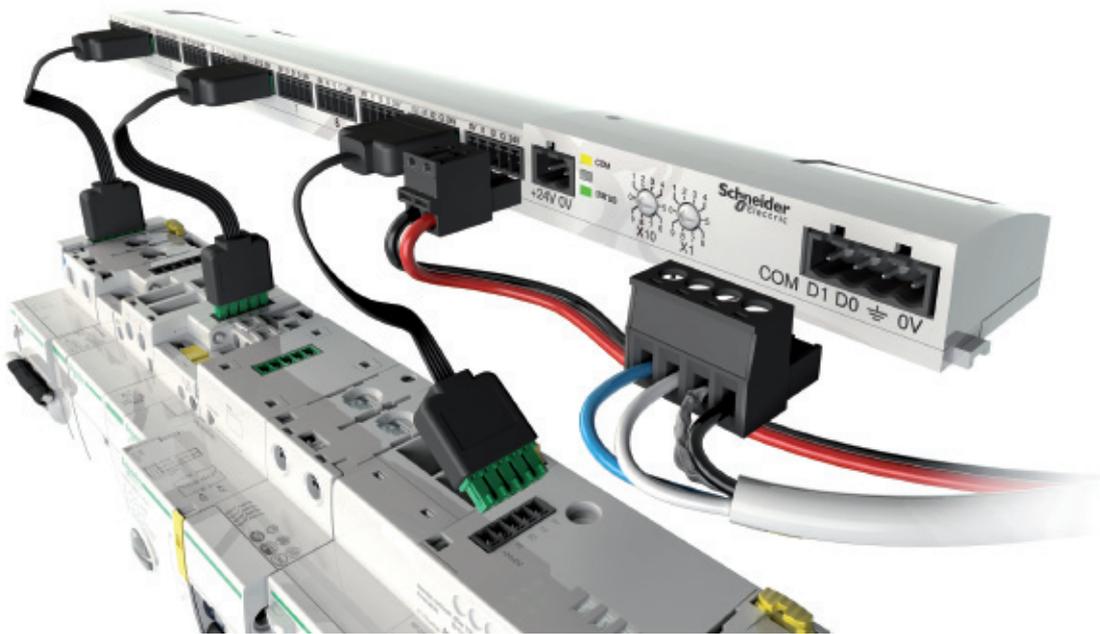


Acti 9 Communication System Diagnostics User Manual

05/2012



This document contains general descriptions and/or general technical specifications of the products mentioned. It cannot be used to determine the suitability or reliability of these products for specific user applications. It is the responsibility of each user or integrator to conduct the appropriate risk analysis in full, assessing and testing products as regards the application in which they will be used and the execution of this application. Neither Schneider Electric nor any of its affiliated companies or subsidiaries can be held responsible for incorrect use of the information contained in this document. If you have any suggestions for improvements or correction, or have found errors in this publication, please notify us.

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All pertinent state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When equipment is used for applications with technical safety requirements, follow the relevant instructions.

Failure to use Schneider Electric software or approved software with our hardware products may result in injury, harm, or improper operation.

Failure to follow this instruction can result in injury or equipment damage.

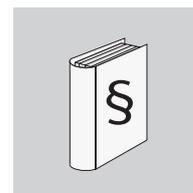
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Safety Precautions



Important Information

NOTICE

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of one of these symbols to a "Danger" safety label on a device indicates that an electrical hazard exists, which will result in death or personal injury if the instructions are not followed.



This is the safety alert symbol. It warns you of a risk of physical injury. You must comply strictly with the safety instructions associated with this symbol to avoid injuring yourself or putting your life in danger.

DANGER

DANGER indicates an imminently hazardous situation, which, if not avoided, **will result in death or serious injury**.

WARNING

WARNING indicates a potentially hazardous situation which **could result in death or serious injury**.

CAUTION

CAUTION indicates a potentially hazardous situation which **could result in minor or moderate injury**.

NOTICE

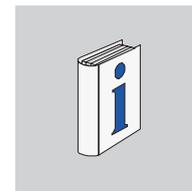
NOTICE indicates practices that do not involve the risk of bodily injury.

PLEASE NOTE

Electrical equipment should be installed, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this equipment.

A qualified person is one who has skills and knowledge related to the construction, operation and installation of electrical equipment, and has undertaken safety training in how to identify and avoid the hazards involved.

About This Manual



At a Glance

Aim of This Document

This manual provides diagnostic assistance in the form of logic diagrams.

Area of Application

The Acti 9 communication system can be easily integrated into any building management architecture. It combines command and control functions and protection functions designed for energy efficiency solutions in any type of environment. Based on the Modbus master protocol, the Acti 9 communication system allows data to be exchanged with switchboards in real time. Monitoring and command and control are therefore possible for each circuit or load.

This system's pre-wired connectors can save time and prevent wiring errors during installation.

Reference Documents

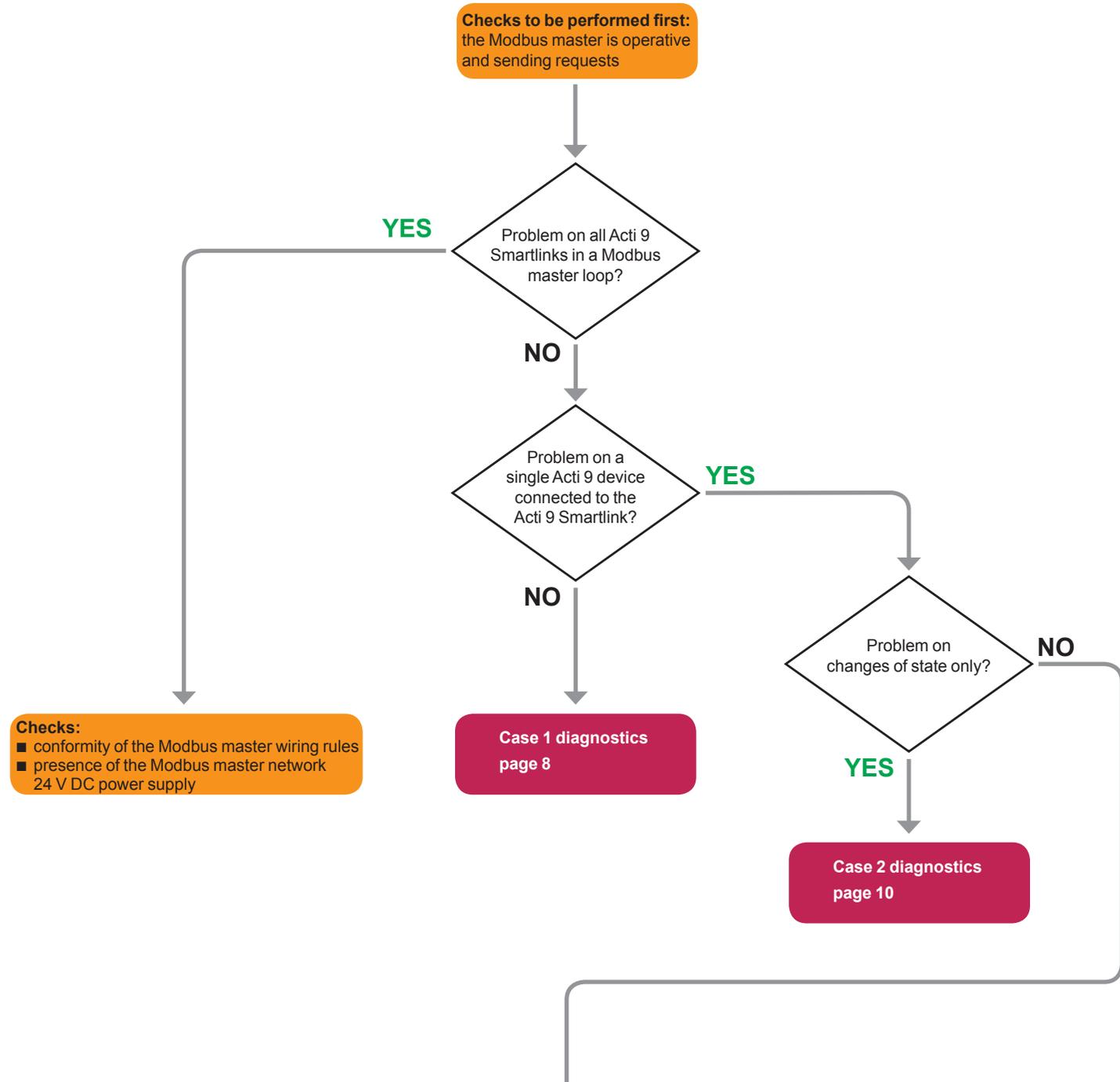
Document Title	Reference
Instruction sheet for the iACT24 auxiliary for the iCT contactor	S1B33421
Instruction sheet for the iATL24 auxiliary for the iTL remote control switch	S1B33422
Instruction sheet for the Acti 9 Smartlink	S1B33423
Instruction sheet for the RCA iC60 remote control	S1A4079001
Instruction sheet for the Reflex iC60 integrated control circuit breaker	S1A5784801
Instruction sheet for the iEM2000T meter	S1A8936401
Instruction sheet for the iEM3100, iEM3110, iEM3115 meters	S1B46581
Instruction sheet for the iEM3150, iEM3155 meters	S1B46583
Instruction sheet for the iEM3200, iEM3210, iEM3215 meters	S1B46598
Instruction sheet for the iEM3250, iEM3255 meters	S1B46602
Reference manual for the RCA iC60 remote control for iC60 circuit breakers	A9MA01EN
Reference manual for the Reflex iC60 integrated control circuit breaker	A9MA03EN
User manual for the PowerLogic EGX300 Ethernet gateway	EGX 63230-319-216
User manual for the Acti 9 communication system	DOCA0004EN
Technical advice on the Acti 9 Smartlink device	CA908033EN

You can download these technical publications and other technical information from our website at www.schneider-electric.com.

