Electrical auxiliaries for iC60, iID, iDPN Vigi, iSW-NA, RCA and ARA

■ The electrical auxiliaries are combined with iC60 circuit breakers, iID residual current circuit breakers, remote tripping switch disconnector 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 Acti 9 Smartlink or a programmable logic controller via the TI24 interface (24 V DC).

Tripping auxiliaries:

IEC/EN 60947-1

■ iMN: undervoltage release
■ iMNs: delayed undervoltage release
■ iMNx: undervoltage release, independant 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

Electrical auxiliaries for iC60, iID, 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.

DB123593

Indicating auxiliaries

PB104474-25

PB104475-25

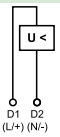
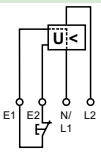
1 (iOF/SD+OF or iOF+SD24 or iSD)	1 iOF/SD+OF
1 iOF	1 (iSD or iOF or iOF/SD+OF)
None	1 iOF+SD24
None	None
1 iSD	1 iSD
None	1 (iSD or iOF or iOF/SD+OF or iOF+SD24)
1 iOF	1 (iSD or iOF or iOF/SD+OF)
None	1 (iSD or iOF or iOF/SD+OF or iOF+SD24)
1 iOF	1 (iSD or iOF or iOF/SD+OF)

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	Vigi iC60 add-on residual current device
	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			

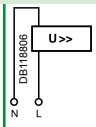
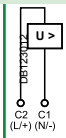
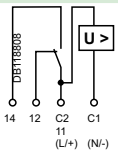
Electrical auxiliaries for iC60, iID, iDPN Vigi, iSW-NA, RCA and ARA (cont.)

Tripping

Auxiliaries	iMN			iMNs	iMNx	
Type	**Undervoltage release**					
	Instantaneous			Delayed	Independent of the supply voltage	
	PB104477-35 			PB104478-35 	PB104480-35 	
Function						
	■ Trips the device with which it is combined when its input voltage decreases (between 70 % and 35 % Un). Prevents device closing again until its input voltage is restored				■ Tripping of the associated device by opening of the control circuit (e.g. push-button, dry contact)	
				■ Not tripping on transient voltage dip (up to 0.2 s)	■ 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						
	DB118804 				DB118805 	
Use						
	■ Emergency stoppage by normally closed push button ■ Ensures the safety of power supply circuits for several machines by preventing "uncontrolled" restarting				■ 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
Rated voltage (Ue) 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	

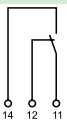
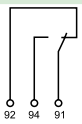
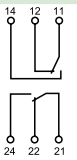
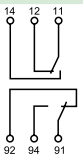
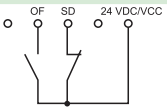
**(Ua)*
Voltages measured between the phase and the neutral conductor, at which the iMSU device must control the associated protective device.

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
			
	■ 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	■ Trips the breaker when powered	
			■ Includes an open/close contact (OF) to indicate the "open" or "closed" position of the breaker
			
	■ Protection of equipment against overvoltages on the electrical network (neutral conductor break) ■ Voltage monitoring between phase and neutral conductors	■ Emergency stoppage by normally open push button	■ 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.)

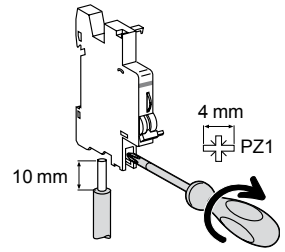
Indication

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
	PB104474-35 		PB104476-35 		PB104475-35 	PB107750-35 
Function	■ Changeover contact indicates "open" or "closed" position of the breaker		■ Changeover contact indicates position of the breaker; upon: □ electrical fault □ action on tripping auxiliary ■ Same indication as VISI-TRIP		■ 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	■ 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: □ electrical fault □ actuation of the tripping auxiliary □ "Open" or "Closed" position of the associated device
Wiring diagrams	DB118810 		DB118811 		DB118812  OF position DB118813  SD position	DB124318 
Use	■ Remote indication of the position of the associated breaker		■ Remote indication of tripping upon a fault of the associated breaker		■ Remote indication of position and/or tripping upon a fault of the associated breaker	■ 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				2 mA mini, 50 mA maxi
	48 V DC	2 A				-
	60 V DC	1.5 A				-
	130 V DC	1 A				-
	240 V AC	6 A				-
	415 V AC	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

