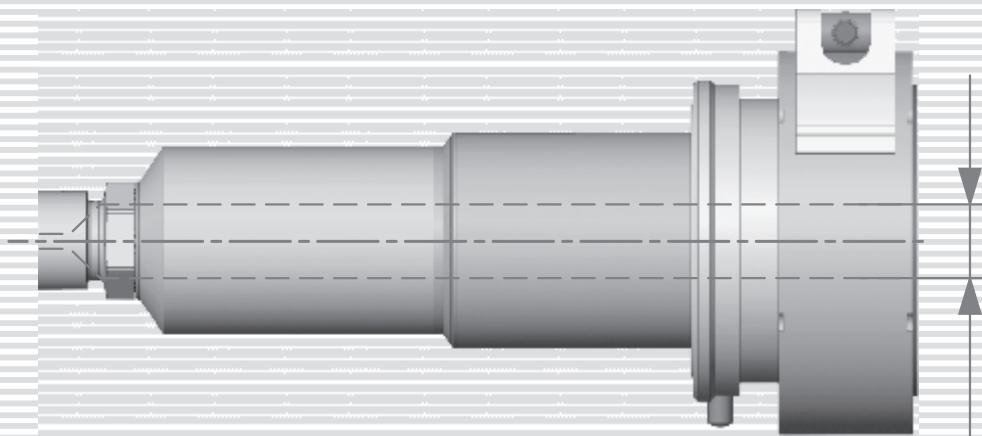
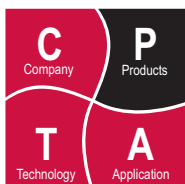


Series GA ... E

Single Nozzles, Open



Ø12



Product type

Hot runner nozzles in the **GB...E** range;
this series belongs to nozzle class¹⁾ **16 S**.
→ Nozzle size **16**: Flow bore-Ø 16 mm²⁾
→ Nozzle style **S**: Single nozzle

With the nozzle tips in the form of screw-in parts, different nozzle types can be implemented (type = shape and gating of nozzle tip), see table at right.

Available gating types
→ open (**N**)
→ open with torpedo (**T**)

Major dimensions (mm)

J	Flow bore Ø	Ø12 ²⁾
L	Nozzle length	48...380 ³⁾⁴⁾
D	Ø of cut out, front	Ø40
Dt	Centring Ø tip	see right
H	Hot runner exit Ø	see right ³⁾
L1	Length of cut out, back	0...260 ³⁾⁵⁾
D1	Ø of cut out, back	Ø46 ⁵⁾
K	Head height	46
Dk	Head Ø	Ø80
Ls	Depth of head centring	8
Ds	Ø of head centring	Ø65
R	Nozzle contact radius	0...40 ³⁾

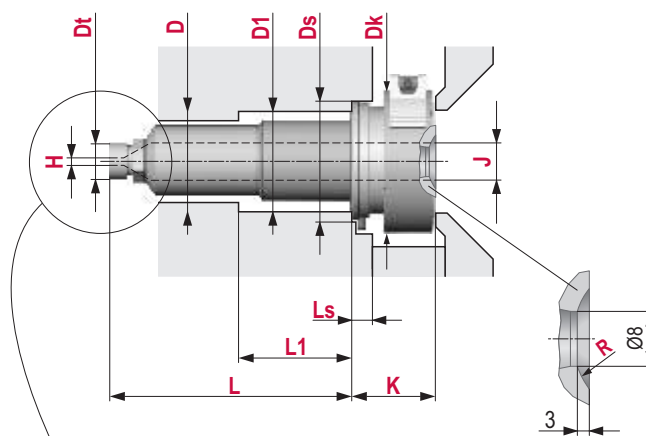
Heating

→ externally heated, 230 V AC
→ 2...4 zones, 1030...1930 W
→ Fe/CuNi thermocouple, DIN 43710









Application

For all usual thermoplastics
Max. shot weight per nozzle (g)
→ 1500 (low viscosity)

Illustrations simplified, schematically drawn and not to scale.



Available nozzle types for this series

Shape of nozzle tip	Gating of nozzle tip		
	N (open)	T (open with torpedo)	V (valve gate)
Y		 YT H: 2.1...3.6 Dt: Ø 16	3
U		 UT H: 2.1...3.6 Dt: Ø 16	4
F		 FT H: 2.1...3.6 Dt: Ø 16	5
P		 PT H: 2.1...3.6 Dt: Ø 16	6
K	 KN H: 2.2...4.0 Dt: Ø 20		7
L		 LT H: 2.1...3.6 Dt: Ø 16	8
S		 ST H: 2.1...3.6 Dt: Ø 16	9
V			
W		 WT H: 2.1...3.6 Dt: Ø 16	10
X			

☞ page no. of related data sheets

- Enhanced classification for improved ease of selection. Part of the nozzle type No. for later nozzle series.
- Standard value resp. average diameter of nozzle range, can be different depending on nozzle series and application.
- Raster dimensions. Intermediate values can be found from the prescribed dimensional raster.
- Minimum and maximum value of nozzle length depend on the selected tip shape.
- depending on nozzle length

S

C

E

Illustrations simplified, schematically drawn and not to scale.

1. Cut out for the nozzle

L Nozzle length
L1 Length of cut out, back

General tolerances: DIN ISO 2768-mK

Surfaces: $\nabla 3.2 / \left(\nabla 1.6 / \nabla 0.8 \right)$

Values of the dimensions L and L1 can be found in the data sheet for the selected nozzle type.

2. Cut out for connections

→ electrical power
→ thermocouple

3. Groove for locking pin

The locking pin secures the nozzle against rotation.

