

■ The electrical auxiliaries are combined with iC60 circuit breakers, iID residual current circuit breakers, remote tripping switch disconnectors iSW-NA, RCA remote controls and ARA automatic reclosers; they enable tripping or remote indication of their position (open/closed/tripped) upon a fault.

■ They are fastened by clips (without tools) to the left side of the breaker.

■ The iOF/SD+OF auxiliary is a 2-in-1 product: via a mechanical selector switch, it provides two contacts, OF+SD or OF+OF.

■ The iOF+SD24 auxiliary can report open/closed (OF) status information and intentional or fault tripping of the associated device (SD) to the Acti9 Smartlink or a programmable logic controller via the TI24 interface (24 V DC).

Tripping auxiliaries:

IEC/EN 60947-1

- iMN: undervoltage release
- iMNx: delayed undervoltage release
- iMNx: undervoltage release, independent from supply voltage
- iMX: shunt release
- iMX+OF: shunt release with open/close contact.

EN 50550

- iMSU: overvoltage release

Indication auxiliaries:

IEC/EN 60947-5-1

- iOF: open/close contact
- iSD: fault indicating contact
- iOF/SD+OF: open/close contact and switchable OF or SD contact.

IEC/EN 60947-5-4

- iOF+SD24: open/close contact OF and default indicating contact SD with TI24 interface.

DB404939



DB404940



Electrical auxiliaries for iC60, iID, iDPN Vigi, iSW-NA, RCA and ARA (cont.)

The mounting order for the various auxiliaries must be complied with.
The tripping auxiliaries (iMN, iMX) should be mounted first, as close as possible to the circuit breaker or the residual current circuit breaker. Then, the indicating auxiliaries (iOF, iSD) should be mounted, complying with their position shown in the following table.

Indicating auxiliaries

PE104474-25



PE104475-25



DB123583














1 (iOF/SD+OF or iOF+SD24 or iSD)	1 iOF/SD+OF
1 iOF	1 (iSD or iOF or iOF/SD+OF)
None	1 iOF+SD24
None	None
1 iSD	1 iSD
None	1 (iSD or iOF or iOF/SD+OF or iOF+SD24)
1 iOF	1 (iSD or iOF or iOF/SD+OF)
None	1 (iSD or iOF or iOF/SD+OF or iOF+SD24)
1 iOF	1 (iSD or iOF or iOF/SD+OF)





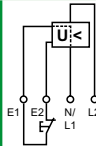


Tripping devices must be mounted first. Comply with the position of the SD function.

*iSW-NA: the iSD auxiliary contact must be associated with an auxiliary (iMN, iMX, iMX+OF); it indicates that the remote tripping switch disconnector has been tripped open.

	Tripping auxiliaries	Remote control	Device	Vigi iC60
		ARA automatic recloser or RCA remote control	iC60 circuit breaker or iID residual current circuit breaker or iSW-NA switch-disconnector	Vigi iC60 add-on residual current device
PB104496-25	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	-	 iC60	 Vigi iC60
	2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	-	-	-
	2 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	-	-	-
	3 iMSU max.	-	-	-
	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	-	 iID/iSW-NA	-
	1 (iMN, iMNs, iMNx or iMX, iMX+OF or iMSU) max.	 ARA	 iC60	 Vigi iC60
	None	 iID	-	-
	1 (iMX or iMN or iMSU) max.	 RCA	 iC60	 Vigi iC60
	None	-	-	-



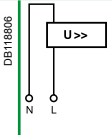
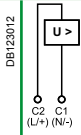
Tripping

Auxiliaries	iMN	iMNs	iMNx				
Type	Undervoltage release						
	Instantaneous	Delayed	Independent of the supply voltage				
							
