

MSR41 Safety Module User Manual



Important User Information

Because of the variety of uses for the products described in this publication, those responsible for the application and use of this control equipment must satisfy themselves that all necessary steps have been taken to assure that each application and use meets all performance and safety requirements, including any applicable laws, regulations, codes and standards.

The illustrations, charts, sample programs and layout examples shown in the guide are intended solely for purposes of example. Since there are many variables and requirements associated with any particular installation, Rockwell Automation does not assume responsibility or liability (to include intellectual property liability) for actual use based upon the examples shown in this publication.

Rockwell Automation publication SGI-1.1, Safety Guidelines for the Application, Installation and Maintenance of Solid-State Control (available from your local Rockwell Automation sales office), describes some important differences between solid-state equipment and electromechanical devices that should be taken into consideration when applying products such as those described in this publication.

Reproduction of the contents of this copyrighted publication, in whole or part, without written permission of Rockwell Automation, is prohibited.

Throughout this manual we use notes to make you aware of safety considerations:

WARNING 	Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.
IMPORTANT	Identifies information that is critical for successful application and understanding of the product.
ATTENTION 	Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard, and recognize the consequences.
SHOCK HAZARD 	Labels may be on or inside the equipment (for example, drive or motor) to alert people that dangerous voltage may be present.
BURN HAZARD 	Labels may be on or inside the equipment (for example, drive or motor) to alert people that surfaces may reach dangerous temperatures.

It is recommended that you save this user manual for future use.

Content

Approvals and Conformity	2
Introduction	2
Special features	2
Applications	3
Typical applications	3
Application restrictions	3
Dimensions	3
Terminal connection diagram	3
Status outputs	4
LED display elements	4
MSR41 base module	4
Response time	4
General	4
Installation	5
Mounting location	5
Cable and wires	5
Supply voltage	5
Earth connection	5
Micro400 light curtain	5
Start mode	5
Output monitoring	5
Selection tables	6
Accessories / Components	6
Inspection and service	6
Inspections	6
Decommissioning	6
Product labels	6
Technical Data	6
EC Declaration of Conformity	7

Approvals and Conformity

The safety approval, performed by TÜV Rheinland. The actual list of relevant safety data and applied standards are given in this document.

ATTENTION



MSR41 units can only achieve their function as a safety controller module, if the instructions given in this instruction manual and the within mentioned documents are exactly followed, as well as consulting the valid laws and regulations at the time of installation. Should these instructions not be carefully followed, serious injury or death may occur. The installer or system integrator will be fully responsible for a safe integration of this product. This instruction manual is to be used in conjunction with the MSR41 base module. It must be kept accessible together with the other machine documentation during its entire life cycle for all personnel responsible for assembly, installation, operation and maintenance.

Introduction

MSR41 is a extremely compact safety module. This main controlling module allows the connection and the control of the compact GuardShield Micro400 safety light curtain systems (Figure 1).

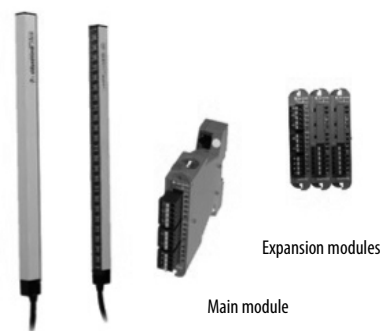


Figure 1: MSR41 controller and GuardShield Micro400 Safety Light curtain

The base module offers two safety PNP outputs (OSSD). Additional expansion modules (MSR45E) can be applied for applications, which require more outputs and/or dry contacts to switch loads

Special features

The outstanding characteristics of the MSR41 controller:

- Category 4, PL e according EN ISO 13849-1
- Type 4 according EN 61496-1/-2
- SIL 3 according IEC 61508
- SIL CL 3 according EN 62061
- Short response times
- Modular expansible
- Up to 3 expansion modules per main module
- Different start modes by hardware selectable

Applications

Typical applications

MSR41 controller modules are developed and conceived for typical applications like:

- Robotic cells
- Assembly lines
- Indexing tables
- Conveyor systems
- Automatic storage facilities

Application restrictions

MSR41 modules are not intended for application in explosive (EX) or in radioactive environments.