4. Cut out for the nozzle tip

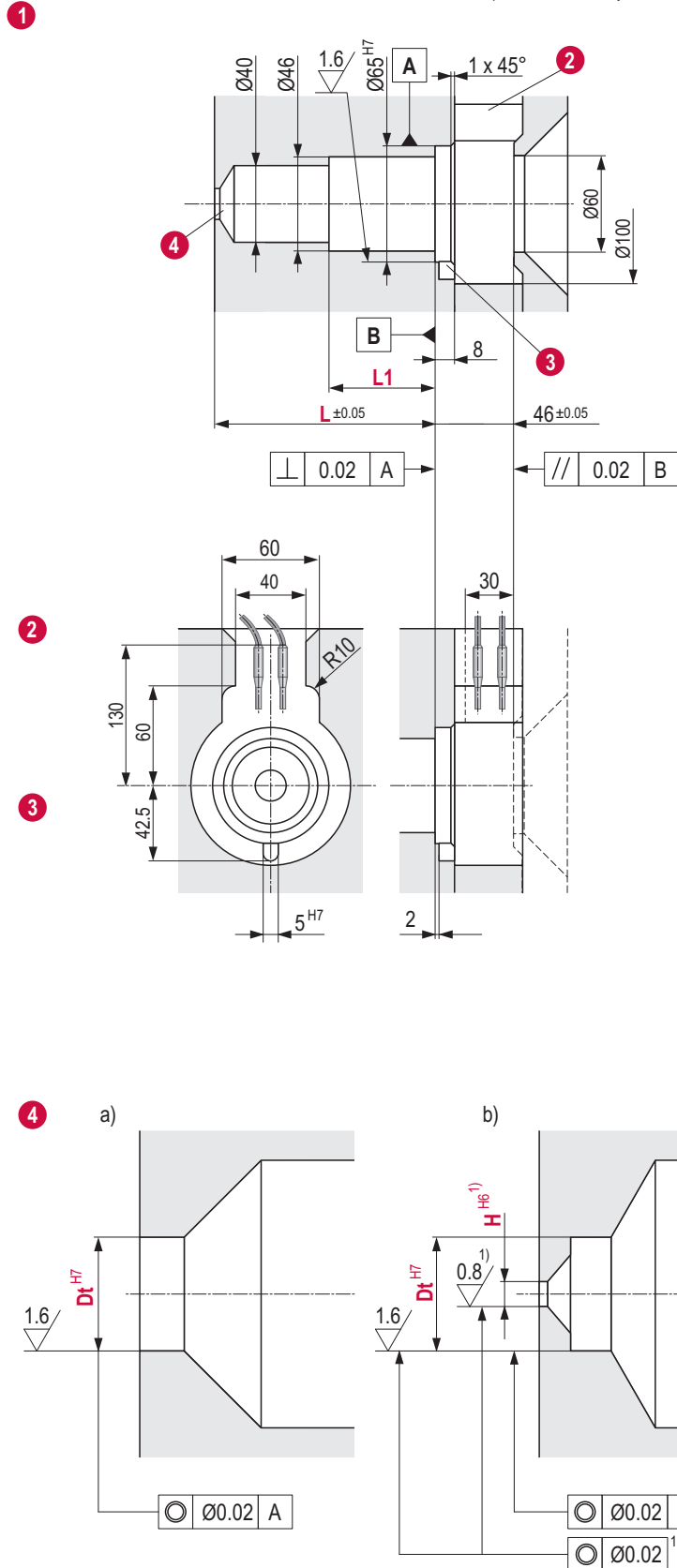
a) Through bore nozzle tip (Y...V)
b) Blind bore nozzle tip (W, X)

Dt Tip Ø
H Hot runner gate Ø

Depending on the selected nozzle type, different cut outs are required for the nozzle tip.

The dimensions of the cut out for the nozzle tip used can be found in the nozzle data sheet.

1) These data apply for valve gate nozzles.



You can configure your nozzle here

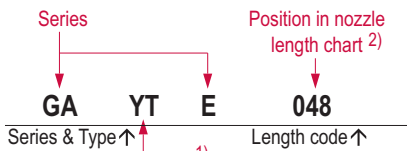
1. Complete the nozzle description ¹⁾

GA YT E
Series & Type ↑ Length code ↑

2. Selection of variables

L=↑* H=↑ R=↑
*equal to the value of the length code for this series

Example and explanations



- Y** Nozzle tip shape Y
→ for materials with narrow to medium process window
- T** Gating type T: open with torpedo

48 3.6 16
L=↑ H=↑ R=↑

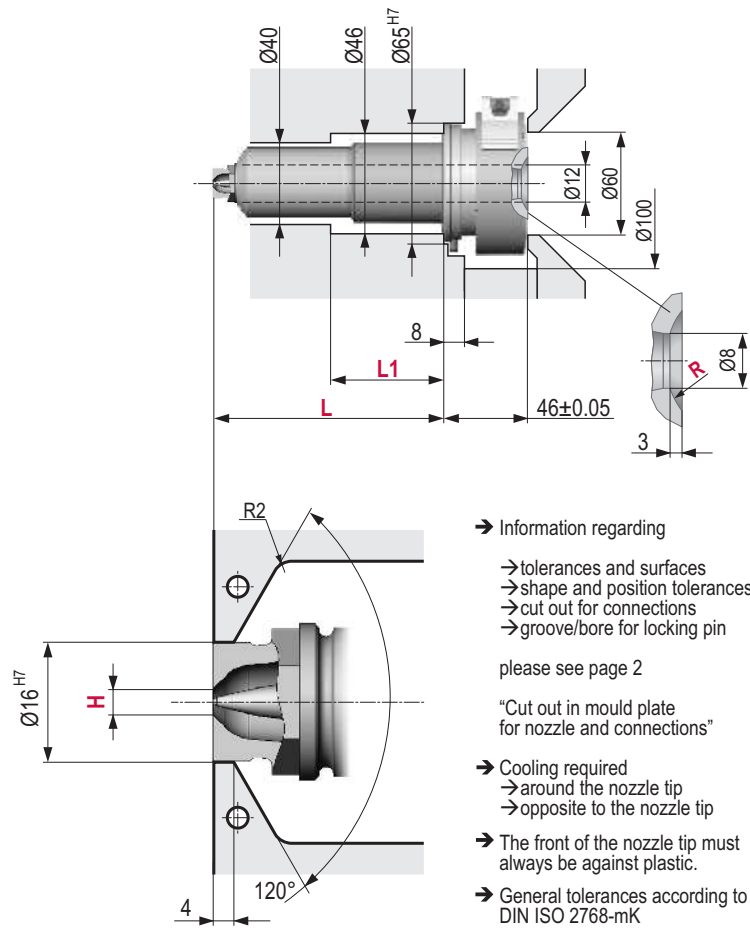
↑ Variables for precise nozzle specification from the drawings and tables shown here

