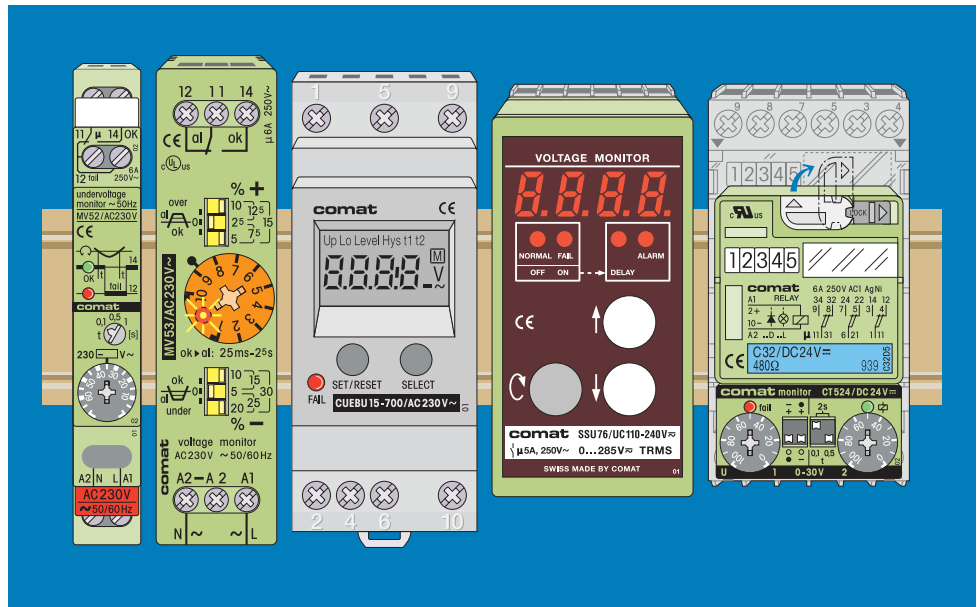


Monitoring Relays

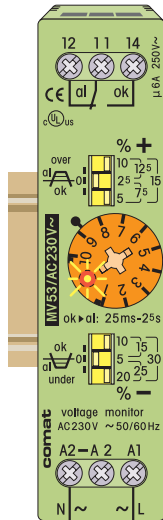
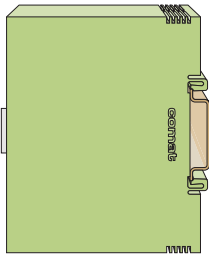
# Voltage Monitoring



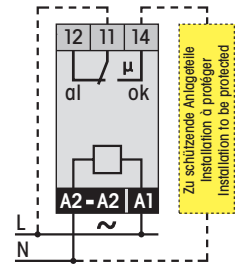
Lloyd's; IEC 61810; EN 60974

Comat products comply with different international standards and are certified accordingly.





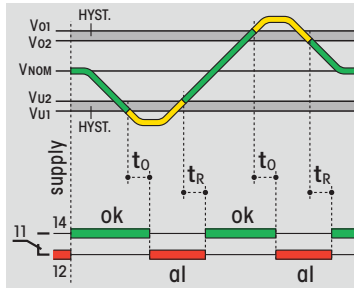
Alarm threshold value							
+ 0%	+ 2,5%	+ 5%	+ 7,5%	+ 10%	+ 12,5%	+ 15%	+ 17,5%
230V 115V	≈ 236V ≈ 118V	241V 121V	247V 124V	253V 127V	258V 129V	265V 132V	270V 135V
- 0%	- 5%	- 10%	- 15%	- 20%	- 25%	- 30%	- 35%
230V 115V	≈ 219V ≈ 109V	207V 103V	195V 97V	184V 92V	173V 86V	161V 80V	150V 74V



Never set both thresholds on 0%!

MV53

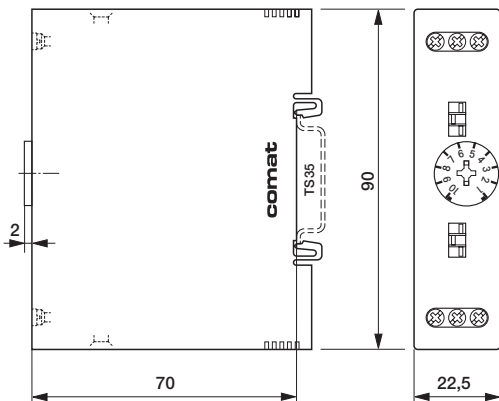
The MV53 (50/60Hz) protects single phase consumers in AC networks from over- and undervoltage. Overvoltage and undervoltage thresholds can be set independently in percentage of the nominal voltage using two DIP-switches (see diagram above). Using a potentiometer allows setting an alarm delay of 25 ms...2,5 s. A two-colored LED shows the definite monitoring status.



