

Undervoltage protection switch, rocker or push button actuated, 2-pole



UP1-1WF ...



UP1-3TF ...



UP1-5TF ...



UP1-8TF ...



Description

- 2-pole switch with undervoltage release and restart protection
- Remote trip version
- Rocker and push button types
- Snap-in or screw-on version
- Protection covers for IP 54 or IP 65

Approvals

IEC 60947-4-1
 UL 508
 CSA 22.2 No. 14-95

Applications

- Electric power tools such as circular saw, band saw, band grinder, miter-box saw, drilling machine, stone/masonry saw
- Chain grinder
- Floor grinder
- Floor cleaning equipments
- Concrete mixers

Weblinks

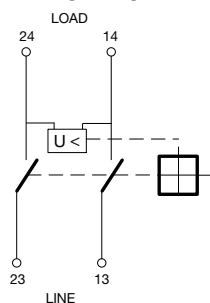
Approvals: <http://www.schurter.com/approvals>
 RoHS: <http://www.schurter.com/rohs>

Technical Data

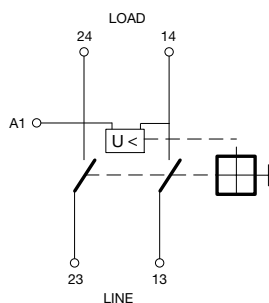
Rated voltage	AC 240 V / 50/60 Hz AC 230 V / 50/60 Hz AC 120 V / 60 Hz AC 115 V / 50/60 Hz
Rated current	16 A (AC-1) 14.5 A (AC-3) 10 A (1.5 HP)
Conditional short circuit Capacity I_{nc}	AC 1000 A @ PC 1
Fuse	CB 16 A, char. B
Dielectric strength	50 Hz: 1500 V Impulse: 2500 V
Overvoltage category	II
Method of operation	Switch type (S)
Mode of tripping	Undervoltage release (UV)
- Manual ON:	35% ... 85% U_n (and higher)
- Automatic release:	35% ... 70% U_n (and lower)
Type of tripping	Non-trip-free

Endurance	50 000 cycles mechanical 50 000 cycles 16 A / AC-1 50 000 cycles 10 A / AC-3 35 000 cycles 14.5 A / AC-3
Ambient temperature	
Operation	-10 °C ... +60 °C
Storage	-20 °C ... +80 °C
Resistance to vibration	IEC 60068-2-6, Test Fc 10 ... 60 Hz: 0.75 mm 60 ... 500 Hz: 10 G
Shock resistance	IEC 60068-2-27, Test Ea 30 G / 18 ms (half-sine)
Degree of protection:	
Accessible range:	Rocker types IP 40 Push button types IP 54
Terminals side:	IP 00

Wiring Diagram





Sub-type U
coil fix wired



Sub-type E
coil with external connection
for remote trip release

Approvals

Relay wiring	AC voltage [V]	Frequency [Hz]	 IEC 60947-4-1	 UL 508 CSA 22.2 No. 14-95
Type U	115	50	•	•
Type U	115	60	•	•
Type U	120	60	•	•
Type U	230	50	•	•
Type U	230	60	•	•
Type U	240	50–60	•	•
Type E, remote trip	115	50	•	•
Type E, remote trip	115	60	•	•
Type E, remote trip	120	60	•	•
Type E, remote trip	230	50	•	•
Type E, remote trip	230	60	•	•
Type E, remote trip	240	50–60	•	•