H (mm)					
2.1	2.4	2.7	3.0	3.3	3.6

R (mm)		
0	16	40

1) Nomenclature differences between older and newer nozzle series result from the revision of the nozzle range.
2) Depending on the nozzle series, the length code corresponds either to a particular nozzle length or to a range of lengths.
3) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.

Illustrations simplified, schematically drawn and not to scale.



- Information regarding
 - tolerances and surfaces
 - shape and position tolerances
 - cut out for connections
 - groove/bore for locking pin
- please see page 2
- "Cut out in mould plate for nozzle and connections"
- Cooling required
 - around the nozzle tip
 - opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.
- General tolerances according to DIN ISO 2768-mK

Length code	L (mm)	L1 (mm)	L2 (mm)	Heater zones power ³⁾ (Watt)					
				1	2	3	4	5	1...5
048	48	-	-	400	-	-	630	-	1030
078	78	-	-	500	-	-	630	-	1130
108	108	-	-	630	-	-	630	-	1260
138	138	60	-	400	400	-	630	-	1430
166	166	60	-	400	400	-	630	-	1430
196	196	80	-	400	400	-	630	-	1430
226	226	110	-	400	400	-	630	-	1430
256	256	140	-	400	400	-	630	-	1430
286	286	170	-	500	500	-	630	-	1630
316	316	200	-	500	500	-	630	-	1630
346	346	230	-	400	400	500	630	-	1930
376	376	260	-	400	400	500	630	-	1930

Illustrations simplified, schematically drawn and not to scale.

You can configure your nozzle here

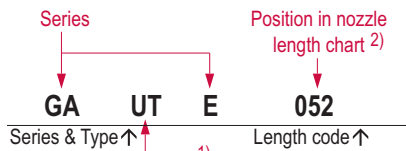
1. Complete the nozzle description ¹⁾

GA UT E
Series & Type ↑ Length code ↑

2. Selection of variables

L=↑* H=↑ R=↑
*equal to the value of the length code for this series

Example and explanations



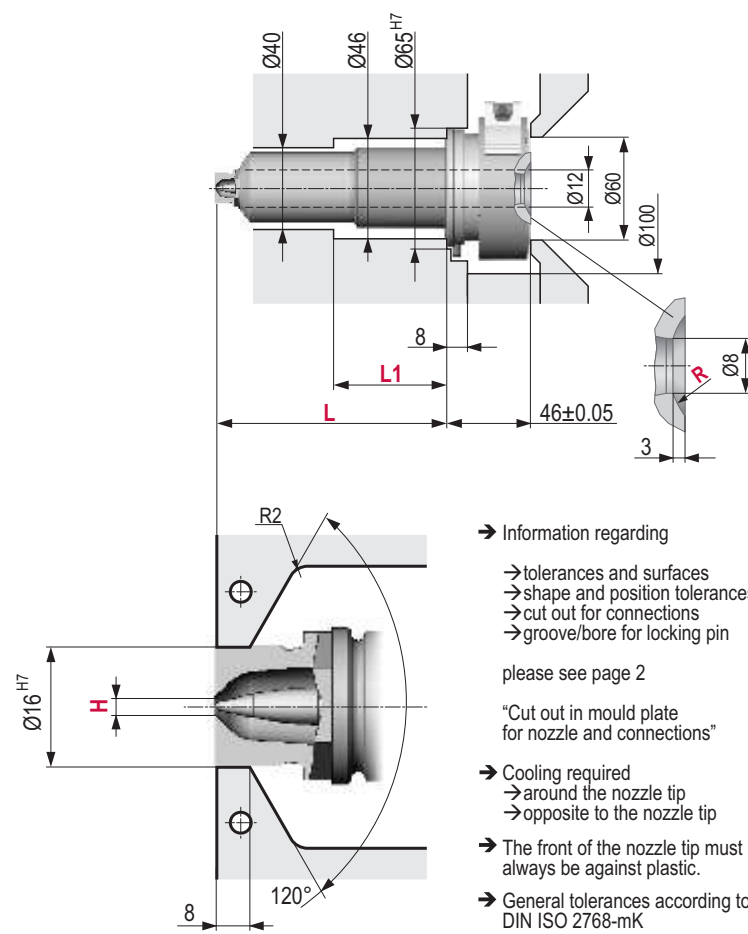
- U** Nozzle tip shape U
→ for materials with medium to wide process window
- T** Gating type T: open with torpedo

52 3.6 16
L=↑ H=↑ R=↑

↑ Variables for precise nozzle specification from the drawings and tables shown here

