EY-LO 625...670: Local operating and indicating units, modu625...670

EY-LO625F001

EY-LO630F001

EY-LO650F001

EY-LO650F002

EY-LO670F001

How energy efficiency is improved

SAUTER EY-modulo 5 technology: modular, fast and universal

Features

- Part of the SAUTER EY-modulo 5 system family
- Pluggable elements for direct operation/indication of modu525 automation station (AS) and novaLink and I/O modules
- Direct operation via switches/sliders (as per EN ISO 16484-2:2004 “Local override and indicating units”)
- Separate indicator for manual operation
- Ready for use without parameterising

Technical data

Power supply		
	Power supply	From AS, novaLink and modu5** I/O module
Parameters		
	Factory setting	All switches set to «A» (Auto)
Ambient conditions		
	Operating temperature	0...45 °C
	Storage and transport temperature	–25...70 °C
	Admissible ambient humidity	10...85% rF no condensation
Interfaces and communication		
	Connection for I/O module / AS or lowering frame	Spring contacts, 9-pin
Standards and directives		
	Type of protection	IP 30 (EN 60529)
	Protection class	III (EN 60730-1) PELV
	Environment class	3K3 (IEC 60721)
CE conformity as per	EMC directive 2004/108/EC	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-3

Overview of types

i *Power consumption: on primary side of base station (230 V~)*

i *Current consumption: supply via base station*

Type	EY-LO625F001	EY-LO630F001	EY-LO650F001	EY-LO650F002	EY-LO670F001
Use	modu521, modu525 (from hardware index C)	modu525, modu530...590	modu525, modu550, 551, 571	modu525, modu550, 551, 571	modu525, modu570, 572
Power consumption	≤ 2 VA/0.7 W	≤ 1 VA/0.35 W	≤ 1 VA/0.35 W	≤ 1 VA/0.35 W	≤ 1 VA/0.35 W
Dissipated power	≤ 0.7 W	≤ 0.35 W	≤ 0.35 W	≤ 0.35 W	≤ 0.35 W
Current consumption	≤ 40 mA	≤ 20 mA	≤ 20 mA	≤ 20 mA	≤ 20 mA
Operation	6 switches (A-0-I), 4 sashes (A-0...100%)	–	6 switches (A-0-I)	3 switches (A-0-I-II)	4 sliding switches (A-0...100%)
Indicator/display	4 LEDs (bi-colour), analogue: 8 LEDs (bi-colour)	16 LEDs (bi-colour)	4 LEDs (bi-colour)	4 LEDs (bi-colour)	8 LEDs (bi-colour)
Dimensions W x H x D	84 × 92 × 13 mm	42 × 92 × 13 mm	42 × 92 × 13 mm	42 × 92 × 13 mm	42 × 92 × 13 mm
Weight	0.07 kg	0.03 kg	0.03 kg	0.03 kg	0.03 kg

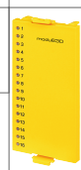
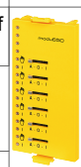
 Right of amendment reserved © 2015 Fr. Sauter AG

Accessories	
Type	Description
0930240511	Front frame for 4 operating/indicating units
0930240540	Connection adaptor for RJ-45 operating/indicating units for front frame

Description of operation

The automation station (AS) and the I/O modules of the EY-modulo 5 series can be complemented with local operating and indicating units (LOI) to allow direct manual actuation or indication of system components.

