

## Description

Single or two pole isolation switches to IEC 60947/EN 60947 with toggle actuation. Options include auxiliary contacts, a moulded flame retardant enclosure for added environmental protection (with or without rotary action external operating knob), and remote operation - disconnection only, or disconnection and re-connection. A version for use in hazardous areas (e.g. petroleum and chemical tankers) is available to special order.

## Typical applications

Vehicles of all types (including tankers), boats, battery powered systems.

## Ordering information

Type No.	
921	single pole switch
922	double pole switch
<b>Enclosure design (optional)</b>	
B3	without external operating knob, for use only with single pole devices
B31	with external operating knob, for use only with single pole devices
B32	without external operating knob, for use only with double pole devices
B33	with external operating knob, for use only with double pole devices
B34	with external operating knob, for use only with double pole devices with remote-re-connection facility
B35	with external operating knob, for use only with single pole devices with remote-re-connection facility
C3	without external operating knob, 1-pole, IP65
C32	without external operating knob, 2-pole, IP65
<b>Terminal design</b>	
K12	for single pole version, enclosures B3, B31, B35
K60	for single pole version
K61	for double pole version
K62	for double pole version
K71	compulsory and only for C3 housing
K72	for double pole version, enclosures B32, B33, B34
K76	compulsory and only for C32 housing
<b>Mounting</b>	
2	compulsory and only for C3 and C32 housing
5	mounting brackets - surface mounting
<b>Auxiliary contacts (blade terminals 6.3x0.8)</b>	
Si2	one N/O
Si01	one N/C, two N/O
2Si2	two N/O
Si10	one each N/O and N/C
<b>Remote operation</b>	
FA	remote disconnection
FC	electrical remote disconnection (FA) and re-connection (FE)
BC-FA	electrical remote disconnection and manual remote re-connection (not for enclosure -B.. or -C..)
<b>Coil voltage</b>	
12	AC/DC 12 V
24	AC/DC 24 V
<b>Current ratings</b>	
240 A	type 921
120 A	type 922
921 - ... - K60 - 5 - Si2 - FA 24 - 240 A	ordering example

The exact part number required can be built up from the table of choices shown above. Ordering references for optional features should be omitted if not required.



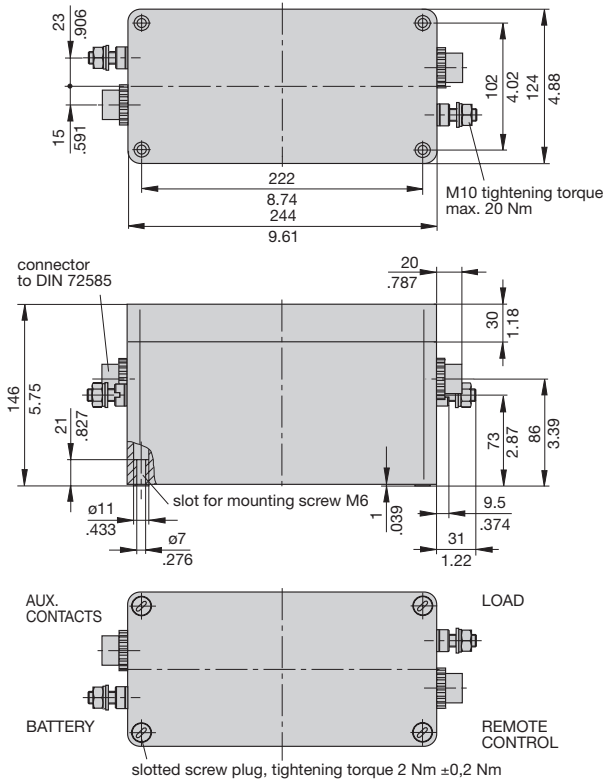
**921** single pole  
**922** double pole