gn ok ye fail rd alarm

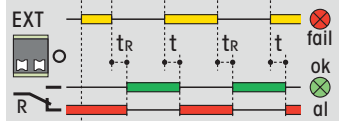
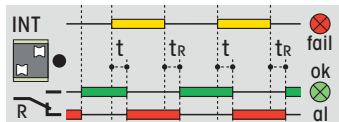
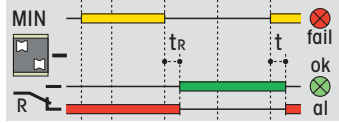
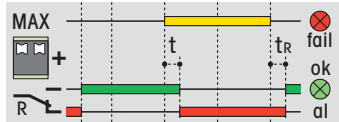
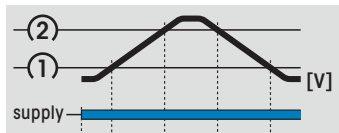
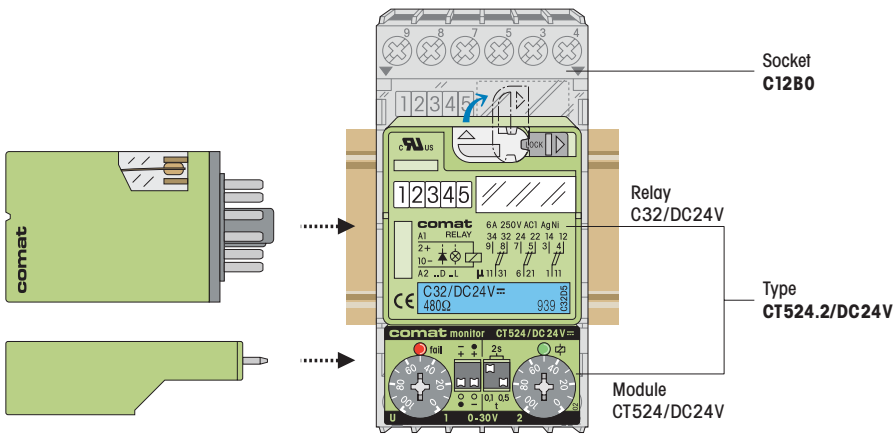
t<sub>0</sub>: Alarm delay  
t<sub>R</sub>: Reset time

	Data at Tamb. = 20°C	
Setting range overvoltage	U <sub>Nom</sub> + 2,5 ... 17,5%	
Setting range undervoltage	U <sub>Nom</sub> - 35 ... - 5%	
Hysteresis	2,5%	
t <sub>0</sub> Alarm delay	25 ms ... 2,5 sec	
t <sub>R</sub> Reset time	70 ms	
	Switching current/voltage	6A 250V~
	Switch rating	1750VA/...170W
	Mechanical switching cycles	2x10 <sup>7</sup>
	Voltage tolerance	U <sub>N</sub> - 35% ... +17,5%
	Power consumption	3,5VA, 2W
	Ambient temperature	(-25) - 10 ... +60°C



Order-Nr.

	50/60Hz
MV53/AC 230V	
MV53/AC 115V	

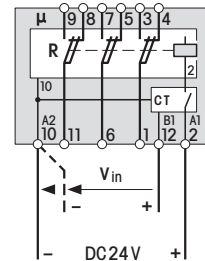


gn ok ye fail rd alarm

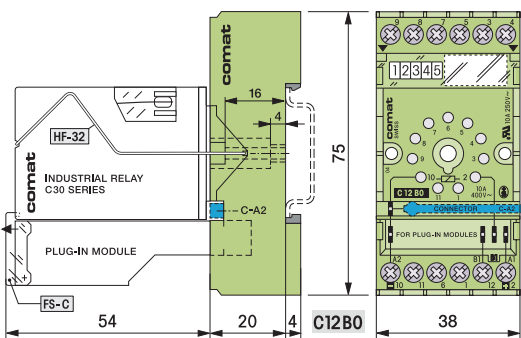
CT524

Economy DC Voltage Monitoring Relay

with 3 twin changeover contacts.  
4 functions can be selected:  
Overvoltage/undervoltage monitoring with adjustable hysteresis or 2 range monitors (INT or EXT).  
Adjustable alarm delay.  
LED display for errors and ok.  
Contact inspection window at the top.  
Manual safety operation.