Actual information about approvals can be found on: www.schurter.com/approvals

Preference Types

Actuation	Mounting	Remote trip	Voltage [V]	Frequency [Hz]	Cover IP 54	Cover IP 65	Order Code	Part Number
Rocker	Snap-in		230	50			UP1-1WFU31	4431.1001
Rocker	Snap-in		230	50	•		UP1-1WFU31-UZZ11	4431.1010
Rocker	Snap-in	•	230	50			UP1-1WFE31	4431.1004
Rocker	Snap-in		120	60			UP1-1WFU42	4431.1003
Rocker	Snap-in		120	60	•		UP1-1WFU42-UZZ11	4431.1036
Rocker	Snap-in		115	50			UP1-1WFU51	4431.1002
Rocker	Snap-in		115	50	•		UP1-1WFU51-UZZ11	4431.1031
Rocker	Snap-in		115	60	•		UP1-1WFU52-UZZ11	4431.1012
Push button	Snap-in		230	50			UP1-3TFU31	4431.1009
Push button	Snap-in		230	50		•	UP1-3TFU31-UZZ31	4431.1011
Push button	Snap-in	•	230	50		•	UP1-3TFE31-UZZ31	4431.1007
Push button	Snap-in		120	60		•	UP1-3TFU42-UZZ31	4431.1035
Push button	Snap-in		115	50		•	UP1-3TFU51-UZZ31	4431.1032
Push button	Snap-in		115	60		•	UP1-3TFU52-UZZ31	4431.1015
Push button	Flange		230	50			UP1-5TFU31	4431.1005
Push button	Flange		230	50		•	UP1-5TFU31-UZZ51	4431.1024
Push button	Flange	•	230	50		•	UP1-5TFE31	4431.1016
Push button	Flange	•	230	50		•	UP1-5TFE31-UZZ61	4431.1034
Push button	Flange		120	60			UP1-5TFU42	4431.1030
Push button	Flange		115	60			UP1-5TFU52	4431.1006
Push button	Flange		115	60		•	UP1-5TFU52-UZZ51	4431.1025
Push button	Flange		230	50			UP1-8TFU31	4431.1041
Push button	Flange		230	50		•	UP1-8TFU31-UZZ81	4431.1013
Push button	Flange		115	60		•	UP1-8TFU52-UZZ81	4431.1014

Protection Covers



UP1-1WF ...



UP1-3TF ...



UP1-5TF ...



UP1-7/8TF ...



UZZ11
IP 54 for types UP1-1WF ...
(factory mounted)



UZZ31
IP 65 for types UP1-3TF ...
(factory mounted)



UZZ51
IP 65 for types UP1-5TF ...



UZZ71
IP 65 for types UP1-7TF ...
or UP1-8TF ...



UZZ61
IP 65 for types UP1-5TF ...

