

Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

Data Sheet
382.073.468
sheet 1 of 37

Replacing data sheet dated 382.073.468 24. Oct. 1997

Technical data

to EN 60 934

Max. voltage rating
Rated insulation voltage
Current rating range

AC 240V / DC 50 V, AC 415V
AC 415 V
0.1 20A 1 and 2 pole

Current ratings

0.1; 0.2; 0.3; 0.4; 0.5; 0.6; 0.8; 1.0; 1.2;
1.5; 2.0; 2.5; 3.0; 3.5; 4.0; 4.5; 5.0; 6.0;
7.0; 8.0; 10.0; 12.0; 14.0; 15.0; 16.0; 18.0; 20A

Reference ambient temperature

-30°C ... +60°C (T60)

Effect of the ambient temperature on the tripping characteristics

Temperature (°C)	-30	-20	-10	-5	+10
Factor	0.80	0.84	0.88	0.90	0.94
Temperature (°C)	+23	+30	+40	+50	+60
Factor	1.0	1.03	1.08	1.14	1.23

Creepage resistance
Method of operation
Mode of tripping

PTI 400
S-type
TO / positively trip free

Typical electrical operational values

Voltage drop in V at 1 I_n

I _n (A)	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.5
V	9.4	4.8	3.6	2.2	2.2	1.8	1.8	0.9	1.0	0.7
I _n (A)	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0
V	0.6	0.2	0.18	0.2	0.17	0.2	0.16	0.13	0.12	0.13
I _n (A)	9.0	10.0	12.0	14.0	15.0	16.0	18.0	20.0		
V	0.1	0.13	0.11	0.11	0.12	0.12	0.12	0.12	0.11	

Insulation coordination (IEC 664 and 664A)

Rated impulse withstand voltage / Pollution degree
max
4kV / 3
EN 60 934
2.5kV / 2

Dielectric strength (IEC 664 and 664A)
operating area (reinforced insulation, sheet 23)
mounting area (sheet 23)
pole / pole (2-pole)

test voltage, AC
max.
4000 V
2000 V
2000 V
EN 60 934
3000 V
1500 V
1500 V

Insulation resistance
Minimum load (main circuit)

> 100 MΩ (DC 500 V)
DC 10 V / 100 mA

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h	18 056	32	13.12.00	K.Go					
i	18 338	22	23.07.01	K.Go					

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Operating cycles

Behaviour at rated current (EN 60 934, test sequence C)	Operating cycles	
	mechanical	electrical, 1 I _N
1 pole	50 000	0.1 - 16A, AC 240, cosφ 0.95 > 16A, AC 240, cosφ 0.95 10,000
2 pole	50 000	0.1 - 10A, DC, L/R = 0 ms 30,000 12 - 16A, DC 28V, L/R = 0 ms 30,000 > 16A, DC 28V, L/R = 0 ms 10,000 0.1 - 16A, AC 240, cosφ 0.95 50,000 0.1 - 16A, DC, L/R = 0 ms 50,000 > 16A, AC 240, cosφ 0.95 10,000 > 16A, DC, L/R = 0 ms 10,000 0.1 - 16A, AC 415, cosφ 0.95 10,000

Behavior at rated switching capacity (40 cycles)

Behaviour at rated current (EN 60 934, test sequence D)	AC: 6 I _N power factor 0.6		DC: 4 I _N time constant 2.5 ms	
	0.1 ... 20A, 1 pole / AC 240	0.1 ... 10A, 1 pole	0.1 ... 20A, 2 pole / AC 240	0.1 ... 20A, 1 pole
0.1 ... 20A, 2 pole / AC 240	DC 50V	DC 50V	DC 50V	DC 50V
0.1 ... 16A, 2 pole / AC 415	DC 28V	DC 28V	DC 28V	DC 28V

Rated short-circuit capacity I_{sc}
(EN 60 934, test sequence E)

	I _N	U _N	I _{sc}
1 and 2 pole	0.1 ... 2A	AC 240 V	10 x I _N
1 pole	2.5 ... 20 A	AC 240 V	200 A
2 pole	2.5 ... 20 A	AC 240 V	300 A
1 and 2 pole	0.1 ... 2A	DC 50V	10 x I _N
1 pole	2.5 ... 10A	DC 50V	50 A
2 pole	2.5 ... 20A	DC 50 V	250 A
1 pole	2.5 ... 20 A	DC 28 V	200 A
2 pole	2.5 ... 20 A	DC 28 V	300 A

Rated conditional short-circuit current I_{nc}
(EN 60 934, PC 1 / UL 1077, § 21)

	I _N	U _N	I _{nc}
1 and 2 pole	0.1 ... 16 A	AC 240 V	3500A
2 pole	18 ... 20 A	AC 125 V	3500A
1 and 2 pole	0.1 ... 20 A	DC 50 V	200A

The current rating of the back-up fuse to IEC 269 (DIN VDE 0636) shall be four times the current rating of the circuit breaker, but at least 15A.

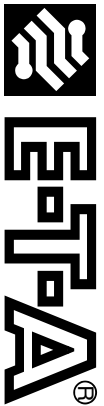
Typical mechanical values

Operating force	rocker	push button
ON	15 N	18 N
OFF	5 N	6 N
Operating force with X3120-U	23 N	29 N
ON	8 N	9 N
OFF		

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Mounting values

200 N max. insertion

Blade terminals P70

80 N max. insertion
80 N max. withdrawal

Terminal screws

0.55 N max. tightening torque

Mass

approx. 27 g 1 pole
approx. 31 g 2 pole

Environmental tests (typical values)

Vibration (sinusoidal)

to DIN IEC 68-2-6,
test Fc; 10 frequency cycles / axis

± 0.61 mm (10 - 57 Hz), 8g (57 - 500 Hz)

Shock

to DIN IEC 68-2-27, test Ea

30 g (11 ms)

Corrosion

to DIN IEC 68-2-11, test Ka

96 hours at 5% salt mist

Humidity

to DIN IEC 68-2-3, test Ca

240 hours at 95% RH, 40°C

Degree of protection (IEC 529 / DIN 40 050)

operating area
terminal area

IP 40 (IP 54 with splash cover)
IP 00

Temperature limits

on duty	storage
- 30° C ... + 60° C	- 40° C ... + 80° C

Approval logos

see marking instructions

Note:

Time / current characteristic curve

see sheets 4 / 5

Dimensions

see sheet 6

Rocker / button variants

see sheets 7 / 8

Flange dimensions

see sheets 9 - 26

Connection variants and

see sheet 27

Internal connection diagram

see sheet 28

Installation

see sheets 29 - 37

Order numbering code

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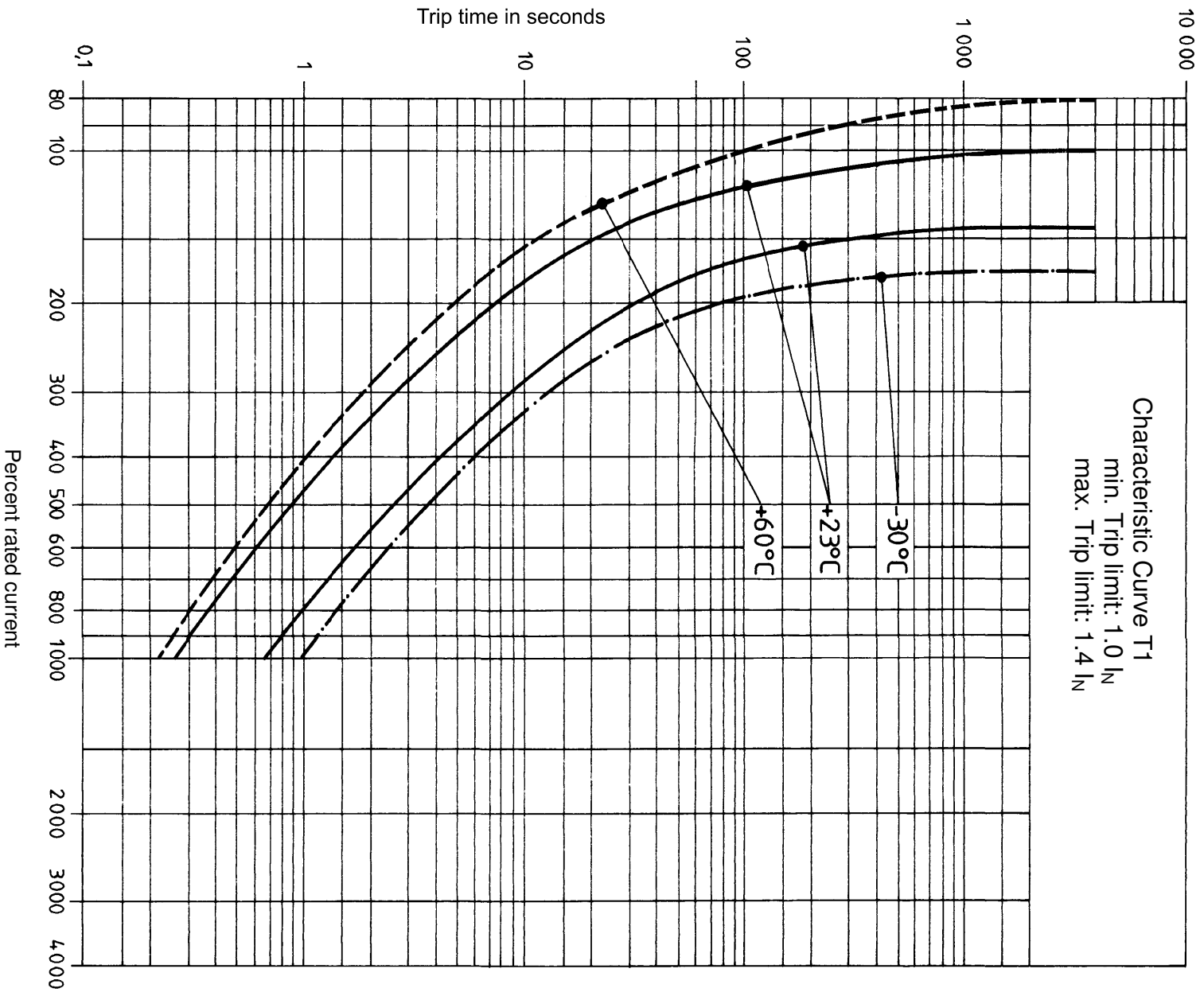
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Type of current: AC / DC
Current rating range: 0.1 - 2A

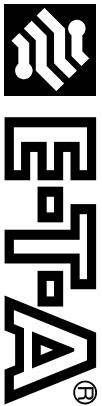


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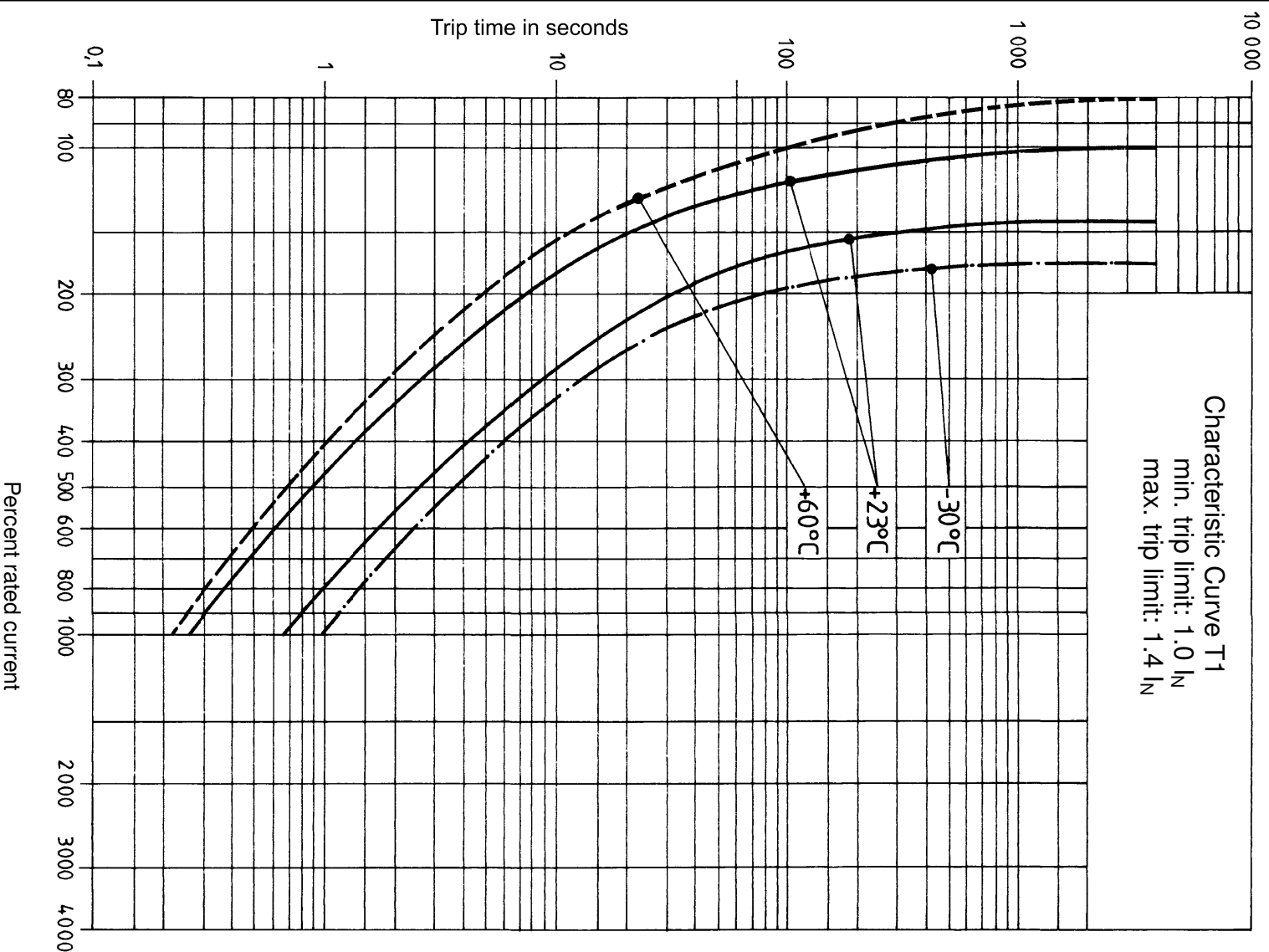
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Type of current: AC / DC
 Current rating range: 2.5 - 20A