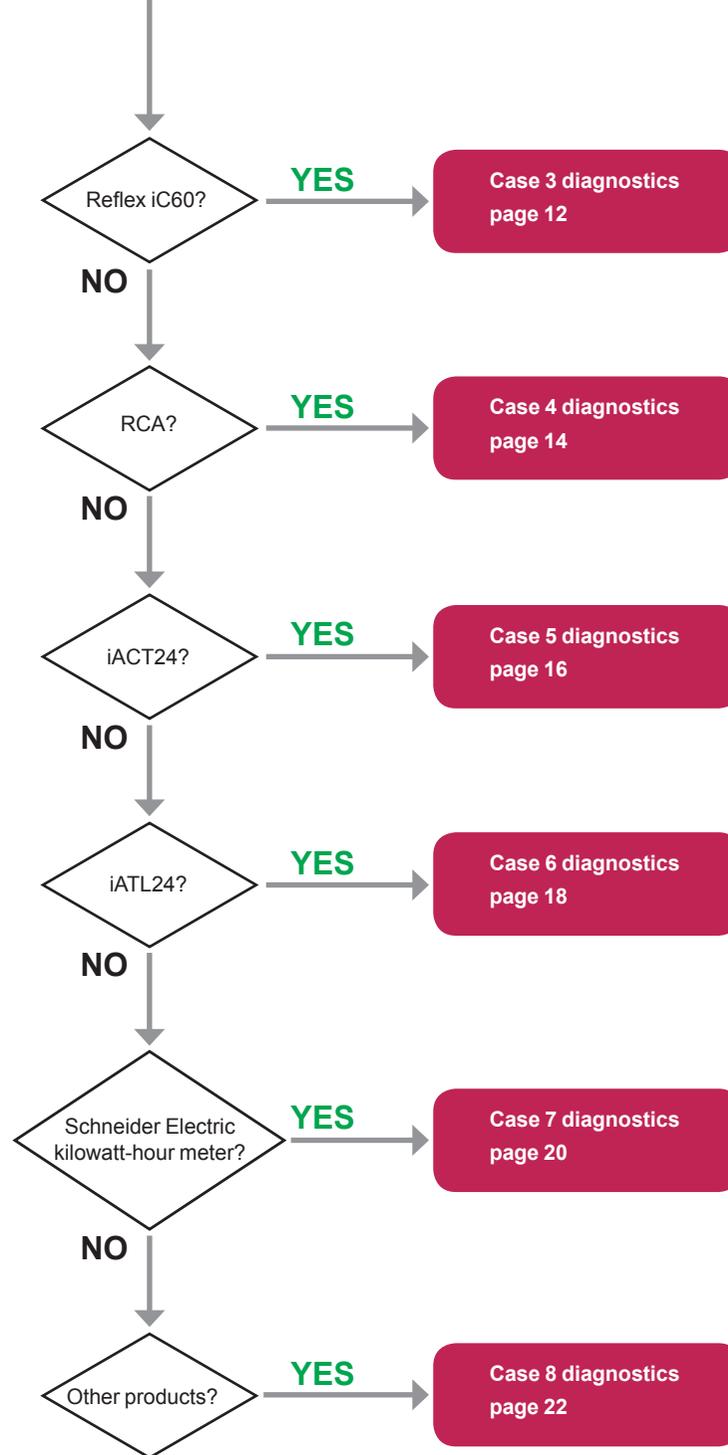
User Comments

We welcome your comments about this document. You can reach us by e-mail at techpub@schneider-electric.com.

General Flow Chart



Comments



Case 1 - Problem on All Devices on an Acti 9 Smartlink

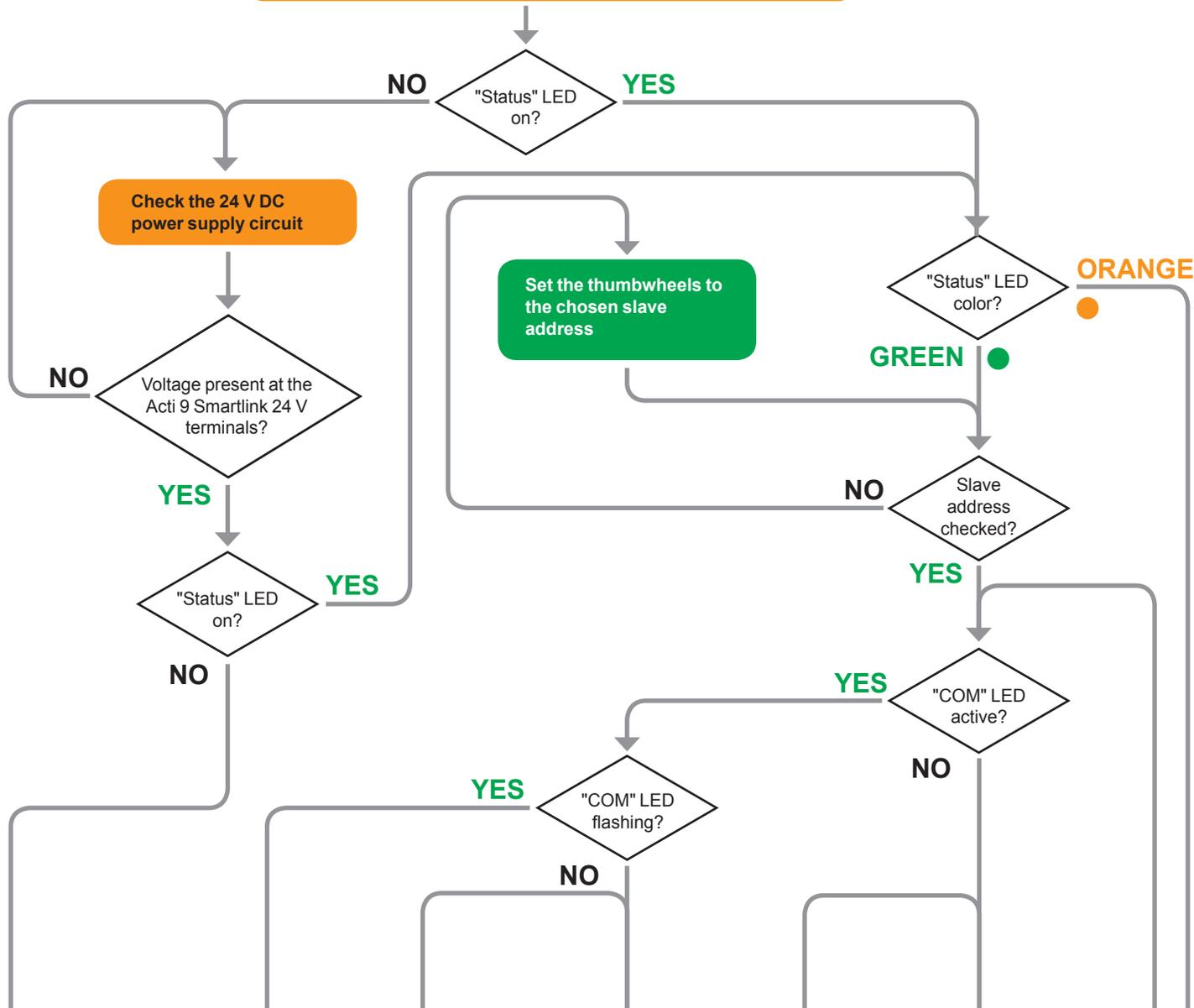
No communication or communication fault between the Modbus master and one of the Acti 9 Smartlink slaves.