Dimensions

The dimensions of the housing for MSR41 are illustrated in Figure 2.

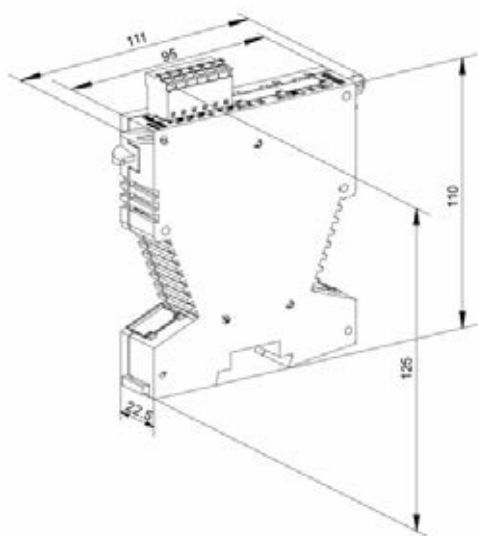


Figure 2: Base module dimensions are the same for expansion modules

Terminal connection diagram

The following figures show the connection possibilities for the MSR41 base module:

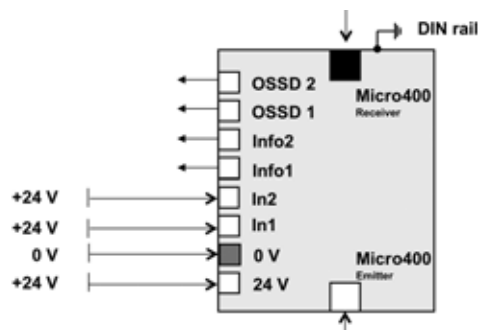


Figure 3: MSR41 Base module, Micro 400 LightCurtain, automatic start, no output monitoring

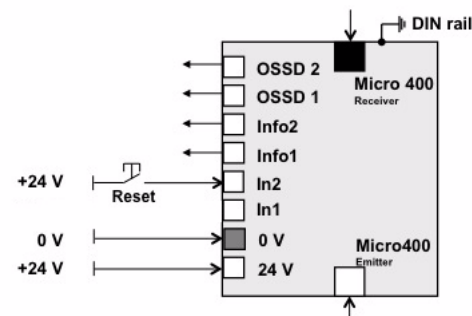


Figure 4: MSR41 Base module, Micro 400 LightCurtain, manual start, no output monitoring

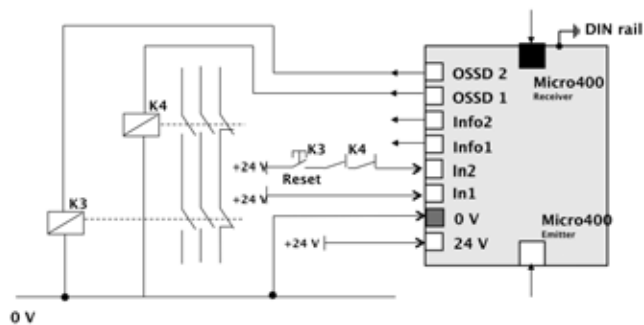


Figure 5: MSR41 Base module, Micro 400 LightCurtain, manual start, output monitoring

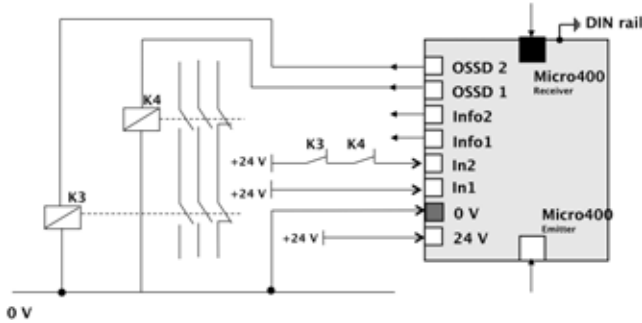


Figure 6: MSR41 base module, Micro 400 Light Curtain, automatic start, output monitoring