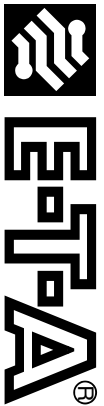


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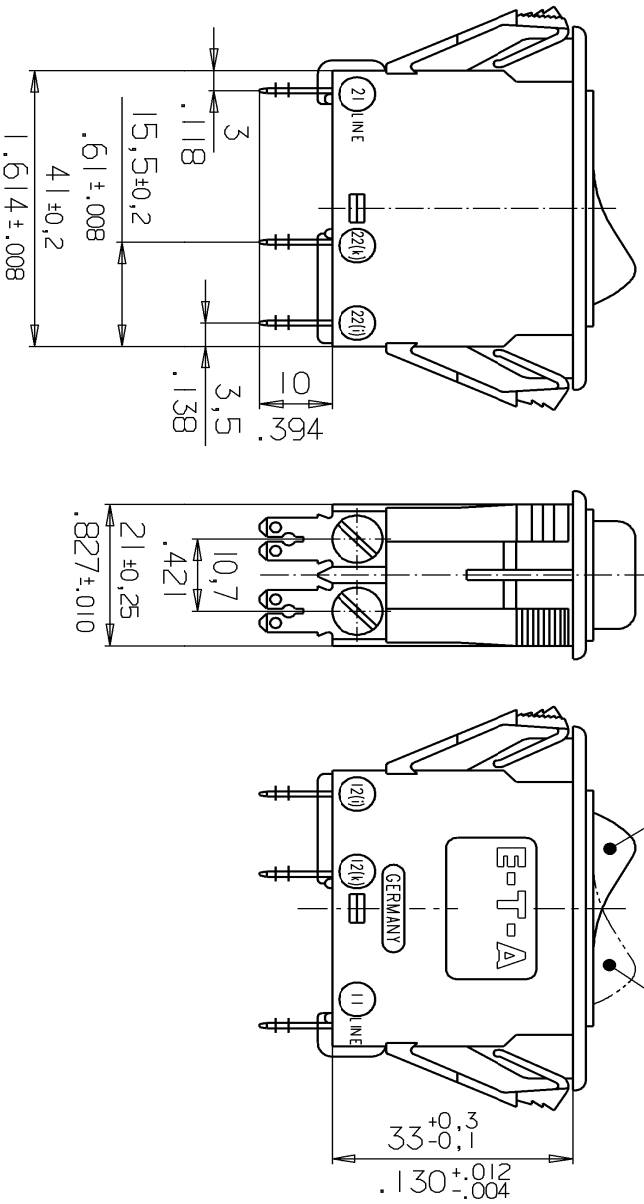
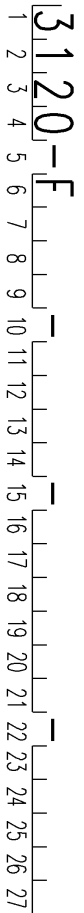
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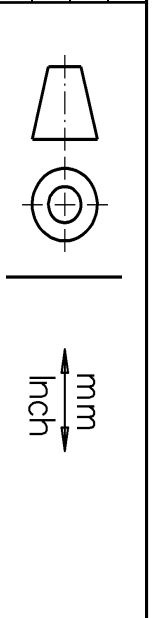
Nominal dimensions without direct tolerance indication: $\pm 1/13$
For dimensions of other flange versions see sheets 7-22
This is a metric design and millimeter dimensions take precedence

1 : 1

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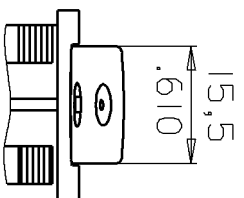
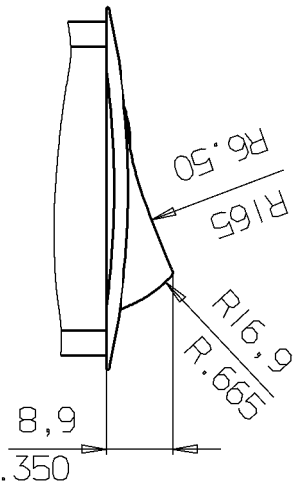
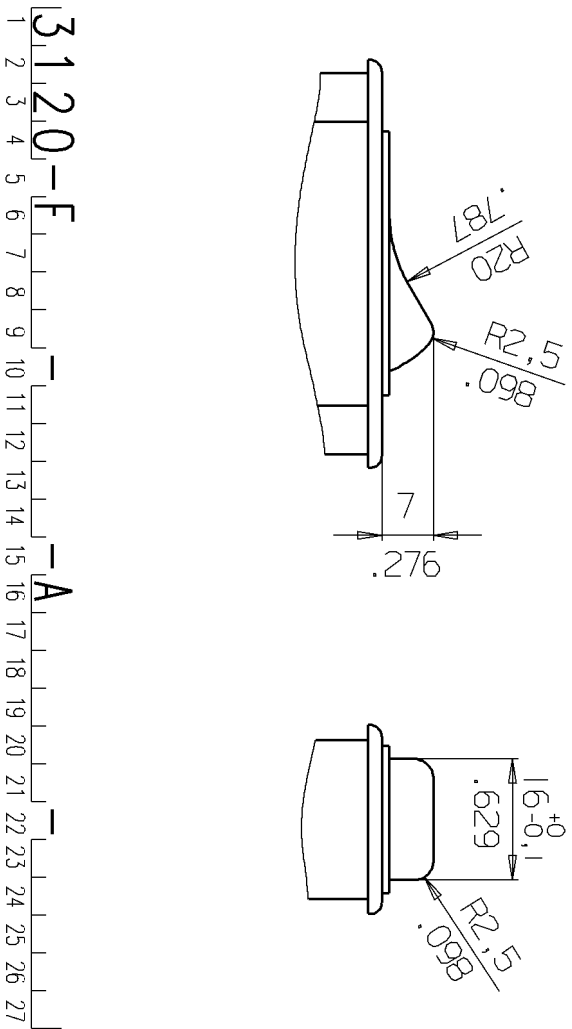
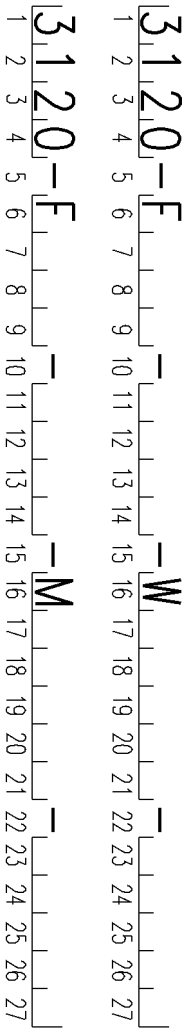




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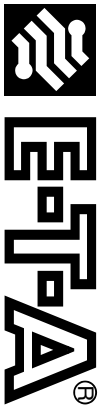
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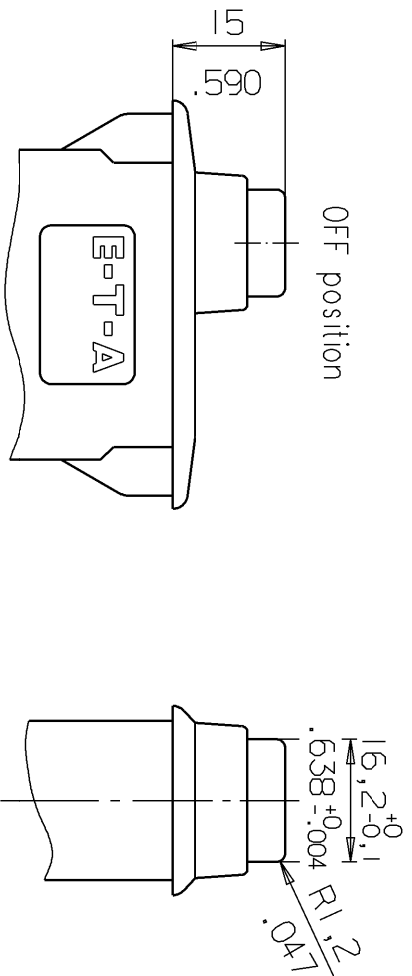
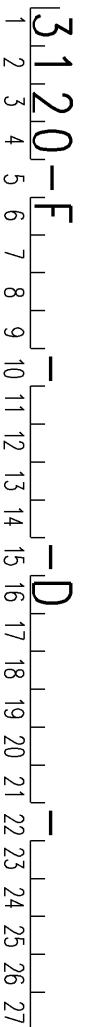
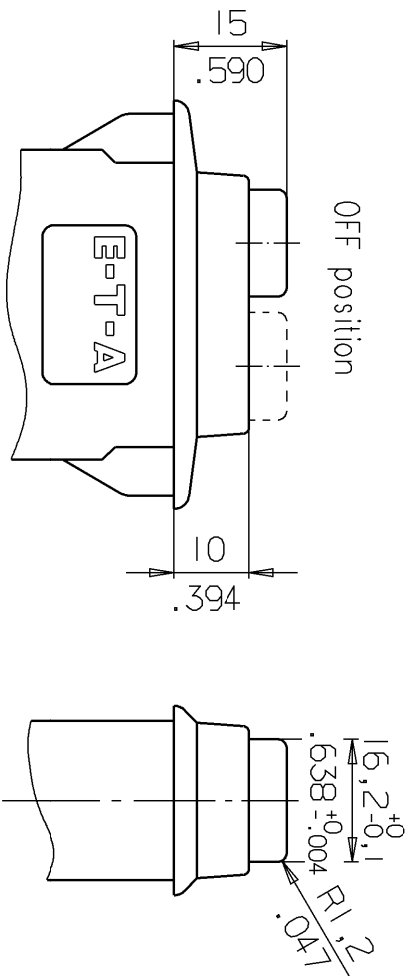
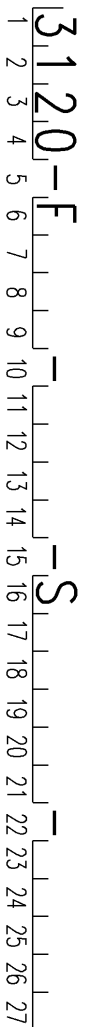
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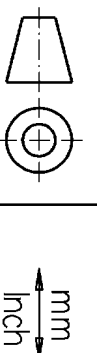
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mm
Inch

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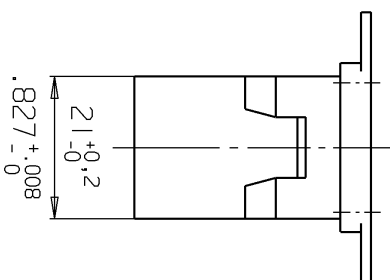
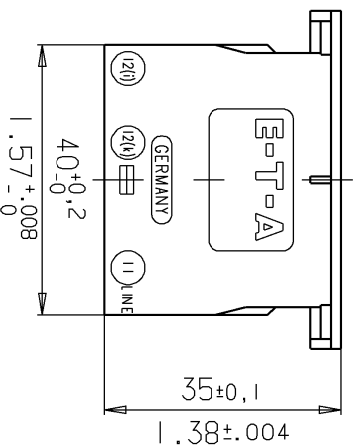