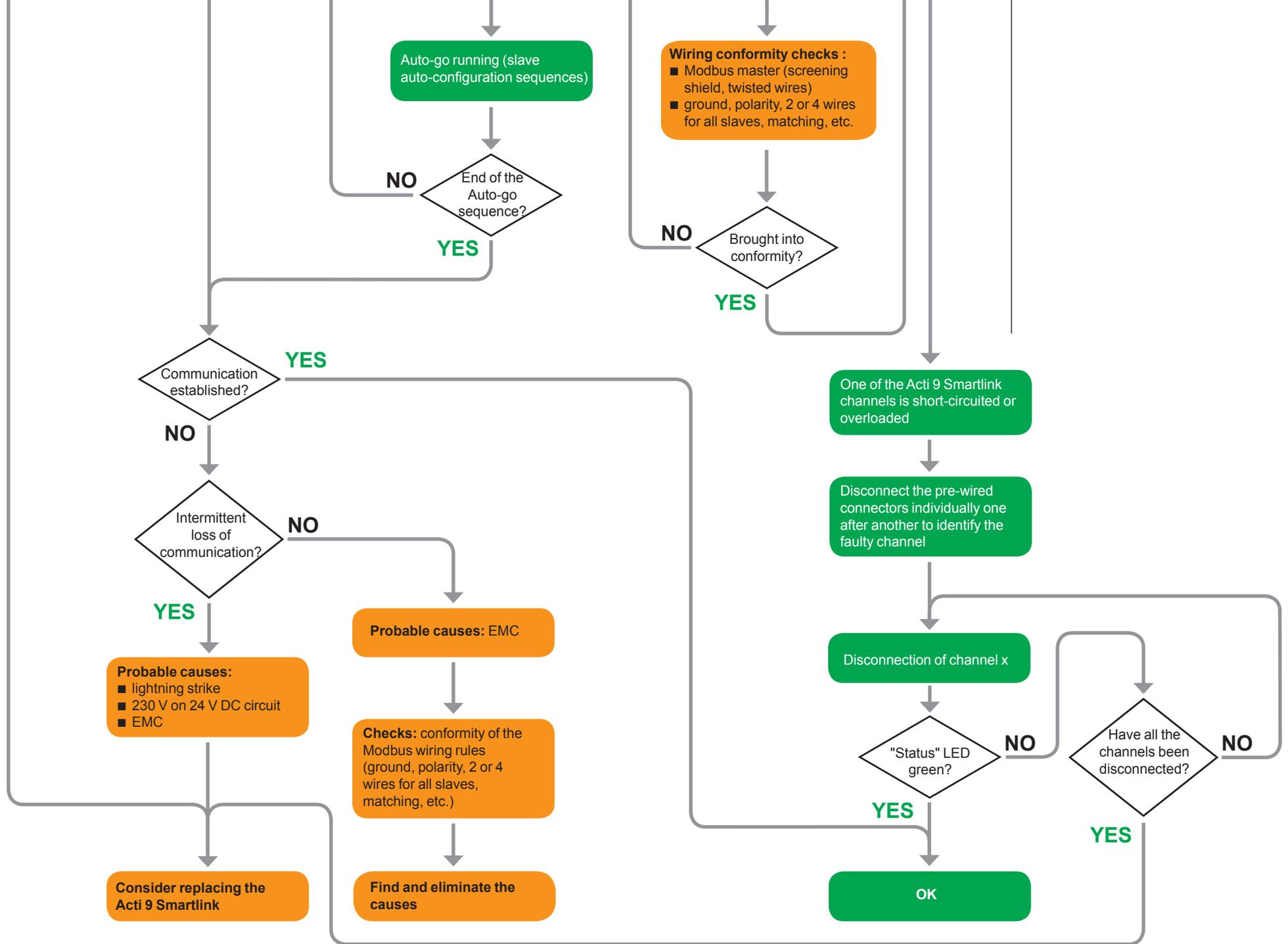
Note: the other Acti 9 Smartlinks, on the same Modbus master line, are operational.

Comments

Checks to be performed first:

- check the connection between the Modbus master and Acti 9 Smartlink
- check that the 24 V DC power supply is powered up
- check presence of the master transmission from the Modbus master line





Case 2 - Problem on Changes of State Only

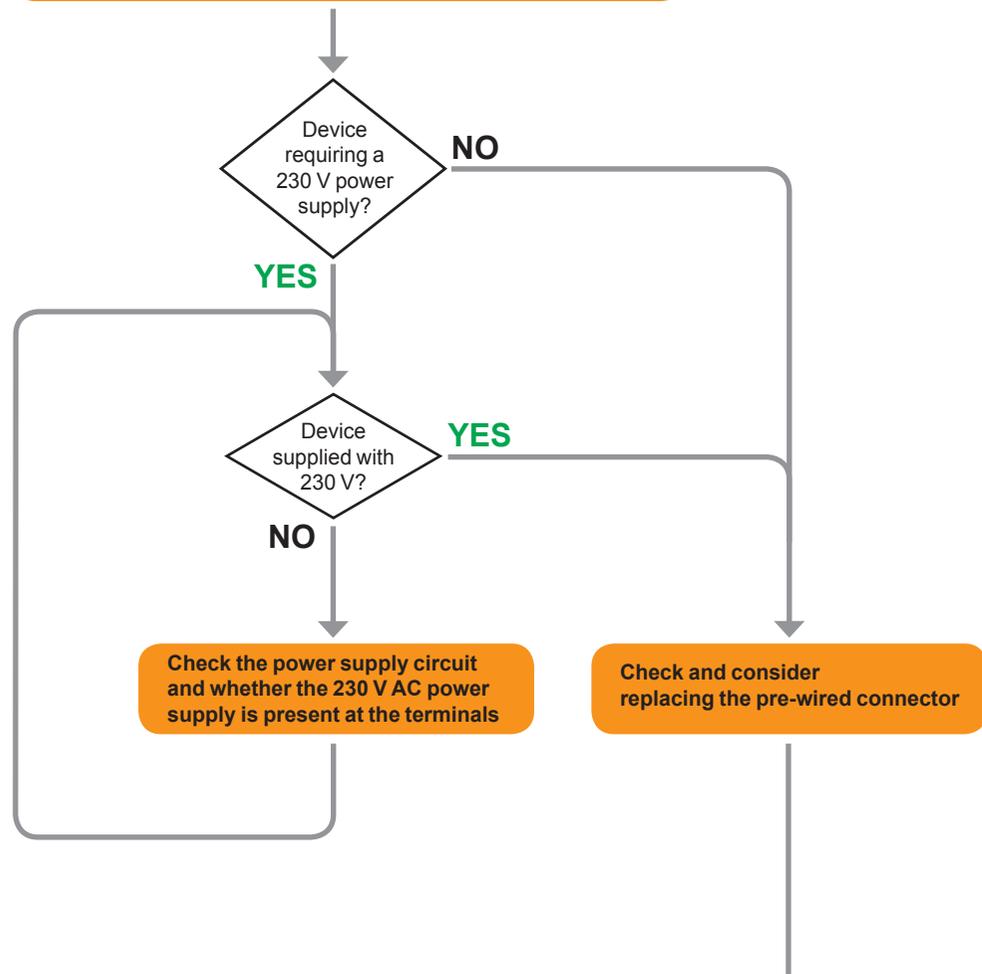
Problem with an Acti 9 device connected to the Acti 9 Smartlink: changes of state not seen by the Modbus master.

Note: products connected on the other channels are working.

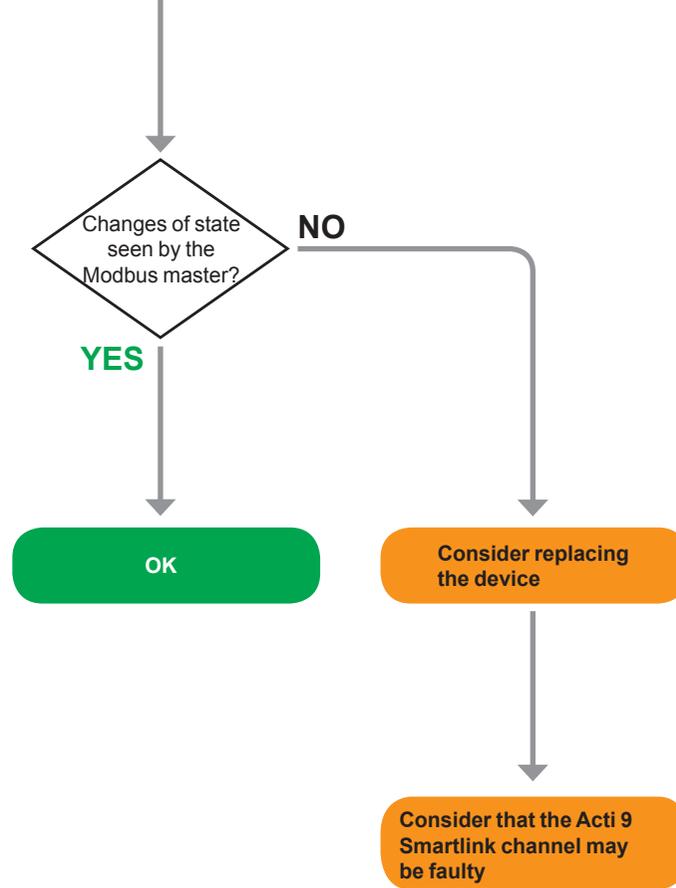
Devices with 230 V AC power supply	Reflex iC60
	iACT24
	iATL24
	RCA
Devices without power supply	iOF+SD24 for iC60, iID, ARA, RCA
	OF+SD24 for C60, C120, DPN

Checks to be performed first:

- check that the pre-wired connector is in place
- check that the link between the auxiliary and its product is working