## Technical data

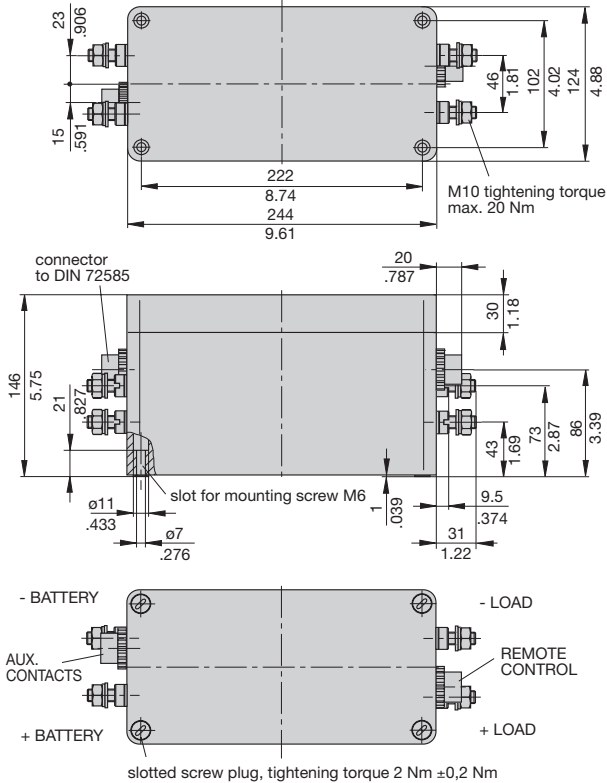
Voltage rating	DC 12 V; DC 24 V	
Current rating range	240 A type 921, single pole 120 A type 922, double pole	
Auxiliary contact rating	6 A at DC 24 V 1 A at DC 110 V	
Electrical remote disconnection (-FA):	operating voltage DC 12 V or DC 24 V operating current approx. 18 A or approx. 12 A max. pulse time 10 ms < t <sub>ON</sub> < 20 ms / t <sub>OFF</sub> > 10 s switching time < 20 ms	
Electrical remote re-connection (-FE):	operating voltage DC 12 V or DC 24 V operating current approx. 30 A or approx. 15 A max. pulse time 0.1 s < t <sub>ON</sub> < 1.2 s / t <sub>OFF</sub> > 60 s switching time < 100 ms	
Typical life	10,000 operations at I <sub>N</sub> 20,000 operations mechanical	
Ambient temperature	-40...+75 °C (-40...+167 °F)	
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse withstand voltage 6 kV	pollution degree 3
Dielectric strength (IEC 60664 and 60664A)	test voltage AC 3,300 V operating area pole/pole AC 3,300 V main to aux. circuit AC 2,200 V aux. circuits 11-12 to 13-14 AC 1,000 V	
Insulation resistance	> 100 MΩ (DC 500 V)	
Switching capacity	Type 921 2,500A for 1s at +23°C 600A for 1min at +23°C 600A for 2min at -23°C 600A for 90s at 0°C	Type 922 1,500A for 1s at +23°C 600A for 30s at +23°C 600A for 1min at -23°C 600A for 45s at 0°C
Degree of protection (IEC 529/DIN 40050)	operating area IP40 terminal area IP00 IP54 with enclosure -B.. IP65 with enclosure -C..	
Vibration	5 g (57-200 Hz) ±0.38 mm (10-57 Hz) to IEC 60068-2-6, test Fc 10 frequency cycles/axis	
Shock	25 g (11 ms), to IEC 60068-2-27, test Ea	
Corrosion	96 hours at 5 % salt mist to IEC 60068-2-11, test Ka	
Humidity	240 hours at 95 % RH, to IEC 60068-2-3, test Ca	
Mass	approx. 900 g base unit + approx. 400 g remote disconnection + approx. 100 g remote re-connection + approx. 750 g B housing + approx. 1,000 g C housing	

## Dimensions

### Moulded enclosure IP 65 -C3

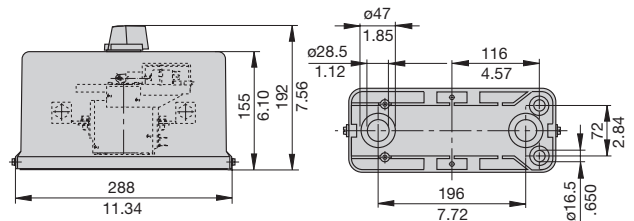


### Moulded enclosure IP 65 -C32

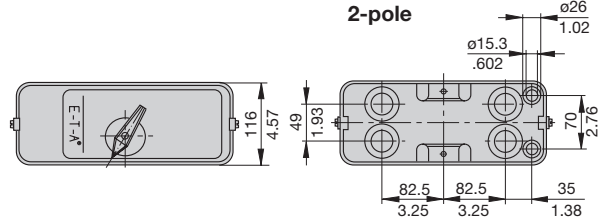


### Moulded enclosure IP54 -B3

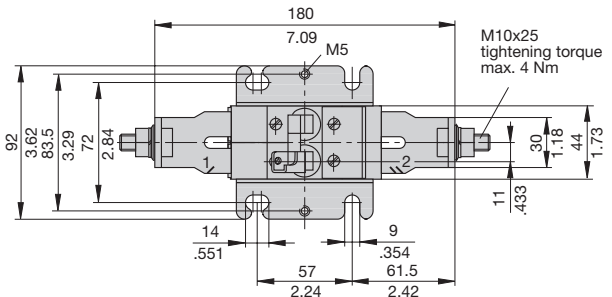
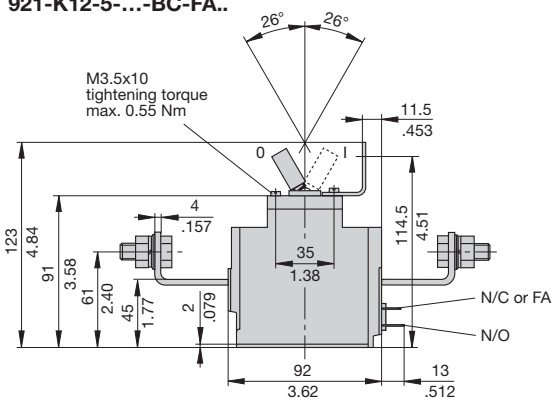
#### 1-pole