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

Connection

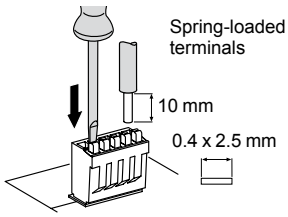
DB123061



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 mm²	0.5 to 2.5 mm²	2 x 2.5 mm²	2 x 1.5 mm²
Tripping auxiliaries	1 N.m	1 to 6 mm²	0.5 to 4 mm²	2 x 2.5 mm²	2 x 2.5 mm²

Ti24 connector connection

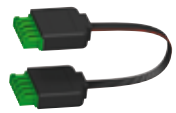
DB123580



Type	Catalogue numbers	Copper cables	
		Rigid	Flexible
	DB122945	DB123553	
Ti24 interface	A9XC2412	1 x 0,5 à 1,5 mm²	1 x 0,5 à 1,5 mm²

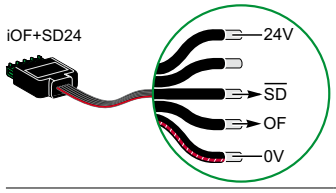
Ti24 prefabricated cables connection

PB107754-10



PB107755-14

DB404941



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

Accessories for iC60, iID , iDPN Vigi, iSW-NA, Reflex iC60, RCA, ARA, iSW

Mounting

Accessories	Rotary handle				Plug-in base
	PB104509-35 		PB106297_10 		PB104508-35 
Function					
	Front or side-mounted control ■ Degree of protection: IP55 rotary handle ■ Installation: □ the control mechanism is mounted on the device □ the rotary handle is fixed to the front or side of the enclosure ■ Front-mounted (on door or faceplate) ■ Prevents the door from opening when the device is in the ON position (can be deactivated) ■ Can be padlocked when the device is in the "open" position (can be padlocked with the device in the "closed" position subject to adaptation) ■ Can be locked by padlock of (dia. 5 to 8 mm), not supplied with the device ■ Pushbutton: iID test available in the front face of the rotary handle			■ The Laser Square tool brings the accurency to align the circuit breaker and the rotary handle	**Allows a breaker to be removed or replaced quickly, without handling the connections** ■ Degree of protection: IP20 ■ Consists of: □ a base to be fastened on a rail (or panel) □ 2 "blades" to be fastened in the device's terminals ■ Connection: tunnel terminals for cable up to 35 mm^2 rigid, 25 mm^2 flexible, ■ Installation: □ in universal enclosure □ on horizontal rail ■ Height: 178 mm ■ Not compatible with Vigi iC60 and auxiliaries ■ Can be locked by padlock of (dia. 6 mm), not supplied with the device
Catalogue numbers	A9A27005	A9A27006	A9A27008	GVAPL01	A9A27003 (1 per pole)
	Operating sub-assembly				
	+	+			
	Black handle	Red handle	No handle		
Set of	1	1	1	1	1
Suitability					
iC60	■ 2P, 3P, 4P				■
iSW	■ 2P, 3P, 4P				■
iC60 + Vigi iC60	■ 2P, 3P, 4P				–
iID	■				■ ⩽ 63 A
Reflex iC60 or RCA+iC60 or ARA+iC60	–				–
ARA+iID	–				–

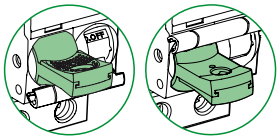
Accessories for iC60, iID , iDPN Vigi, iSW-NA, Reflex iC60, RCA, ARA, iSW (cont.)

Padlocking device

PB104492-15

P135159-40

DB123599



Used to padlock breaker in open or closed position
- Padlock diameter: 3 to 6 mm
- Sealable (max. diameter: 1.2 mm)
- Locking in ON position does not prevent tripping of the breaker in the event of faults
- Suitable for IEC/EN 60947-2 compliant disconnection

	MCB	RCBO
	A9A26970	A9A27049
	10	10
	■	
	■	
	■	
	■	
	■	
	■	

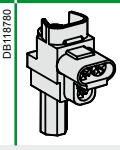
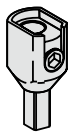
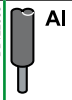
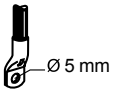
Accessories for iC60, iID , iDPN Vigi, iSW-NA, Reflex iC60, RCA, ARA, iSW (cont.)