Comments

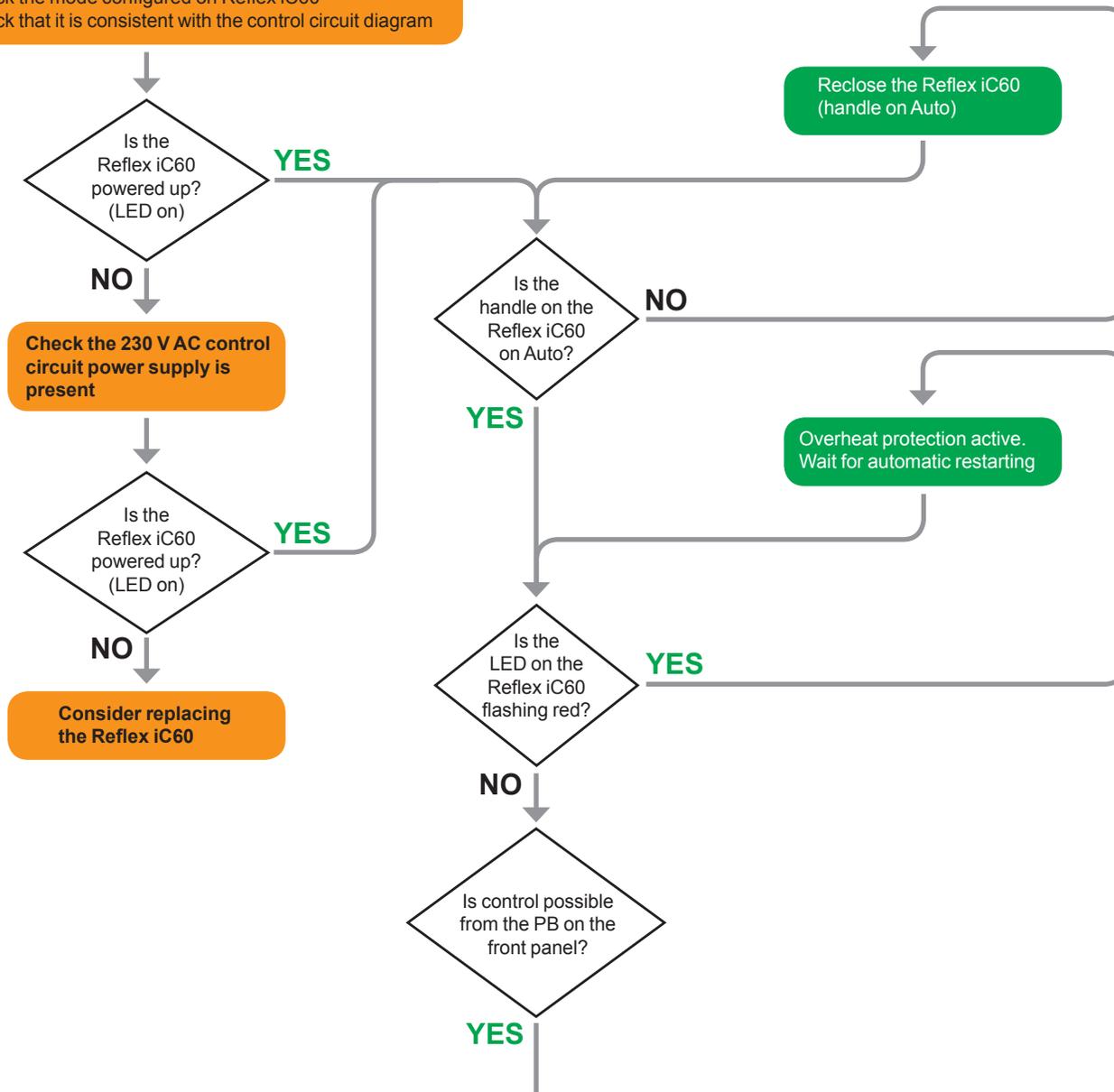


Case 3 - Reflex iC60

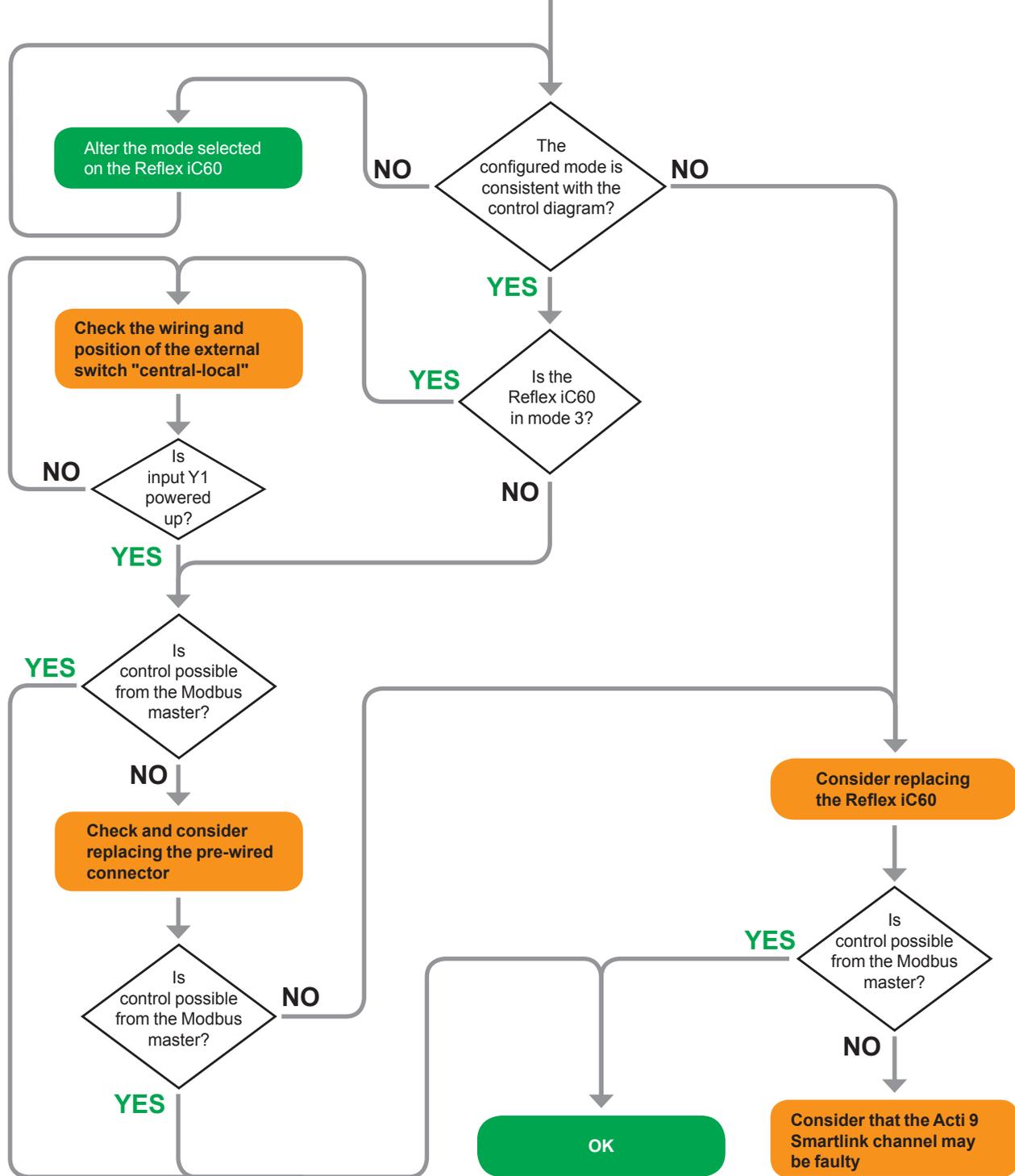
Problem with an Reflex iC60 connected to the Acti 9 Smartlink:
the Reflex iC60 cannot be controlled remotely from the Modbus master.

Note: products connected on the other channels are working.

- Checks to be performed first:**
- check that the pre-wired connector is in place
 - check the mode configured on Reflex iC60
 - check that it is consistent with the control circuit diagram