Summary of functions

EY-LO625F001	Double unit used for operation and indication of the data points of the modu521 and modu525 AS (from hardware index C)		
	4 LEDs	LED indication, bi-colour, green/red (configurable for event/alarm/status)	
	6 switches with LED indicator	Level Auto-0-I, green indication	
	8 LEDs	LED indication, bi-colour, green/red (configurable for event/alarm/status)	
	4 slide switches with LED indicator	Setpoint transmitter 0...100%, manual position indication yellow LED indication red (configurable for event/alarm/status)	
EY-LO630F001	Single unit used for indication of the data points of the modu530...572 I/O modules or modu525 AS, or the novaLink connections of the modu590 novaLink module		
	16 LEDs	LED indication, bi-colour, green/red (configurable for event/alarm/status)	
EY-LO650F001	Single unit used for operation and indication of the data points of the modu550, 551, 571 I/O modules or the modu525 AS		
	4 LEDs	LED indication, bi-colour, green/red (configurable for event/alarm/status)	
	6 switches with LED indicator	Level Auto-0-I, green indication Manual position indication yellow	
EY-LO650F002	Single unit used for operation and indication of the data points of the modu550, 551, 571 I/O modules or the modu525 AS		
	4 LEDs	LED indication, bi-colour, green/red (configurable for event/alarm/status)	
	3 switches with LED indicator	Level Auto-0-I-II, green indication Manual position indication yellow	
EY-LO670F001	Single unit used for operation and indication of the data points of the modu570, 572 I/O modules or the modu525 AS		
	8 LEDs	LED indication, bi-colour, green/red (configurable for event/alarm/status)	
	4 slide switches with LED indicator	Setpoint transmitter 0...100%, manual position indication yellow LED indication red (configurable for event/alarm/status)	

Intended use

This product is only suitable for the purpose intended by the manufacturer, as described in the “Description of operation” section.
All related product documents must also be adhered to. Changing or converting the product is not admissible.

SAUTER Right of amendment reserved © 2015 Fr. Sauter AG

Engineering notes

The automation station and the I/O modules of the EY-modulo 5 series can be complemented with local override and indication devices to allow direct manual actuation or indication of system components.
A local operating and override device can be added to an automation station or I/O module.
The function corresponds to the standard EN ISO 16484-2:2004 for local override and indicating units. Manual actuation and override of outputs by local operating units is independent of the user program sequence of the AS.

Fitting

The modu625 unit is fitted directly on the front of the AS (from hardware index C); the modu630...670 units directly on the front of the I/O modules or modu590 novaLink module.
All override and indicating units can be installed and removed during operation (hot-pluggable) without affecting functions of the AS or I/O modules.
Before a unit is inserted or removed, switches and sliders should be set to automatic mode to avoid triggering undesired switch actions at the outputs. When an operating unit is removed, all outputs are operated with the automatic values of the AS or I/O module. In each manual mode position, the status flag “overridden” is activated for assigned BACnet objects (AO, BO, MO).
If an incompatible I/O module is connected, the operating unit will not be operable; there is no risk of destruction. This state is indicated by the flashing of all LEDs (red and yellow).
Outputs of the AS or the I/O modules in manual position may change their status briefly when the user program is downloading.

Remote assembly

For external installation of the operating and indicating units, a front frame (accessory) can be used. This allows up to 2 modu625s or up to 4 modu630...670 units to be placed at a distance. The electrical connection of the AS or the I/O modules is made using a standard RJ-45 patch cable of category 5 or higher. It can be up to 10 m long. One cable is required for each remote modu6*. The cable can be connected directly to the modu521. On the modu525 and the I/O modules, a connecting adapter 0930240540 is required for each remote modu6*.

Labelling

The local operating and indicating units are labelled or numbered with function-specific symbols. Additionally, individual labelling can be made with a paper insert in the frontal transparent cap. The labelling is usually carried out using texts generated from CASE Suite, and the labels are printed on normal A4 paper using commercial printers.

LED indicators / function

LED indicators are selected or programmed with CASE Engine as an example of an alarm/status indicator, limit value indicator etc.

LED indicators

Use with modu530...572 I/O modules

LED indicators	Status	Description
No designation	Continuous green light / (flashing)	Channel active (status DI, BO, MO)
	Continuous red light	Channel active (alarm DI, alarm acknowledged)
	Pulsating red	Channel out of service
	Flashing red	Channel active (alarm DI, UI, AO – not acknowledged)
	All flashing red and yellow	No communication with I/O module or incorrect module type
	All alternating green-red/yellow-OFF	Lamp test active (priority indicator type)
	No indicator	Channel status “0”, alarm “normal”, no channel attribution, or power supply is not available
	Continuous yellow light	Manual operation channel (overridden AO, BO, MO)

Right of amendment reserved © 2015 Fr. Sauter AG

Use of modu630 with modu590 novaLink module

LED indicators	Status	Description
No designation	Continuous green light	Field module connected, function OK
	Continuous red light	Error (e.g. short-circuited)
	All alternating green-red-OFF	Lamp test active (priority indicator type)
	No indicator	Field module not connected

