

# SURGYS® RS-3, mA-3, TEL-3

## Low current surge arresters

for data and telecommunication networks



SURGYS RS-3 et SURGYS TEL-3

SURGYS mA-3x2

### The solution for

- > Data centre
- > Healthcare
- > Energy
- > Infrastructure & Transport
- > Industry
- > Building

### Strong points

- > 1-pair or 2-pair version («x2» model)
- > Plug-in modules.
- > End of life signal
- > Direct earthing
- > Common/differential protection modes.

### Conformity to standards

- > NF EN 61643-21
- > IEC 61643-21



## Function

SURGYS RS-3, mA-3 et TEL-3 surge arresters are designed for transient surge protection of equipment connected to telecommunications and data transmission networks.

These surge arresters must be installed on a symmetrical DIN rail and are available for most transmission lines: line voltage 170 V, throughput up to 10 Mbit/s. These products consist of 1 or 2 pairs with a detachable module for easy maintenance.

## Advantages

### 1-pair or 2-pair version («x2» model)

Ultra-compact design if multi-pair protection is needed.

### Plug-in modules.

Quick maintenance on end-of-life modules.

### End of life signal

Line interruptions trigger an alert.

### Direct earthing

Earth bonding is made using a DIN rail fixing clip.

### Common/differential protection modes.

Differential mode offers more efficient protection.

## General characteristics

- DIN rail plug-in surge protector.
- 1 or 2-pair.
- Un : 12 V (SURGYS RS-3), 48 V (SURGYS mA-3), 170 V (SURGYS TEL-3).
- Impulse current Iimp: 5 kA.
- Shield wire protection.
- Plug-out without line cut-off.
- Exclusive technology.
- Complete protection.
- End of life management.
- Easy maintenance.

### SURGYS mA-3

- For industrial buses.
- Network versions 12 V.

### SURGYS TEL-3

- For RTC, ADSL2, VDSL2 networks for analogue telephone lines.
- Modes MC or MC/MD.

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## Applications

### SURGYS® RS-3

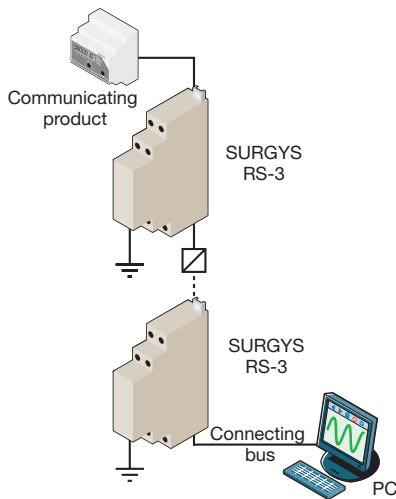
- Protection of the RS422/RS485 connections.
- Digital telephone line T2.
- ETHERNET connection (10 baseT).

### SURGYS® mA-3

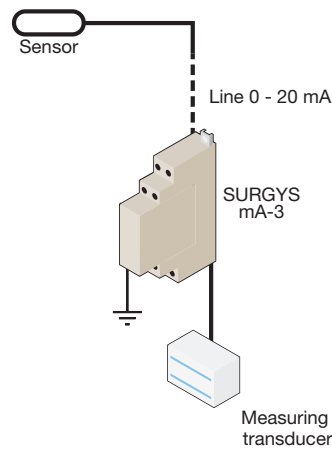
- Field bus:
  - Profibus (DP, PA, FMS...),
  - Fieldbus (H1, H2),
  - LONworks,
  - Interbus,...
- Measurement loops, measurement acquisition cards:
  - current loops 0 / 4-20 mA,
  - analog signals 0 to 10 V.
- Regulation, control loops.
- RS232 connections.
- Numeris network (RNIS-T0).
- Specialised telephone connections.

### SURGYS® TEL-3

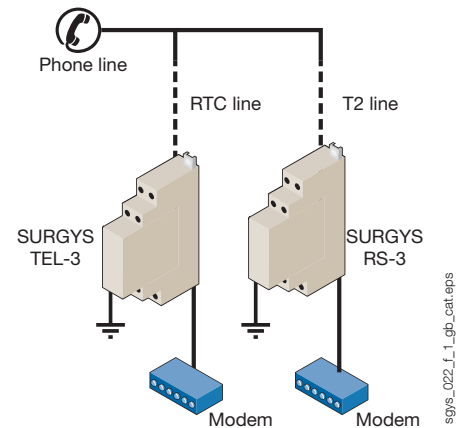
- Analogue telephone line:
  - modem,
  - automatic switch,
  - telephone alarm,
  - DSL.