Comments



Case 4 - RCA

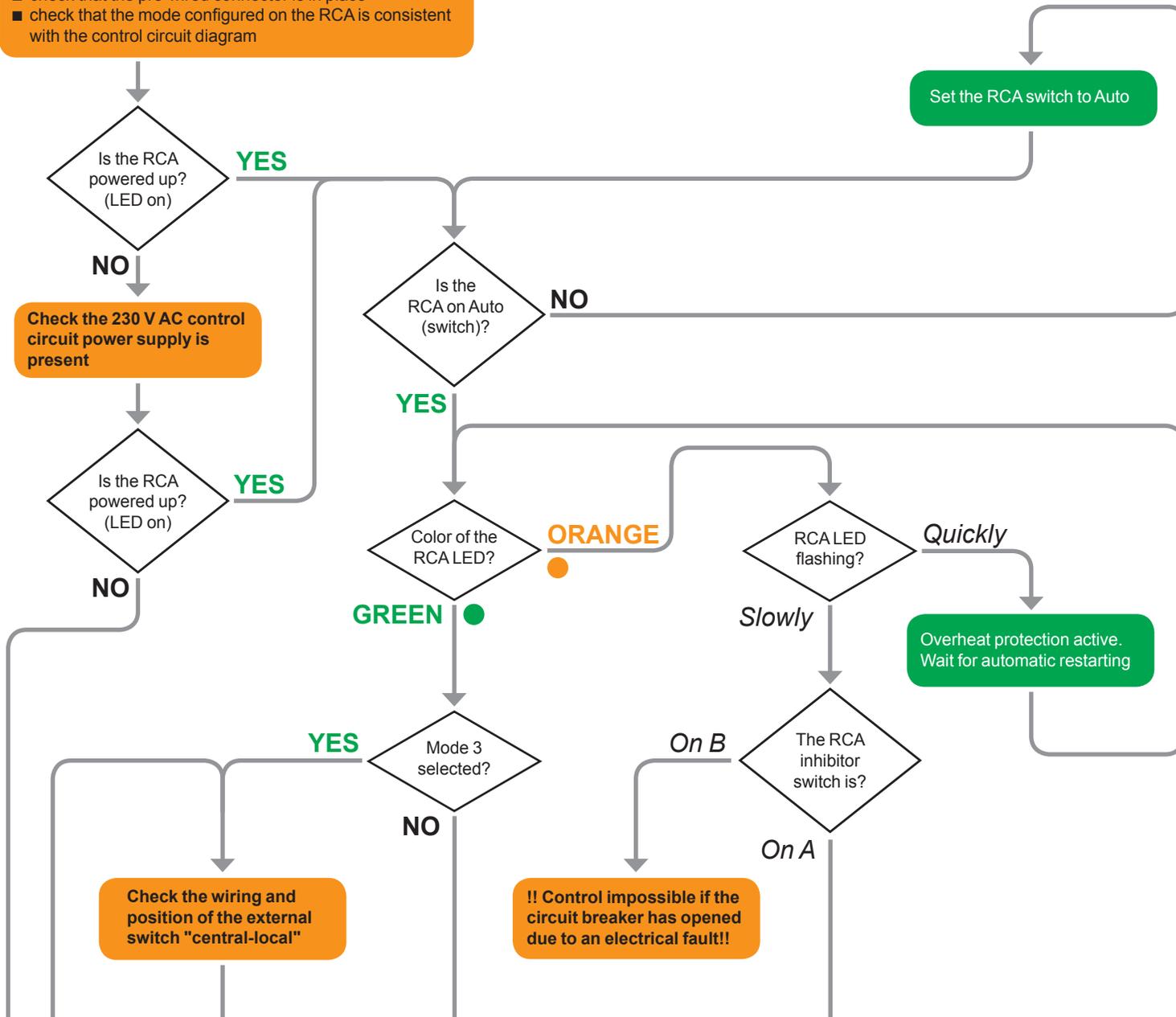
Problem with an RCA connected to the Acti 9 Smartlink: the RCA cannot be controlled remotely from the Modbus master.

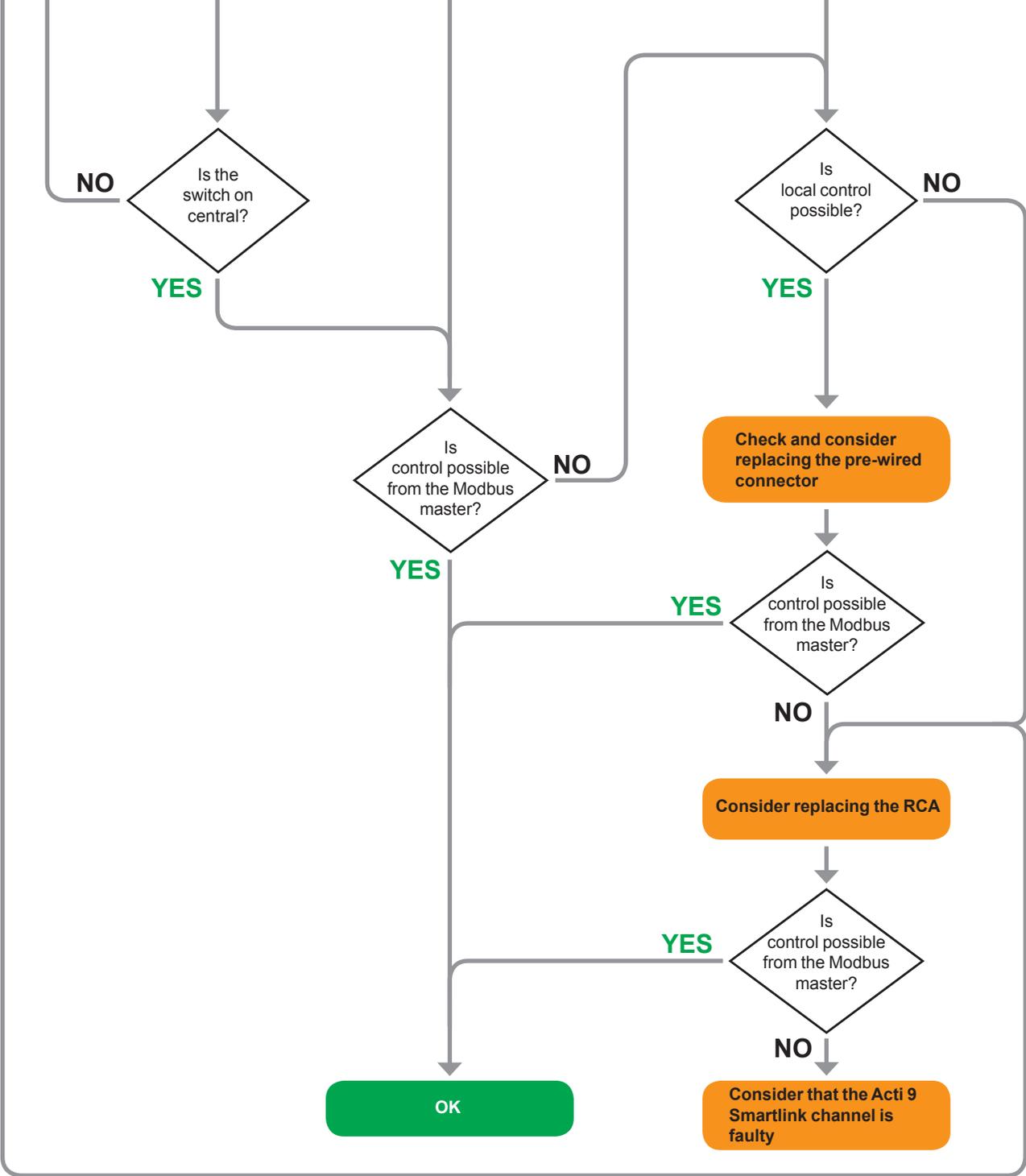
Note: products connected on the other channels are working.

Comments

Checks to be performed first:

- check that the pre-wired connector is in place
- check that the mode configured on the RCA is consistent with the control circuit diagram





Case 5 - iACT24

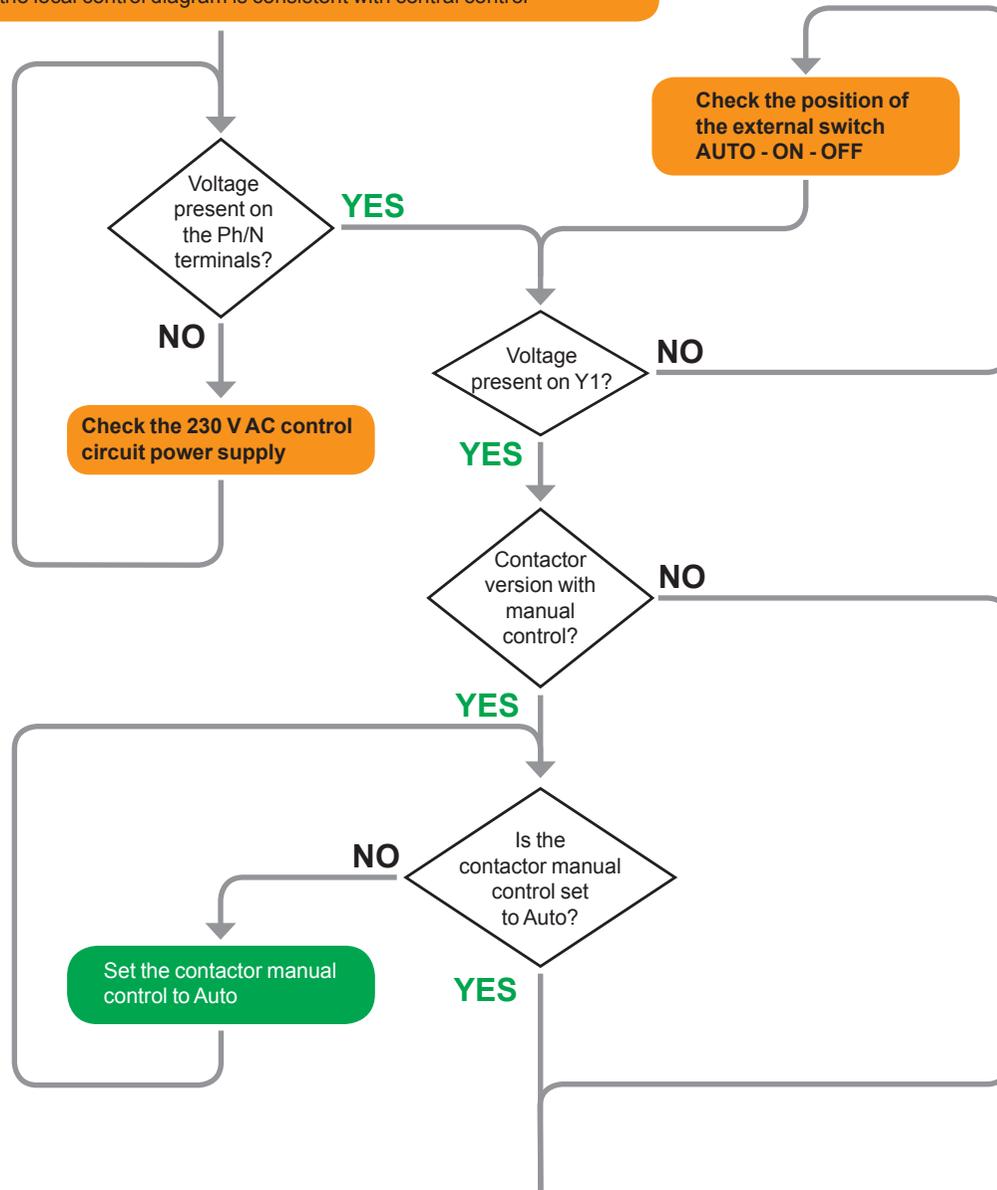
Problem with an iACT24 connected to the Acti 9 Smartlink:
the contactor cannot be controlled remotely from the Modbus master.