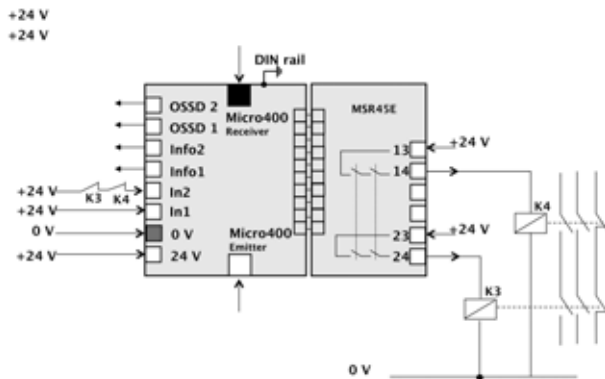


Figure 7: MSR41 Base module and MSR45E expander module, Micro 400 Light Curtain, automatic start, output monitoring

Status outputs

The MSR41 base module has two status outputs ("Info1" and "Info2"). A description of these outputs is given below.

The following table shows the logic of the two status outputs. The state of the status outputs will also be displayed through LED, visible on the front side of the main module.

Terminal (LED)	Output "high" (+24V)	Output "low" (0V)
Info1 (LED)	Start ok (green)	No start possible (red)
Info2 (LED)	System okay (green)	Error (Lock out) (red)

Table 1

ATTENTION 	These outputs may not perform any safety relevant functions. They serve only to communicate the status to a machine controller.
---	---

LED display elements

MSR41 base module

Table 2 gives information about the LED on the front side of a MSR41 base module with the basic configuration:

LED	Signal / Color / Status	Signal / Color / Status
OSSD2	+24 V / green / Light curtain not activated (free)	0 V / red / Safe400 Light curtain activated (interrupted)
OSSD1	+24 V / green / Light curtain not activated (free)	0 V / red / Safe400 Light curtain activated (interrupted)
Info2 (LED)	See page 3	See page 3
Info1 (LED)	See page 3	See page 3
IN2	+24 V / green / start release okay	0 V / red / no start release signal
IN1	not used / green	not used / green
0 V	-	-
+24 V	+24 V / green / power connected	0 V / off / no power connected

Table 2: LED description

Response time

General

- The response time of a MSR41 base module depends on the connected GuradShield Micro400 Light Curtain length and resolution.
- The response time for the MSR41 base module [$\tau(\text{totLCOSSD})$] with respect to the Micro400 light curtain is the sum of the base module response time $\tau(C)$ + the response time of the light curtain $\tau(LC)$:

$$\tau(\text{totLCOSSD}) = \tau(C) + \tau(LC)$$
- The response time for the MSR45E expander module (relay safety output) [$\tau(\text{totLCEXT})$] with respect to the Micro400 light curtain is the sum of the base module response time $\tau(\text{totLCOSSD})$ + the response time of the expander module $\tau(\text{em})$:

$$\tau(\text{totLCEXT}) = \tau(\text{totLCOSSD}) + \tau(\text{em})$$

$$= \tau(C) + \tau(LC) + \tau(\text{em})$$

The total response time of a system is the sum of each response time:

Response time MSR41	Max. OSSD response time for Micro400 light curtain	$\tau(\text{totLCOSSD}) = 9.10\text{ms}(\tau(c)) + \tau(LC)$ from the Micro400 label
Response time first, 2nd and 3rd expander module	Max. relay extension module response time for Micro400 light curtain	$\tau(\text{totLCEXT}) = 9.10\text{ms}(\tau(c)) + 6.00\text{ms}(\tau(\text{em})) + \tau(LC)$ from the Micro400 label

Table 3: Calculation for the total response time of the Micro400 safety light curtain

Explanation of the terminology

Symbol	Meaning
t(C)	Response time for the MSR41 base module (evaluation time)
t(LC)	Response time of the light curtain on the label of the light curtain)
t(em)	Response time for the MSR45E expander module
t(totLCOSSD)	Maximum OSSD response time triggered by the light curtain
t(totLCEXT)	Maximum relay extension module response time for the light curtain

The maximum response time for the MSR41 base module t(C) are given in chapter 14.