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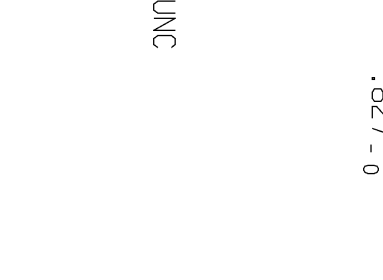
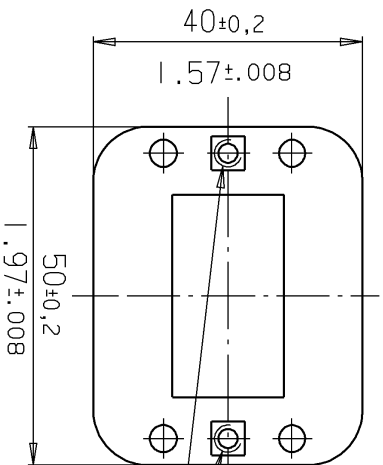
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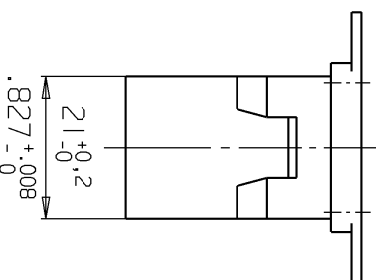
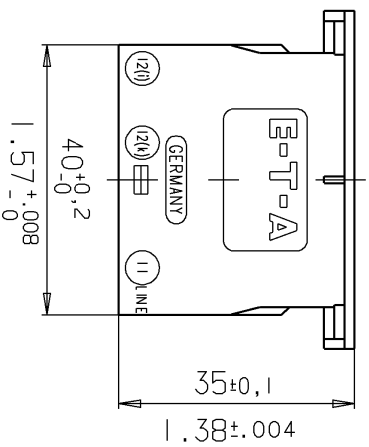
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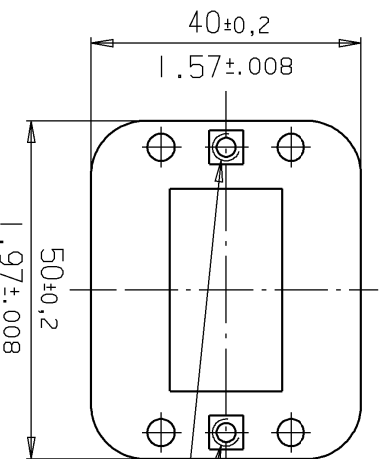


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Nominal dimensions without direct tolerance indication: ± IT 13

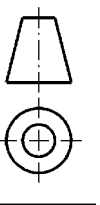
Edges for working parts: DIN 6784

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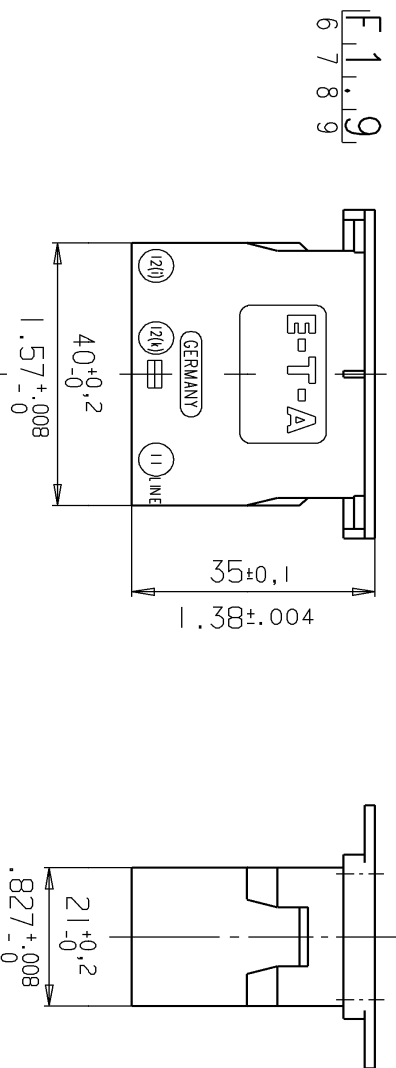
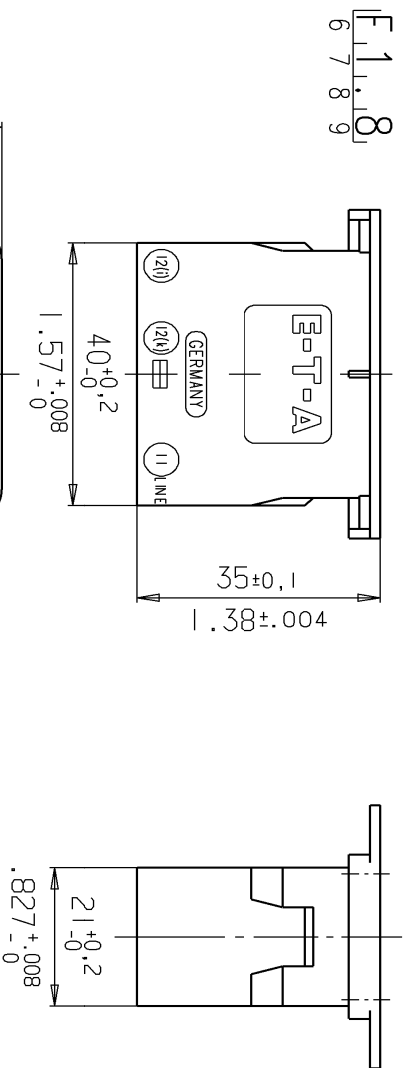
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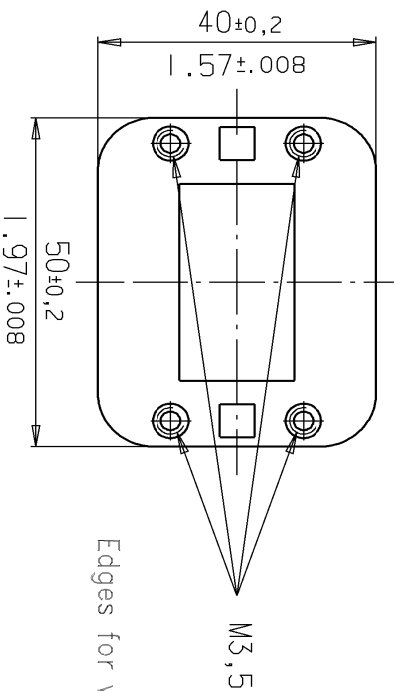
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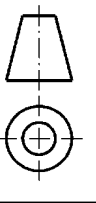


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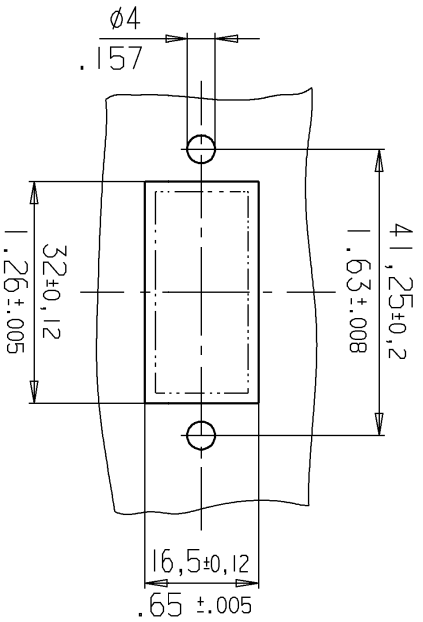
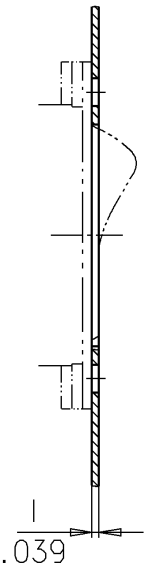




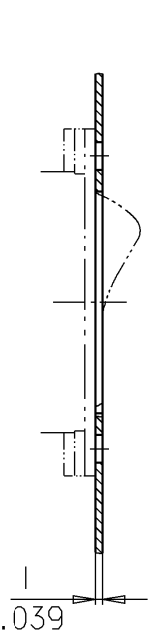
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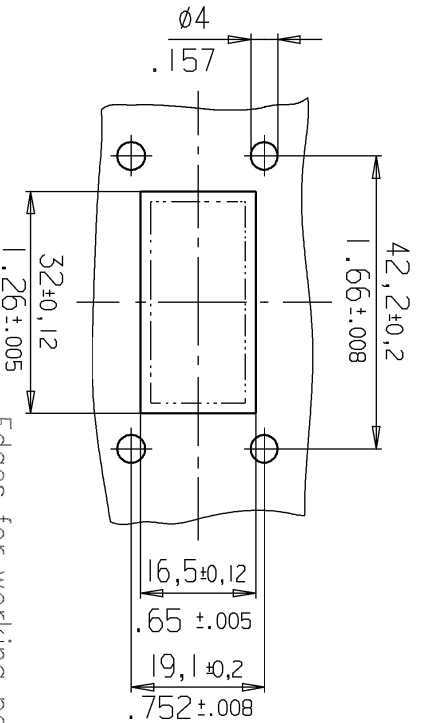
Panel cut-out F1.6 / F1.7



Panel cut-out F1.8 / F1.9



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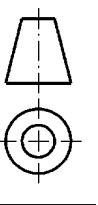


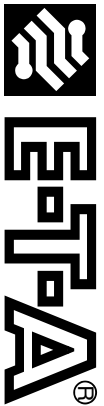
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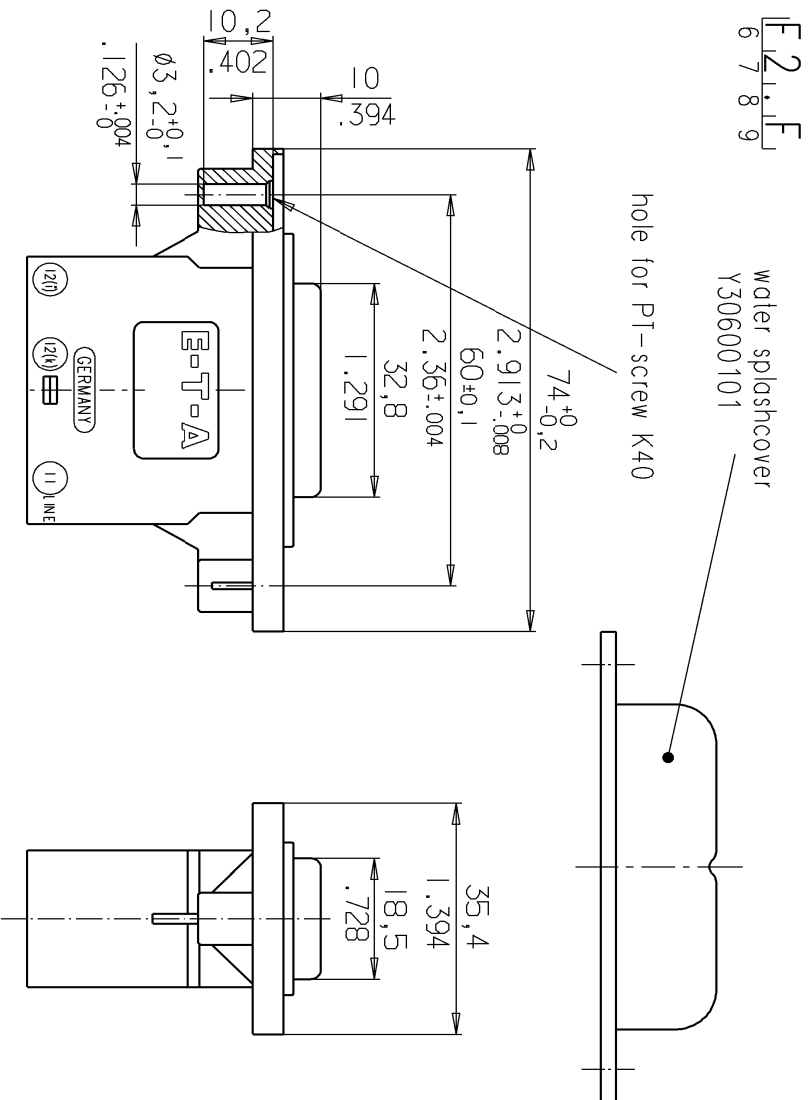