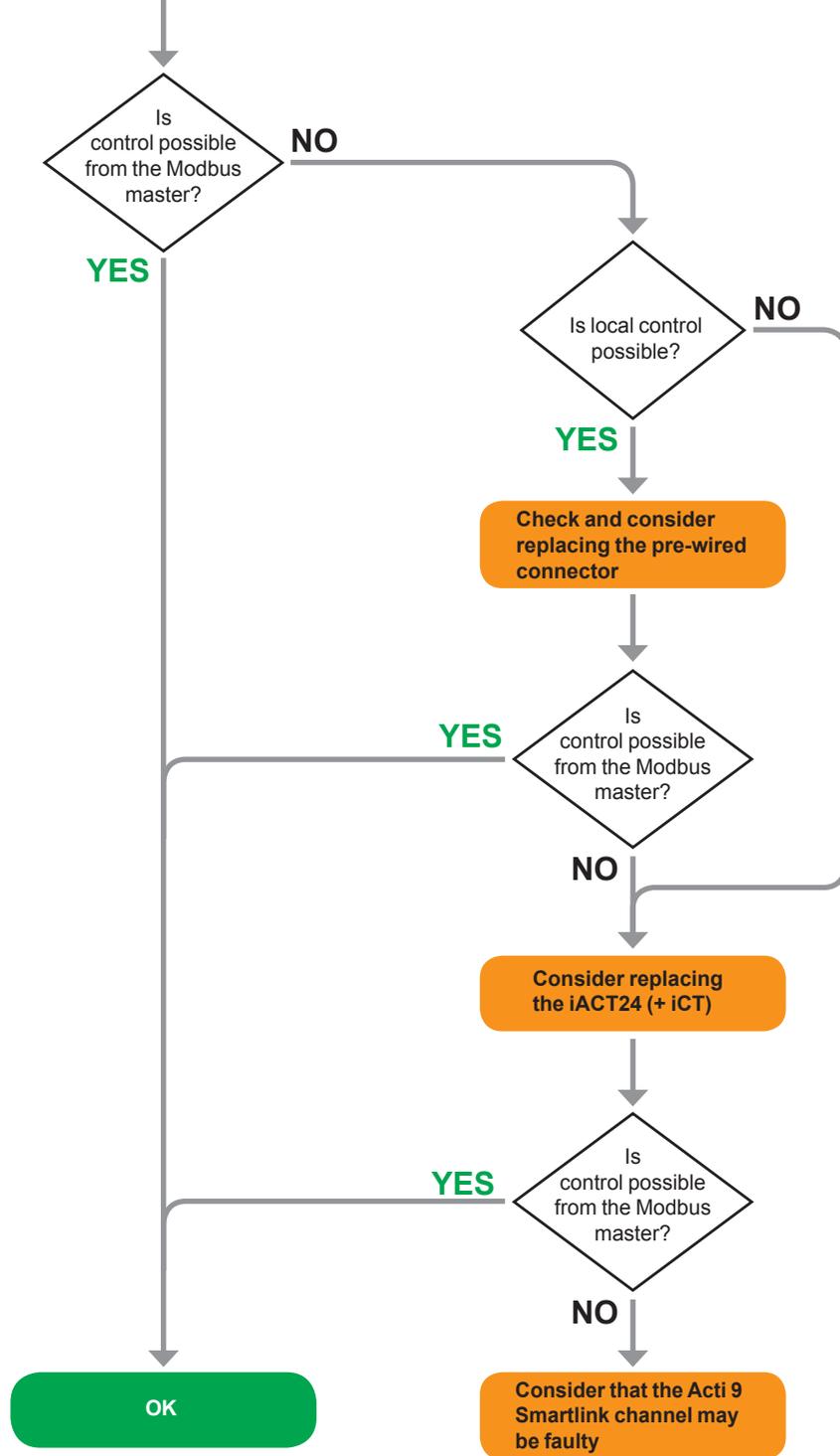
Note: products connected on the other channels are working.

Comments

Checks to be performed first:

- check that the pre-wired connector is in place
- check that the yellow clips are in place on the iACT24 and the iCT
- check that the local control diagram is consistent with central control





Case 6 - iATL24

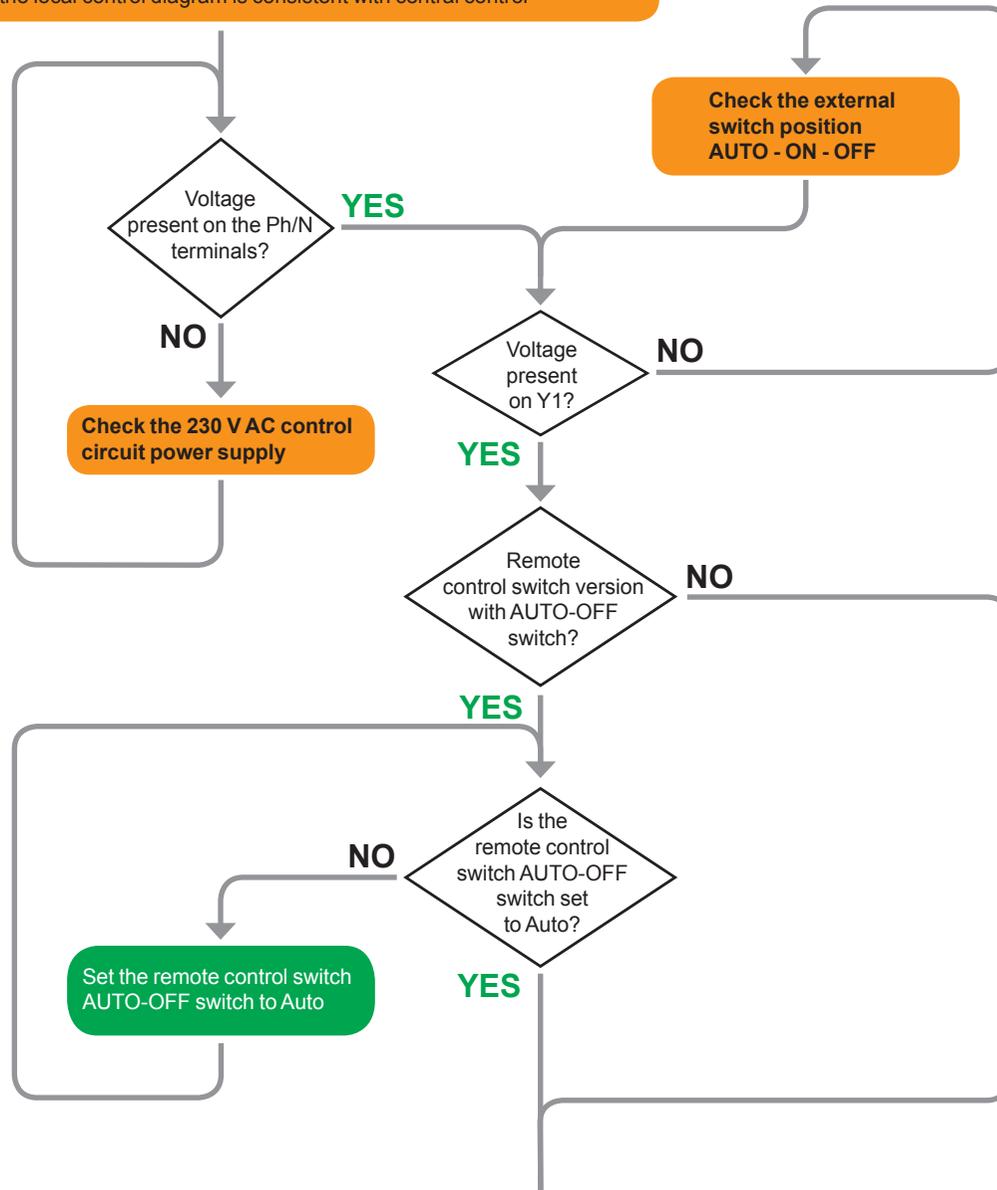
Problem with an iATL24 connected to the Acti 9 Smartlink:
the contactor cannot be controlled remotely from the Modbus master.