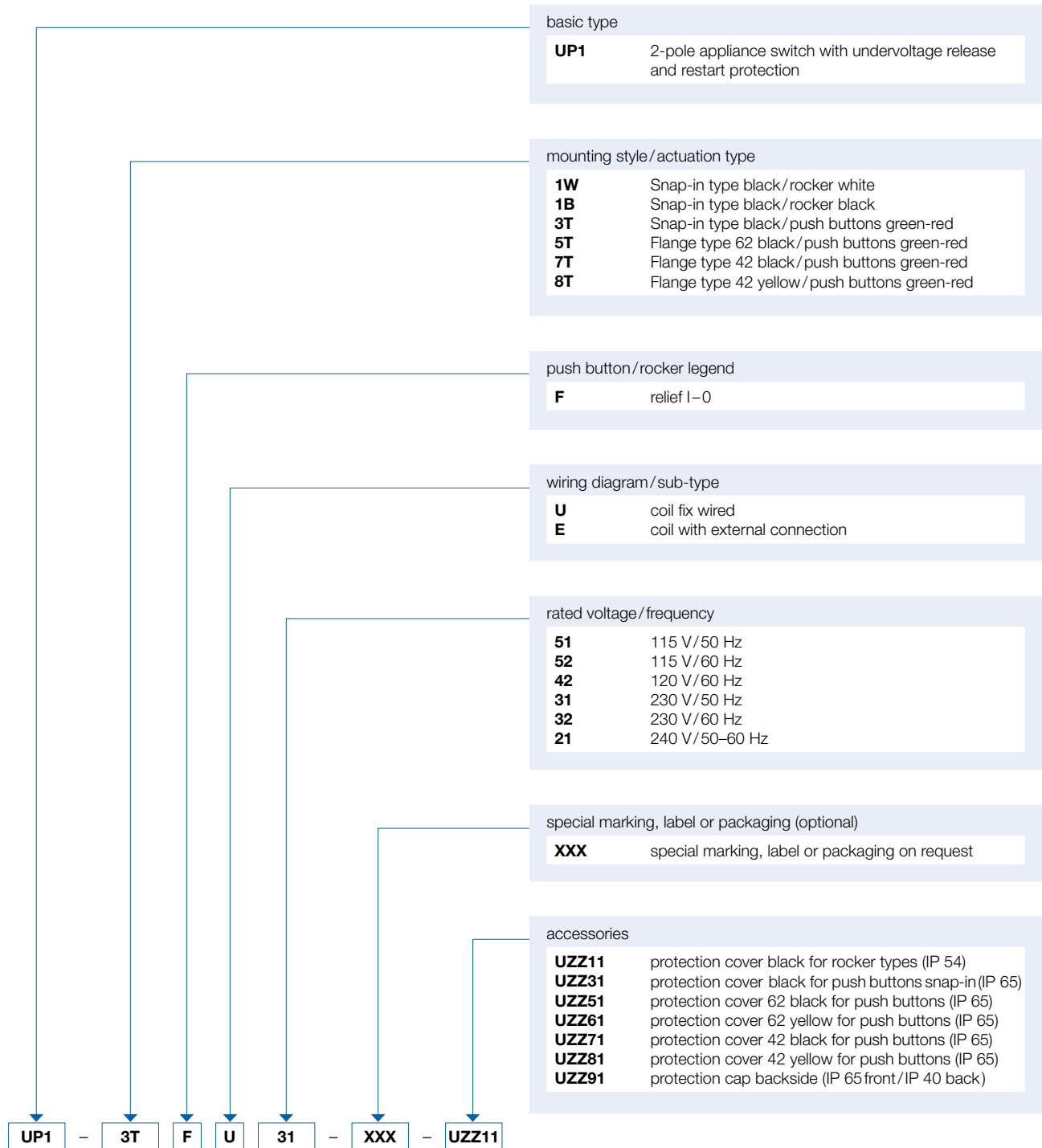


UZZ81
IP 65 for types UP1-7TF ...
or UP1-8TF ...



UZZ91
Frontside IP 65, backside IP 40,
for types UP1-7TF ...
or UP1-8TF ...

Order Code



basic type

UP1 2-pole appliance switch with undervoltage release and restart protection

mounting style/actuation type

1W Snap-in type black/rocker white
1B Snap-in type black/rocker black
3T Snap-in type black/push buttons green-red
5T Flange type 62 black/push buttons green-red
7T Flange type 42 black/push buttons green-red
8T Flange type 42 yellow/push buttons green-red

push button/rocker legend

F relief I-0

wiring diagram/sub-type

U coil fix wired
E coil with external connection

rated voltage/frequency

51 115 V/50 Hz
52 115 V/60 Hz
42 120 V/60 Hz
31 230 V/50 Hz
32 230 V/60 Hz
21 240 V/50-60 Hz

special marking, label or packaging (optional)

