

# XM-52M-IAD16 relay - 1-phase 16 A current monitoring, 2 C/O, 16 A Datasheet



## Description

The XM-52M-IAD16 has a 'Window' function, which means that you set upper level (Imax) and lower level (Imin) individually in % of the rated monitored range.

Selectable function memory; In case the relay gets to fault state this function leaves the relay in this state until it is reset by the reset button.

Dipswitch no. 3 serves to choose whether the output relay should switch for each level separately or in parallel in case any current level is exceeded. Dipswitch no. 4 serves to set hysteresis which applies when changing from fault to normal state.

The relay is protected against re-poling of DC current, or wrong AC/DC current (this fault is indicated by LED <I a LED >I common flashing).

## Application

Modular monitoring AC current relay for 1-phase circuits. Suitable for general purpose applications.

### Features

- AC current monitoring relay 16 A
- Measuring range up to 600 A (with current transformer)
- Current adjustment by potentiometer
- Supply galvanic separated from measuring current
- 2 C/O contacts 16 A / AC 1
- 35 mm rail mounting
- Output status by LED indicator
- Supply voltage 230 VAC 50/60 Hz
- Modular housing, 1 module
- Optional: external transformer

### Benefits

- Rated current 16 A / AC1
- Long term availability
- 52 mm wide
- No maintenance

### Industry compliancy

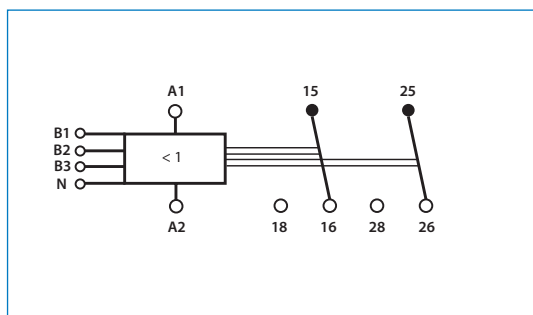
All our relays and accessories are designed according to regulations:

- EN 60255-6
- EN 61010-1
- CE

# XM-52M-IAD16 relay

## Technical specifications

### Connection diagram



### Measuring circuit

Ranges	4...16 A (AC 50 Hz)	1.25...5 A (AC 50 Hz)	0.4...1.6 A (AC 50 Hz)
Terminals	C - B1	C - B2	C - B3
Max. permanent current	16 A	5 A	1.6 A
Inrush overload < 1 s	20 A	6.3 A	2 A
Input resistance	5 mΩ	11 mΩ	50 mΩ
Time delay for I <sub>min</sub>	Adjustable 0...10 s		
Time delay for U <sub>max</sub>	Adjustable 0...10 s		

### Output

Number of contacts	1x change-over contact / SPDT (AgNi/silver alloy)
Rated current	16 A / AC1
Breaking capacity	4000 VA / AC1, 384 W / DC
Switching voltage	30 A / < 3 s
Min. breaking capacity DC	250 V AC1 / 24 V DC1

### Accuracy

Measuring accuracy	5 %
Repeat accuracy	< 1 %
Temperature dependence	< 0.1 % / °C
Limit values tolerance	5 %
Hysteresis (fault to OK)	Selectable 5 % / 10 %

### Supply

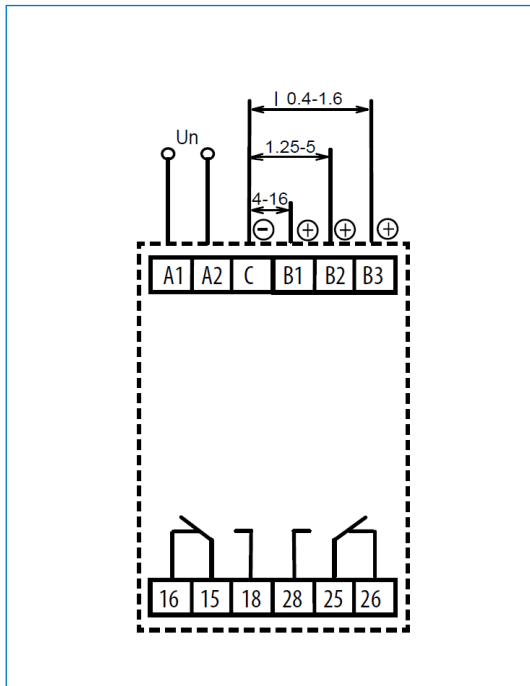
Supply terminals	A1 - A2
Supply / measuring voltage	230 VAC 50/60 Hz, 24 VDC
Power consumption	Max. 4.5 VA
Operating range	0.85...1.1 U <sub>n</sub>