Installation

For the professional installation and connection, please consult the relevant laws and regulations. The safety officer of the manufacturing facilities, the local authorities (OSHA in USA, HSE in GB).

The requirements of the safety regulations of electrical engineering, the local employer's liability insurance association and the international standard IEC 60204 are to be taken into full consideration.

Mounting location

The MSR41 modules must be mounted in a control cabinet which is sealed to at least IP54. The units must be snapped onto a 35 mm mounting rail, which is grounded. If it is used outside of a control cabinet a housing with a protection category of IP54 and a mounting rail capability is recommend.

Cable and wires

The wires from the MSR41 base module must be securely separated and guided away from the wires of the relay section (MSR45E expansion modules).

Supply voltage

To safeguard the controller, the +24 V terminal should be protected with an external 5 A fuse. The controller and the machine should be offline before beginning the installation.

The supply voltage must conform to the requirements of EN 60204-1, it must bridge a 20 ms interruption of the supply network. When considering the supply voltage, it must be one of the following: SELV (Safety-Extra-Low-Voltage) or PELV (Protective-Extra-Low-Voltage) in accordance with IEC 364-4-41.

Earth connection

The earth of each MSR4x module is realized through the connection to the mounting rail. Consequently it is important to ensure, that the mounting rail has a good earth connection.

Micro400 light curtain

The two RJ45 sockets on the lower portion of the base module are for the connection of Allen-Bradley GuardShield Micro400 (white = E = emitter; blue = R = receiver). To protect the RJ45 connectors the cables have to be snapped into the provided cable holders.

Start mode

The following start modes are supported by the MSR41:

- automatic start or
- manual start

Manual start

Depressing the start button will cause the two safety OSSD outputs to change from low to high and if connected the MSR45E relay expander modules will close (= manual start).

ATTENTION



The start function is not monitored (no edge detection). Further additional measures must be done to fulfill the requirements of a manual monitored reset according to the safety standards (e.g. use of an additional MSR127 safety relay).

ATTENTION



It is fundamental that the start button be mounted so that the danger area is clearly visible. That is, when pressing the start button it must be guaranteed that no one is detained within the danger area.

Automatic start

If the MSR41 is connected for "automatic start", then, after the activation and the deactivation of the GuardShield Micro 400, the two OSSD outputs will change automatically from low to high again and if connected the MSR45E expander relay contacts will automatically reclose.

ATTENTION



According to EN 60204 article 9.2.4.4.2 a system may not automatically restart, even after the cause of the shutdown has been eliminated and thereby another danger may still exist to the operator. If the MSR41 base module is configured with an "automatic start", this requirement must be fulfilled by further measures.

Output monitoring

Often a MSR41 module is connected to external relays. Reasons to do this might be: The relays of the extension modules do not have enough contacts or if the required switching capacity is more than the specified capacity. These external relays can be connected:

- to the two safety PNP outputs (OSSD) of the base module (e.g. Figure 4)
- and / or
- to the contacts of an expander module, e.g. if the power of the two OSSD outputs is not adequate.

In any case when using external relays the function of these external relays must be monitored. For category 4 application, two external contactors, each with force guided contacts must be inserted. For monitoring the

function of these contactors, each relay block must have at least one normally closed contact which is fed back in series to the corresponding terminal of the MSR41 base module.

Output monitoring: The signal at the corresponding input terminal must be high before the start button is pressed (this means: the normally closed contacts of the external relays must be closed before allowing a start).

IMPORTANT

1. In cases where the MSR41 base module is installed without expander modules the function output monitoring must always be realized, the only exceptions are if the PNP outputs are connected with another safety relay or a safety PLC.
2. Through the use of output monitoring, it is possible to switch external "power" contactors within the safety circuit. Such contactors often deal with large inductive loads, which during the switching off phase can create large potential peaks. For this reason surge suppressors are highly recommended. Surge suppressors must be connected parallel to the external contactors (e.g. Figure 1). They may never be connected parallel to the contacts of a MSR45E expander module.