XXX special marking, label or packaging on request

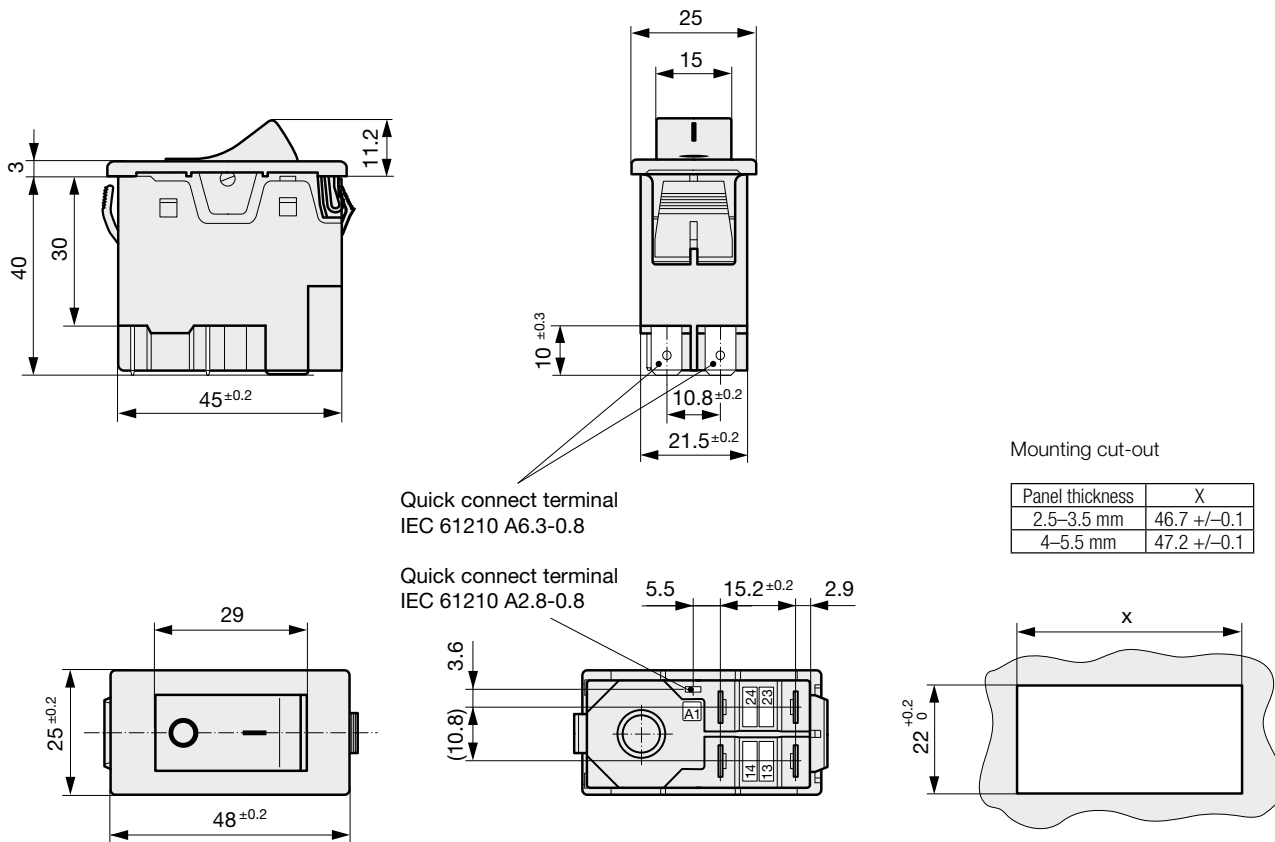
accessories

UZZ11 protection cover black for rocker types (IP 54)
UZZ31 protection cover black for push buttons snap-in (IP 65)
UZZ51 protection cover 62 black for push buttons (IP 65)
UZZ61 protection cover 62 yellow for push buttons (IP 65)
UZZ71 protection cover 42 black for push buttons (IP 65)
UZZ81 protection cover 42 yellow for push buttons (IP 65)
UZZ91 protection cap backside (IP 65 front/IP 40 back)

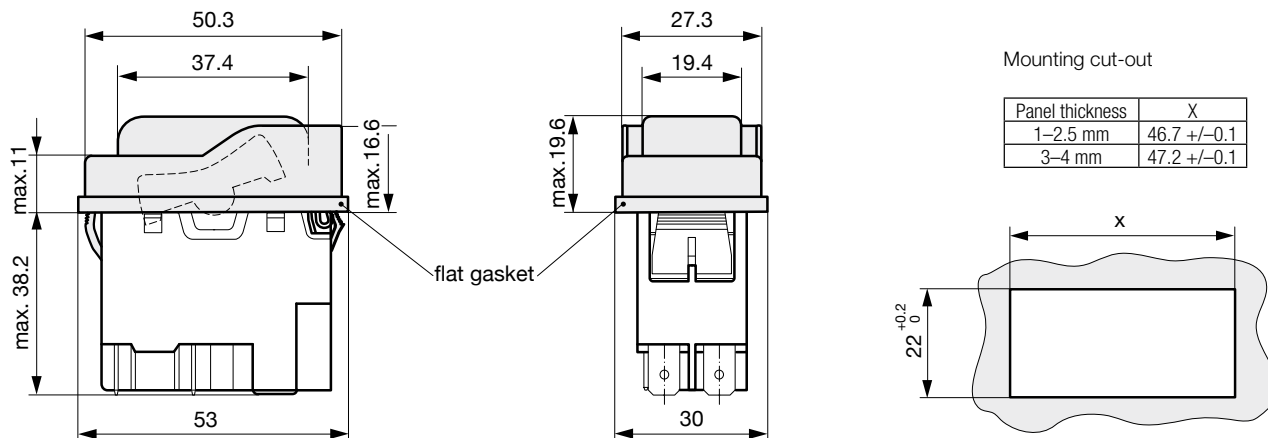
UP1 - **3T** - **F** - **U** - **31** - **XXX** - **UZZ11**