Function	<ul style="list-style-type: none"> Trips the device with which it is combined when its input voltage decreases (between 70 % and 35 % U_n). Prevents device closing again until its input voltage is restored 		<ul style="list-style-type: none"> Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact) 				
		<ul style="list-style-type: none"> Not tripping on transient voltage dip (up to 0.2 s) 	<ul style="list-style-type: none"> A drop in the supply voltage does not trip the associated device A locking push-button control allows the circuit protected (e.g. machine control) to be placed in safety configuration 				
Wiring diagrams							
Use	<ul style="list-style-type: none"> Emergency stoppage by normally closed push button Ensures the safety of power supply circuits for several machines by preventing "uncontrolled" restarting 		<ul style="list-style-type: none"> Emergency stoppage with fail-safe principle Insensitive to control circuit voltage variation to increase service continuity Important: Before any servicing operation switch off the mains power supply (voltage presence at terminals E1/E2) 				
Catalogue numbers	A9A26960	A9A26961	A9A26959	A9A26963	A9A26969	A9A26971	
iC60, iID, iDPN Vigi, iSW-NA, RCA et ARA	■	■	■	■	■	■	
iC60, iID double terminals	■	■	■	■	■	■	
Technical specifications							
Rated voltage (Ue)	V AC	220...240	48	115	220...240	220...240	380...415
	V DC	—	48	—	—	—	—
Standardised operating and non-response to voltage times (Ua)*		—	—	—	—	—	—
Maximum operating time		—	—	—	—	—	—
Minimum non-response time		—	—	—	—	—	—
Operating frequency	Hz	50/60	—	400	50/60	50/60	—
Red mechanical indicator		On front face			On front face		On front face
Test function		—			—		—
Width in 9 mm modules		2			2		2
Operating current		—			—		—
Number of contacts		—			—		—
Operating temperature	°C	-35...+70			-35...+70		-35...+70
Storage temperature	°C	-40...+85			-40...+85		-40...+85



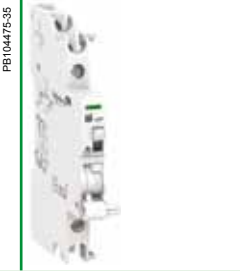


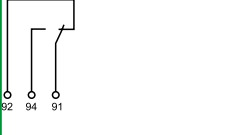
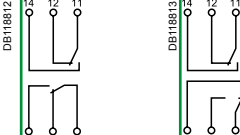
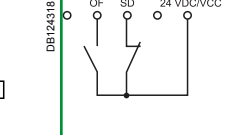
*(Ua)

Voltages measured between the phase and the neutral conductor, at which the IMSU device must control the associated protective device.

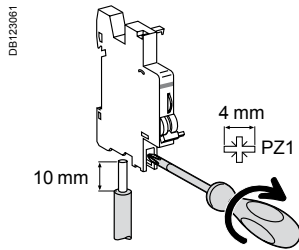
Electrical auxiliaries for iC60, iID, iDPN Vigi, iSW-NA, RCA and ARA (cont.)





iMSU					iMX			iMX+OF			
Overvoltage release					Shunt release			With Open/Close auxiliary contact			
											
<ul style="list-style-type: none"> Switches off the power supply by opening the breaker with which it is combined, in the event that the phase/neutral voltage is exceeded (loss of neutral). For a four-phase network, use three iMSU tripping auxiliaries 					<ul style="list-style-type: none"> Trips the breaker when powered 			<ul style="list-style-type: none"> Includes an open/close contact (OF) to indicate the "open" or "closed" position of the breaker 			
											
