

modu625...670: Local override and indicating units

How energy efficiency is improved

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

Areas of application

Digital input display (alarm/status), direct control of digital/analogue outputs of the automation station and I/O module.

Features

- Pluggable elements for direct operation /indicating of the modu525 automation station and I/O modules
- Direct operation via switches/slide switches (as per EN ISO 16484-2:2004 'Local priority override/indicating units')
- Bi-colour LED indicators
- Separate display for manual operation
- Ready for use without configuration
- Power supply via modu525 automation station or I/O modules
- Part of the SAUTER EY-modulo system family



Technical description

- modu625, 6 switches (A-0-I), 4 LEDs (bi-colour), 4 slide switches (A-0...100%), 8 LEDs (bi-colour)
- modu630, 16 LEDs (bi-colour)
- modu650 (F001), 6 switches (A-0-I), 4 LEDs (bi-colour)
- modu650 (F002), 3 switches (A-0-I-II), 4 LEDs (bi-colour)
- modu670, 4 slide switches (A-...100%), 8 LEDs (bi-colour)

Products

Type	Description	Use
EY-LO625F001	Override/indicating unit with LEDs (6x A-0-I; 4x LED) (4x A-0...100%; 8x LED)	modu525 (from hardware index C)
EY-LO630F001	Indicating unit (16 LEDs)	modu525, modu530...572
EY-LO650F001	Override/indicating unit with LED (6x A-0-I; 4x LED)	modu525, modu550, 551, 571
EY-LO650F002	Override/indicating unit with LED (3x A-0-I-II; 4x LED)	modu525, modu550, 551, 571
EY-LO670F001	Override/indicating unit with LED (4x A-0...100%; 8x LED)	modu525, modu570, 572

Technical data

Electrical supply		
Power supply	from automation station modu525 or I/O module modu5 . .	
	modu625	modu630...670
Power consumption 1)	up to 2 VA/0,7 W	up to 1 VA/0.35 W
Dissipated power	up to 0.7 W	up to 0.35 W
Current consumption 2)	up to 40 mA	up to 20 mA

Version

EY-LO625F001	6 switches (A-0-I) digital outputs 4 LEDs alarm/status 4 slide switches (A-0... 100%) analogue outputs 8 LEDs alarm/status
EY-LO630F001	16 LEDs (alarm/status)
EY-LO650F001	6 switches (A-0-I) digital outputs 4 LED display alarm/status
EY-LO650F002	3 switches (A-0-I-II) digital outputs 4 LED display alarm/status
EY-LO670F001	4 slide switches (A-0... 100%) analogue outputs 8 LED display alarm/status
Factory settings	All switches set to 'A' (Auto)

Interfaces

Connection, AS/I/O module	Spring-loaded contacts, 9-pole
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1) On the primary side of base station modu525 (230 V-)

2) Supply via base station modu525

Permitted ambient conditions

Operating temperature	0...45 °C
Storage and transport temperature	-25...70 °C
Humidity	10...85% rh
no condensation	

Installation

Dimensions W x H x D (mm)	
EY-LO625F001	84 x 92 x 13
EY-LO630...670	42 x 92 x 13
Weight (kg)	
EY-LO625F001	0.07
EY-LO630...670	0.03

Standards, guidelines and directives

Degree of protection	IP 30 (EN 60529)
Protection class	III (EN 60730-1) PELV
Environmental 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 61000-6-4

Additional information

Fitting instructions	MV 506057
Fitting instructions for accessories	
4-fold front frame	MV P100003733
Adaptor	MV P100003732
Material declaration	MD 92.081

Accessories

Type	Description
0930240511	Front frame for 4 override/indicating units
0930240540	RJ-45 connection adaptor for front frame override/indicating units

Engineering notes

The automation station and I/O modules of the EY-modulo 5 range can be supplemented with local override and indicating units (LOI) to enable direct manual operation and indicating of plant components. The function complies with the EN ISO 16484-2:2004 standard relating to local priority override/indicating units.

Manual output control or override is independent of the automation station's CPU and user program sequence.

Installation

The units are installed directly in the front of the automation station (2nd installation position) or I/O modules.

They are 'hot-plug' capable and can be installed and removed during ongoing operations without impeding any functions of the automation station or I/O module.

The switches and slide switches on units should be set to Automatic during installation and removal to prevent any unintentional switching operations on outputs. When the unit is removed all outputs are operated using the automatic conditions of the automation station or I/O module. The status flag 'overridden' is

activated at every position of manual operation on BACnet objects (AO, BO, MO).





The override unit will not function if connected to an incompatible I/O module; there is no danger of destruction. This condition is indicated by all LEDs (red + yellow) flashing.

Outputs from automation stations or I/O modules that are in manual operating mode may temporarily change condition during a user program download.

External installation

A front frame (accessory) can be used to enable external installation of the override and indicating unit. This enables one or two modu625 or up to four modu630...670 units to be connected remotely in each case. On the automation station and the I/O module, adaptor units are used to provide a connection to the front frame. In each case, the electrical connection is created using a commercially available RJ-45 patch cable (Cat. 5 or higher). The distance between AS or I/O module and front frame can be up to 10 metres. Details can be referenced from MV P100003732 and MV P100003733.

