

Take on the challenges of today:

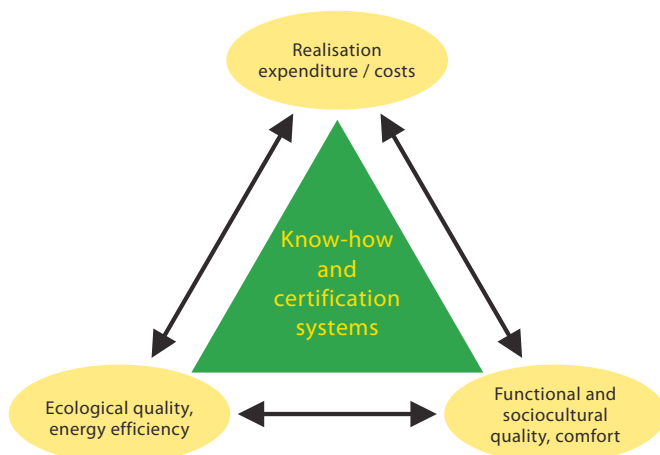
Energy efficiency and comfortable lighting with automatic sun protection



Architects and planners are being faced with new challenges. Today, energy efficiency, comfortable lighting and comprehensive quality are firmly anchored in product specifications. At the same time, given the highly competitive market, strict cost objectives must also be met. Over the next few pages let us show you how, with SMI, you can successfully step up to these challenges.

Certification systems are the key to success

Hardly any other sector has so many multidimensional aspects and demands such interdisciplinary solutions as sun protection. On the one hand, planners have to consider radiation energy, natural and artificial lighting, workplace design as well as sociocultural questions etc.. On the other hand, technical solutions demand a great deal of know-how in many disciplines, including sun protection, drive technology, building networks, automation, building control systems right through to facility management. Certification systems such as LEED, DGNB and Minergie as well as standards including EnEV and EN 15232 are valuable aids and means of communication for builders, architects and planners. They provide certainty in terms of both costs and planning, highlight any potential for optimisation and avoid risks.



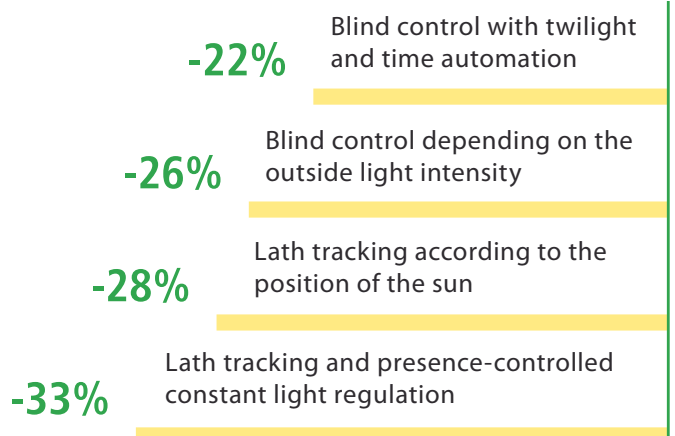
Three stages to sustainability

1st Stage Ecological quality

The theory goes "heat out – light in". The elegant solution ensures that a large amount of natural daylight is made available whilst, at the same time, the incoming heat is optimally screened out. Sun protection tracks the position of the sun.

Using a daylight deflection system, in addition daylight can be channelled into the depths of rooms without any glare. Intelligent control strategies such as energy harvesting in winter, shade strategies during absenteeism and temperature-dependent control save valuable primary energy.

A study by the Biberach University of Applied Sciences identified potential savings when cooling buildings.



Did you know? Certification systems

DGNB:

Quality seal from the German Sustainable Building Council

The quality seal was developed together with the German Federal Ministry of Transport, Building and Urban Development and the German Sustainable Building Council (DGNB). It is a voluntary certification system with a conformity audit based on the documentation accompanying planning the building processes.

LEED:

Leadership in Energy and Environmental Design

The system classifies ecological building and was developed by the U.S. Green Building Council. It appoints accreditation bodies who carry out the assessment and certification of buildings according to the LEED system. Buildings developed by international building operations are being increasingly classified according to LEED.