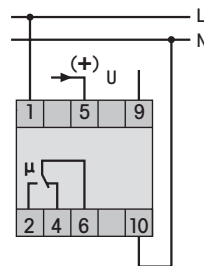
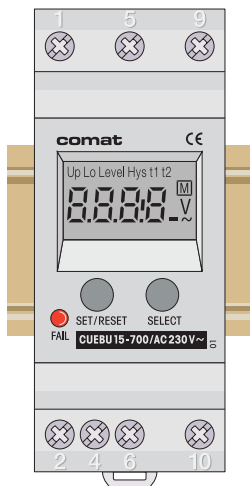
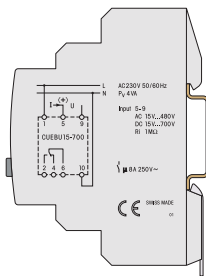


Data at Tamb. = 20°C	
Alarm delay t	0,1/0,5/2s
Reset time t <sub>R</sub>	100 ms
Switching current/voltage	6A 250V~
Switch rating	1500VA/...200W
Mechanical switching cycles	100 x 10 <sup>6</sup>
Voltage tolerance	0,8 - 1,2U <sub>N</sub>
Power consumption	≤ 0,5W
Ambient temperature	-25 ... +60°C



Order no.		
Range	U <sub>max</sub>	≤ 10%
0-30V	40V	CT524.2/DC24V
Type No. = Module + Relay (FS-C, HF-32 incl.)		

Accessories	
Socket	C12B0

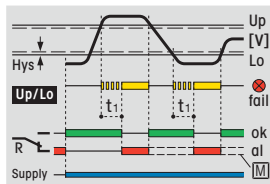
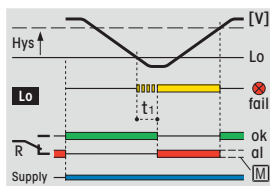
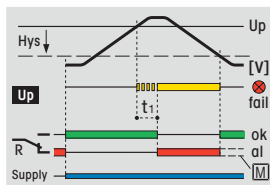


AC230V 50/60Hz  
P<sub>V</sub> 4 VA

Input 5-9  
AC 15...480V  
DC 15...700V  
Ri 1MΩ

μ 8A 250V~

Functions



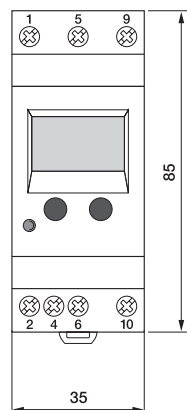
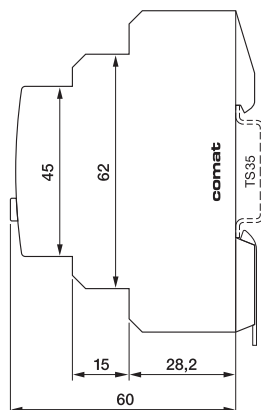
gn ok ye fail rd alarm

CUEBU 15-700

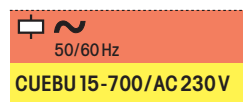
Monitoring Relay

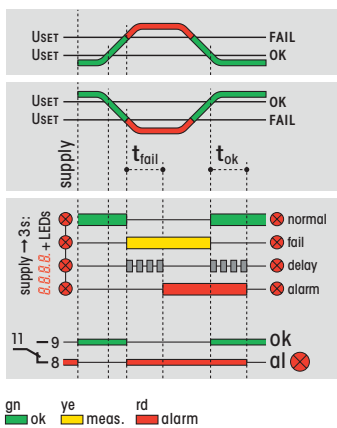
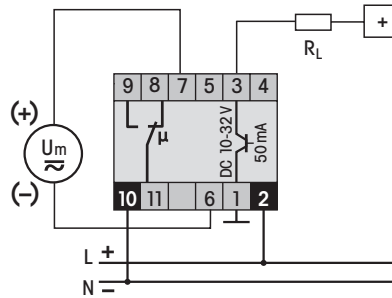
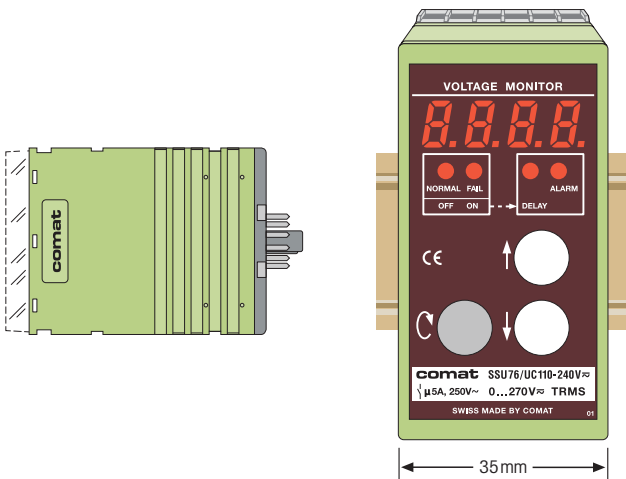
for AC or DC voltages ranging from AC15...480V, DC15...700V.  
LCD display for the measured value and the parameter setting.  
LED indication for the alarm status.  
Snap on to DIN-rail TS35 conform DIN (43880).