It must be noticed, that surge suppressors may drastically increase the off delay time of the contactors. Diodes are not allowed to be used as surge suppressors, for exactly this reason.

Recommended surge suppressors are:

Supply voltage [V]	Resistor R [Ω]	Condenser C [μ F]
24	100	2.2
115 - 230	220	0.2

Selection tables

Part number	Base / Expander type
440R-P221AGS	MSR41 On/Off

Table 14

Accessories / Components

Part number	Part number
440R-P4NANS	MSR45E Expander Module
440R-ACABL1	Ribbon Cable – Two modules
440R-ACABL2	Ribbon Cable – Three modules
440R-ACABL3	Ribbon Cable – Four modules
440R-ATERM1P	Terminal Block Kit – MSR41 (for replacement)
440R-ATERM2C	Terminal Block Kit – MSR45E

Table 15

Inspection and service

The MSR41 module has no serviceable components.

Inspections

The MSR41 module has to be tested periodically – in accordance with valid regulations - by qualified and trained personnel to discover prohibited manipulations or unauthorized modifications.

Decommissioning

The MSR41 Modules can only be removed, when the machine or the equipment is shut down completely and can no longer be operated without tools. If a controller has to be disposed, it can be simply dismantled. The separated materials can be recycled according to state of the art technology and corresponding regulations of the country it was used in.

Product labels

All the necessary safety information can be found on the product labels, which can be found on every controller module (example):

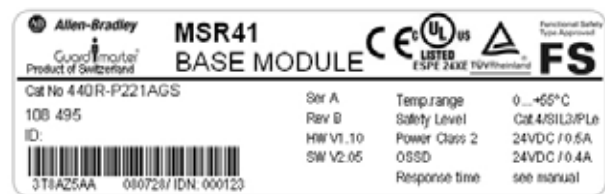


Figure 8: Product label MSR41 Base Module

Explanation of terminology

HW	Hardware Version
Safety Level Cat.	Safety category according to EN 954-1
Safety Level SIL	Safety integrity level according to EN 61508
Safety Level PLe	Performance level acc. to EN ISO 13849-1
Power class	Power supply
Temperature range	Operating temperature range
OSSD	Max. current available per OSSD output, at the listed voltage

Table 16

Technical Data

General data	
Nominal working mode	Continuous process
Temperature range	Environment temp.: 0 ... +55°C Stock temp.: -25 ... +70°C
Enclosure rating according EN 60529	
Housing	IP20
Terminals	IP20
Conductor connection:	Wire cross section:
4- pin, terminal strip (plug-in)	max 2.5 mm ² spring clamping technology
Quick mounting	Top hat rail 35 mm (EN 50022)

General data	
Net weight	130 g
Housing dimensions	111 x 22,5 x 125 mm (incl. plugs) See page 2
Enclosure Type Rating	IP20
Operating Temperature [°C (F)]	0 ... 55 (32 ... 131)
Mounting	35mm DIN Rail
Housing material	Polyamide
Conductor Size Max	1 x 2.5 mm ² (14AWG) stranded
Vibration according to EN60068-2-6	Amplitude: 0.35 mm Frequency: 10 ... 55 Hz
Shock resistant according to EN 60068-2-29	Acceleration: 100 ms ⁻² Impulse length: 16 ms Number of shocks: 1'000 per direction
Installation position	No restrictions
Approvals	CE Marked for all applicable directives, cULus, and TUV

Weight and packaging	
Packaging	280 mm x 200 mm x 70 mm
Shipping weight	Net weight + 220 g

Inputs	
Power supply: U _N	+24 VDC (EN 60204-1) See page 4
at 5 % residual ripple	0.85 ... 1.15 U _N
Current consumption	Current max. 70 mA + 70 mA per relay extension module (semi conductor outputs unloaded) maximal: 1.7 A depending on attached load
Max. power consumption at max. supply voltage	2.1 W (semiconductor outputs unloaded)
Controller protection (external)	5 A slow
Control current into: IN 1, IN 2	2 mA each (min.) (in accordance with EN 61131-2)
Minimum voltage at: IN 1, IN 2	11 VDC at activated controller (EN 61131-2)
Start pulse duration Min.	50 ms
Maximum cable length for safety switches	50 m out and back (total 100 m)