Security

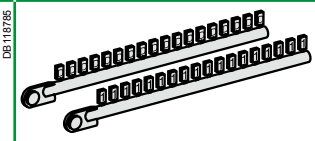
Accessories	Screw shield		Terminal shield		Inter-pole barrier	Spacer
	PB104489-14	PB104488-14	PB104502-35	PB104503-35	PB104494-30	PB104483-35
						
Function						
	Prevents any contact with the connecting screws ■ Upgrades degree of protection to IP20D ■ Sealable, max. diameter 1.2 mm		**Prevents any contact with the terminals** ■ Upgrades degree of protection to IP20D ■ Sealable, max. diameter 1.2 mm ■ Set of two, for upstream and downstream terminals ■ For 3 poles: **A9A26975** + **A9A26976** ■ For 4 poles: 2 X **A9A26976**		**Enhances insulation between connections: cables, terminals, lugs, etc**	■ Used to: □ complete rows □ separate devices. Width: 1 x 9 mm module ■ Allows cable routing from one row to another, (above and below), up to 6 mm^2
Catalogue numbers	A9A26982	A9A26981	A9A26975	A9A26976	A9A27001	A9A27062
Set of	12 x 1 pole	20 x 4 poles (splittable)	2 x 1 pole	2 x 2 poles	10	5
Suitability						
iC60	–	■	■	■	■	■
iSW	–	–	■	■	■	■
Vigi iC60	■	–	–	–	–	■
iID	–	■	–	■	■	■
Reflex iC60 or RCA+iC60 or ARA+iC60	–	■	■	■	■	■
ARA+iID	–	■	–	■	■	■

Accessories for iC60, iID , iDPN Vigi, iSW-NA, Reflex iC60, RCA, ARA, iSW (cont.)

Connection

Accessories	Multi-cable terminal		50 mm² terminal Al	Screw-on connection for ring terminal
				
Function				
	For 3 copper cables: ■ Rigid up to 16 mm² ■ Flexible up to 10 mm²		For aluminium cables from 16 to 50 mm²	For lug tipped cables, front or rear mounting
				
Catalogue numbers	19091	19096	27060	27053
Set of	4	3	1	8
iC60 ⩽ 25 A Reflex iC60 ⩽ 25 A	–	–	–	■
iC60 >25 A Reflex iC60 40 A, iSW	■	■	■	■
Vigi iC60	–	–	–	–
iID	■	■	■	■
iDPN Vigi	–	–	–	■
iSW-NA	■	■	■	■
Tightening torque	2 N.m		10 N.m	2 N.m
Lenght stripping	11 mm		13 mm	–
Tools to use	Dia. 5 mm or PZ2		Hc 1/5" or 5 mm	Dia. 5mm

Marking

Accessories	Marker strip					
						
	Used for connection identification					
Catalogue numbers	0: AB1-R0 1: AB1-R1 2: AB1-R2 3: AB1-R3 4: AB1-R4	5: AB1-R5 6: AB1-R6 7: AB1-R7 8: AB1-R8 9: AB1-R9	A: AB1-GA B: AB1-GB C: AB1-GC D: AB1-GD E: AB1-GE F: AB1-GF G: AB1-GG H: AB1-GH I: AB1-GI	J: AB1-GJ K: AB1-GK L: AB1-GL M: AB1-GM N: AB1-GN O: AB1-GO P: AB1-GP Q: AB1-GQ R: AB1-GR	S: AB1-GS T: AB1-GT U: AB1-GU V: AB1-GV W: AB1-GW X: AB1-GX Y: AB1-GY Z: AB1-GZ	+: AB1-R12 -: AB1-R13 blank: AB1-RV
Set of	250					
iC60, Reflex iC60, iSW	■ 4 markers max. per pole					
Vigi iC60	■ 4 markers max. per device					
iID	■ 4 markers max. per device					
iDPN Vigi	■ 4 markers max. per device					
iSW-NA	■ 4 markers max. per device					