H (mm)					
2.1	2.4	2.7	3.0	3.3	3.6

R (mm)		
0	16	40



- Information regarding
 - tolerances and surfaces
 - shape and position tolerances
 - cut out for connections
 - groove/bore for locking pin
- please see page 2
- "Cut out in mould plate for nozzle and connections"
- Cooling required
 - around the nozzle tip
 - opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.
- General tolerances according to DIN ISO 2768-mK

Length code	L (mm)	L1 (mm)	L2 (mm)	Heater zones power ³⁾ (Watt)					
				1	2	3	4	5	1...5
052	52	-	-	400	-	-	630	-	1030
082	82	-	-	500	-	-	630	-	1130
112	112	-	-	630	-	-	630	-	1260
142	142	60	-	400	400	-	630	-	1430
170	170	60	-	400	400	-	630	-	1430
200	200	80	-	400	400	-	630	-	1430
230	230	110	-	400	400	-	630	-	1430
260	260	140	-	400	400	-	630	-	1430
290	290	170	-	500	500	-	630	-	1630
320	320	200	-	500	500	-	630	-	1630
350	350	230	-	400	400	500	630	-	1930
380	380	260	-	400	400	500	630	-	1930

1) Nomenclature differences between older and newer nozzle series result from the revision of the nozzle range.
 2) Depending on the nozzle series, the length code corresponds either to a particular nozzle length or to a range of lengths.
 3) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.

You can configure your nozzle here

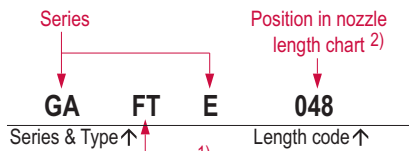
1. Complete the nozzle description ¹⁾

GA FT E
Series & Type ↑ Length code ↑

2. Selection of variables

L=↑* H=↑ R=↑
*equal to the value of the length code for this series

Example and explanations



- F Nozzle tip shape F
→ for materials with narrow to medium process window
- T Gating type T: open with torpedo

48 3.6 16
L=↑ H=↑ R=↑

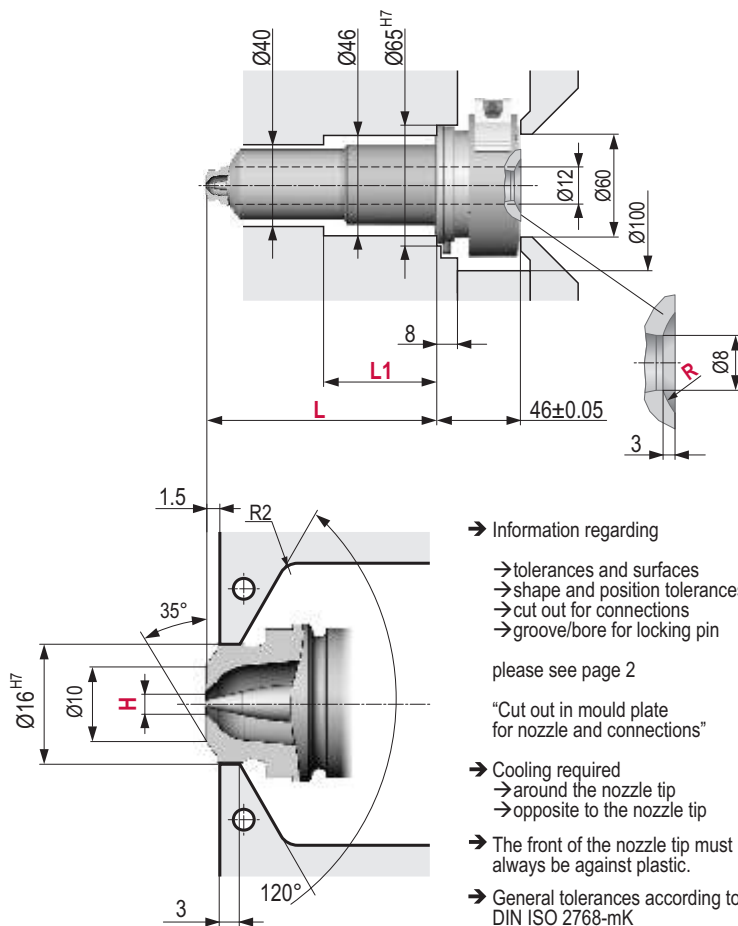
↑ Variables for precise nozzle specification from the drawings and tables shown here

H (mm)					
2.1	2.4	2.7	3.0	3.3	3.6

R (mm)		
0	16	40

1) Nomenclature differences between older and newer nozzle series result from the revision of the nozzle range.
2) Depending on the nozzle series, the length code corresponds either to a particular nozzle length or to a range of lengths.
3) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.

Illustrations simplified, schematically drawn and not to scale.



- Information regarding
 - tolerances and surfaces
 - shape and position tolerances
 - cut out for connections
 - groove/bore for locking pin
- please see page 2
- "Cut out in mould plate for nozzle and connections"
- Cooling required
 - around the nozzle tip
 - opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.
- General tolerances according to DIN ISO 2768-mK

Length code	L (mm)	L1 (mm)	L2 (mm)	Heater zones power ³⁾ (Watt)					
				1	2	3	4	5	1...5
048	48	-	-	400	-	-	630	-	1030
078	78	-	-	500	-	-	630	-	1130
108	108	-	-	630	-	-	630	-	1260
138	138	60	-	400	400	-	630	-	1430
166	166	60	-	400	400	-	630	-	1430
196	196	80	-	400	400	-	630	-	1430
226	226	110	-	400	400	-	630	-	1430
256	256	140	-	400	400	-	630	-	1430
286	286	170	-	500	500	-	630	-	1630
316	316	200	-	500	500	-	630	-	1630
346	346	230	-	400	400	500	630	-	1930
376	376	260	-	400	400	500	630	-	1930

Illustrations simplified, schematically drawn and not to scale.