Dimensions

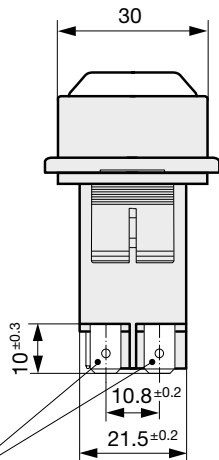
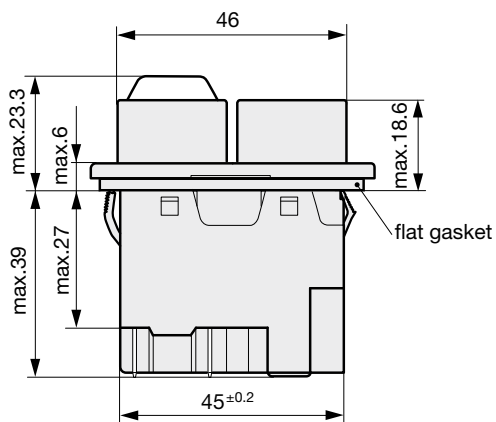
UP1-1WF...



UP1-1WF... with UZZ11

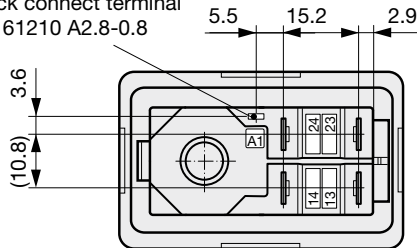
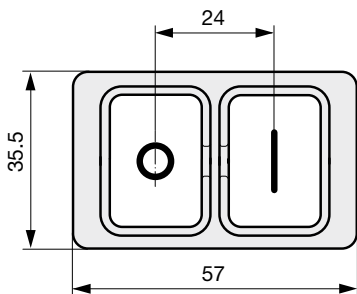


UP1-3TF...



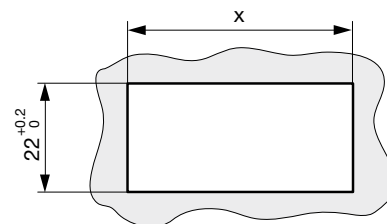
Quick connect terminal
IEC 61210 A6.3-0.8

Quick connect terminal
IEC 61210 A2.8-0.8

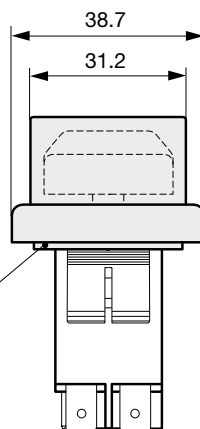
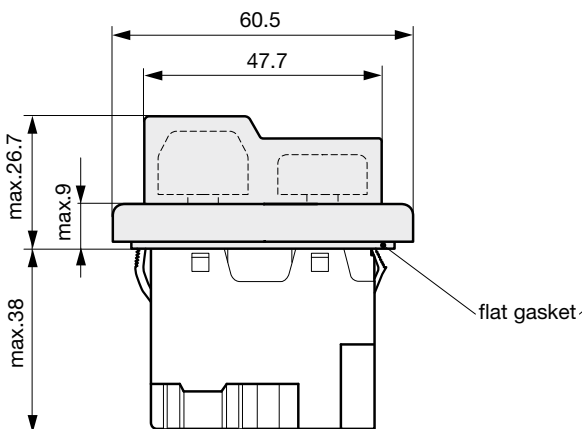