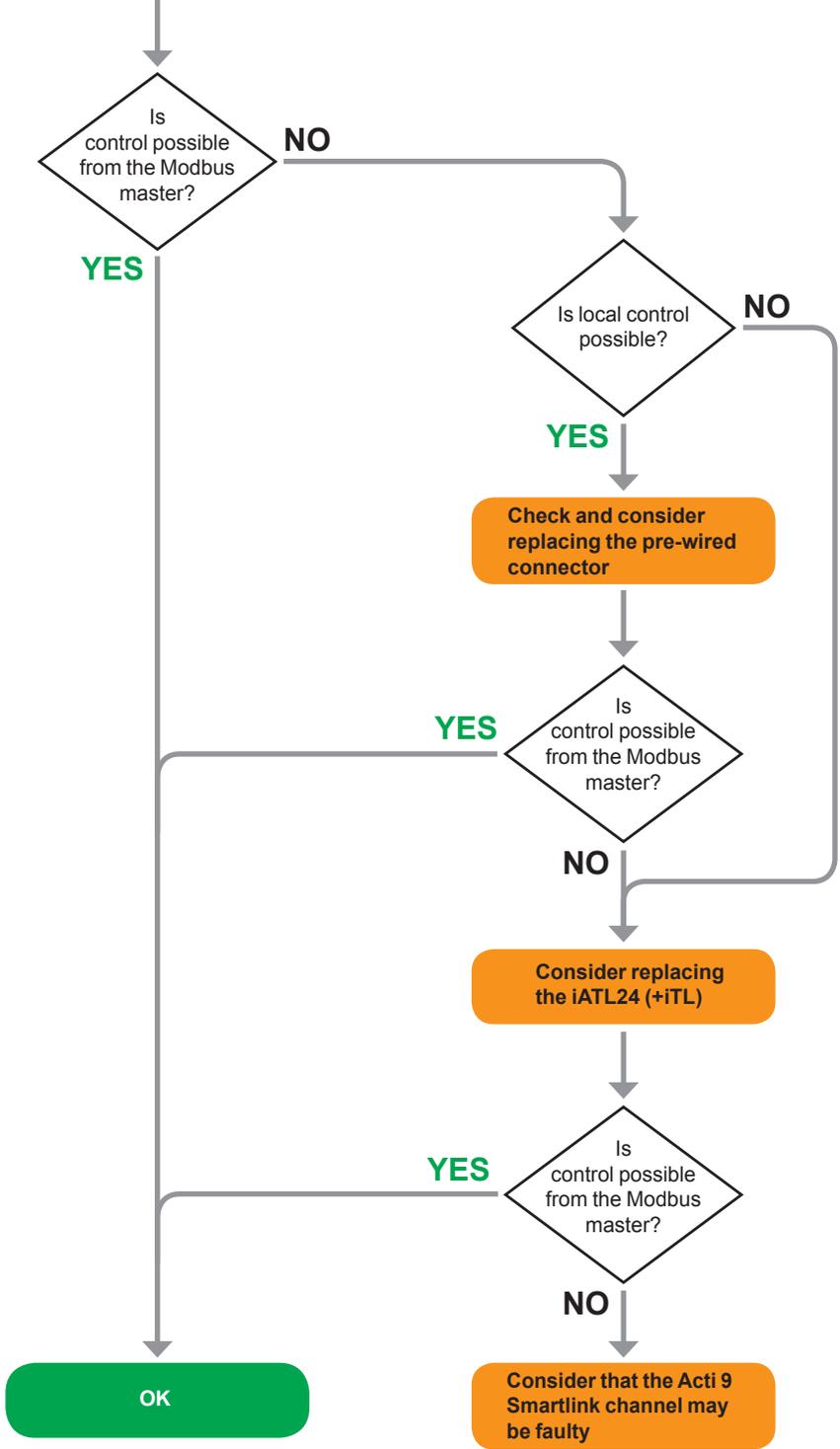
Note: products connected on the other channels are working.

Comments

Checks to be performed first:

- check that the pre-wired connector is in place
- check that the yellow clips are in place on the iATL24 and the iTL
- check that the local control diagram is consistent with central control





Case 7 - Kilowatt-Hour Meter

Problem with a Schneider Electric kilowatt-hour meter connected to the Acti 9 Smartlink:

- no meter changes seen by the Modbus master.
- the meter value does not match the estimate.

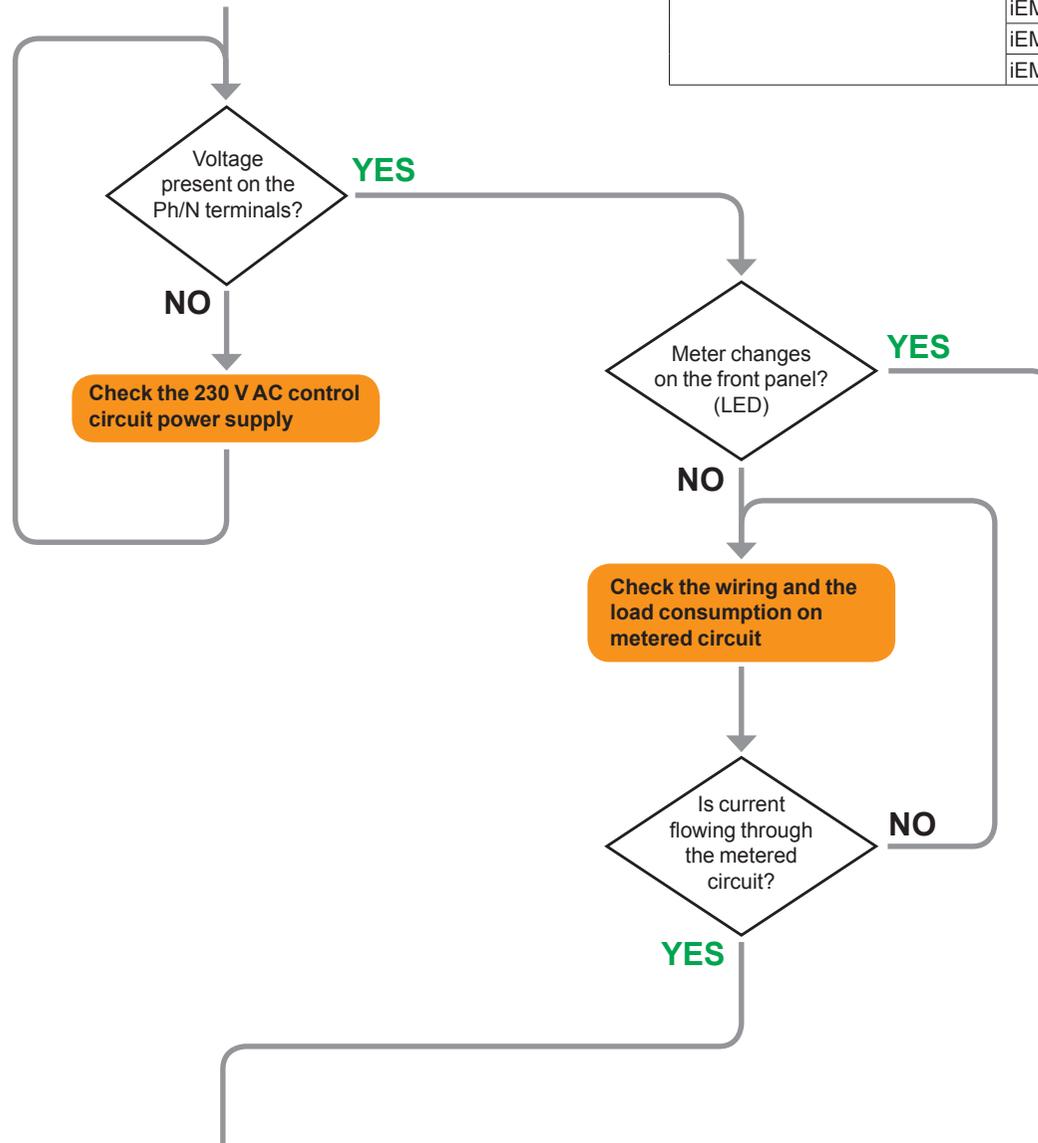
Note: products connected on the other channels are working.

