ISO/IEC 29341-19-1

Edition 1.0   2011-08

INTERNATIONAL STANDARD

**Information technology – UPnP device architecture –
Part 19-1: Solar Protection Blind Device Control Protocol – Solar Protection Blind Device**

colour
inside

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

- Catalogue of IEC publications: www.iec.ch/searchpub

The IEC on-line Catalogue enables you to search by a variety of criteria (reference number, text, technical committee,…). It also gives information on projects, withdrawn and replaced publications.

- IEC Just Published: www.iec.ch/online_news/justpub

Stay up to date on all new IEC publications. Just Published details twice a month all new publications released. Available on-line and also by email.

- Electropedia: www.electropedia.org

The world's leading online dictionary of electronic and electrical terms containing more than 20 000 terms and definitions in English and French, with equivalent terms in additional languages. Also known as the International Electrotechnical Vocabulary online.

- Customer Service Centre: www.iec.ch/webstore/custserv

If you wish to give us your feedback on this publication or need further assistance, please visit the Customer Service Centre FAQ or contact us:

Email: csc@iec.ch
Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00

![ISO IEC logos]

ISO/IEC 29341-19-1

Edition 1.0 2011-08

INTERNATIONAL
STANDARD

colour
inside

**Information technology – UPnP device architecture –
Part 19-1: Solar Protection Blind Device Control Protocol – Solar Protection
Blind Device**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

PRICE CODE

B

CONTENTS

**INFORMATION TECHNOLOGY –
UPNP DEVICE ARCHITECTURE –**

**Part 19-1: Solar Protection Blind Device Control Protocol –
Solar Protection Blind Device**

FOREWORD

1) ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards. Their preparation is entrusted to technical committees; any ISO and IEC member body interested in the subject dealt with may participate in this preparatory work. International governmental and non-governmental organizations liaising with ISO and IEC also participate in this preparation.

2) In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

3) The formal decisions or agreements of IEC and ISO on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC and ISO member bodies.

4) IEC, ISO and ISO/IEC publications have the form of recommendations for international use and are accepted by IEC and ISO member bodies in that sense. While all reasonable efforts are made to ensure that the technical content of IEC, ISO and ISO/IEC publications is accurate, IEC or ISO cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.

5) In order to promote international uniformity, IEC and ISO member bodies undertake to apply IEC, ISO and ISO/IEC publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any ISO/IEC publication and the corresponding national or regional publication should be clearly indicated in the latter.

6) ISO and IEC provide no marking procedure to indicate their approval and cannot be rendered responsible for any equipment declared to be in conformity with an ISO/IEC publication.

7) All users should ensure that they have the latest edition of this publication.

8) No liability shall attach to IEC or ISO or its directors, employees, servants or agents including individual experts and members of their technical committees and IEC or ISO member bodies for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication of, use of, or reliance upon, this ISO/IEC publication or any other IEC, ISO or ISO/IEC publications.

9) Attention is drawn to the normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

10) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

International Standard ISO/IEC 29341-19-1 was prepared by UPnP Forum Steering committee[1], was adopted, under the fast track procedure, by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 29341 series, under the general title *Information technology – UPnP device architecture*, can be found on the IEC web site.

This International Standard has been approved by vote of the member bodies, and the voting results may be obtained from the address given on the second title page.

---

1 UPnP Forum Steering committee, UPnP Forum, 3855 SW 153rd Drive, Beaverton, Oregon 97006 USA. See also "Introduction".

IMPORTANT – The "colour inside" logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

1   Overview and Scope

This device template is compliant with the Universal Plug and Play Architecture, Version 1.0.

SolarProtectionBlind:1 provides the following functionality:

- Provide shade with a blind. Any position can be reach between fully opened and fully closed. The control is manual, automatic or disable. A protected mode avoids the deterioration of the product.

This device template does not address:

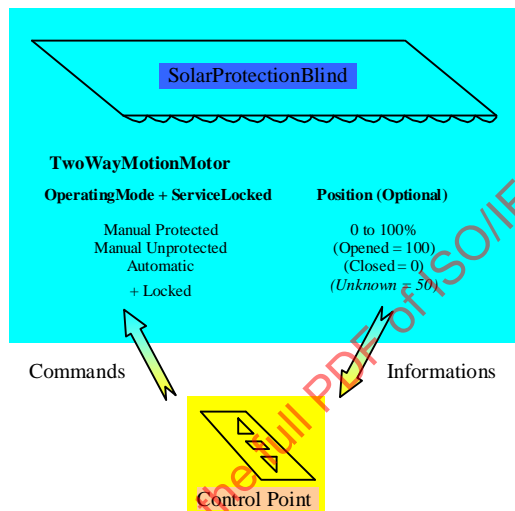- Configuration of the automation and of the protection.