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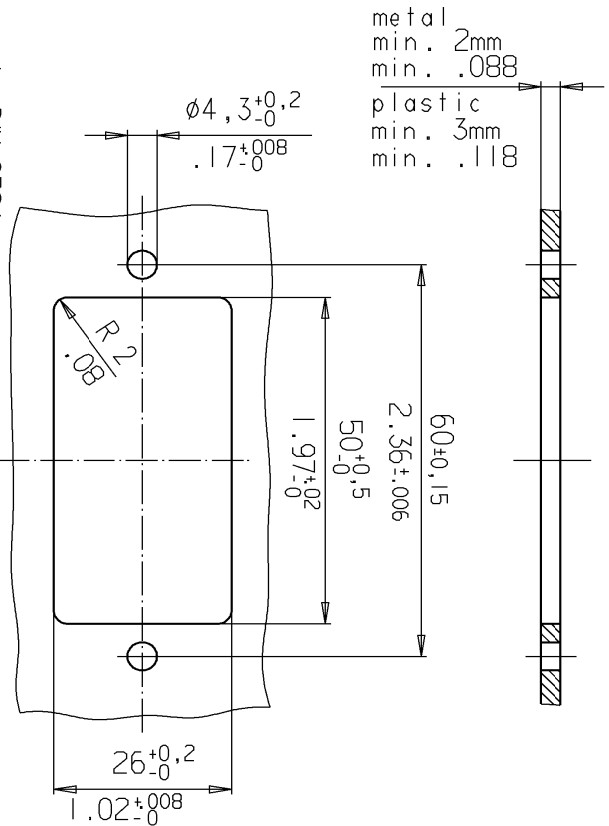
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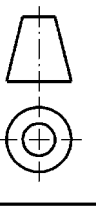
Panel cut-out



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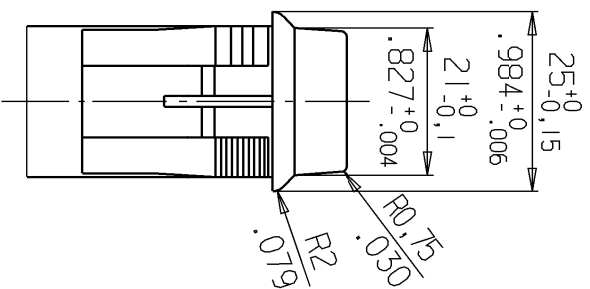
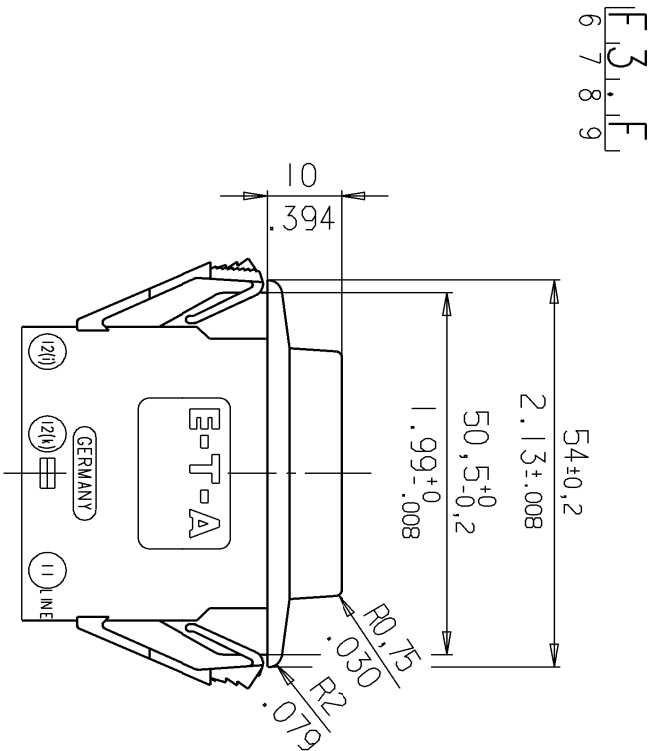
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Inch



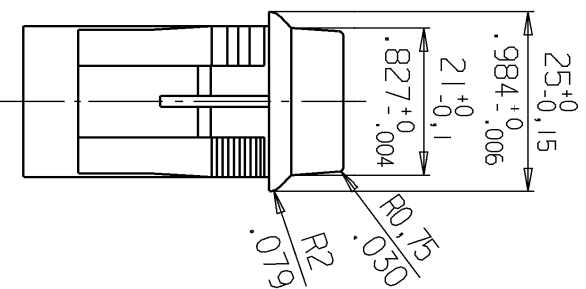
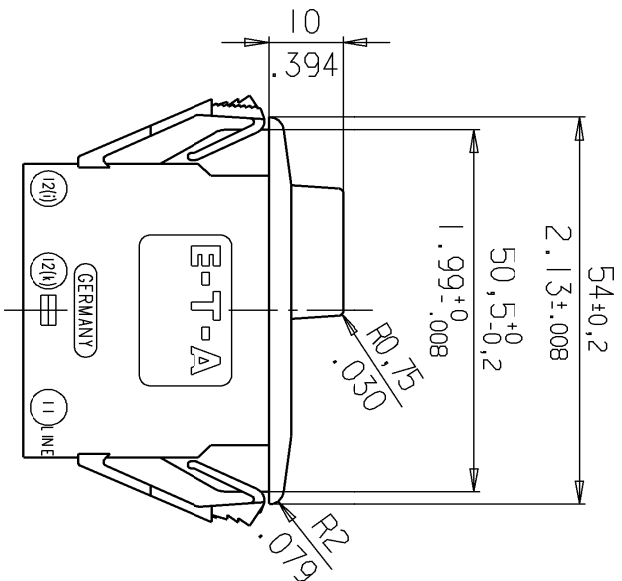
Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

Data Sheet
382.073.468
sheet 13 of 37

The information furnished is believed to be accurate and reliable. However no responsibility for its use. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without noti



E 31.1 G
6 7 8 9



This is a metric design and millimeter dimensions take precedence

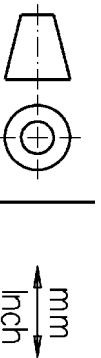
Edges for working parts: DIN 6784

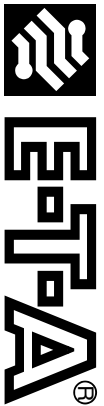
Nominal dimensions without direct tolerance indication: ± IT 13

1 : 1

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9	17 866	26.06.00	K.Go				

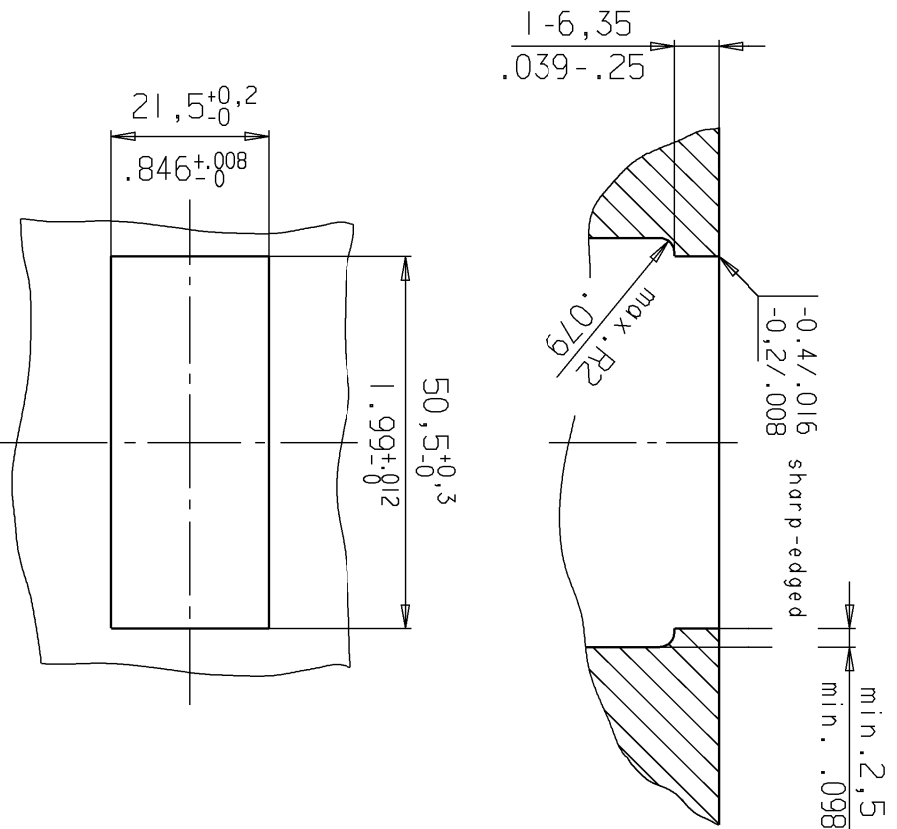




Overcurrent Circuit Breaker
thermal trip
3120-...-T1-..
one and two pole

Data Sheet
382.073.468
sheet 14 of 37

Panel cut-out F3.F / F3.G



Edges of working parts: DIN 6784

This is a metric design and millimeter dimensions take precedence

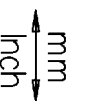
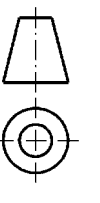
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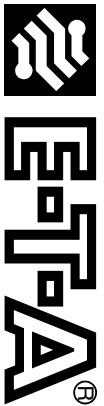
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Index	AM	Date	Name	Index	AM	Date	Name
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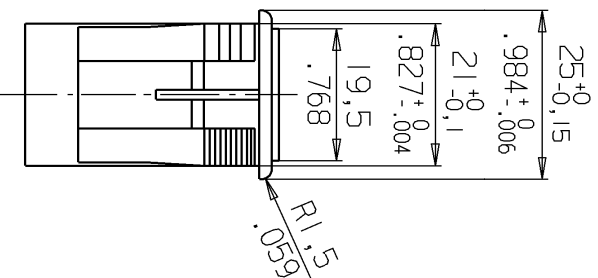
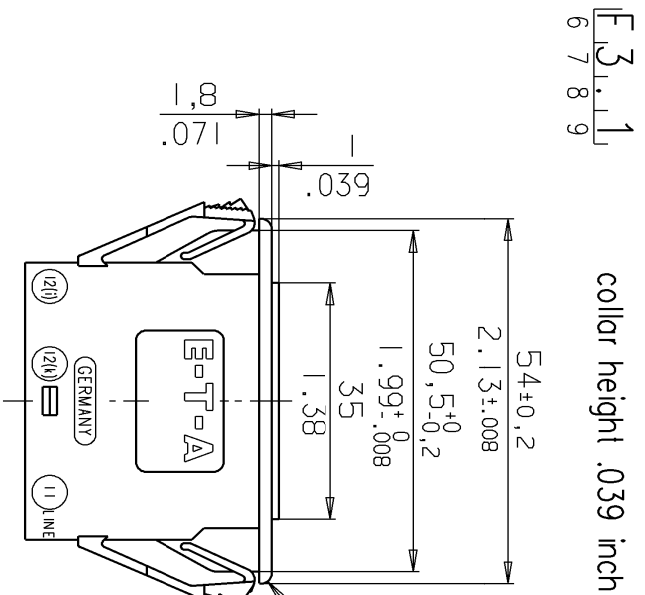




Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

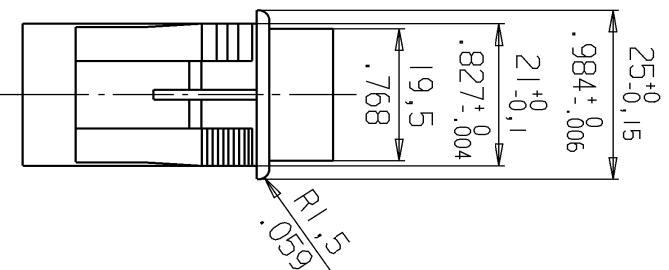
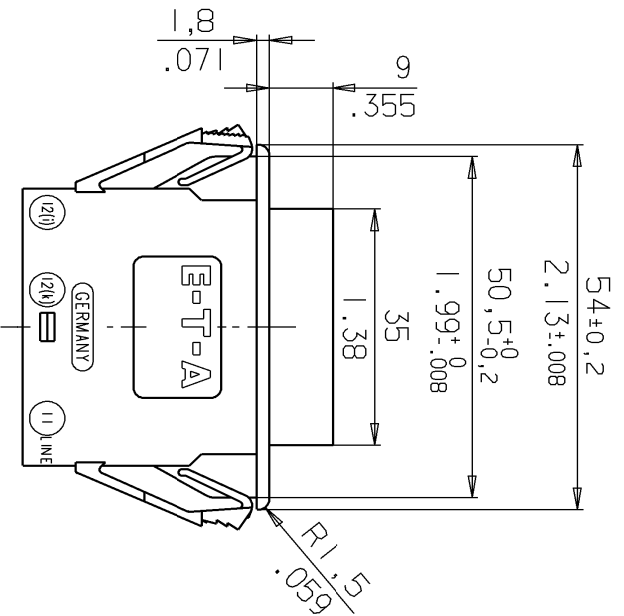
Data Sheet
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sheet 15 of 37

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$\frac{E}{3,1,3}$
6 7 8 9

collar height .355 inch



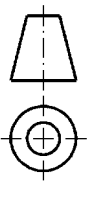
Edges of working parts: 6784

This is a metric design and millimeter dimensions take precedence
Nominal dimensions without direct tolerance indication: \pm IT 13