<ul style="list-style-type: none"> Protection of equipment against overvoltages on the electrical network (neutral conductor break) Voltage monitoring between phase and neutral conductors 					<ul style="list-style-type: none"> Emergency stoppage by normally open push button 			<ul style="list-style-type: none"> Emergency stoppage by normally open push button Remote indication of the position of the associated breaker 			
A9A26500					A9A26476	A9A26477	A9A26478	A9A26946	A9A26947	A9A26948	
■					■	■	■	■	■	■	
■					■	■	■	■	■	■	
230					100...415	48	12...24	100...415	48	12...24	
-					110...130	48	12...24	110...130	48	12...24	
255 V AC					275 V AC	300 V AC	350 V AC	400 V AC	-	-	-
No tripping					15 s	5 s	0.75 s	0.20 s	-	-	-
					3 s	1 s	0.25 s	0.07 s	-	-	
50/60					50/60			50/60			
On front face					On front face			On front face			
-					-			-			
2					2			2			
-					-			≤ 24 V DC 10 mA mini, 6 A maxi 48 V DC 2 A ≤ 130 V DC 1 A ≤ 240 V AC 6 A 415 V AC 3 A 1 NO/NC			
-35...+70					-35...+70			-35...+70			
-40...+85					-40...+85			-40...+85			

Electrical auxiliaries for iC60, iID, iDPN Vigi, iSW-NA, RCA and ARA (cont.)

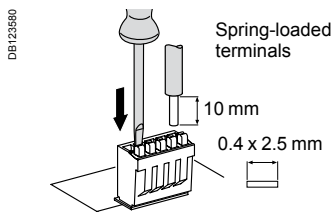
		Indication						
Auxiliaries		iOF	iSD	iOF/SD+OF	iOF+SD24			
Type		Open/close auxiliary contact	Fault indicating contact	Double open/close or fault indicating contact	Double open/close and fault indicating contact			
		 <p>PB104474-35</p>	 <p>PB104476-35</p>	 <p>PB104475-35</p>	 <p>PB107750-35</p> <p>ComReady</p>			
Function		<ul style="list-style-type: none"> Changeover contact indicates "open" or "closed" position of the breaker 	<ul style="list-style-type: none"> Changeover contact indicates position of the breaker; upon: <ul style="list-style-type: none"> electrical fault action on tripping auxiliary Same indication as VISI-TRIP 	<ul style="list-style-type: none"> The iOF/SD+OF auxiliary is a 2-in-1 product: via a mechanical selector switch, it provides two contacts, OF+SD or OF+OF 	<ul style="list-style-type: none"> 2 contacts (1 NO + 1 NC) can report the signalling information of the associated device to the Acti 9 Smartlink or a programmable logic controller: <ul style="list-style-type: none"> electrical fault actuation of the tripping auxiliary "Open" or "Closed" position of the associated device 			
Wiring diagrams		 <p>DB11881/0</p>	 <p>DB11881/1</p>	 <p>DB11881/2 (OF position), DB11881/3 (SD position)</p>	 <p>DB1249/6</p>			
Use		<ul style="list-style-type: none"> Remote indication of the position of the associated breaker 	<ul style="list-style-type: none"> Remote indication of tripping upon a fault of the associated breaker 	<ul style="list-style-type: none"> Remote indication of position and/or tripping upon a fault of the associated breaker 	<ul style="list-style-type: none"> Remote indication of position and tripping upon a fault of the associated breaker 			
Catalogue numbers		A9A26924	A9A26869	A9A26927	A9A26855	A9A26929	A9A26897	
iC60, iID, iDPN Vigi, iSW-NA, RCA et ARA		■	–	■	–	■	■	
iC60, iID double terminals		–	■	–	■	■	■	
Technical specifications								
Rated voltage (Ue)	V AC	240...415		240...415		240...415		–
	V DC	24...130		24...130		24...130		24
Operating frequency	Hz	50/60		50/60		50/60		–
Red mechanical indicator		–		On front face		On front face		On front face
Test function		On toggle		On toggle		On toggle		On toggle
Width in 9 mm modules		1		1		1		1
Operating current	24 V DC	10 mA mini, 6 A maxi		10 mA mini, 6 A maxi		10 mA mini, 6 A maxi		2 mA mini, 50 mA maxi
	48 V DC	2 A		2 A		2 A		–
	60 V DC	1.5 A		1.5 A		1.5 A		–
	130 V DC	1 A		1 A		1 A		–
	240 V AC	6 A		6 A		6 A		–
	415 V AC	3 A		3 A		3 A		–
Number of contacts		1 NO/NC		1 NO/NC		1 NO/NC + 1 NO/NC		1 NO/NC
Operating temperature	°C	-35...+70		-35...+70		-35...+70		-25...+70
Storage temperature	°C	-40...+85		-40...+85		-40...+85		-40...+85