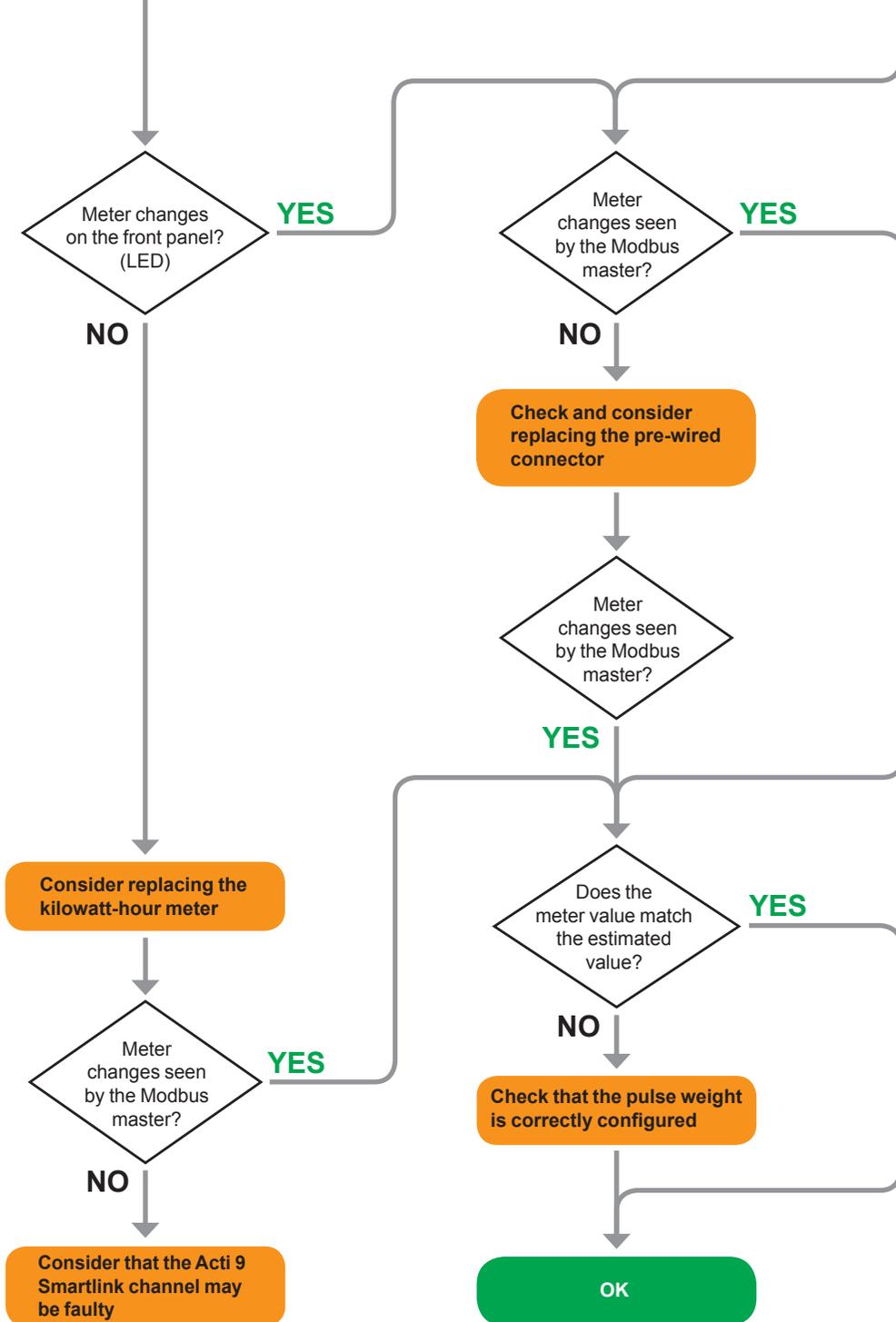
Comments

Checks to be performed first:

- check that the pre-wired connector is in place
- check the control circuit power supply is active

Schneider Electric meters	iEM2000T
	iEM2010
	iEM3110
	iEM3155
	iEM3210
	iEM3255





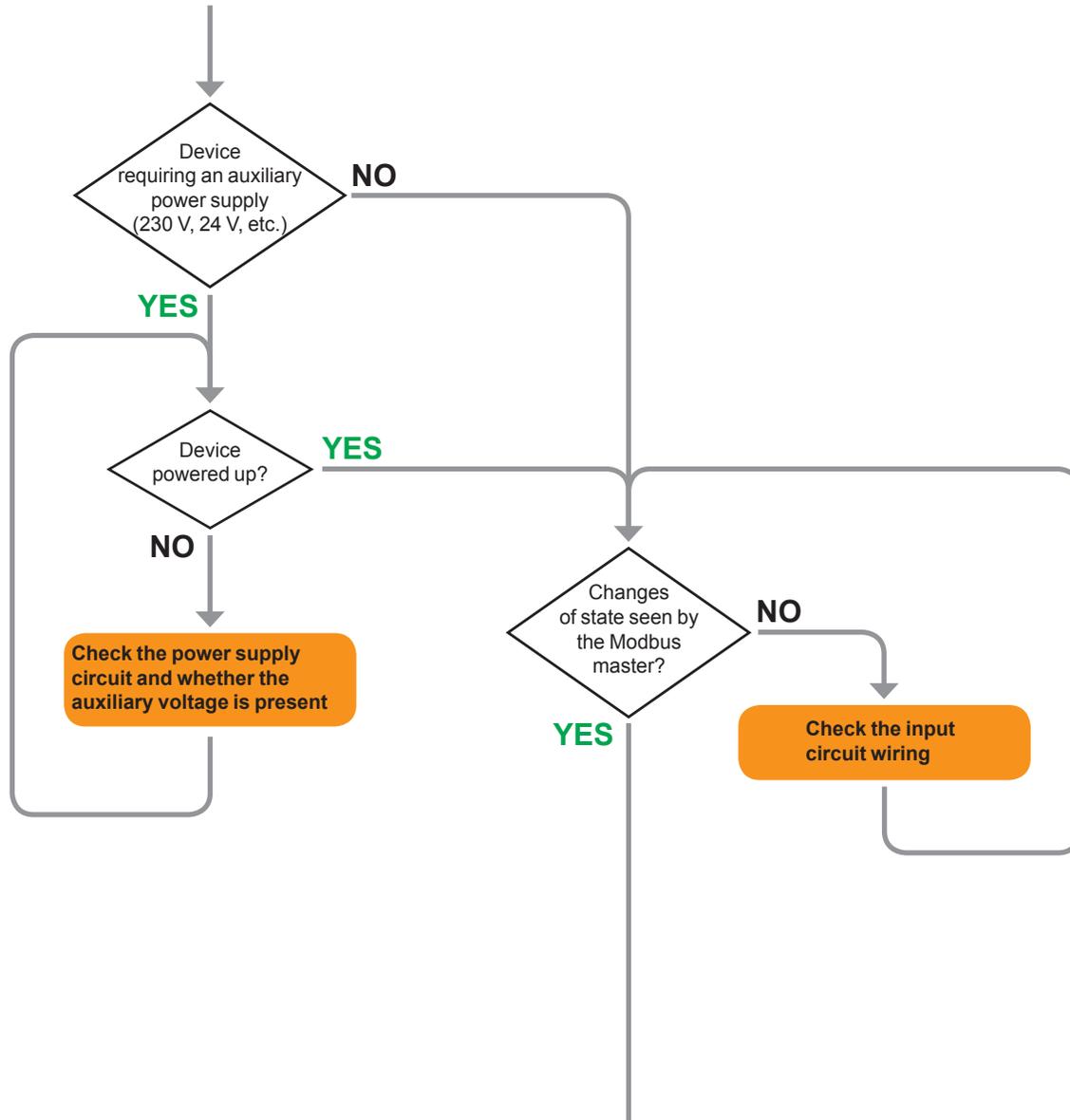
Case 8 - Other Products

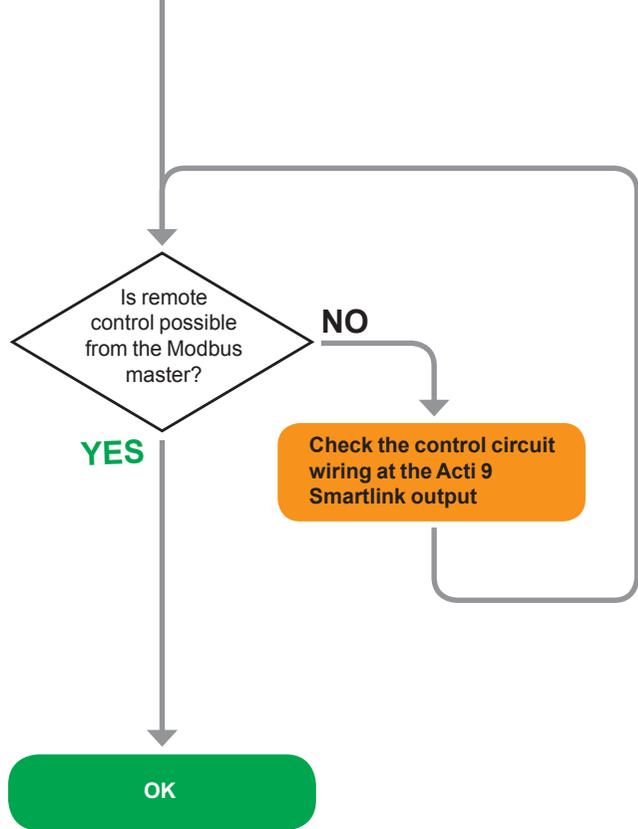
Problem with a device not equipped with a Ti24 interface connected to the Acti 9 Smartlink (Schneider Electric or third-party products)

Note: products connected on the other channels are working.

Comments

Checks to be performed first depending on device configuration: check that the link between the auxiliary and its product is working.





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Owing to changes in standards and equipment, the characteristics given in the text and images in this document are not binding until they have been confirmed with us.

05/2012