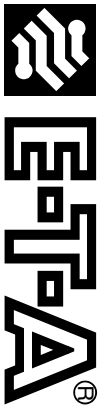
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mm
Inch



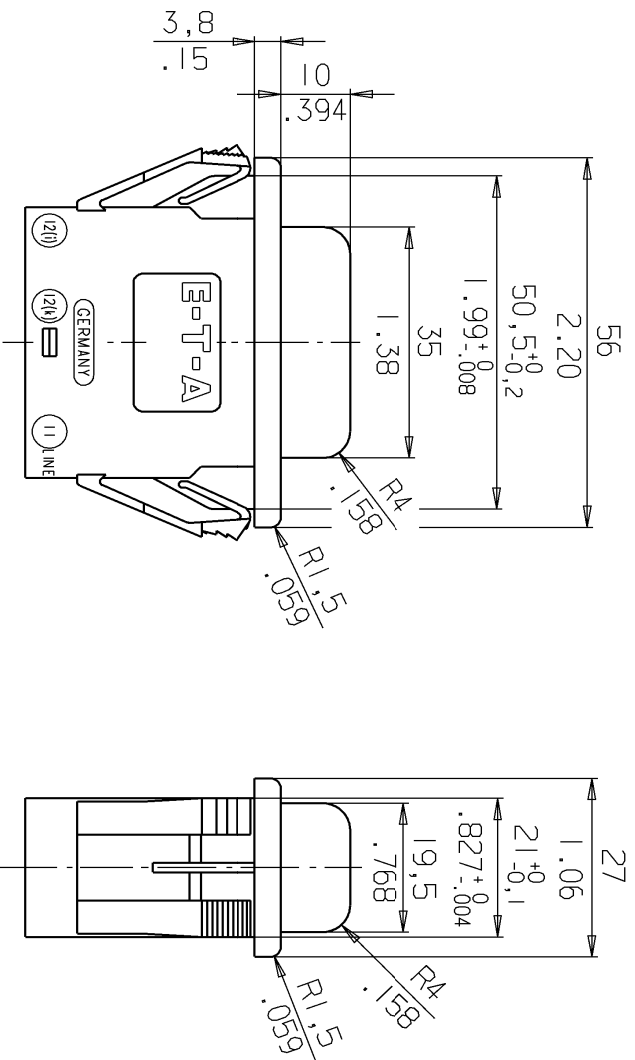
Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

Data Sheet
382.073.468
sheet 16 of 37

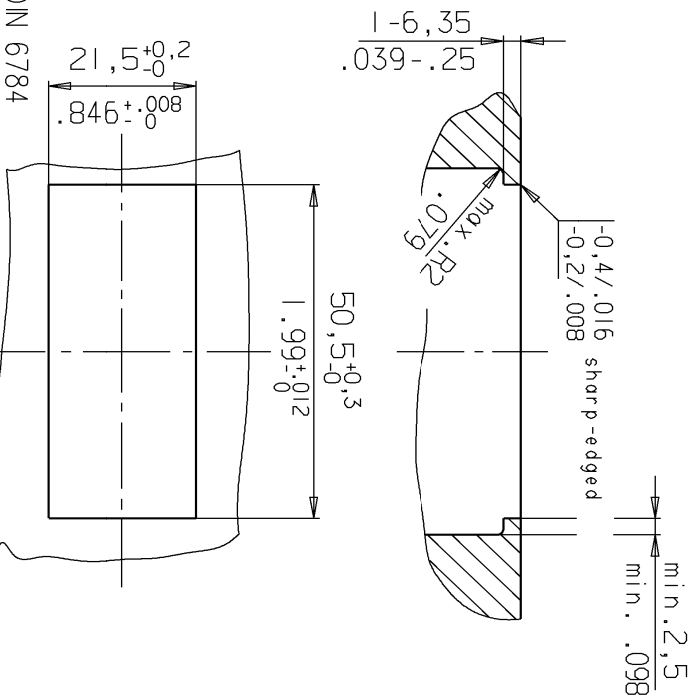
The information furnished is believed to be accurate and reliable. However no responsibility for its use. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without noti

F3.1 / 4
6 7 8 9

collar height .079 inch with splash water protection



Panel cut-out F3.1 / F3.3 / F3.4

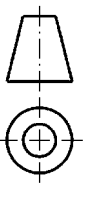


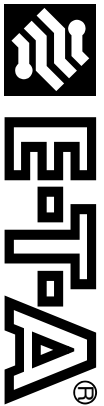
This is a metric design and millimeter dimensions take precedence

Edges of working parts: DIN 6784
Nominal dimensions without direct tolerance indication: ± IT 13

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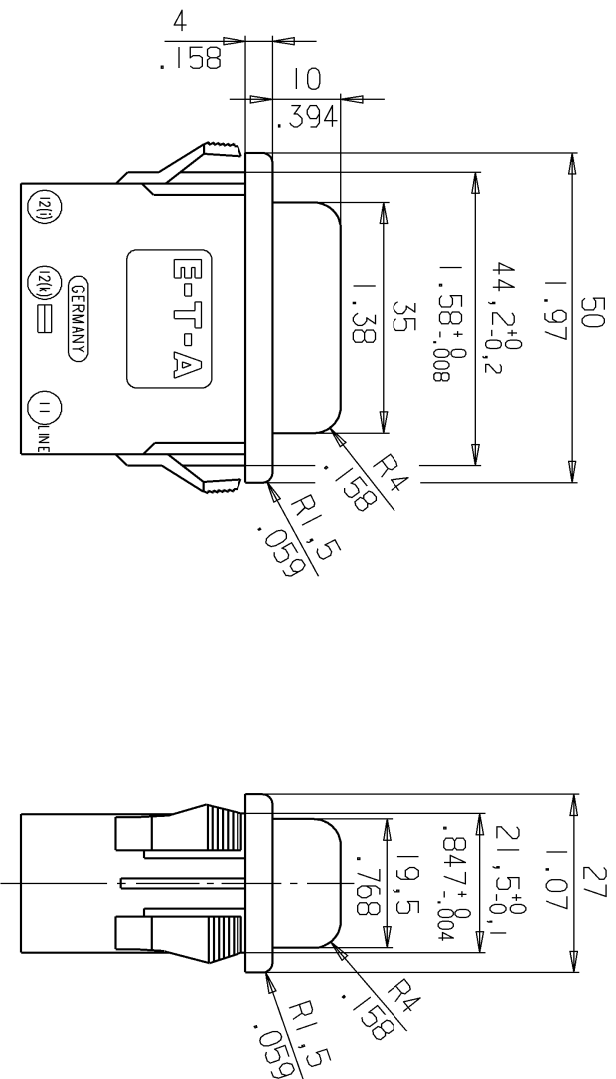
Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

Data Sheet
382.073.468
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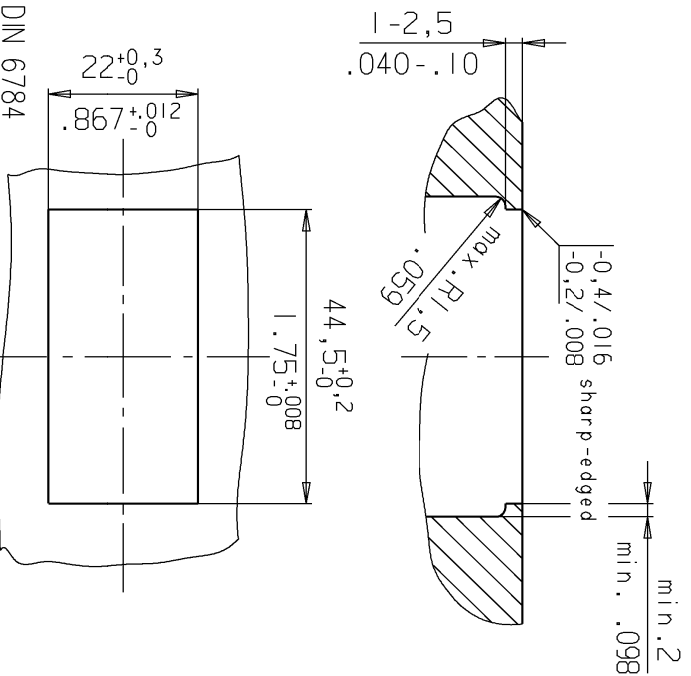
The information furnished is believed to be accurate and reliable. However no responsibility for its use. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without noti

F 4.1, 4.4
6 7 8 9

collar height .079 inch with splash water protection



Panel cut-out F4.1 / F4.3 / F4.4



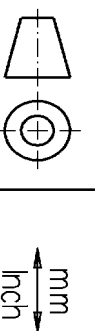
Edges of working parts: DIN 6784
Nominal dimensions without direct tolerance indication: ± IT 13

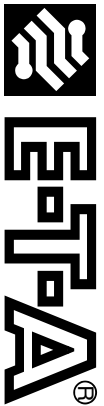
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This is a metric design and millimeter dimensions take precedence

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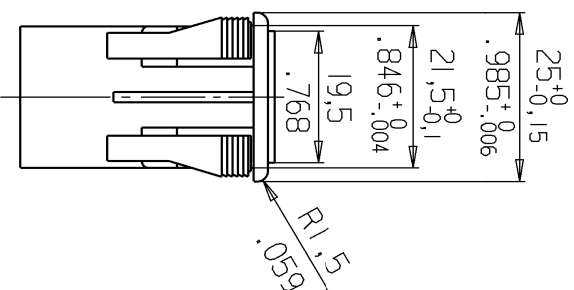
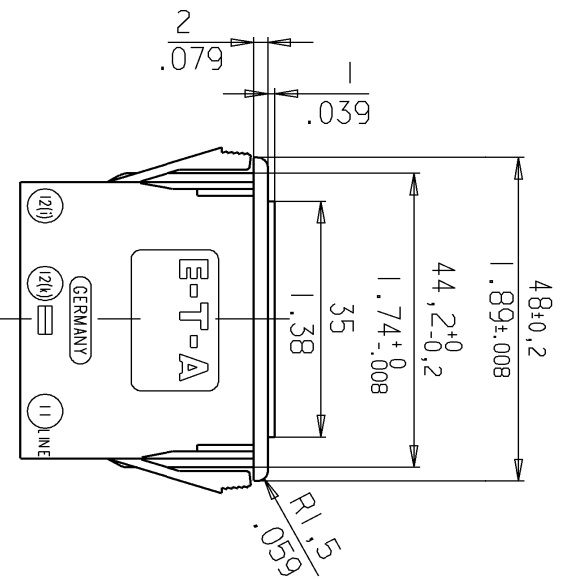
Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

Data Sheet
382.073.468
sheet 19 of 37

The information furnished is believed to be accurate and reliable. However no responsibility for its use. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without noti

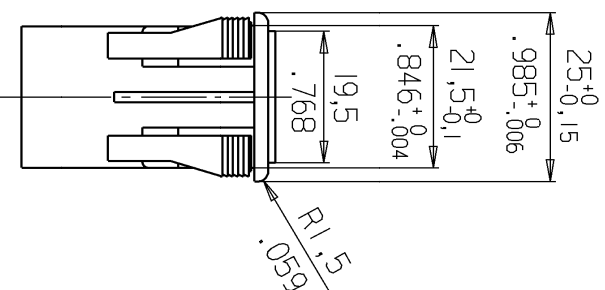
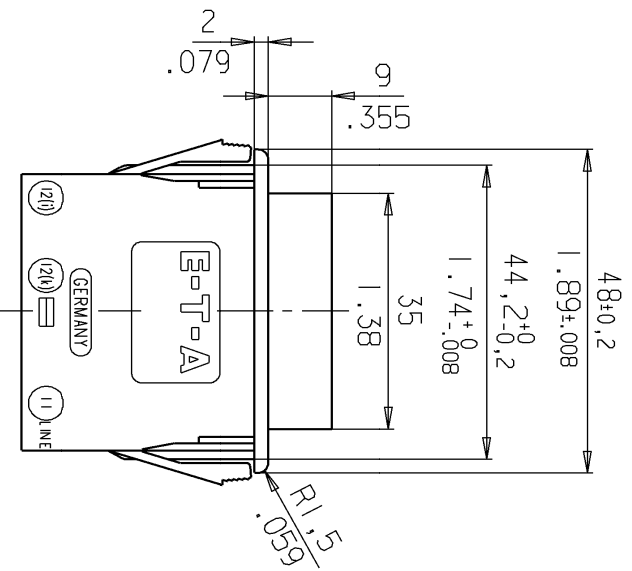
$\begin{matrix} \text{E} \\ \text{5} \\ \text{---} \\ \text{6} \\ \text{7} \\ \text{8} \\ \text{9} \end{matrix}$