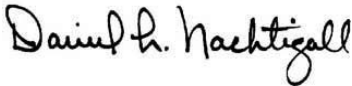
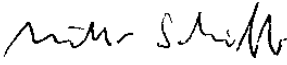
Info 1, Info 2 Status Outputs (PNP)	
Voltage	U _N – 2 V
Current max	100 mA (short-circuit protected)
Leakage current	I _{MAX OFF} = 0.05 mA (C _{LOAD} = 4.7 µF)

OSSD semi conductor outputs (PNP)	
Voltage	U _N – 2 V
Current max	400 mA short-circuit protected and with cross-fault detection
Leakage current	I _{MAX OFF} = 0.1 mA (C _{LOAD} = 3.3 µF)

Safety Related Parameter	
Probability of a dangerous failure per hour PFH _D	6.0 E-9 1/h MSR42 & MSR45E & Micro 400
	9.0 E-10 1/h MSR42 & MSR41 Control Module
	3.0 E-10 1/h MSR45E Expander Module
	4.0 E-9 1/h Micro 400 Light Curtain
Performance Level PL	PL e, Cat. 4 (EN ISO 13849-1)
Safety Integrity Level	SIL CL3 (IEC 61508 / IEC 62061)



EC Declaration of Conformity

The undersigned, representing the manufacturer Rockwell Automation, Inc. 2 Executive Dr. Chelmsford, MA 01824 USA	and the authorised representative established within the Community Rockwell Automation BV Rivium 1e Straat, 23 2909 LE Capelle aan den IJssel Netherlands
Herewith declare that the Products: MSR4x Safety Base / MSR4xE Expander Controller Modules	
Product identification (brand and catalogue number/part number):	Allen-Bradley 440R-P and 445L-1 Series (reference the attached list of catalogue numbers)
Product Safety Function	The MSR4x safety base control devices and the MSR4xE extension modules can be used in applications up to Safety Category 4 (EN 954-1)/ SIL3/SIL CL3 (EN 61508 / EN 62061) and PL e (EN ISO 13849-1).
are in conformity with the essential requirements of the following EC Directive(s) when installed in accordance with the installation instructions contained in the product documentation:	
2006/42/EC	Machinery Directive
2004/108/EC	EMC Directive
and that the standards and/or technical specifications referenced below have been applied:	
EN 61496-1:2004 + A1:2008	Safety of machinery – Electro-sensitive protective equipment – Part 1: General requirements and tests
IEC 61496-2:2006	Safety of machinery – Electro-sensitive protective equipment – Part 2: Particular requirements for equipment using active opto-electronic protective devices (AOPD's)
EN ISO 13849-1:2008	Safety of machinery – Safety-related parts of control systems – Part 1: General principles for design
EN 61508 Parts 1-7:1998-2000	Functional safety of electrical/electronic/programmable electronic safety-related systems
EN 954-1:1997	Safety of machinery – Safety related parts of control systems – Part 1: General principles for design
EN 50178:1997	Electronic equipment for use in power installations
EN 62061:2005	Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems
EN 60204-1:2006	Safety of machinery – Electrical equipment of machines – General requirements
EN 61000-6-4:2007	Electromagnetic compatibility (EMC) – Part 6-4: Generic standards – Emission standard for industrial environments (Class A)
EN 61000-6-2:2005	Electromagnetic Compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments
Manufacturer:	Authorised Representative in the Community:
 Signature Name: Daniel L. Nachtigall Position: Supv – Product Certification Engineering Date: 01-Mar-2011  Signature Name: Viktor Schiffer Position: Engineering Manager Date: 08-Mar-2011	