Connection



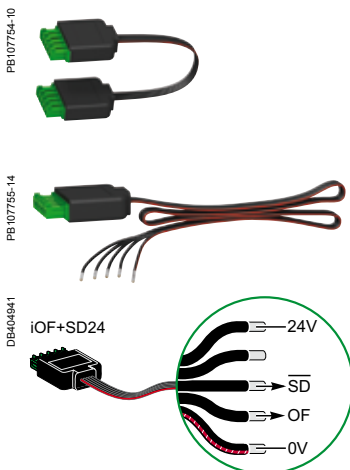
Type	Tightening torque	Copper cables		Multi-cables terminal	
		Rigid	Flexible	Rigid cables	Cables with ferrule
		 DB122945	 DB123007	 DB123011	 DB123008
Indication auxiliaries	1 N.m	1 to 4 mm ²	0.5 to 2.5 mm ²	2 x 2.5 mm ²	2 x 1.5 mm ²
Tripping auxiliaries	1 N.m	1 to 6 mm ²	0.5 to 4 mm ²	2 x 2.5 mm ²	2 x 2.5 mm ²

Ti24 connector connection



Type	Catalogue numbers	Copper cables	
		Rigid	Flexible
		 DB122945	 DB123553
Ti24 interface	A9XC2412	1 x 0,5 à 1,5 mm ²	1 x 0,5 à 1,5 mm ²

Ti24 prefabricated cables connection



Type	Catalogue numbers	Length
Connection for Acti 9 Smartlink		
6 short prefabricated	A9XCAS06	100 mm
6 medium-sized prefabricated	A9XCAM06	160 mm
6 long prefabricated	A9XCAL06	870 mm
Connection for PLC type terminals		
6 long prefabricated on a single side	A9XCAU06	870 mm

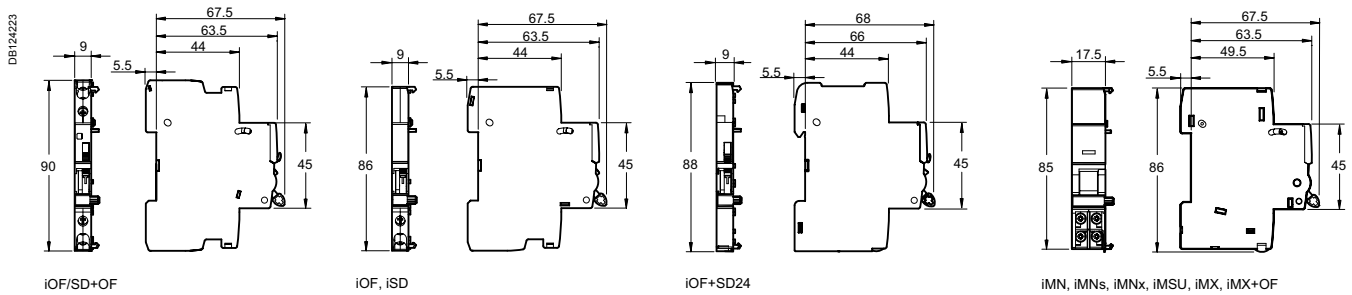
Electrical auxiliaries for iC60, iID, iDPN Vigi, iSW-NA, RCA and ARA (cont.)

Technical data

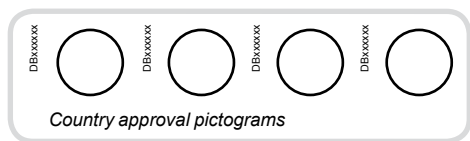
Weight (g)

Electrical auxiliaries	
Type	
iMN	69
iMNs	72
iMNx	79
iMSU	68
iMX	64
iMX+OF	68
iOF	32
iSD	33
iOF/SD+OF	43
iOF+SD24	25

Dimensions (mm)



iMDU electrical auxiliary for Reflex iC60



A9C18195

The voltage matching module allows safety voltages of 24 and 48 V AC/DC to be used on the control inputs.