collar height .039 inch



$\begin{matrix} \text{E} \\ \text{5} \\ \text{---} \\ \text{6} \\ \text{7} \\ \text{8} \\ \text{9} \end{matrix}$

collar height .355 inch



This is a metric design and millimeter dimensions take precedence

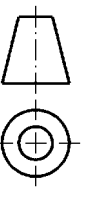
Edges of working parts: DIN 6784

Nominal dimensions without direct tolerance indication: ± IT 13

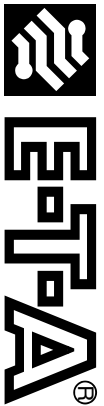
1 : 1

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Index	AM	Date	Name	Index	AM	Date	Name
9	17 866	26.06.00	K.Go				



mm
Inch



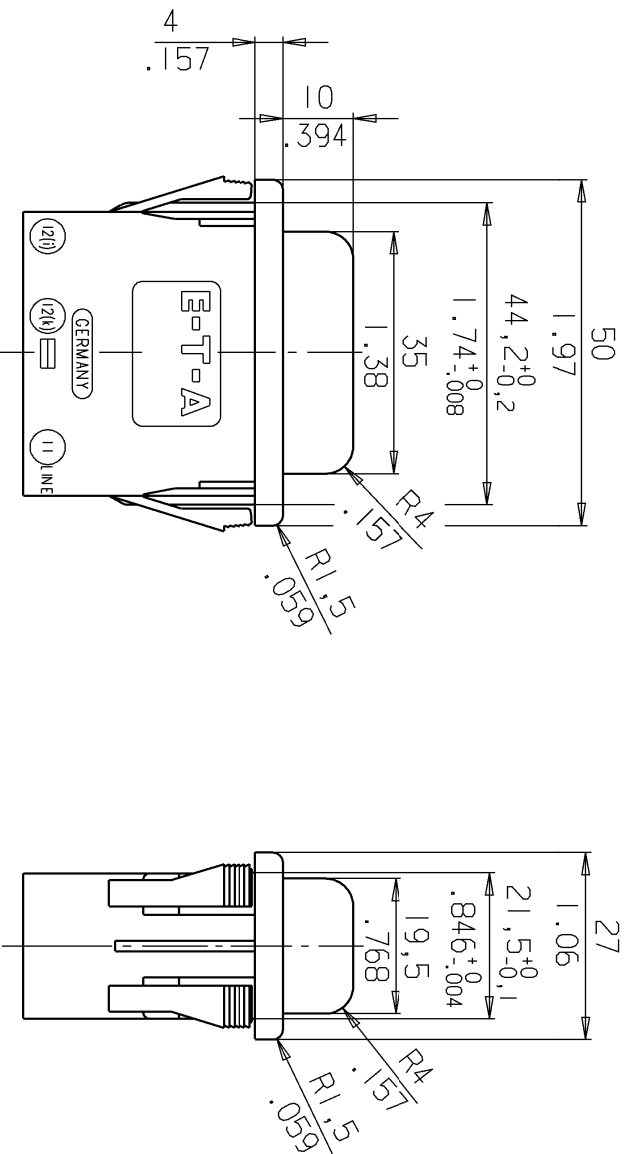
Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

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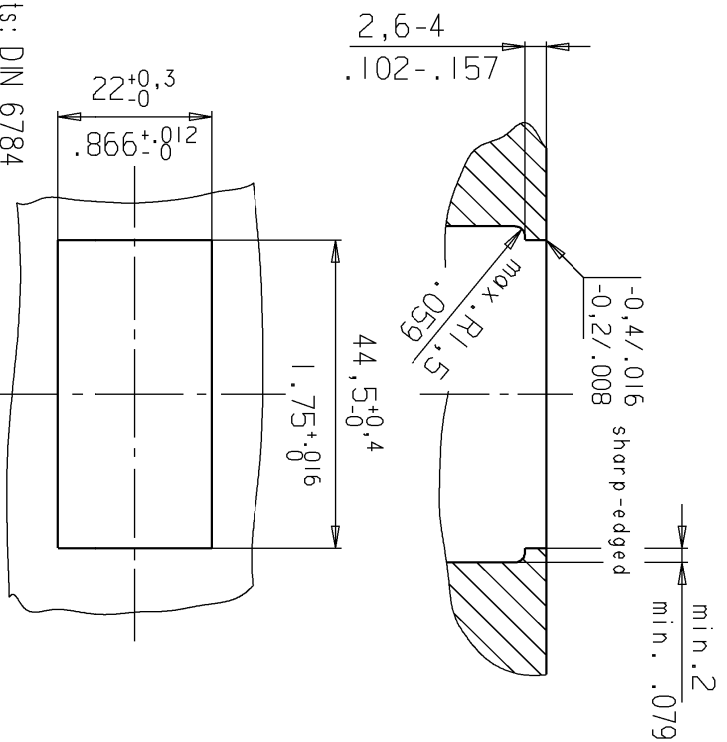
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F5.1, 4
6 7 8 9

collar height .079 inch with splash water protection



Panel cut-out F5.1 / F5.3 / F5.4



Edges of working parts: DIN 6784

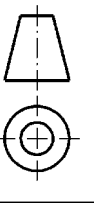
Nominal dimensions without direct tolerance indication: ± IT 13

1 : 1

This is a metric design and millimeter dimensions take precedence

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9	17 866	26.06.00	K.Go				



mm
Inch



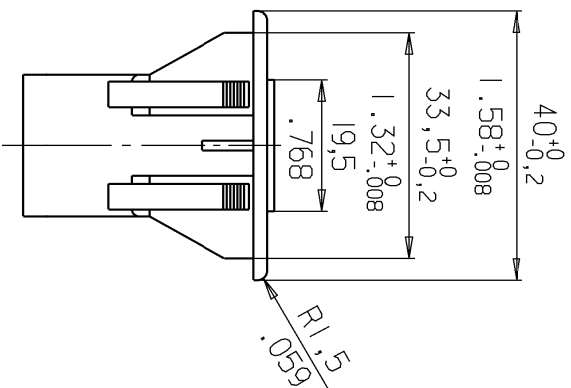
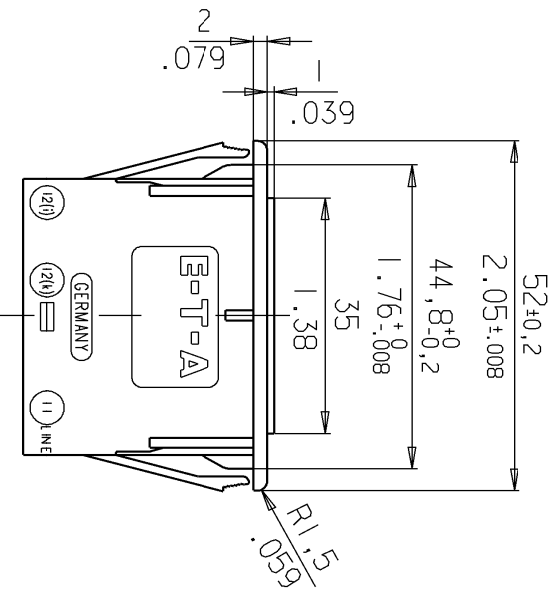
Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

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sheet 21 of 37

The information furnished is believed to be accurate and reliable. However no responsibility for its use. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without noti

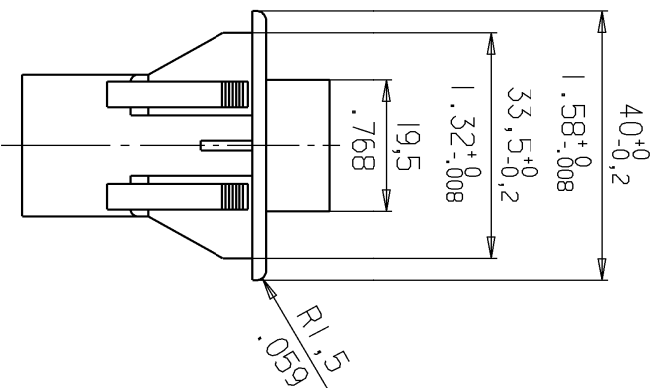
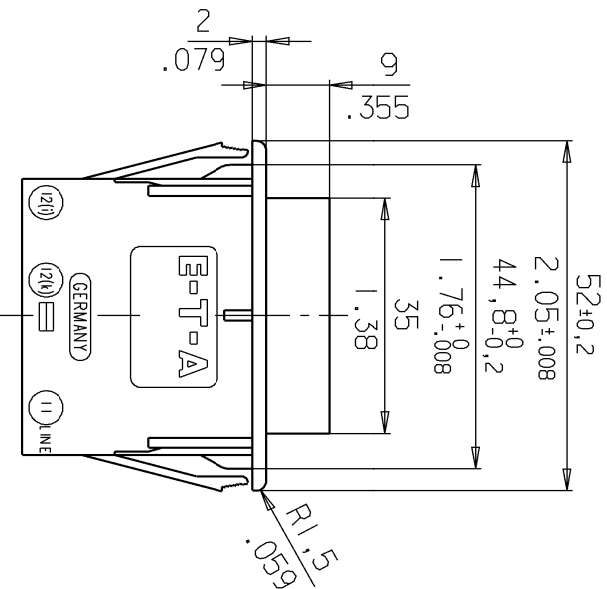
6
7
8
9

collar height .039 inch



6
7
8
9

collar height .355 inch



Edges of working parts: DIN 6784

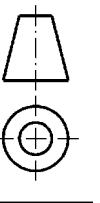
Nominal dimensions without direct tolerance indication: ± IT 13

1 : 1

This is a metric design and millimeter dimensions take precedence

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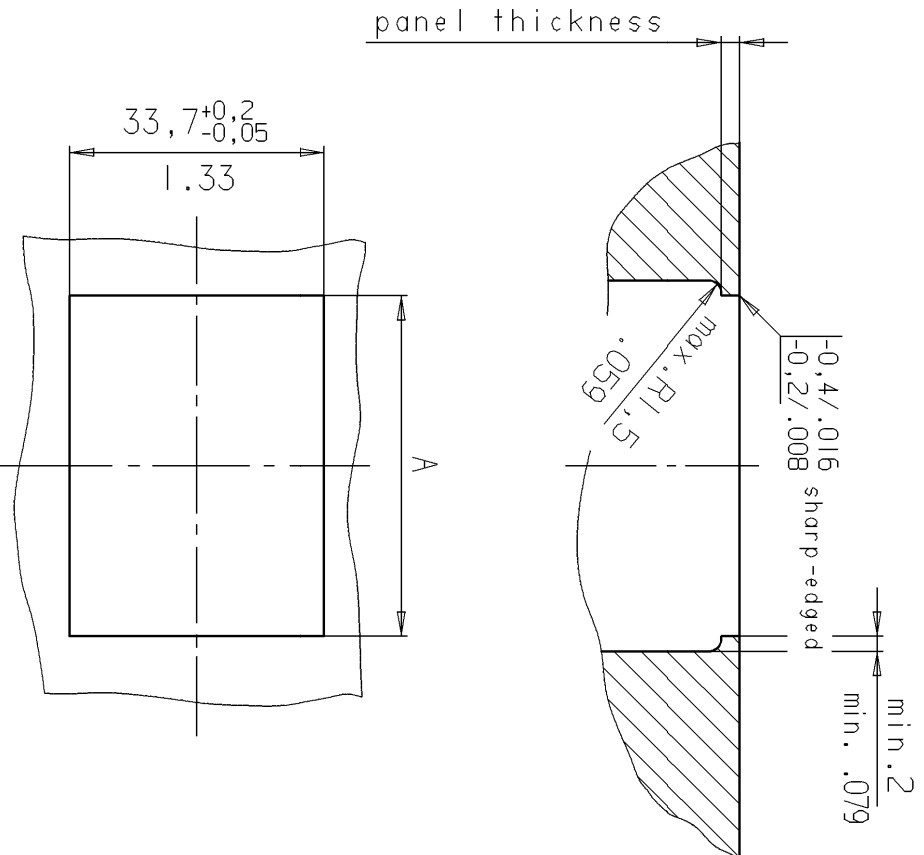
mm
Inch



Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

Data Sheet
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Panel cut-out F6.1 / F6.3



Panel thickness	Dim. A	$.047^{+.016}_{-0}$	$.063^{+.032}_{-0}$	$.094^{+.040}_{-0}$	$.133^{+.004}_{-0}$
		$1.77^{+.010}_{-0}$	$1.77^{+.045}_{-0}$	$1.77^{+.088}_{-0}$	$1.77^{+.088}_{-0}$

Edges of working parts: DIN 6784




This is a metric design and millimeter dimensions take precedence
Nominal dimensions without direct tolerance indication: $\pm IT 13$


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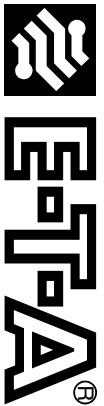
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Index	ÄM	Date	Name	Index	ÄM	Date	Name
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1	18.338	23.07.01					