You can configure your nozzle here

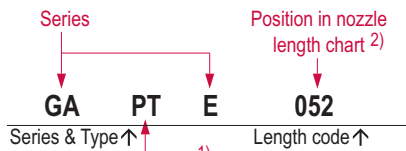
1. Complete the nozzle description ¹⁾

GA PT E
Series & Type ↑ Length code ↑

2. Selection of variables

L=↑* H=↑ R=↑
*equal to the value of the length code for this series

Example and explanations



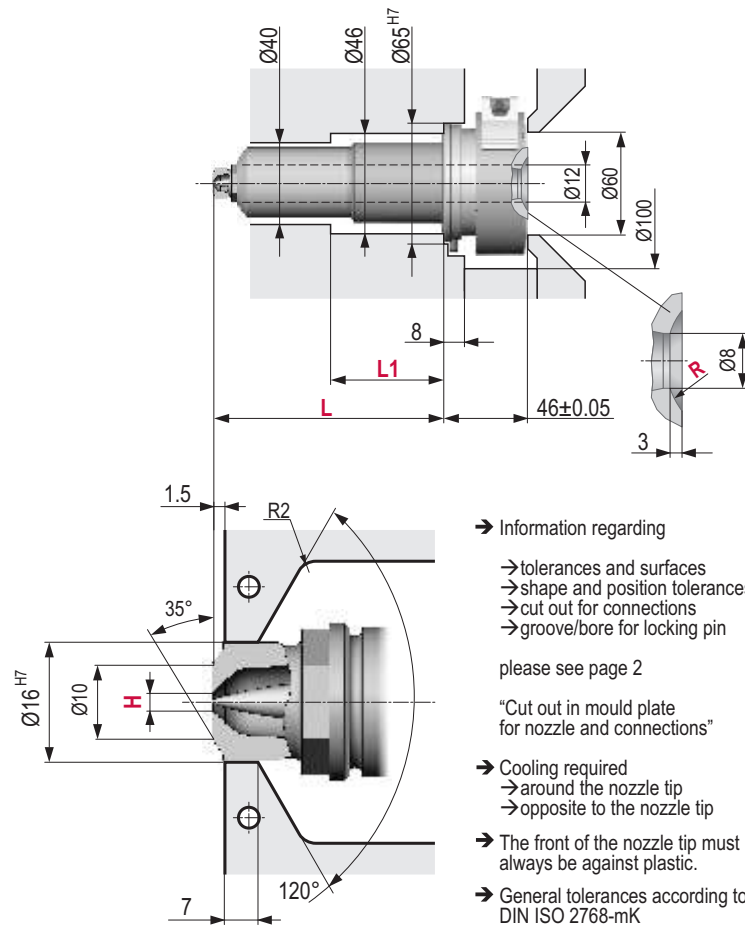
- P** Nozzle tip shape P
→ for materials with medium to wide process window
- T** Gating type T: open with torpedo

52 3.6 16
L=↑ H=↑ R=↑

↑ Variables for precise nozzle specification from the drawings and tables shown here

H (mm)					
2.1	2.4	2.7	3.0	3.3	3.6

R (mm)		
0	16	40



- Information regarding
 - tolerances and surfaces
 - shape and position tolerances
 - cut out for connections
 - groove/bore for locking pin
- please see page 2
- "Cut out in mould plate for nozzle and connections"
- Cooling required
 - around the nozzle tip
 - opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.
- General tolerances according to DIN ISO 2768-mK

Length code	L (mm)	L1 (mm)	L2 (mm)	Heater zones power ³⁾ (Watt)					
				1	2	3	4	5	1...5
052	52	-	-	400	-	-	630	-	1030
082	82	-	-	500	-	-	630	-	1130
112	112	-	-	630	-	-	630	-	1260
142	142	60	-	400	400	-	630	-	1430
170	170	60	-	400	400	-	630	-	1430
200	200	80	-	400	400	-	630	-	1430
230	230	110	-	400	400	-	630	-	1430
260	260	140	-	400	400	-	630	-	1430
290	290	170	-	500	500	-	630	-	1630
320	320	200	-	500	500	-	630	-	1630
350	350	230	-	400	400	500	630	-	1930
380	380	260	-	400	400	500	630	-	1930

1) Nomenclature differences between older and newer nozzle series result from the revision of the nozzle range.
 2) Depending on the nozzle series, the length code corresponds either to a particular nozzle length or to a range of lengths.
 3) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.

You can configure your nozzle here

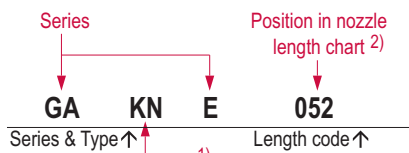
1. Complete the nozzle description ¹⁾

GA KN E
Series & Type ↑ Length code ↑

2. Selection of variables

L=↑* H=↑ F=↑ R=↑
*equal to the value of the length code for this series

Example and explanations



- K** Nozzle tip shape K
→ for all usual thermoplastics
- N** Gating type N: open

52 3.6 30 16
L=↑ H=↑ F=↑ R=↑

↑ Variables for precise nozzle specification from the drawings and tables shown here