<i>Catalogue number ¹</i>	<i>Series ²</i>	<i>Description</i>
440R-P221AGS		MSR41 base module
440R-P226AGS-NNR		MSR42 base module
445L-104794-B***		MSR42 base module customer configuration
440R-P4NANS		MSR45E expander module
445L-1****		MSR45E expander module customer configuration

1) *Denotes characters representing options that do not impact the standards or directives cited on this DoC

2) If no series number is given, then all series are covered

Technical Support / Technische Unterstützung / Assistance technique / Assistenza tecnica / Asistencia técnica

ENGLISH	Installation of this product must not take place until the installer has obtained a copy of the manufacturer's instructions in a language which he can understand. This instruction sheet is available in multiple languages at http://rockwellautomation.com/literature .
DEUTSCH	Dieses Produkt darf erst installiert werden, wenn der Installateur eine Kopie der Instruktionen des Herstellers in der Sprache eingeholt hat, die er versteht. Diese Instruktionen sind mehrsprachig erhältlich unter: http://rockwellautomation.com/literature .
FRANÇAIS	Ce produit ne peut être installé avant l'obtention d'un duplicata des instructions du fabricant dans une langue compréhensible. La fi che d'instructions est disponible en plusieurs langues depuis le lien http://rockwellautomation.com/literature .
ITALIANO	Non si deve procedere all'installazione di questo prodotto fin quando l'installatore non abbia ottenuto una copia delle istruzioni del produttore in una lingua che l'installatore possa capire. La presente scheda di istruzioni è disponibile in linguaggi multipli sul sito web http://rockwellautomation.com/literature .
ESPAÑOL	Absténgase de instalar este producto a menos que el instalador disponga de un ejemplar de las instrucciones del fabricante en un idioma que pueda comprender. En http://rockwellautomation.com/literature puede encontrar esta hoja de instrucciones en varios idiomas.
PORTUGUÊS	A instalação deste produto não pode ser efectuada até que o montador tenha obtido uma cópia das instruções do fabricante numa língua que ele compreenda. Essa folha de instruções está disponível em diversas línguas em http://rockwellautomation.com/literature .
POLSKI	Nie należy przeprowadzać instalacji tego produktu aż do otrzymania przez monter instrukcji producenta w języku, który on rozumie. Te karty z instrukcjami są dostępne w wielu językach na: http://rockwellautomation.com/literature .
ČESKY	Instalace tohoto výrobku nesmí proběhnout, dokud instalující osoba neobdrží pokyny výrobce v jazyce, kterému rozumí. Tyto pokyny jsou k dispozici v několika jazycích na http://rockwellautomation.com/literature .
SVENSKA	Denna produkt får inte installeras förrän installatören har skaffat ett exemplar av tillverkarens instruktioner på ett språk som han/hon förstår. Detta instruktionsblad finns på flera språk på http://rockwellautomation.com/literature .
NEDERLANDS	Het product mag pas worden geïnstalleerd wanneer de monteur beschikt over een exemplaar van de instructies van de fabrikant in een voor hem begrijpelijke taal. Dit instructieblad is in diverse talen verkrijgbaar op http://rockwellautomation.com/literature .
繁體中文	安裝者須取得其所通曉語言之產品說明書後方可進行本產品的安裝。各語言版本的產品說明書可透過以下連結獲取: http://rockwellautomation.com/literature 。
简体中文	安裝者須取得其所通曉語言的產品說明書後方可進行本產品的安裝。各語言版本的产品说明书可通过以下链接获取: http://rockwellautomation.com/literature 。
日本語	この製品の取付けは取付け者が理解できる言語で書かれたメーカーの取扱説明書を入手するまで行わないで下さい。この説明書は http://rockwellautomation.com/literature で複数の言語で提供されています