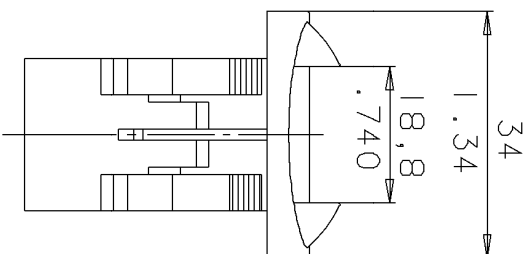
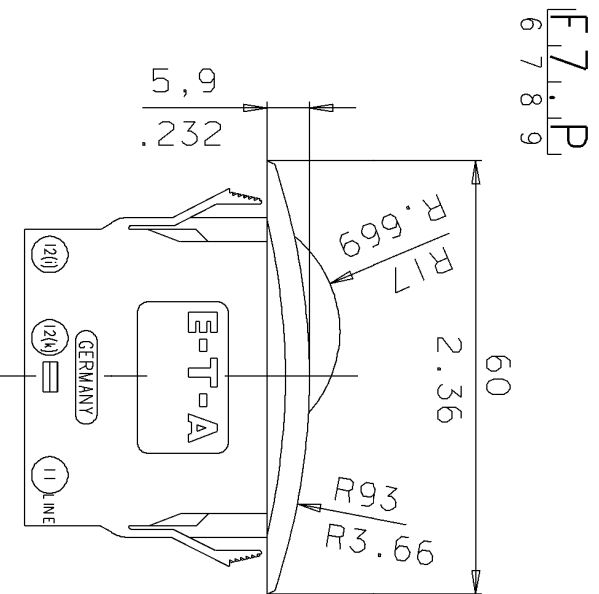
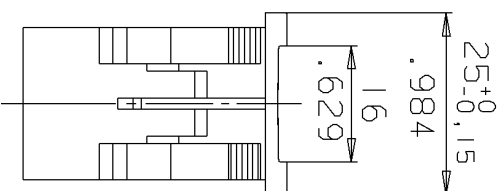
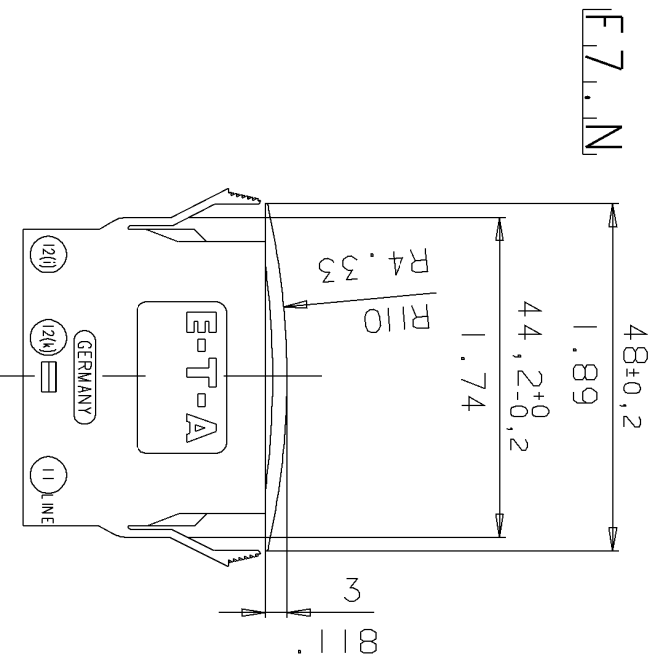
mm
Inch



Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

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382.073.468
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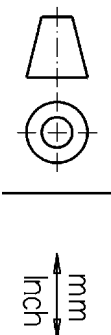
This is a metric design and millimeter dimensions take precedence

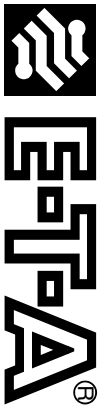
Edges of working parts: DIN 6784
Nominal dimensions without direct tolerance indication: ± IT 13

1 : 1

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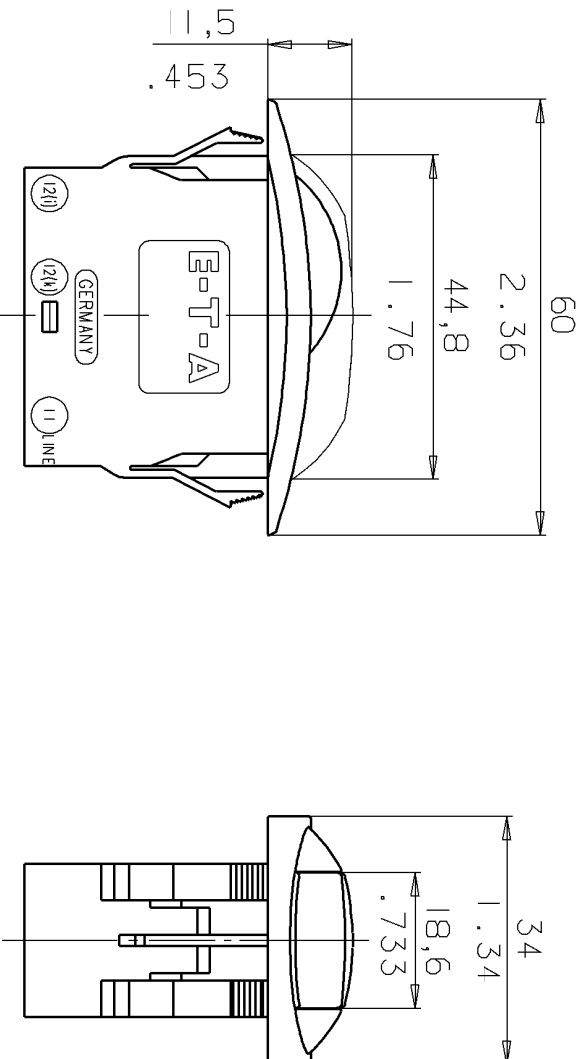




Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

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E 7 . . . 1 0



This is a metric design and millimeter dimensions take precedence

Edges of working parts: DIN 6784

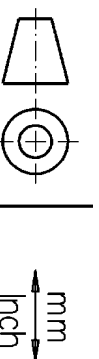
Nominal dimensions without direct tolerance indication: ± 11 13

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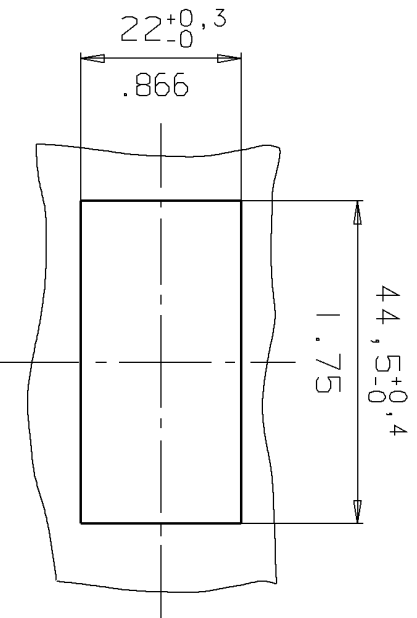
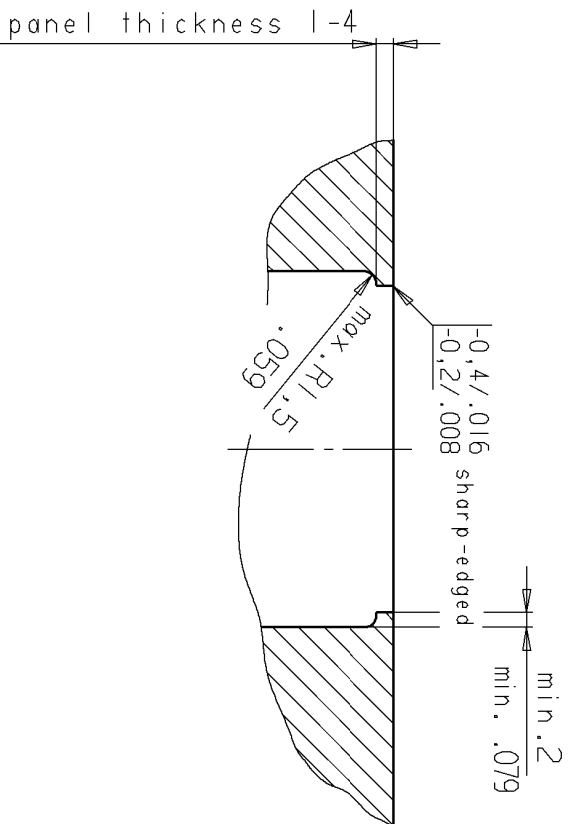


Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

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The information furnished is believed to be accurate and reliable. However no responsibility for its use. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without not

Panel cut-out F7.N / F7.P / F7.Q

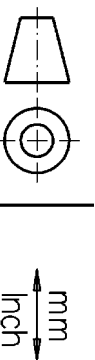


This is a metric design and millimeter dimensions take precedence
Nominal dimensions without direct tolerance indication: ± IT 13

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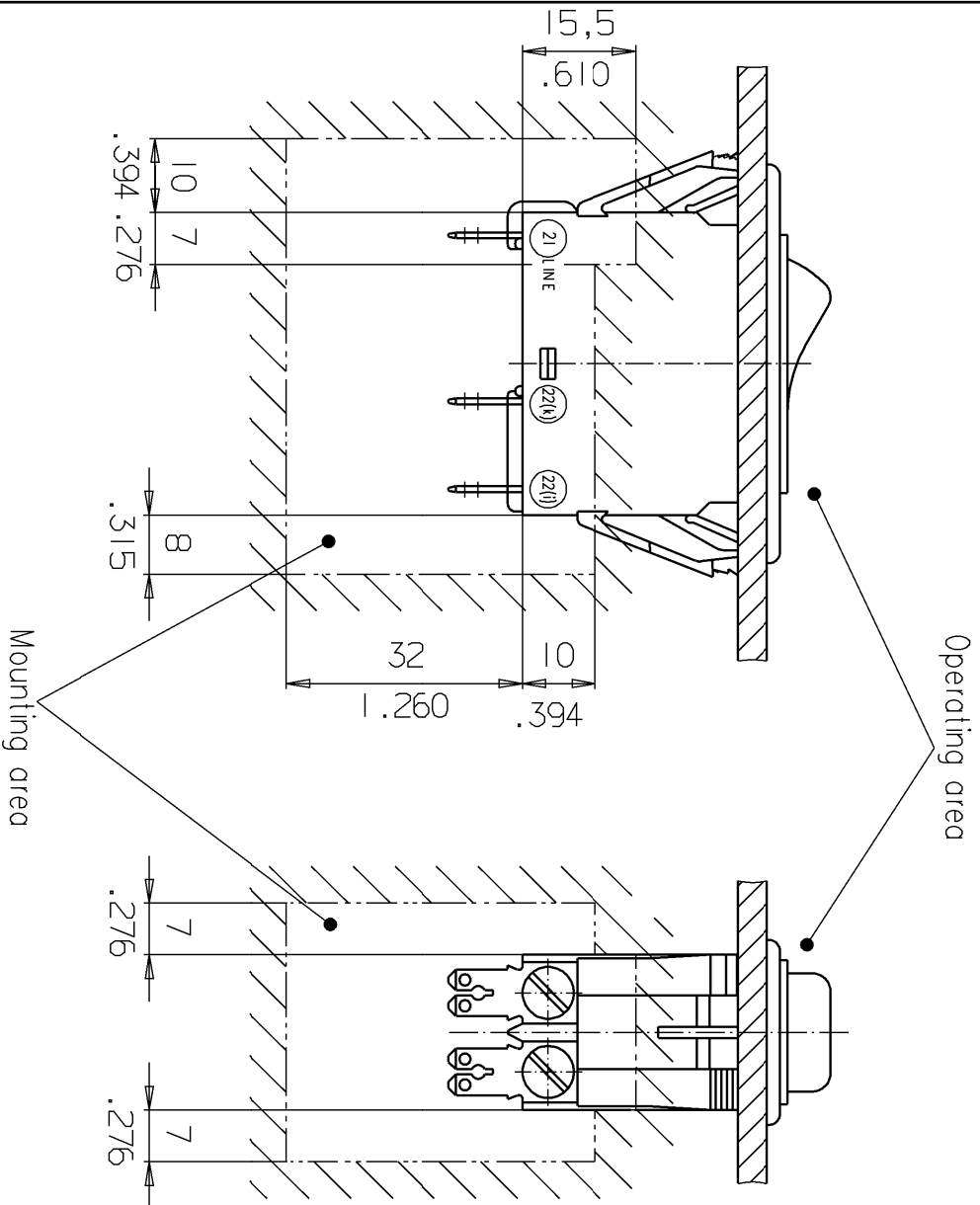
mm
Inch