Figure 1 — *SolarProtectionBlind:1* Functional Diagram

2   Device Definitions

2.1   Device Type

The following device type identifies a device that is compliant with this template:

urn:**schemas-upnp-org:device**:*SolarProtectionBlind:1*

2.2   Device Model

Products that expose devices of the type **urn:schemas-upnp-org:device:***SolarProtectionBlind:1* must implement minimum version numbers of all required embedded devices and services specified in the table below.

Table 1 — Device Requirements

DeviceType	Root	Req. or Opt. [a]	ServiceType	Req. or Opt. [a]	Service ID [b]
SolarProtectionBlind:1	*Root*	*R*	*TwoWayMotionMotor:1*	*R*	*blind*
			TwoWayMotionMotor:1	*O*	*slats*
			Non-standard services embedded by an UPnP vendor go here.	*X*	*TBD*
Non-standard devices	*TBD*	*X*	*TBD*	*TBD*	*TBD*

embedded by a UPnP vendor go here.					

^a R = Required, O = Optional, X = Non-standard

^b Prefixed by urn:**upnp-org**:**serviceId**:

2.3 Theory of Operation

The device has four operation modes:

a) Manual unprotected and unlocked: the user fully controls the blind.

b) Manual protected and unlocked: the user controls the blind but the protections can overcome his orders.

c) Automatic and unlocked: the user cannot control the motion of the blind.

d) Locked: the blind stays motionless until the product is unlocked.

If the Solar Protection Blind provides separate position information for the slats then an optional service for control of the slats may be used. Otherwise the position (angle) of the slats is controlled with the motion of the blinds using the Open, Close and Stop commands.

3 XML Device Description

```xml
<?xml version="1.0"?>
<root xmlns="urn:schemas-upnp-org:device-1-0">
  <specVersion>
    <major>1</major>
    <minor>0</minor>
  </specVersion>
  <URLBase>base URL for all relative URLs</URLBase>
  <device>
    <deviceType>urn:schemas-upnp-org:device:SolarProtectionBlind:1</deviceType>
    <friendlyName>short user-friendly title</friendlyName>
    <manufacturer>manufacturer name</manufacturer>
    <manufacturerURL>URL to manufacturer site</manufacturerURL>
    <modelDescription>long user-friendly title</modelDescription>
    <modelName>model name</modelName>
    <modelNumber>model number</modelNumber>
    <modelURL>URL to model site</modelURL>
    <serialNumber>manufacturer's serial number</serialNumber>
    <UDN>uuid:UUID</UDN>
    <UPC>Universal Product Code</UPC>
    <iconList>
      <icon>
        <mimetype>image/format</mimetype>
        <width>horizontal pixels</width>
        <height>vertical pixels</height>
        <depth>color depth</depth>
        <url>URL to icon</url>
      </icon>
      XML to declare other icons, if any, go here
    </iconList>
    <serviceList>
      <service>
        <serviceType>urn:schemas-upnp-org:service:TwoWayMotionMotor:1</serviceType>
        <serviceId>urn:upnp-org:serviceId:blind</serviceId>
        <SCPDURL>URL to service description</SCPDURL>
        <controlURL>URL for control</controlURL>
        <eventSubURL>URL for eventing</eventSubURL>
      </service>
      <service>
        <serviceType>urn:schemas-upnp-org:service:TwoWayMotionMotor:1</serviceType>
        <serviceId>urn:upnp-org:serviceId:slats</serviceId>
        <SCPDURL>URL to service description</SCPDURL>
        <controlURL>URL for control</controlURL>
        <eventSubURL>URL for eventing</eventSubURL>
```

```
          </service>
          Declarations for other services added by UPnP vendor (if any) go here
        </serviceList>
        <deviceList>
          Description of embedded devices added by UPnP vendor (if any) go here
        </deviceList>
        <presentationURL>URL for presentation</presentationURL>
      </device>
</root>
```

4 Test

Syntactical testing is performed by the UPnP test tool based on the XML description as provided in Clause 3.

The working committee and the implementers have come to the conclusion that further test descriptions e.g. for semantical testing do not provide a higher level of interoperability.

Thus the XML description is deemed to be sufficient for testing of devices that implement this template and further test descriptions are are not provided by this template.