Summary of functions

EY-LO625F001	Double unit; can be used to override and indicate the data points from the modu525 automation station (from hardware index C)		
	4 LED	LED indicator, bi-colour green/red (configurable for event/alarm/status)	
	6 switches with LED indicator	Auto-0-I, green indicator	
	8 LED	LED indicator, bi-colour green/red (configurable for event/alarm/status)	
EY-LO630F001	Single unit; can be used to indicate the data points from the modu530...572 I/O modules or the modu525 automation station		
	16 LED	LED indicators, bi-colour green/red (configurable for event/alarm/status)	
	4 slide switches with LED indicator	Setpoint adjuster 0...100%, yellow indicator for manual adjustment	
	8 LED	LED indicators, bi-colour green/red (configurable for event/alarm/status)	
EY-LO650F001	Single unit; can be used to override and indicate the data points from the modu550, 551, 571 I/O modules or the modu525 automation station		
	4 LED	LED indicators, bi-colour green/red (configurable for event/alarm/status)	
	6 switches with LED indicator	Level Auto-0-I indicating green Yellow indicates manual operation	
	3 switches with LED indicator	Level Auto-0-II indicating green Yellow indicates manual operation	
EY-LO670F001	Single unit; can be used to override and indicate the data points from the modu570 or 572 I/O modules or the modu525 automation station		
	8 LED	LED indicators, bi-colour green/red (configurable for event/alarm/status)	
	4 slide switches with LED indicator	Setpoint adjuster 0...100%, yellow indicates manual operation LED indicator, red, (freely configurable for event/alarm/status)	
	4 LED	LED indicators, bi-colour green/red (configurable for event/alarm/status)	

Labelling

Local override/indicating units are labelled with function-specific symbols or numbers. This information may be supplemented by inserting a customised paper label behind the transparent cover on the front. These labels are normally inscribed using text generated from within CASE Suite and are printed out on normal DIN A4 paper using generic printers.

LED indicators/function

LED displays are selected or programmed using CASE Engine, for instance to display alarm/status, limit values, etc.

LED indicators

LED indicators	Condition	Indicator sequence	Description
	green lit continuously/(flashing)	—————	Channel active (status DI, BO, MO)
	red lit continuously	—————	Channel active (alarm DI, alarm acknowledged)
	red pulsating	• • • •	Channel out of service
	red flashing	• • • • •	Channel active (alarm DI, UI, AO - not acknowledged)
	red + yellow all flashing	• • • • •	No communication with I/O module or incorrect module type
	alternating green – red/yellow - off	•• •• •• ••	Lamp test active (display type has priority)
	no display		Channel status '0', alarm 'normal', no channel allocation or no power supply
	yellow lit continuously	—————	Channel in manual operation (overridden AO, BO, MO)

Function occupancy and LED displays

Key	
d: digital	LED for digital input (activation configurable for alarm/event)
u: universal	LED for universal input (activation configurable for alarm/event)
ov: out virtual	LED freely assignable (virtual activation on alarm/event)
r: relay	LED for relay (normally open)
o: Output	LED for digital output (open collector)
a: analogue	LED for analogue output (activation or limit value transgression)
Digit/Number:	Channel

modu625

LED	No.	Symbol	Colour	Function/Channel number modu525 (from hardware index C)
○	1	-	green/red	ov26
○	2	-	green/red	ov27
○	3	-	green/red	ov28
○	4	-	green/red	ov29
○	5	Manual	yellow	
○	6	Level I	green/red	R20
○	7	Manual	yellow	
○	8	Level I	green/red	R21
○	9	Manual	yellow	
○	10	Level I	green/red	R22
○	11	Manual	yellow	
○	12	Level I	green/red	R23
○	13	Manual	yellow	
○	14	Level I	green/red	R24
○	15	Manual	yellow	
○	16	Level I	green/red	R25

○	1	-	green/red	d4
○	2	-	green/red	d5
○	3	-	green/red	d6
○	4	-	green/red	d7
○	5	-	green/red	d8
○	6	-	green/red	d9
○	7	-	green/red	d10
○	8	-	green/red	d11
○	9	Manual	yellow	
○	10	-	red	a0
○	11	Manual	yellow	
○	12	-	red	a1
○	13	Manual	yellow	
○	14	-	red	a2
○	15	Manual	yellow	
○	16	-	red	a3



modu630

LED	No.	Colour	Module/Function/Channel Number									
			modu 525	modu 530	modu 531	modu 532	modu 533	modu 550	modu 551	modu 570	modu 571	modu 572
○	1	green/red	d4	u8	d0	u0	u0	ov6	o0	u8	od0	u8
○	2	green/red	d5	u9	d1	u1	u1	ov7	o1	u9	od1	u9
○	3	green/red	d6	u10	d2	u2	u2	ov8	o2	u10	od2	u10
○	4	green/red	d7	u11	d3	u3	u3	ov9	o3	u11	od3	u11
○	5	green/red	d8	u12	d4	u4	u4		o4	u12	od4	u12
○	6	green/red	d9	u13	d5	u5	u5	R0	o5	u13	od5	u13
○	7	green/red	d10	u14	d6	u6	u6		o6	u14	od6	u14
○	8	green/red	d11	u15	d7	u7	u7	R1	o7	u15	od7	u15
○	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	a1	od10	d7
○	12	green/red	u15	d3	d11	u11	d11	R3	o11		od11	a0
○	13	green/red	u16	d4	d12	u12	s12		o12	a2	od12	a1
○	14	green/red	u17	d5	d13	u13	s13	R4	o13		od13	a2
○	15	green/red	u18	d6	d14	u14	s14		o14	a3	od14	a3
○	16	green/red	u19	d7	d15	u15	s15	R5	o15		od15	



T10587

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



T10593

*) No function possible on I/O modules modu530, 531, 532, 533, 570 and 572

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	-	-	-	-	-	-



T10597

*) No function possible on I/O modules modu530, 531, 532, 533, 570 and 572

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



T10581

*) No function possible on I/O modules modu530, 531, 532, 533, 550, 551 and 571