Mounting cut-out

Panel thickness	X
2.5–3 mm	46.7 +/-0.1
3.5–5 mm	47.2 +/-0.1

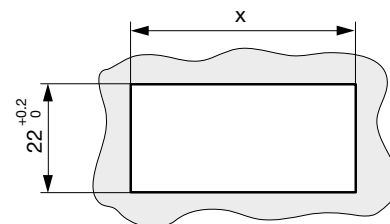


UP1-3TF... with UZZ31

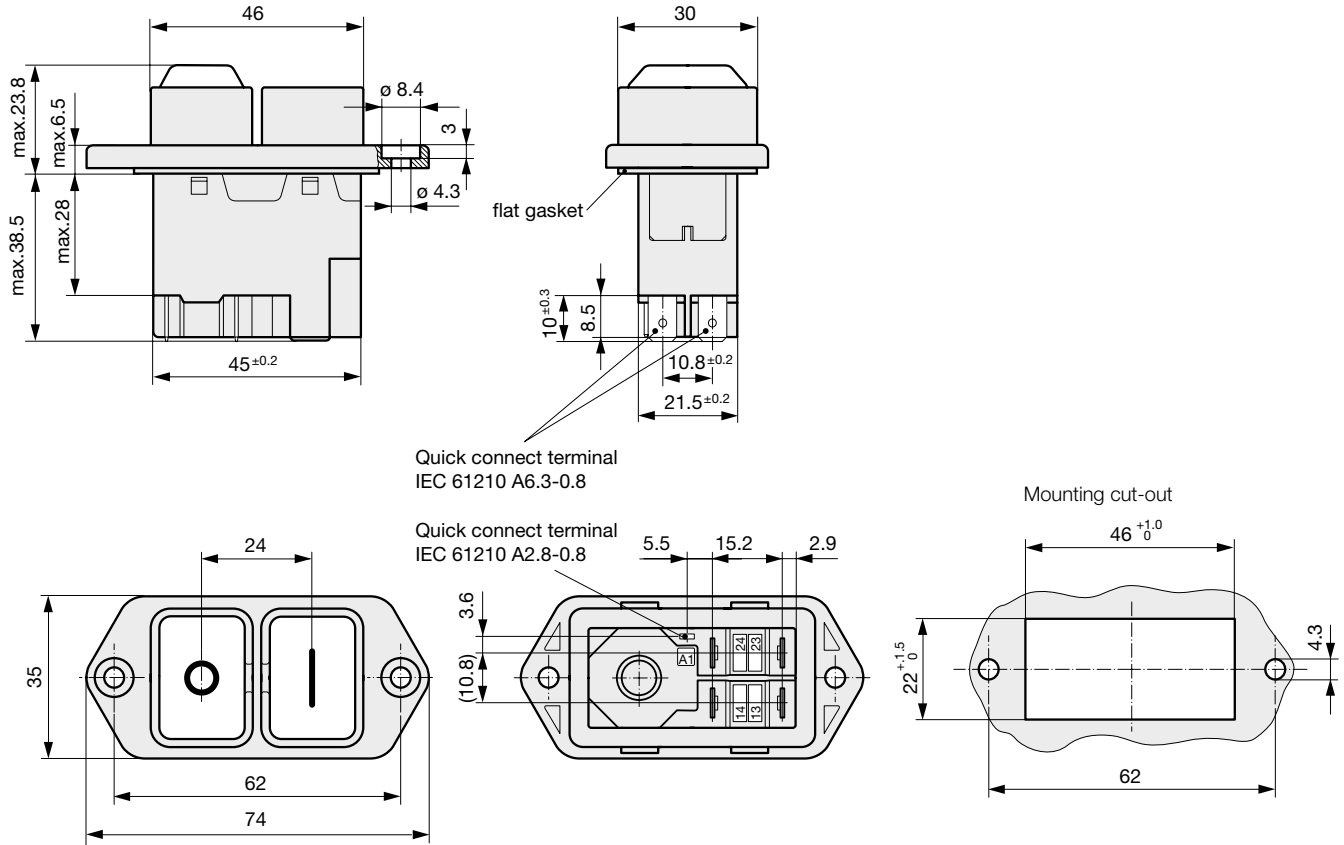