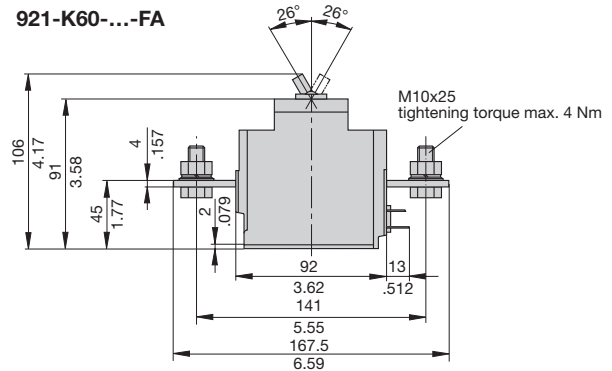
#### 2-pole



### 921-K12-5-...-BC-FA..



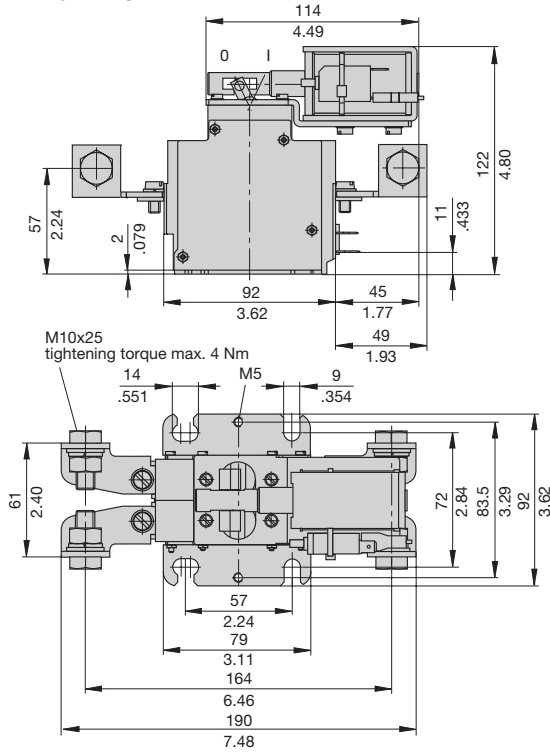
### 921-K60-...-FA



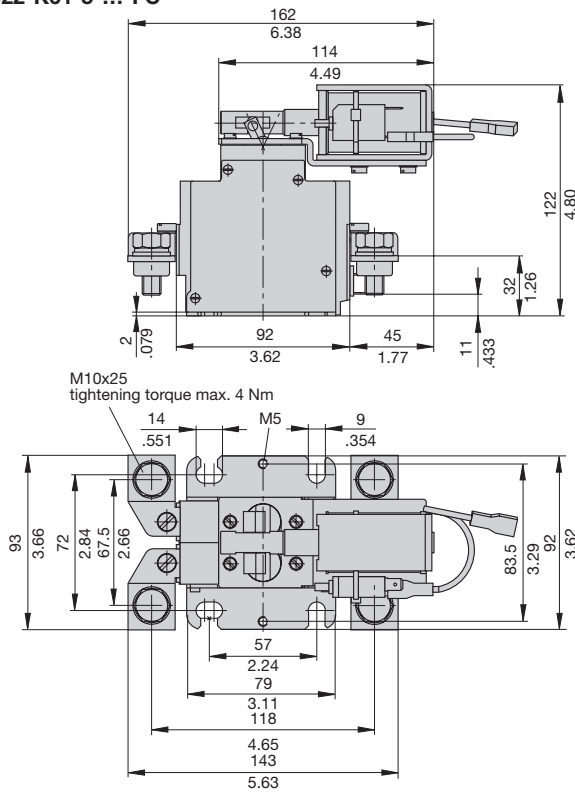
This is a metric design and millimeter dimensions take precedence (mm)  
inch