БЪЛГАРСКИ	Това устройство не трябва да се монтира, докато монтажника не разполага с инструкциите на производителя, на разбираем за него език. Инструкциите за монтаж ще намерите на различни езици в http://rockwellautomation.com/literature .
EESTI	Selle toote installatsioon ei tohi toimuda enne kui installeerija on omandanud koopia tootja instruksioonidega keeles mida ta ise valdab. Instruksioonid erinevates keeltes on saadaval siin: http://rockwellautomation.com/literature .
SUOMI	Tämä tuote voidaan asentaa vasta kun asentaja on hankkinut valmistajan ohjeet kielellä, jota hän ymmärtää. Erikieliset ohjeet ovat ladattavissa sivustolta http://rockwellautomation.com/literature .
ΕΛΛΗΝΙΚΑ	Εγκατάσταση του προϊόντος αυτού δεν πρέπει να γίνει πριν ο εγκαταστάτης προμηθευθεί αντίτυπο οδηγιών του κατασκευαστή σε γλώσσα που ο ίδιος καταλαβαίνει. Το εγχειρίδιο αυτό διατίθεται σε διάφορες γλώσσες στη διεύθυνση http://rockwellautomation.com/literature .
MAGYAR	Ez a termék csak akkor helyezhető üzembe, ha az üzembehelyezést végző személy rendelkezésére áll a gyártó használati utasítása az általa ismert nyelven. Az utasítás több nyelven megtalálható itt: http://rockwellautomation.com/literature
ÍSLenska	Uppsetning á þessari vöru má ekki eiga sér stað fyrr en sá sem annast uppsetninguna hefur fengið afrit af leiðbeiningum framleiðanda á því tungumáli sem hann þekkir. Leiðbeiningarþessinn er tiltækur á mörgum tungumálum og er hægt að ná í hann hér: http://rockwellautomation.com/literature
LATVIEŠU VALODA	Šī ražojuma uzstādīšanu nedrīkst veikt, pirms uzstādītājs nav saņēmis ražotāja instrukcijas tādā valodā ko viņš saprot. Šo instrukciju lapīnu var saņemt daudzās valodās no vietnes http://rockwellautomation.com/literature
LIETUVIŠKAI	Šito produkto įrengimas negali būti vykdomas tol, kol įrengėjas neturės gamintojo instrukcijų kopijos ta kalba, kurią jis supranta. Instrukciją galima rasti įvairiomis kalbomis tinklapyje http://rockwellautomation.com/literature
MALTI	L-installazzjoni ta' dan il-prodott mgħandux isir qabel ma l-installatur jakwista kopja tal-istruzzjonijiet tal-manifattur f'lingwa li tista' tiftiehmem. Il-karta tal-istruzzjonijiet hija disponibbli f'hafna lingwi f' http://rockwellautomation.com/literature .
NORSK	Dette produktet må ikke installeres før installatøren har bruksanvisningen på et behersket språk. Dette instruksjonsarket kan fås i flere språk på http://rockwellautomation.com/literature .
ROMÂNĂ	Produsul nu trebuie să fie instalat până când cel care instalează produsul nu a obținut o copie a manualului de utilizare, în limba pe care o poate înțelege. Aceste instrucțiuni sunt valabile în mai multe limbi la adresa http://rockwellautomation.com/literature .
SLOVENSKY	Inštalácia tohto výrobku nesmie prebehnúť, dokiaľ inštalujúca osoba nedostane pokyny výrobcu v jazyku ktorému rozumie. Tieto pokyny sú k dispozícii v niekoľkých jazykoch na http://rockwellautomation.com/literature .
SLOVENŠČINA	Tega izdelka se ne sme nameščati, če si oseba, ki ga namešča, ni priskrbela izvoda proizvajalčevih navodil v jeziku, ki ga razume. Ta list z navodili v številnih jezikih je na razpolago na http://rockwellautomation.com/literature .
TÜRKÇE	Bu ürünün kurulmasını, ürünü kuracak kişinin üreticinin hazırladığı talimatların bir kopyasını, ki bu talimatlar bu kişinin anlayacağı bir dille olacaktır, elde edene kadar gerçekleştirilmesi gerekir. Bu talimatlar pek çok dilde şu web-sayfasında mevcuttur: http://rockwellautomation.com/literature

GuardShield is a trademark of Rockwell Automation, Inc.
Guardmaster is a registered trademark of Rockwell Automation, Inc.

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846