Mounting cut-out

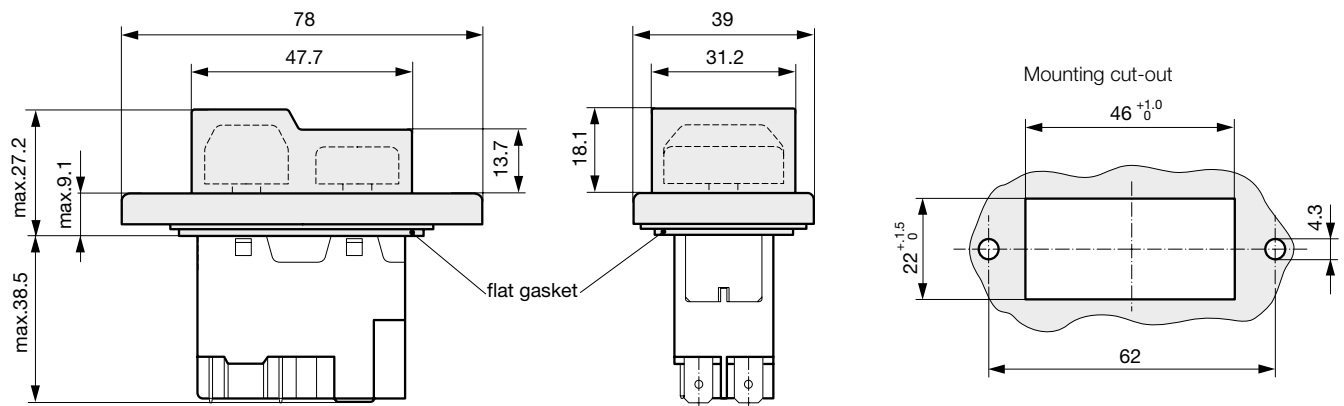
Panel thickness	X
1.5–3 mm	46.7 +/-0.1
3.5–4 mm	47.2 +/-0.1



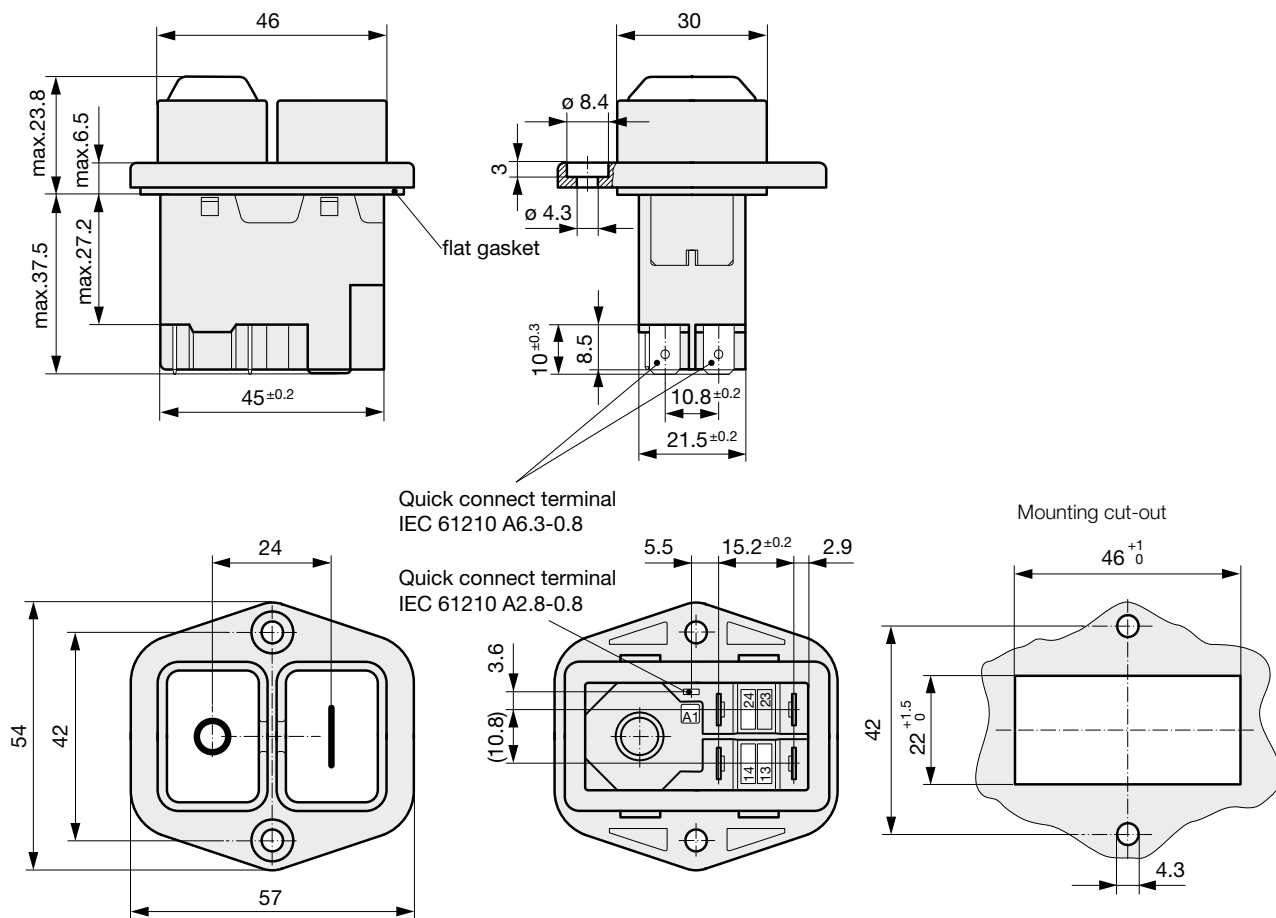
UP1-5TF...