H (mm)					
2.2	2.5	2.8	3.2	3.6	4.0

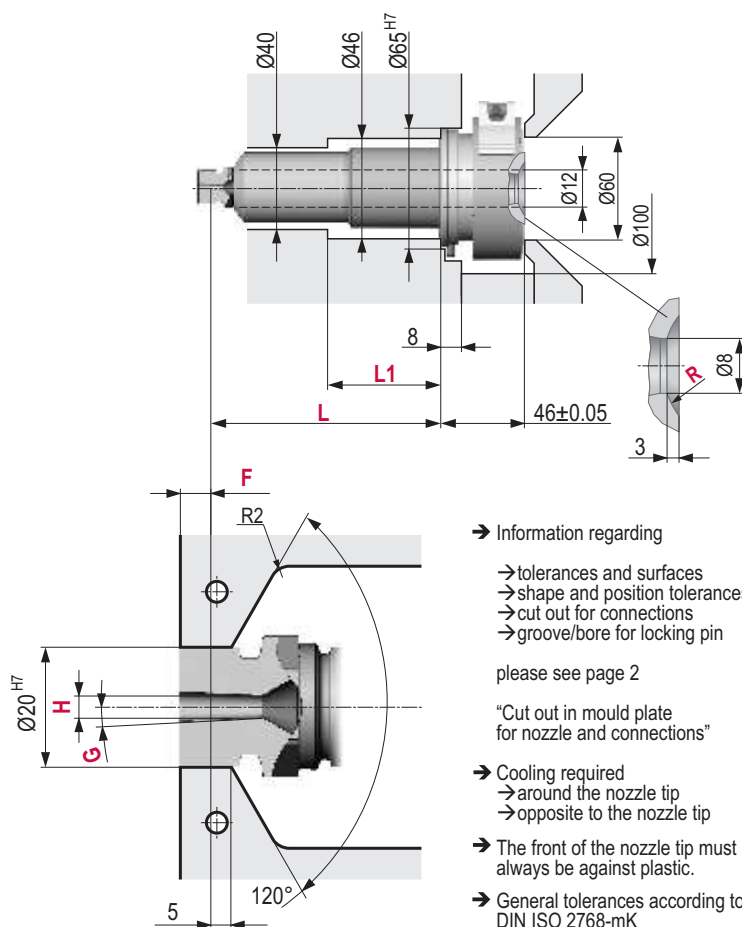
F (mm)					
0	5	30	50	70	90

F = 0...50	G (°)	F = 70 / 90
3		1.5

R (mm)		
0	16	40

1) Nomenclature differences between older and newer nozzle series result from the revision of the nozzle range.
2) Depending on the nozzle series, the length code corresponds either to a particular nozzle length or to a range of lengths.
3) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.

Illustrations simplified, schematically drawn and not to scale.



- Information regarding
 - tolerances and surfaces
 - shape and position tolerances
 - cut out for connections
 - groove/bore for locking pin
- please see page 2
- "Cut out in mould plate for nozzle and connections"
- Cooling required
 - around the nozzle tip
 - opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.
- General tolerances according to DIN ISO 2768-mK

Length code	L (mm)	L1 (mm)	L2 (mm)	Heater zones power ³⁾ (Watt)					
				1	2	3	4	5	1...5
052	52	-	-	400	-	-	630	-	1030
082	82	-	-	500	-	-	630	-	1130
112	112	-	-	630	-	-	630	-	1260
142	142	60	-	400	400	-	630	-	1430
170	170	60	-	400	400	-	630	-	1430
200	200	80	-	400	400	-	630	-	1430
230	230	110	-	400	400	-	630	-	1430
260	260	140	-	400	400	-	630	-	1430
290	290	170	-	500	500	-	630	-	1630
320	320	200	-	500	500	-	630	-	1630
350	350	230	-	400	400	500	630	-	1930
380	380	260	-	400	400	500	630	-	1930

Illustrations simplified, schematically drawn and not to scale.

You can configure your nozzle here

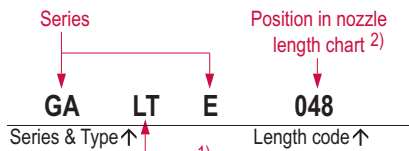
1. Complete the nozzle description ¹⁾

GA LT E
Series & Type ↑ Length code ↑

2. Selection of variables

L=↑* H=↑ F=↑ R=↑
*equal to the value of the length code for this series

Example and explanations



- L** Nozzle tip shape L
→ for materials with narrow to medium process window
- T** Gating type T: open with torpedo

48 3.6 15 16
L=↑ H=↑ F=↑ R=↑

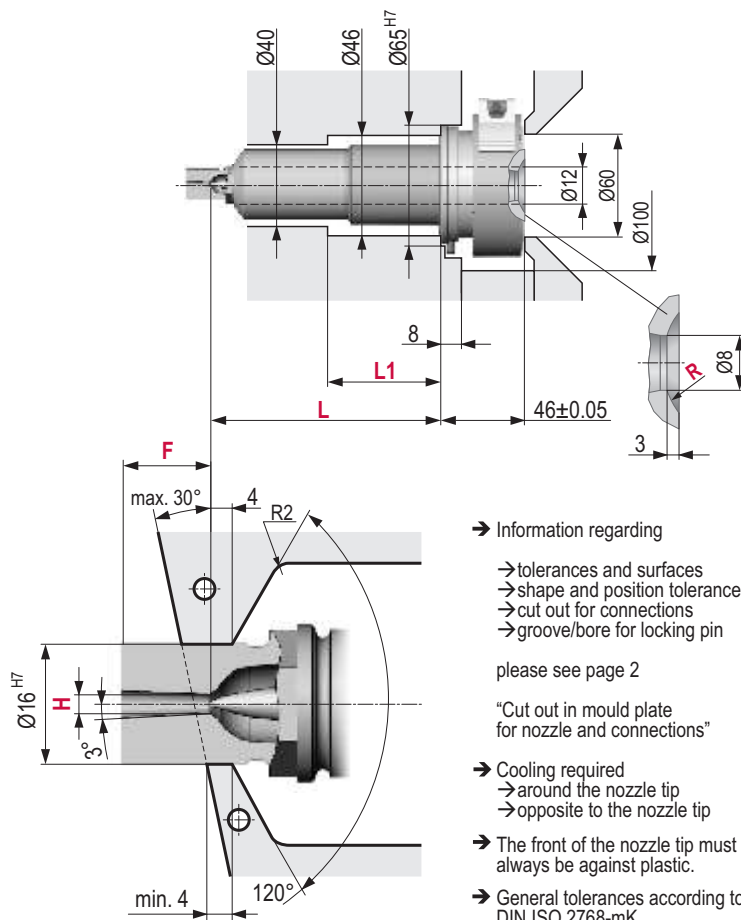
↑ Variables for precise nozzle specification from the drawings and tables shown here