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## Technical specifications

### Connection



### Environmental conditions

Operating temperature	-20 °C... +55 °C
Storage temperature	-30 °C... +70 °C
Electrical strength	4 kV (supply - output)
Operating position	Any
Mounting	35 mm rail EN 60715
Protection degree	IP40 front panel / IP20 terminals
Overtoltage category	III
Pollution degree	2
Max. cable size	Solid wire max. 1 x 2.5 mm <sup>2</sup> or 2 x 1.5 mm <sup>2</sup> / with sleeve max. 1 x 1.5 mm <sup>2</sup>

### Mechanical data

Dimensions (d x w x h)	90 x 52 x 65 mm
Weight	239 g
Standard	EN 60255-6, EN 61010-1



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## Accessories

### XT-CM .... - Current transformer, 1-phase



Accessories for the XM-52M-IA relays to extend the maximum controlled current.

- Frequency 50/60 Hz
- Installable on panel or rail mounting
- Busbar to max. dimension 40 x 10 mm
- Constant overload capacity: 1.2 x  $I_n$
- Output current: 0-5 A

Cable size solid conductor                      max 6 mm<sup>2</sup>  
 Cable size wire                                      max 4 mm<sup>2</sup>  
 Operating temperature                            -20 °C...+55 °C

	XM-CT50	XM-CT100	XM-CT150	XM-CT200	XM-CT250	XM-CT300	XM-CT400	XM-CT600
Max. wire diameter	22	22	22	23	23	35	35	35
Max. busbar profile	-	-	-	30 x 10	30 x 10	40 x 10	40 x 10	40 x 10
Primary current	50 A	100 A	150 A	200 A	250 A	300 A	400 A	600 A
Accuracy class 0.5	-	2	3	4	6	4	8	12
Accuracy class 1	1.25	2.5	4	7	9	8	12	15
Accuracy class 3	1.5	3.5	5	8.5	11	12	15	15

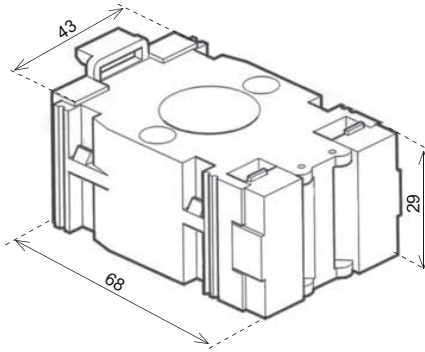


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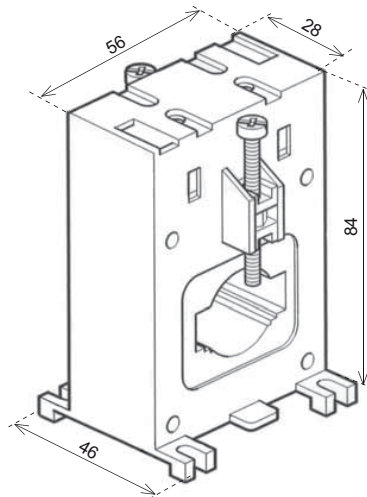
## Accessories