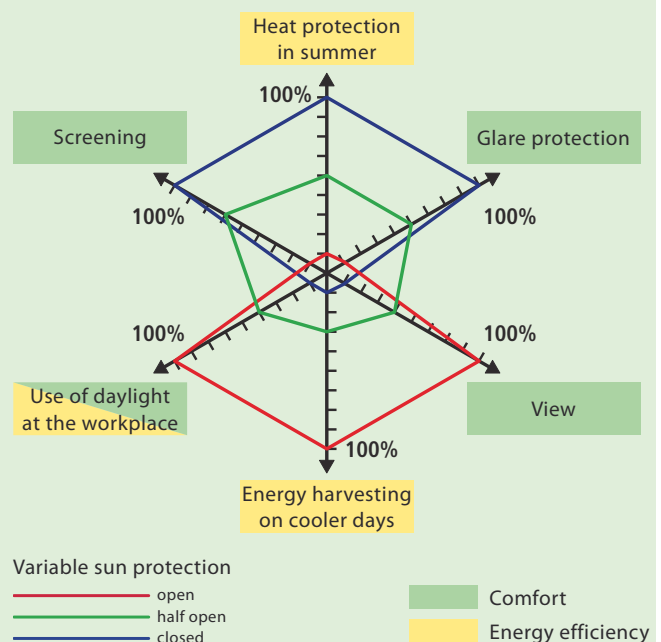
MINERGIE:

Swiss label of quality for new and modernised buildings

The MINERGIE® standard is a voluntary building standard. It enables the rational use of energy and the wide-ranging use of renewable energies. And, at the same time, it also improves living quality, secures competitiveness and reduces the impact on the environment.

Did you know? Demands placed on sustainable sun protection

The demands placed on sun protection are extremely varied. They can be broken down into the aspects comfort and energy efficiency.



Sun protection is only able to optimally meet these varied demands with suitable automation.

2nd Stage Functional and sociocultural quality

Energy efficiency is just one side of the coin. Comfort and well-being at the workplace or in the home are the other. Of all other factors within a building, sun protection arguably has the most multifaceted and important influence on functional and sociocultural quality.

Visual comfort at the workplace means more than just well-being. Studies have proven that absenteeism is greater at workplaces which are poorly lit or which are blinded by the sun. When the sun protection system is designed to precisely track the position of the sun, this improves lighting conditions and also prevents any glare. The best possible solution can only be achieved if there is automatic coordination with the artificial lighting.

Flexible conversion forms part of functional quality. This degree of flexibility is guaranteed as the SMI interface addresses every single drive.

Protection against glare and nevertheless an optimal view are both highly important aspects which can only be achieved if the position of the sun is tracked. A further factor in the sociocultural quality of the building.

The influence of building aesthetics must also not be neglected. Precise and, as such, uniform positioning of the sun protection system creates an impression of outstanding quality.

3rd Stage Standards spanning all manufacturers

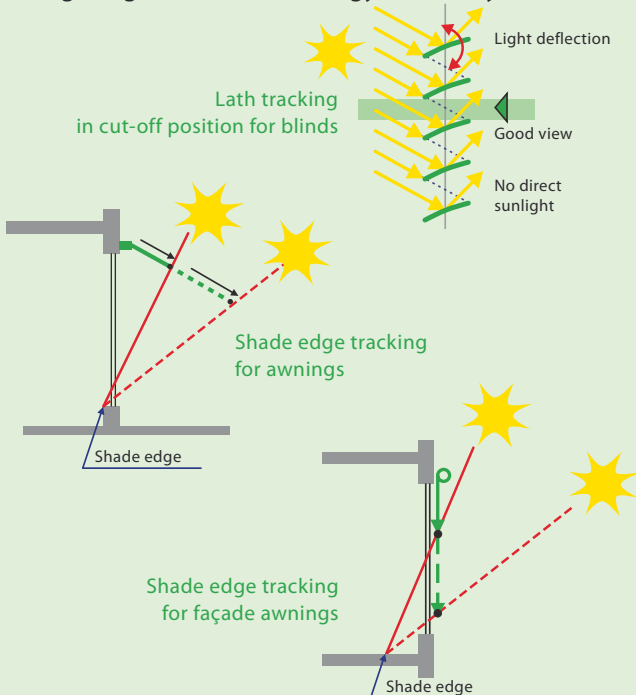
Standards which span all manufacturers provide useful orientation tools for planners and decision makers. Digital networking and automation standards are of particular importance. As such, the SMI interface guarantees precision, feedback and continuous digital technology from the building network through to the drive for sun protection. SMI drives can be optimally integrated into networks for building automation such as LON, KNX, BACnet etc.. Standards are extremely important to builders. They offer planning certainty and reduce investment risks.

The standardised SMI interface is already successfully in use in many buildings.