H (mm)					
2.1	2.4	2.7	3.0	3.3	3.6

F (mm)	
15	50

G (°)
3

R (mm)		
0	16	40



- Information regarding
 - tolerances and surfaces
 - shape and position tolerances
 - cut out for connections
 - groove/bore for locking pin

please see page 2

"Cut out in mould plate for nozzle and connections"

- Cooling required
 - around the nozzle tip
 - opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.
- General tolerances according to DIN ISO 2768-mK

Length code	L (mm)	L1 (mm)	L2 (mm)	Heater zones power ³⁾ (Watt)					
				1	2	3	4	5	1...5
048	48	-	-	400	-	-	630	-	1030
078	78	-	-	500	-	-	630	-	1130
108	108	-	-	630	-	-	630	-	1260
138	138	60	-	400	400	-	630	-	1430
166	166	60	-	400	400	-	630	-	1430
196	196	80	-	400	400	-	630	-	1430
226	226	110	-	400	400	-	630	-	1430
256	256	140	-	400	400	-	630	-	1430
286	286	170	-	500	500	-	630	-	1630
316	316	200	-	500	500	-	630	-	1630
346	346	230	-	400	400	500	630	-	1930
376	376	260	-	400	400	500	630	-	1930

1) Nomenclature differences between older and newer nozzle series result from the revision of the nozzle range.
2) Depending on the nozzle series, the length code corresponds either to a particular nozzle length or to a range of lengths.
3) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.

You can configure your nozzle here

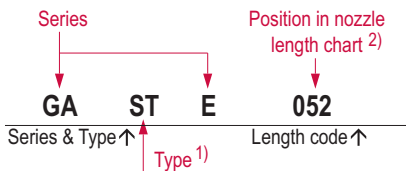
1. Complete the nozzle description ¹⁾

GA ST E
Series & Type ↑ Length code ↑

2. Selection of variables

L=↑* H=↑ F=↑ R=↑
*equal to the value of the length code for this series

Example and explanations



- S** Nozzle tip shape S
→for materials with medium to wide process window
- T** Gating type T: open with torpedo

52 3.6 15 16
L=↑ H=↑ F=↑ R=↑

↑ Variables for precise nozzle specification from the drawings and tables shown here

H (mm)					
2.1	2.4	2.7	3.0	3.3	3.6

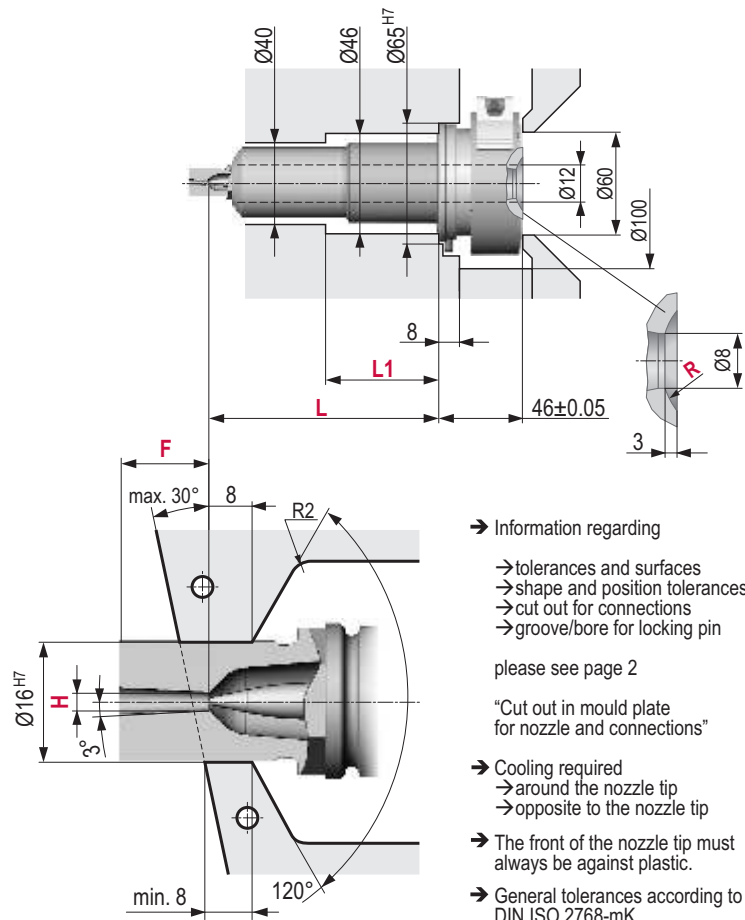
F (mm)	
15	50

G (°)
3

R (mm)		
0	16	40

1) Nomenclature differences between older and newer nozzle series result from the revision of the nozzle range.
2) Depending on the nozzle series, the length code corresponds either to a particular nozzle length or to a range of lengths.
3) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.

Illustrations simplified, schematically drawn and not to scale.