### Dimensions

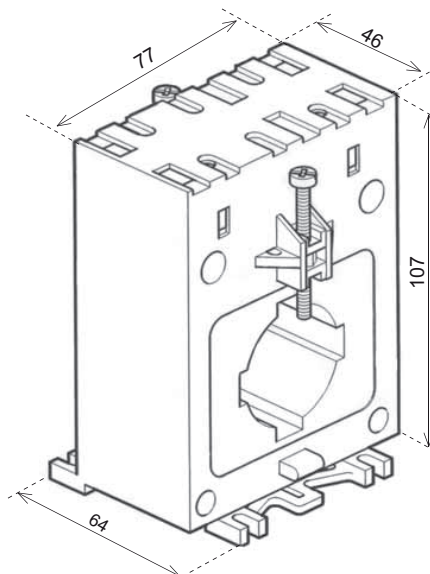
XM-CT50  
XM-CT100  
XM-CT150



XM-CT200  
XM-CT250



XM-CT300  
XM-CT400  
XM-CT600



# XM-52M-IAD16 relay

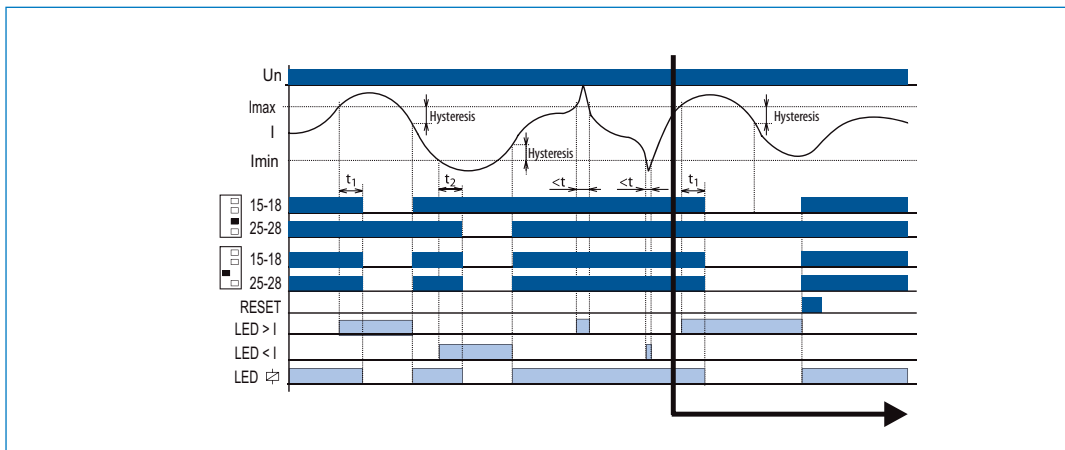
## Technical specifications

### Design

The diagram shows the front panel of the XM-52M-IAD16 relay with 12 numbered callouts:

- 1: Supply indication (Un)
- 2: Indication I<sub>max</sub>
- 3: Output indication (AC/DC Memory OFF)
- 4: Indication I<sub>min</sub>
- 5: Measured voltage AC or DC (AC/DC Memory OFF)
- 6: MEMORY function (Output 1)
- 7: Function of 2nd relay (1st-parallel, 2nd-independent) (Output 2)
- 8: Hysteresis from faulty to OK normal state (Hysteresis 5%)
- 9: T1 - time delay for I<sub>min</sub> (t1 [s])
- 10: Adjusting upper level - I<sub>max</sub> (Imax [%])
- 11: T2 - time delay for I<sub>max</sub> (t2 [s])
- 12: Adjusting bottom level - I<sub>min</sub> (Imin [%Imax])

### Functions



# XM-52M-IAD16 relay

## Ordering codes

Art. no.	Type	Function	Contacts	Voltage range
326001027	XM-17M-IA25U	AC 1-phase current monitoring	1 C/O	230 VAC 50/60 Hz
326002003	XM-17M-M400L	AC 3-phase voltage monitoring	1 C/O	3x 400 VAC 50 Hz
326002004	XM-17M-M400LN	AC 3-phase + N voltage monitoring	1 C/O	3x 400 VAC / 230 VAC 50 Hz
326002000	XM-17M-VA230	AC 1-phase voltage monitoring	1 C/O	48-276 VAC 50 Hz
326002002	XM-17M-2XVA230	AC 1-phase voltage monitoring	2x 1 C/O	48-276 VAC 50 Hz
326002011	XM-17M-VA400LN	AC 3-phase + N voltage monitoring	1 C/O	3x 400 VAC / 230 VAC 50 Hz
326002001	XM-17M-VD24	DC 1-phase voltage monitoring	1 C/O	6-30 VDC
<b>326002010</b>	<b>XM-52M-IAD16</b>	<b>AC/DC 1-phase current monitoring</b>	<b>2 C/O</b>	<b>0.4-16 A (AC 50 Hz)</b>
326002006	XM-52M-M400L	AC 3-phase complete monitoring	2 C/O	230 VAC / 400 VAC 50/60 Hz
326002007	XM-52M-M400LN	AC 3-phase + N voltage monitoring	2 C/O	230 VAC / 400 VAC 50/60 Hz
326002005	XM-52M-VA500	AC/DC 1-phase voltage monitoring	2 C/O	10-500 VAC/DC 50 Hz





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