	Data at Tamb. = 20°C
Monitoring range	AC15...480V, DC15...700V
Hysteresis	5...50%
Input resistance Ri	1MΩ
Display/Accuracy	xxxV/2% ±1 digit
Alarm delay time t1	0,1...12s
Switching current/voltage	8A 250V AC1 / ... 240W
Switching power AC1	2000VA / ... 240W
Output contact	1x u, μ Ag Ni
Operation voltage AC50/60Hz	AC230V +10%; -15% 50/60Hz
Power consumption Pmax	4,5VA/2,5W
Isolation	3kVrms/1min
Temperature: operating/storage	-20...+55°C/-40...+70°C



Order-Nr.



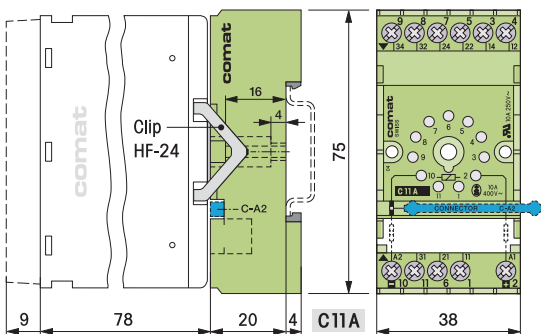


SSU11/...; **SSU2x/...; SSU7x/...**

The SSS11, SSU2x and SSU7x are high precision voltage monitoring relays for DC or RMS AC/DC with interactive front operation and display of values and voltmeter function. Two values for FAIL and OK can be programmed. With this, the hysteresis is automatically given. Depending of the programmed values the over- or undervoltage monitoring function is defined. Fixed max. and min. values are given for alarm triggering. However, the min. value monitoring can be disabled. The measuring input is galvanically isolated from the power supply (2-10). High EMC immunity design and self diagnostic features guarantee very high reliability and a long service life. Applications are for example monitoring of battery voltage in industrial installations.

Selection of type	Type
For DC measurement	SSU2x/UC...V
For RMS AC/DC	SSU7x/UC...V

	9	2	3	4	5	6
<b>F</b> Measurement range (x)	0 - 210mV	0 - 38V	0 - 38V	0 - 77V	0 - 157V	0 - 285V
Measurement range	0,1 - 200mV	0,1 - 35V	0,1 - 10V	10 - 75V	40 - 150V	0*/50 - 270V
Adjustment range	0,5mV	20mV	20mV	100mV	100mV	0,5V
Resolution	0,1s - 600s					
t fail, t ok	*SSU76					
<b>⏻</b> Power supply	UC110-240V≈	UC60-127V≈	UC24-48V≈	UC12-15V≈		
Power supply tolerance	-20% +10%	-20% +26%	-20% +55%	-25% +33%		
Ambient temp	+10...+50°C (-25...+60°C)					
<b>⚡</b> Switching current/voltage	1 x co µ5A, 250V; 1 x no Transistor NPN, DC50mA, 24V					



Example of order

SSU DC 0-38V/UC24-48V:	SSU23/UC24-48V
SSU RMS AC/DC 0-200mV/UC110-240V:	SSU79/UC110-240V

Accessories

Socket:	C11-A
Retaining clip:	HF-24
Frontpanel mounting:	FZ-23

**Attention:**  
P/O numbers of several devices were changed (refer below). Devices are identical.

Old number:	Replaced by:	Old number:	Replaced by:
SSU11/UC110-240V	→ SSU26/UC110-240V	SSU12/...V	→ SSU22/...V
SSU11/UC60-127V	→ SSU25/UC60-127V	SSU13/...V	→ SSU23/...V
SSU11/UC24-48V	→ SSU24/UC24-48V	SSU14/...V	→ SSU24/...V
SSU11/UC12-15V	→ SSU23/UC12-15V	SSU16/...V	→ SSU26/...V