## Dimensions types 922

922-K72-5-...-FC

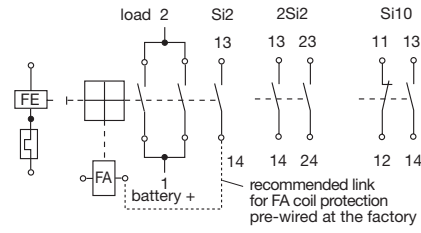


922-K61-5-...-FC

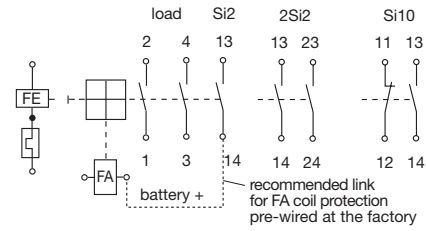


## Internal connection diagrams

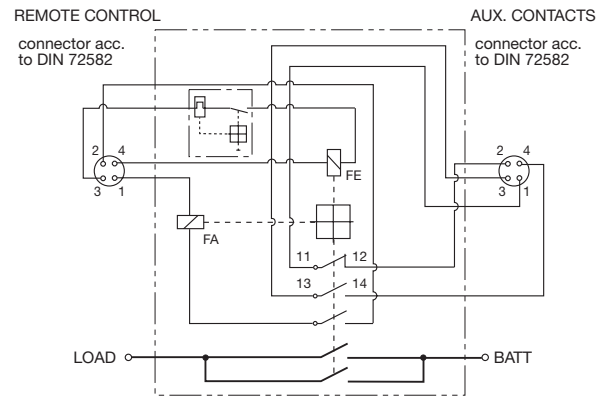
921



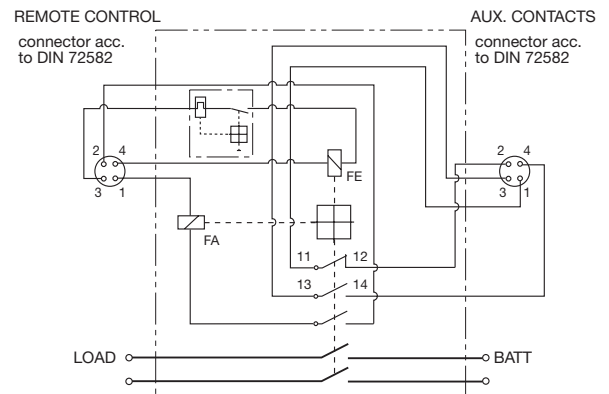
922



921-C3-...

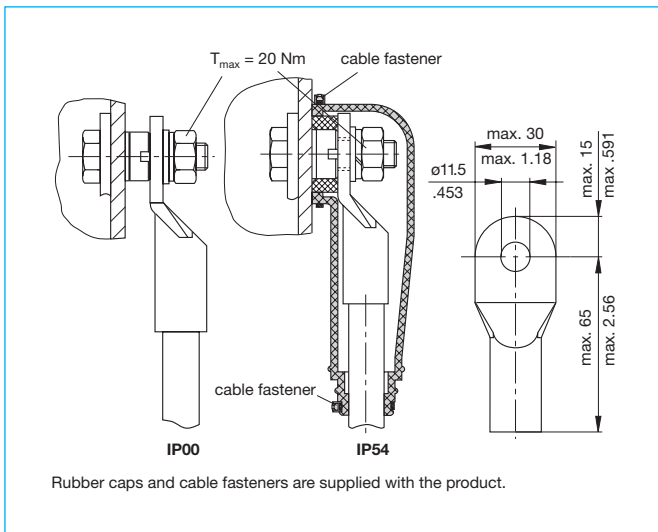


922-C32-...

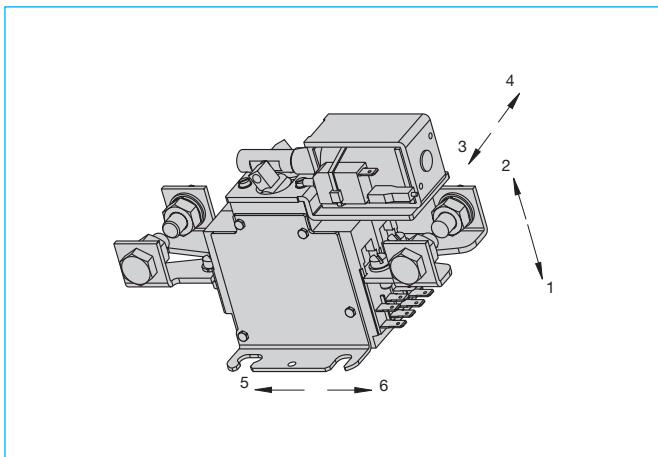


This is a metric design and millimeter dimensions take precedence (mm/inch)

## Terminals with housing C3.



## Shock directions



This is a metric design and millimeter dimensions take precedence ( $\frac{\text{mm}}{\text{inch}}$ )

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.