Function allocation and LED indicators

Key

d: digital	LED for digital input (actuation configurable for alarm/event)
u: universal	LED for universal input (actuation configurable for alarm/event)
ov: out virtual	LED can be freely allocated (virtual actuation for alarm/event)
R: relay	LED for relay (normally open)
o: output	LED for digital output (open collector)
a: analogue	LED for analogue output (actuation for violation of limit value)
nl: novaLink	LED for novaLink channel
Number:	Channel number

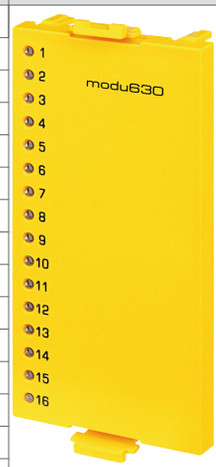
modu625

LED	No.	Symbol	Colour	Function / channel number	
				modu521	modu525
○	1	-	Green/red	ov46	ov26
○	2	-	Green/red	ov47	ov27
○	3	-	Green/red	ov48	ov28
○	4	-	Green/red	ov49	ov29
○	5	Manual	Yellow	-	-
○	6	Level I	Green/red	R40	R20
○	7	Manual	Yellow	-	-
○	8	Level I	Green/red	R41	R21
○	9	Manual	Yellow	-	-
○	10	Level I	Green/red	R42	R22
○	11	Manual	Yellow	-	-
○	12	Level I	Green/red	R43	R23
○	13	Manual	Yellow	-	-
○	14	Level I	Green/red	R44	R24
○	15	Manual	-	-	-
○	16	Level I	Green/red	R45	R25
○	1	-	Green/red	d0	d4
○	2	-	Green/red	d1	d5
○	3	-	Green/red	d2	d6
○	4	-	Green/red	d3	d7
○	5	-	Green/red	d4	d8
○	6	-	Green/red	d5	d9
○	7	-	Green/red	d6	d10
○	8	-	Green/red	d7	d11
○	9	Manual	Yellow	-	-
○	10	-	Red	a32	a0
○	11	Manual	Yellow	-	-
○	12	-	Red	a33	a1
○	13	Manual	Yellow	-	-
○	14	-	Red	a34	a2
○	15	Manual	Yellow	-	-
○	16	-	Red	a35	a3

SAUTER Right of amendment reserved © 2015 Fr. Sauter AG

modu630

LED	No.	Colour	Module / function / channel number											
			modu 525	modu 530	modu 531	modu 532	modu 533	modu 534	modu 550	modu 551	modu 570	modu 571	modu 572	modu 590
○	1	Green/red	d4	u8	d0	u0	u0	U/i0	ov6	o0	u8	od0	u8	nl1
○	2	Green/red	d5	u9	d1	u1	u1	U/i1	ov7	o1	u9	od1	u9	nl2
○	3	Green/red	d6	u10	d2	u2	u2	U/i2	ov8	o2	u10	od2	u10	nl3
○	4	Green/red	d7	u11	d3	u3	u3	U/i3	ov9	o3	u11	od3	u11	nl4
○	5	Green/red	d8	u12	d4	u4	u4	U/i4	-	o4	u12	od4	u12	nl5
○	6	Green/red	d9	u13	d5	u5	u5	U/i5	R0	o5	u13	od5	u13	nl6
○	7	Green/red	d10	u14	d6	u6	u6	U/i6	-	o6	u14	od6	u14	nl7
○	8	Green/red	d11	u15	d7	u7	u7	U/i7	R1	o7	u15	od7	u15	nl8
○	9	Green/red	u12	d0	d8	u8	d8	-	-	o8	-	od8	d5	-
○	10	Green/red	u13	d1	d9	u9	d9	-	R2	o9	a0	od9	d6	-
○	11	Green/red	u14	d2	d10	u10	d10	-	-	o10	-	od10	d7	-
○	12	Green/red	u15	d3	d11	u11	d11	-	R3	o11	a1	od11	a0	-
○	13	Green/red	u16	d4	d12	u12	s12	-	-	o12	-	od12	a1	-
○	14	Green/red	u17	d5	d13	u13	s13	-	R4	o13	a2	od13	a2	-
○	15	Green/red	u18	d6	d14	u14	s14	-	-	o14	-	od14	a3	-
○	16	Green/red	u19	d7	d15	u15	s15	-	R5	o15	a3	od15	-	-