Overcurrent Circuit Breaker
thermal trip
3120-...-T1-...
one and two pole

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Safety distances required for installation to protection class II



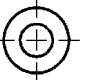
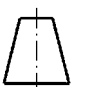
This is a metric design and millimeter dimensions take precedence

1 : 1

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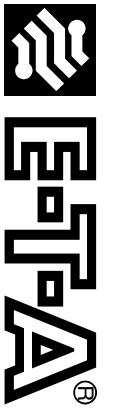
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Name	

Ordering number						2x flat quick connect terminal DIN 46244 – A2,8 – 0,8 – Ms or flat quick connect terminal DIN 46244 – A6,3 – 0,8 – Ms				screw terminal M3,5x5 DIN 85 for mains supply				Connection diagram	
3120		1	2	3	4	5	6	7	8	9	10	11	12	13	14
		11	21	11	21	12(i)	22(i)	12(k)	22(k)						
2 pole, unprotected	0	G 1													
	0	G 7			X	X	X	X							
	0	N 1													
	0	N 7	X	X			X	X							
1 pole, unprotected	6	G 1													
	6	G 7			X	X	X	X							
	6	N 1													
	6	N 7	X	X			X	X							
2 pole, thermally protected	2	G 1						X	X						
	2	G 7			X	X	X	X							
	2	H 1						X	X						
	2	H 7			X	X	X	X							
	2	N 1						X	X						
	2	N 7	X	X			X	X							
	2	P 1						X	X						
	2	P 7	X	X			X	X							
2 pole, 1 pole, thermally protected	5	G 1						X	X						
	5	G 7			X	X	X	X							
	5	H 1						X	X						
	5	H 7			X	X	X	X							
	5	N 1						X	X						
	5	N 7	X	X			X	X							
	5	P 1						X	X						
	5	P 7	X	X			X	X							
1 pole, thermally protected	1	G 7					X	X							
	1	H 7			X	X	X	X							
	1	N 7	X	X			X	X							
	1	P 7	X	X			X	X							



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3120-...-T1-..
 one and two pole

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Back-up fuses to ensure short-circuit protection

E-T-A	Back-up fuses to DIN	Back-up fuses to UL 1077
Current rating (A)	Current rating (A)	Current rating (A)
0.1	0.20	20
0.2	0.40	
0.3	0.63	
0.4	1.00	
0.5	1.25	
0.6	1.40	
0.8	1.60	
1.0	2.00	
1.2	2.00	
1.5	3.15	
2.0	4.00	
2.5	16	
3.0	16	
3.5	16	
4.0	20	
4.5	20	
5.0	20	
6.0	25	
7.0	25	
8.0	25	
10.0	25	
12.0	25	
14.0	25	
16.0	32	
18.0	32	
20.0	32	

DIN 57 636/ VDE 0636,part 21	UL 1077
20	20
25	25
30	30
40	40
50	50
60	60
70	70
80	80

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Ordering number code

3 120-F 3 21-NZ 1 T1 -W12A B 4 -10A

1 2 3 4 5 6 7 8 9 10 11 12 13

1. Type number

3120: Thermal or thermal-magnetic circuit breaker, single or double pole (with ON / OFF switch only option)

2. Mounting method

F: Snap-in frame or screw mounting

3. Configuration

	panel cut-out	panel thickness	screw mounting	snap-in housing
1	for rocker 32.0 x 16.5 mm		X	
2	for 2 push buttons and water splash cover 50.0 x 26.0 mm		X	
3	for rocker or push buttons 50.5 x 21.5 mm	1.0 - 6.35 mm		X
4	for rocker 44.5 x 22.0 mm	1.0 - 2.5 mm		X
5	for rocker 44.5 x 22.0 mm	2.6 - 4.0 mm		X
6	for rocker 45.0 x 33.7 mm	1.2 - 3.4 mm		X
7	for rocker 44.5 x 22.0 mm	1.0 - 4.0mm		X

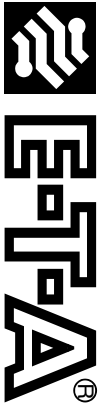
4. Number of poles

0	2 pole, unprotected, switch only
1	1 pole, thermally protected
2	2 pole, thermally protected
5	2 pole, thermally protected on one only
6	1 pole, unprotected, switch only

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5. Style, accessory

		water splash protection	without collar	collar height			mounting method configuration							
				1mm	2mm	9mm	F1	F2	F3	F4	F5	F6	F7	
1				x						x	x	x	x	
3							x			x	x	x	x	
4		x			x					x	x	x		
5					x					x	x	x		
6	mounting thread 2 x 6-32 UNC							x						
7	mounting thread 2 x M3.5							x						
8	mounting thread 4 x 6-32 UNC							x						
9	mounting thread 4 x M3,5							x						
A	with transverse hole 4mm dia								x					
B	current rating marked on top of flange				x					x	x	x	x	
C	with additional sealing (sealing grease)	x								x	x	x		
D	with silicone cover									x	x	x		
E	with silicone cover and additional sealing (sealing grease)	x								x	x	x		
F	frame with 2 push buttons								x					
G	frame with 1 push button									x				
H	1 and 0 marked on top of flange				x					x	x	x	x	
K	1 and 0 marked on top of flange									x	x	x	x	
L	1 and 0 marked on top of flange									x	x	x	x	
M	1 and 0 marked on top of flange			x						x	x	x	x	
N	colour grey (stratos grey), new design									x	x	x	x	
P	Snap-on actuator guard preventing inadvertent operation		x											x
Q	Snap-on splash cover	x	x											x
Z	Snap-in frame			x						x				

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6. Terminal design

	blade terminals DIN 46 244 - C		number of poles					
	Terminal code		0	1	2	5	6	
	12(i), 22(i) A3 terminals	12(k), 22(k)	11, 12					
A1		X	with screw ISO 1580 - M3,5 and clamping plates		X	X		
A2		X	with M3,5 screw with +/- slot and clamping plates		X	X		
A3	X	X	with M3,5 screw with +/- slot and clamping plates and A3 terminals	X	X	X	X	
B1	X	X	with screw ISO 1580 - M3,5 and washer and tab DIN 46244-C	X			X	
B2		X	with screw ISO 1580 - M3,5 and washer and tab DIN 46 244-C		X	X		
G7	X	X	with screw ISO 1580 - M3,5	X	X	X	X	
H7		X	with screw ISO 1580 - M3,5		X	X		
K7		X	with M3.5 screw with +/- slot		X	X		
L7	X	X	with M3.5 screw with +/- slot	X	X	X	X	
N7	X	X		X	X	X	X	
P7		X			X	X		

Unprotected chambers only with B1, G7, L7 or N7, but without terminal 12 (k) or 22 (k)

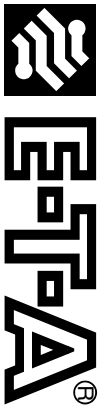
7. Characteristic curve

		number of poles					
		0	1	2	5	6	
M1	thermal - magnetic		X	X	X		
Q1	switch only: 50,000 operations, max 20A, cosφ 1, 250 V	X				X	
T1	thermal 1. I _N - 1.4 x I _N		X	X	X		
X.	special calibration		X	X	X		

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8. Actuator style

	Style																					
	1	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	K	L	M	N	P	Q
A rocker																						
D 1 push button															X						X	X
K rocker, momentary switch	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X			
M rocker	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X			
S 2 push buttons														X								
U rocker, momentary switch	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X			
W rocker	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X			
X custom designed rocker	X	X	X	X	X	X	X	X	X	X							X	X	X			
Z 1 push button, momentary switch																						

For markings of A, K, M, U W and X see sheets 33 - 35

9. Actuator colour

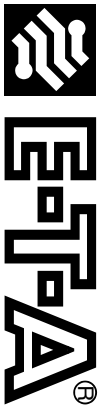
	opaque (without illumination)	translucent (suitable for illumination)	colour	Actuator style																	
				A	D	K	M	S	U	W	X	Z									
01			black		X	X	X	X	X	X	X	X									
02			white			X	X		X	X	X										
04			red		X	X	X	X	X	X	X					X					
06			blue			X	X		X	X	X										
08			light grey			X	X		X	X	X										
09			green			X	X		X	X	X										
			white			X	X		X	X	X					X					
			red			X	X		X	X	X										
			orange			X	X		X	X	X										
			green			X	X		X	X	X										
20		30	blue (katana blue)	X																	X

Special version

2 push buttons of different colours	button „ON“ (translucent)	button „OFF“ (opaque)																				
GR	green	red																				X
WB	white	black																				X
WR	white	red																				X

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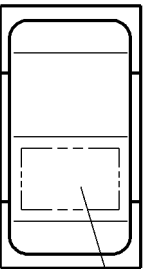
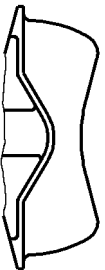
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10. Actuator marking
rocker



illumination window

	Actuator					Actuator / colour				
	A	K	M	U	W	X	U01	U02	W01	W02
A				X	X					
B				X	X					
C	0 AUS OFF			X	X					
D	0			X	X					
E	AUS			X	X					
F	OFF			X	X					
G	OFF			X	X					
H	OFF			X	X					
I	0			X	X					
J	○			X	X					
K	○			X	X					
L	OFF ○			X	X					
M	TRIPPED			X	X					
N	STAND BY			X	X					
P	OFF 0			X	X					
Q	0						X	X	X	X

marking impressed

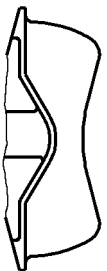
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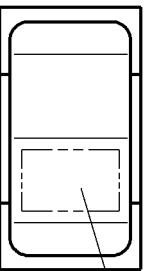
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10. Actuator marking
rocker



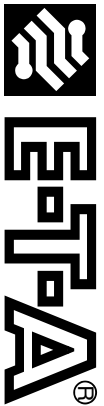
illumination window



		Actuator						
		A	K	M	U	W	X	
7	ACL				X	X		
8	VENT				X	X		
9	STROBE LITE					X		
A	STROBE HEAT		X	X				
B	OFF		X	X				
C	OFF		X	X				
D	OFF		X	X				
E	GEN		X	X				
F	NO		X	X				
G			X	X				

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10. Actuator marking

Push button

		Actuator		
		D	S	Z
X	without marking	x	x	x
Y	with black marking on actuator face	x	x	x

11. Actuator illumination

		Actuator			Actuator colour												
		D, S, Z	K,M,U,W	X	01	02	04	06	08	09	12	14	15	19	GR	WB	WR
B	Lamp illumination	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
L	Lamp illumination	x			x	x	x	x	x	x	x	x	x	x	x	x	x
G	LED illumination - green	x			x	x	x	x	x	x	x	x	x	x	x	x	x
R	LED illumination - red	x			x	x	x	x	x	x	x	x	x	x	x	x	x
Y	LED illumination - yellow	x			x	x	x	x	x	x	x	x	x	x	x	x	x

12. Illumination voltage range

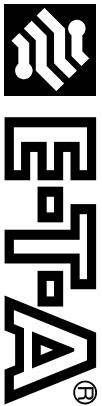
		marked	Actuator illumination														
			B	B	L	G	R	R	Y	Y							
0	4 - 7 V	6 V	x	x													
1	10 - 14 V	12 V	x	x													
2	20 - 28 V	24 V	x	x													
3	90 - 140 V	115 V	x														
4	185 - 275 V	230 V	x														
5	52 - 54 V	48 V	x	x													
6	320 - 450 V	400 V	x														
7	50 - 70V	60 V															

Type of current	Actuator	Actuator illumination															
		D,S,Z	K,M,U,W	B	B	L	G	R	R	Y	Y						
AC			x														
DC				x													

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13. Current ratings

current rating (A)	characteristic curve							
	M1	T1	Q1	X1	X2	X3	X4	
0.05		X						
0.1	X	X						
0.15	X	X						
0.2	X	X						
0.25	X	X						
0.3	X	X						
0.35	X	X						
0.4	X	X						
0.45	X	X						
0.5	X	X						
0.55	X	X						
0.6	X	X						
0.65	X	X						
0.7	X	X						
0.8	X	X						
0.9	X	X						
1	X	X						
1.2	X	X		X				
1.4	X	X						
1.5	X	X						
1.7	X	X						
1.8	X	X						
2	X	X						
2.5	X	X		X		X		
2.8	X	X					X	
3	X	X		X		X		X
3.5	X	X						
4	X	X			X	X		X
4.5	X	X			X	X		
5	X	X			X	X		
6	X	X		X				
7	X	X			X			
8	X	X			X			
9	X	X						
10	X	X						
11	X	X						
12	X	X						
13	X	X						
14	X	X			X			
15	X	X		X	X			
16	X	X						
17		X			X			
18		X						
20	X		X					

Note: Boldface references are in conformance with the ordering informations shown in the E-T-A Catalogue

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