NSP = 56 (VH) Melt channel Ød in mm | Number of drops |
|--------|--|--|--|---|--------------------|
| NS_P3B | | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 3 |
| NS_P6B | | | ≤ 8 | ≤ 10 | 6 |
| NS_P8B | | | ≤ 8 | ≤ 10 | 8 |

B = balanced



T-manifold type NTCP/NTDP/NTEP



TECHNICAL DATA

NTCP/NTDP/NTEP

Manifold height (VH) NTCP: 36 mm
 NTDP: 46 mm
 NTEP: 56 mm

Operating voltage 230 V_{AC}*

Manifold length (VL) S1 + 2 × DS

Manifold width (VB) T + 2 × 40 mm

The heating output of each control circuit is calculated individually.

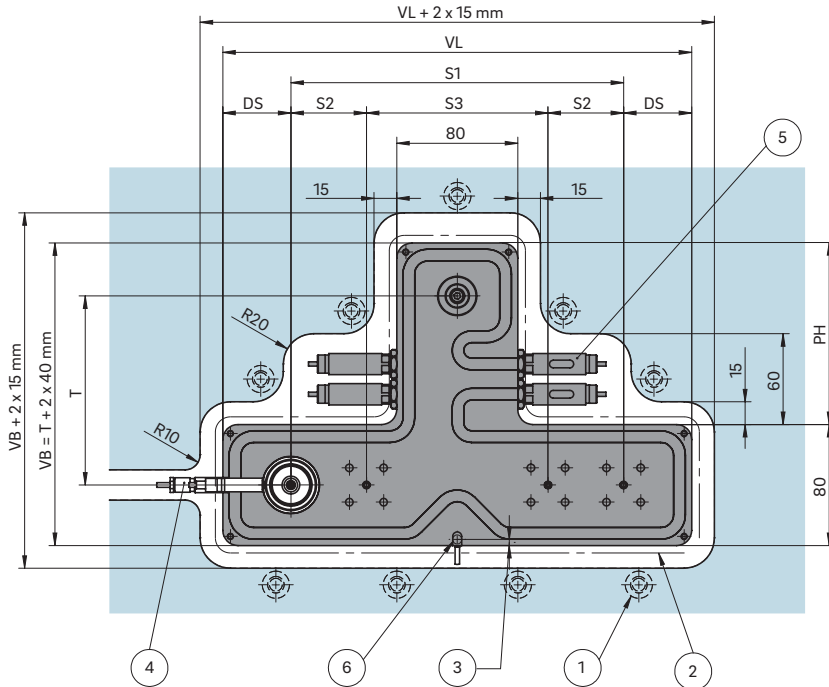
*Volts alternating current





INSTALLATION

Nozzle tip view

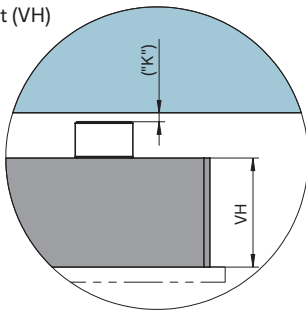


DS Edge distance:
 a. min. 35.0 with nozzle size ≤ 6
 b. min. 45.0 with nozzle size 8 or 10
 c. min. 50.0 with nozzle size ≥ 12

T Distance from the connecting nozzle to the nozzle row

- ① Screw connection close to manifold
- ② High-temperature insulation plate
- ③ Pin position "SP" = $d/2 + 1$ mm
- ④ Opening and plug location dependent upon nozzle type
- ⑤ Position of the heating connections with $PH \geq 100$
- ⑥ Position of the heating connections with $PH \leq 100$; different heating connection positions require consultation with the design office

Manifold height (VH)



Dimension "K" required for heat expansion is to be ensured by grinding the pressure pad (12 + 0.1 mm)! Determine the difference between the height of the manifold system and the height of the frame plate when installed! ΔT specifies the temperature differential between the processing temperature and the mould temperature!

| VH | ΔT (°C) | 100 | 150 | 200 | 250 | 300 | 350 |
|-------|-----------------|-------|-------|-------|-------|-------|-------|
| 36 mm | K (mm) | 0.021 | 0.059 | 0.098 | 0.137 | 0.177 | 0.217 |
| 46 mm | K (mm) | 0.033 | 0.078 | 0.124 | 0.170 | 0.218 | 0.264 |
| 56 mm | K (mm) | 0.046 | 0.097 | 0.150 | 0.203 | 0.258 | 0.311 |

Design examples/Balancing

| Type | NTCP = 36 (VH) Melt channel $\varnothing d$ in mm | NTDP = 46 (VH) Melt channel $\varnothing d$ in mm | NTEP = 56 (VH) Melt channel $\varnothing d$ in mm | Number of drops |
|--------|---|---|---|-----------------|
| NT_P2B | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 2 |
| NT_P4- | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 4 |
| NT_P4B | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 4 |
| NT_P6T | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 6 |
| NT_P8T | ≤ 8 | ≥ 10 to 12 | ≥ 16 | 8 |

B = balanced T = partially balanced - = not balanced