- Information regarding
 - tolerances and surfaces
 - shape and position tolerances
 - cut out for connections
 - groove/bore for locking pin
- please see page 2
- "Cut out in mould plate for nozzle and connections"
- Cooling required
 - around the nozzle tip
 - opposite to the nozzle tip
- The front of the nozzle tip must always be against plastic.
- General tolerances according to DIN ISO 2768-mK

Length code	L (mm)	L1 (mm)	L2 (mm)	Heater zones power ³⁾ (Watt)					
				1	2	3	4	5	1...5
052	52	-	-	400	-	-	630	-	1030
082	82	-	-	500	-	-	630	-	1130
112	112	-	-	630	-	-	630	-	1260
142	142	60	-	400	400	-	630	-	1430
170	170	60	-	400	400	-	630	-	1430
200	200	80	-	400	400	-	630	-	1430
230	230	110	-	400	400	-	630	-	1430
260	260	140	-	400	400	-	630	-	1430
290	290	170	-	500	500	-	630	-	1630
320	320	200	-	500	500	-	630	-	1630
350	350	230	-	400	400	500	630	-	1930
380	380	260	-	400	400	500	630	-	1930

Illustrations simplified, schematically drawn and not to scale.

You can configure your nozzle here

1. Complete the nozzle description ¹⁾

GA O W01T S

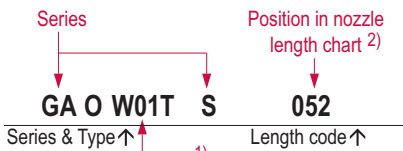
Series & Type ↑ Length code ↑

2. Selection of variables

L=↑* H=↑ R=↑

*equal to the value of the length code for this series

Example and explanations



- W Nozzle tip shape W
- 01 Version 01: for materials with medium to wide process window
- T Gating type T: open with torpedo

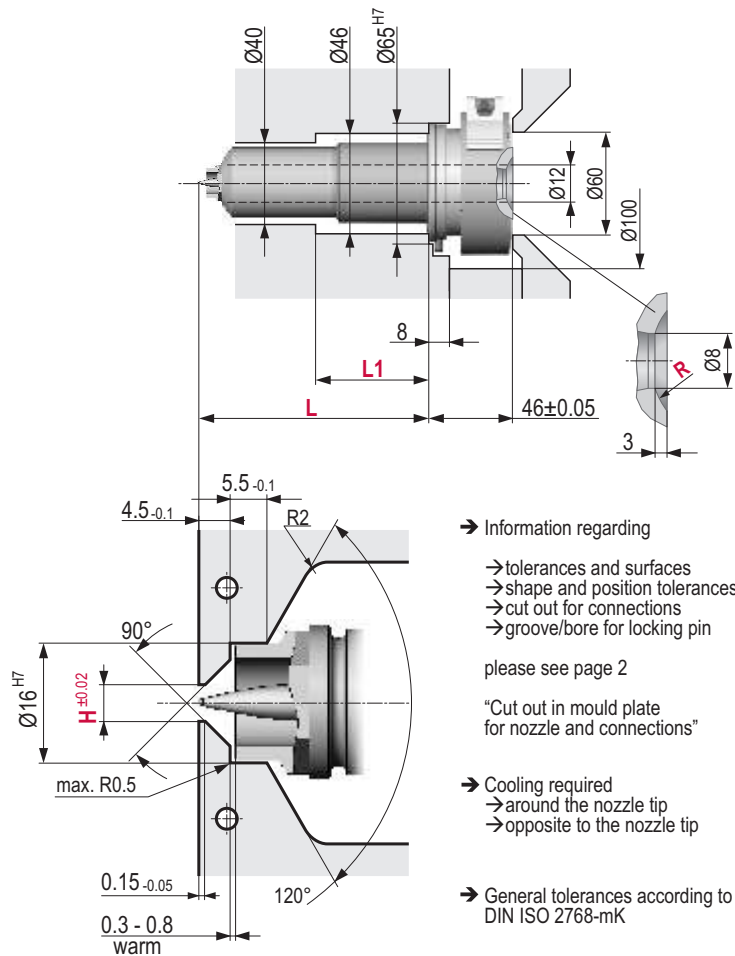
52 3.6 16

L=↑ H=↑ R=↑

↑ Variables for precise nozzle specification from the drawings and tables shown here

H (mm)					
2.1	2.4	2.7	3.0	3.3	3.6

R (mm)		
0	16	40



→ Information regarding

- tolerances and surfaces
- shape and position tolerances
- cut out for connections
- groove/bore for locking pin

please see page 2

"Cut out in mould plate for nozzle and connections"

→ Cooling required

- around the nozzle tip
- opposite to the nozzle tip

→ General tolerances according to DIN ISO 2768-mK

Length code	L (mm)	L1 (mm)	L2 (mm)	Heater zones power ³⁾ (Watt)					
				1	2	3	4	5	1...5
052	52	-	-	400	-	-	630	-	1030
082	82	-	-	500	-	-	630	-	1130
112	112	-	-	630	-	-	630	-	1260
142	142	60	-	400	400	-	630	-	1430
170	170	60	-	400	400	-	630	-	1430
200	200	80	-	400	400	-	630	-	1430
230	230	110	-	400	400	-	630	-	1430
260	260	140	-	400	400	-	630	-	1430
290	290	170	-	500	500	-	630	-	1630
320	320	200	-	500	500	-	630	-	1630
350	350	230	-	400	400	500	630	-	1930
380	380	260	-	400	400	500	630	-	1930

1) Nomenclature differences between older and newer nozzle series result from the revision of the nozzle range.
 2) Depending on the nozzle series, the length code corresponds either to a particular nozzle length or to a range of lengths.
 3) The numbering of the heating zones starts at the nozzle tip and ends at the nozzle head.

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