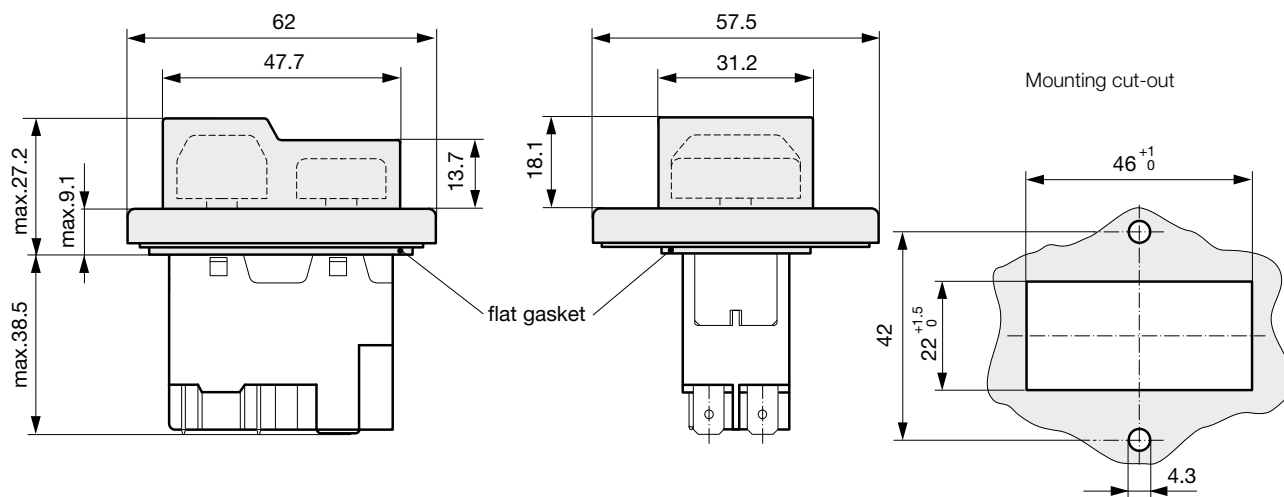
UP1-5TF... with UZZ51/UZZ61



UP1-7TF... /UP1-8TF...



UP1-7TF... /UP1-8TF... with UZZ71/UZZ81



UP1-7TF ... /UP1-8TF ... with UZZ91