Did you know? Tracking of the position of the sun

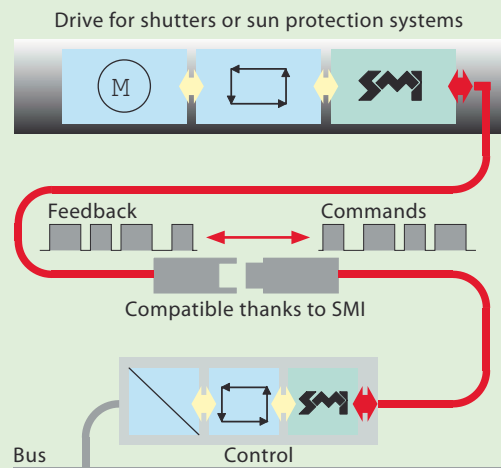
Modern systems demand much more than simplistic sun protection "ON" and sun protection "OFF". With precise drives and coordinated control strategies the sun protection system is able to adapt to the direction and intensity of the sunlight. Making it an effective concept for lighting comfort and energy efficiency.



Did you know? SMI interface

SMI is the abbreviation for STANDARD MOTOR INTERFACE and is the standardised electrical connection for shutter and sun protection system drives. Renowned European manufacturers have joined the SMI Consortium to develop the digital interface. Using this standard interface drives are controlled via data packages. Thanks to this technology, SMI drives provide precise feedback.

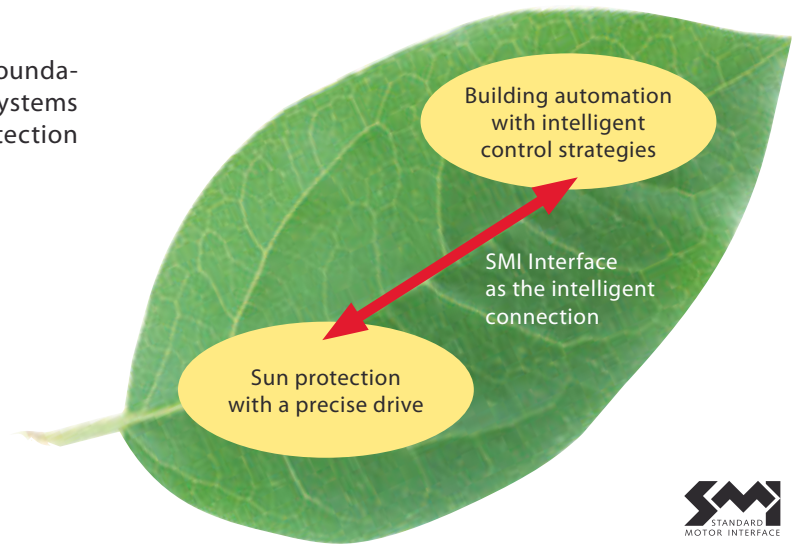
A parallel connection of up to 16 drives is possible which can each be individually addressed. SMI drives are available for mains voltage and low voltage.



Sustainability with SMI

Sustainable solutions are built upon accredited foundations. Foundations comprising both automation systems with intelligent control strategies and sun protection systems with precise drives.

SMI represents the standardised interface between automation and sun protection



SMI provides planning reliability

Positive influence on certification system assessments

An optimal sun protection system has a beneficial impact on certification system assessments. The table highlights in which areas you can score well with a good and precise sun protection system.

DGNB (German Sustainable Building Council)

No.	Criterion	Max. Points Weighted
Ecological quality		
1	Global warming potential	30
10	Primary energy requirements, non-renewable	30
11	Primary energy requirements, renewable	20
Sociocultural and functional quality		
18	Thermal comfort in winter	20
19	Thermal comfort in summer	30
22	Visual comfort	30
23	User influence	20
28	Ability to be converted	20

LEED (Leadership in Energy and Environmental Design)

Credit No.	Credit	Max. Points
Energy & Atmosphere		
p1	Fundamental Commissioning of Building Systems	
p2	Minimum Energy Performance	
c1	Optimize Energy Performance	19
c3	Enhanced Commissioning	7
c5	Measurement and Verification	3
Indoor Environmental Quality (IEQ)		
c6	Controllability of Systems	2
c7	Thermal Comfort	2
c8	Daylight and Views	2

The new precision standard

SMI (STANDARD MOTOR INTERFACE) already satisfies future demands for comfort and convenience and also opens up a whole world of opportunities. With practice-oriented and economic solutions.

Renowned manufacturers trust in SMI to ensure compatibility between drives and controls.



www.smi-group.com

Return fax to: +41 (0)52 761 30 29

I am interested in SMI and wish to receive further information

Last name, first name: _____

Company: _____

Address: _____

Town, postcode, country: _____

Tel.: _____ E-mail: _____