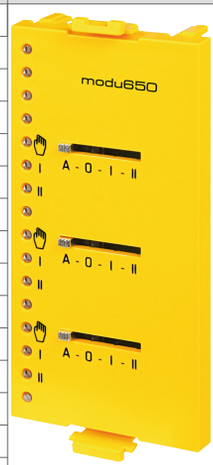
modu650F001

LED	No.	Symbol	Colour	Module / function / channel number			
				modu525	modu550	modu551	modu571
○	1	-	Green/red	ov26	ov6	o6	od6
○	2	-	Green/red	ov27	ov7	o7	od7
○	3	-	Green/red	ov28	ov8	o8	od8
○	4	-	Green/red	ov29	ov9	o9	od9
○	5	Manual	Yellow	-	-	-	-
○	6	Level I	Green/red	R20	R0	o0	od0
○	7	Manual	Yellow	-	-	-	-
○	8	Level I	Green/red	R21	R1	o1	od1
○	9	Manual	Yellow	-	-	-	-
○	10	Level I	Green/red	R22	R2	o2	od2
○	11	Manual	Green/red	-	-	-	-
○	12	Level I	Green	R23	R3	o3	od3
○	13	Manual	Yellow	-	-	-	-
○	14	Level I	Green/red	R24	R4	o4	od4
○	15	Manual	Yellow	-	-	-	-
○	16	Level I	Green/red	R25	R5	o5	od5

 Right of amendment reserved © 2015 Fr. Sauter AG

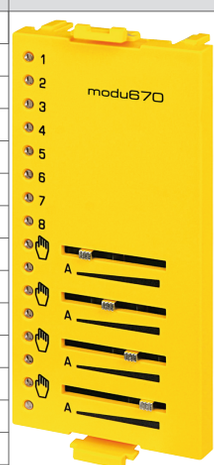
modu650F002

LED	No.	Symbol	Colour	Module / function / channel number			
				modu525	modu550	modu551	modu571
○	1	-	Green/red	ov26	ov6	o6	od6
○	2	-	Green/red	ov27	ov7	o7	od7
○	3	-	Green/red	ov28	ov8	o8	od8
○	4	-	Green/red	ov29	ov9	o9	od9
○	5	Manual	Yellow	-	-	-	-
○	6	Level I	Green/red	R20	R0	o0	od0
○	7	Level II	Green/red	R21	R1	o1	od1
○	8	-	-	-	-	-	-
○	9	Manual	Yellow	-	-	-	-
○	10	Level I	Green/red	R22	R2	o2	od2
○	11	Level II	Green/red	R23	R3	o3	od3
○	12	-	-	-	-	-	-
○	13	Manual	Yellow	-	-	-	-
○	14	Level I	Green/red	R24	R4	o4	od4
○	15	Level II	Green/red	R25	R5	o5	od5
○	16	-	-	-	-	-	-



modu670

LED	No.	Symbol	Colour	Module / function / channel number		
				modu525	modu570	modu572
○	1	-	Green/red	d4	u8	u8
○	2	-	Green/red	d5	u9	u9
○	3	-	Green/red	d6	u10	u10
○	4	-	Green/red	d7	u11	u11
○	5	-	Green/red	d8	u12	u12
○	6	-	Green/red	d9	u13	u13
○	7	-	Green/red	d10	u14	u14
○	8	-	Green/red	d11	u15	u15
○	9	Manual	Yellow	-	-	-
○	10	-	Red	a0	a0	a0
○	11	Manual	Yellow	-	-	-
○	12	-	Red	a1	a1	a1
○	13	Manual	Yellow	-	-	-
○	14	-	Red	a2	a2	a2
○	15	Manual	Yellow	-	-	-
○	16	-	Red	a3	a3	a3



Disposal

When disposing of the product, observe the currently applicable local laws.
More information on materials can be found in the Declaration on materials and the environment for this product.

Fr. Sauter AG
Im Surinam 55
CH-4016 Basel
Tel. +41 61 - 695 55 55
www.sauter-controls.com

 Right of amendment reserved © 2015 Fr. Sauter AG