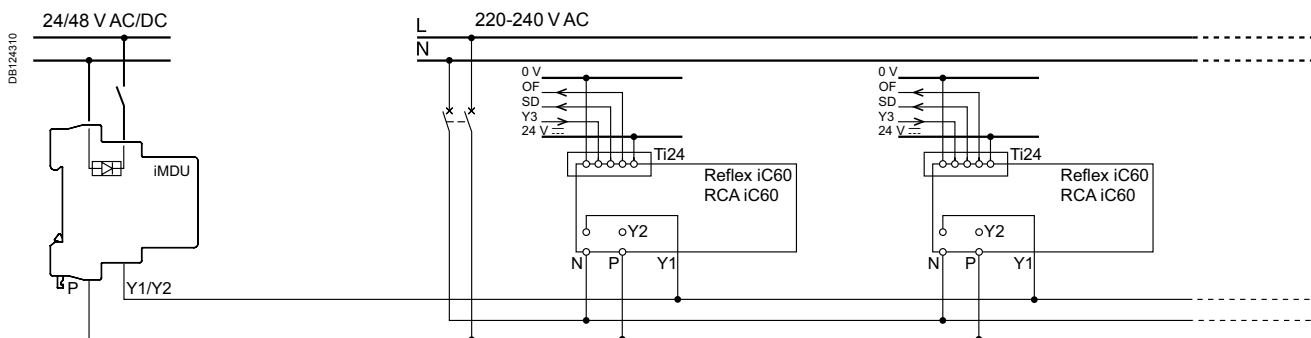
- Only connects to the Reflex iC60 circuit breakers remote controlled by a 220-240 V control voltage
- Galvanic isolation 6000 V
- Maximum combined power between terminals P and Y1/Y2: 100 mA at 230 V and 25°C.

Catalogue numbers

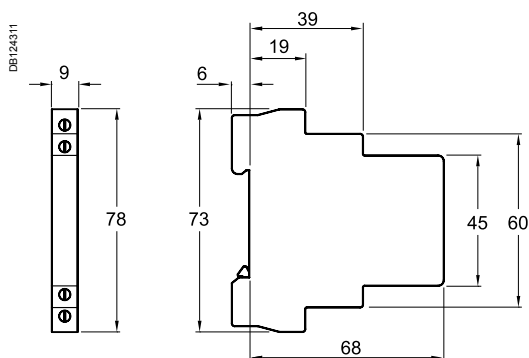
Electrical auxiliary for Reflex iC60		
Type		Width in 9 mm modules
iMDU	A9C18195	1

Diagram

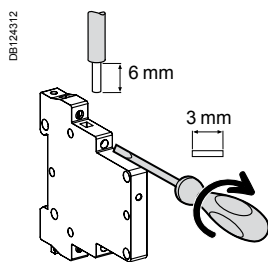
An iMDU electrical auxiliary allows up to a maximum of five Reflex iC60 to be controlled simultaneously at the same input Y1 or Y2.



Dimensions (mm)



Connection



Type	Tightening torque	Copper cables	
		Rigid	Flexible or with ferrule
iMDU	1 N.m	1.5 mm ²	1.5 mm ²

Technical data

Main characteristics		
Control circuit voltage	24...48 V AC/DC	
Insulation voltage (Ui)	500 V	
Additional characteristics		
Degree of protection (IEC 60529)	Device only	IP20
	Device in modular enclosure	IP40
Operating temperature	-20°C to +60°C	
Storage temperature	-40°C to +80°C	
Tropicalisation	Treatment 2 (relative humidity 95 % at 55°C)	
Weight	53 g	