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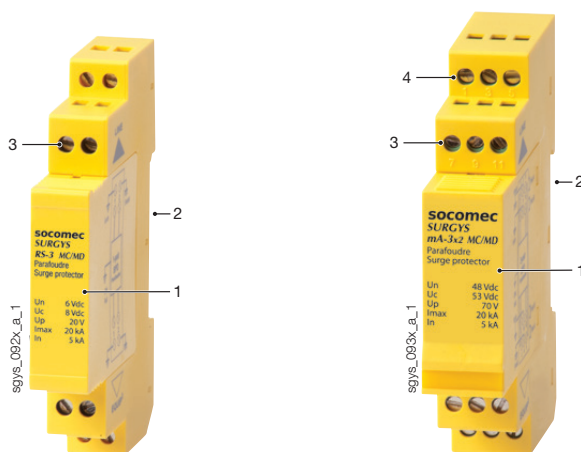


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## Front panel



1. Plug-in module
2. Mounting on DIN rail ensuring earthing
3. Connection 1 pair
4. Connection 2 pairs

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## Caractéristiques

SURGYS®	RS-3	mA-3	TEL-3
Utilisation	RS422/RS485/Télécom T2/Ethernet 10baseT	4-20 mA, bus de terrain	réseau téléphonique
Tension nominale de ligne $U_n$	12 V	48 V	150 V
Tension maximale $U_c$	15 V	53 V	170 V
Fréquence maximum d'utilisation	20 MHz	20 MHz	2 KHz
Niveau de protection $U_p$	30 V	75 V	220 V
Impédance de ligne	50 - 150 Ohms	50 - 150 Ohms	600 Ohms

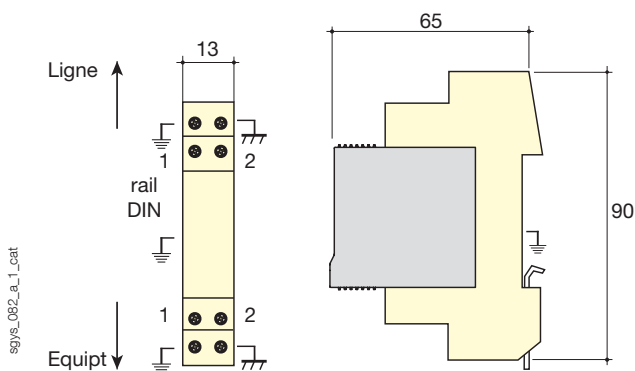
Caractéristiques	
Configuration protégée	2 fils ou 4 fils (version "x2")
Intensité maximale de ligne	300 mA <sup>(1)</sup>
Courant de décharge maximal (1 choc 8/20 $\mu$ s) $I_{max}$	20 kA
Courant de décharge nominal (20 chocs 8/20 $\mu$ s) $I_n$	5 kA
Type de protection	éclateur / diode d'écrêtage
Fin de vie	court-circuit à la terre

Conditions d'utilisation	
Température de fonctionnement	-40 ... +85 °C
Température de stockage	-40 ... +85 °C

(1) Courant de ligne de l'équipement à protéger supérieur à 200 mA ou autre application à courant continu : nous consulter

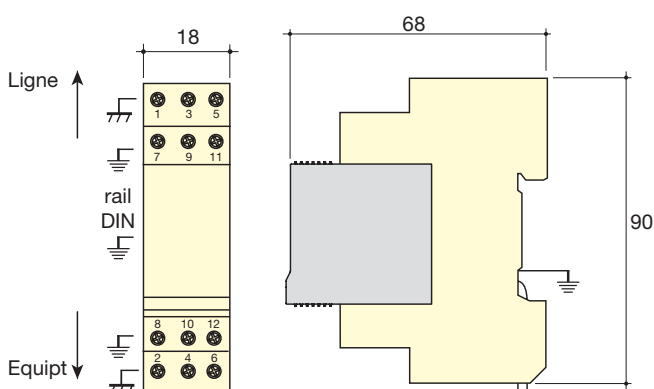
## Switch body

### Version 1 pair



Type	modulaire
Dimensions L x H x P	13 x 90 x 65 mm
Indice de protection du boîtier	IP20
Indice de protection des borniers	IP20
Matière du boîtier	thermoplastique PEI UL94-V0
Section de raccordement	0,4 ... 1,5 mm <sup>2</sup>
Section de raccordement à la terre	0,4 ... 1,5 mm <sup>2</sup>

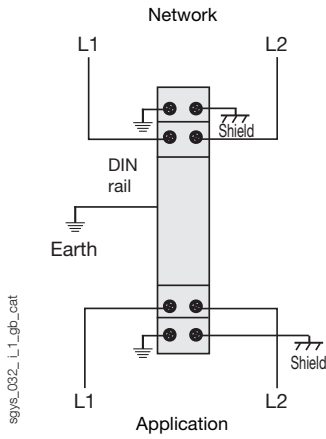
### Version 2 pairs



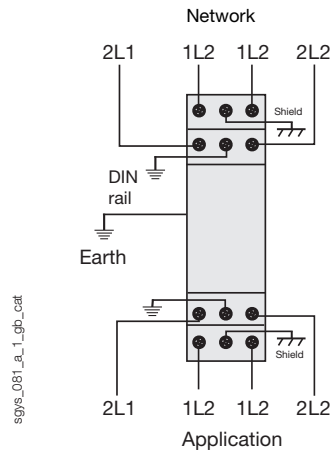
Type	modulaire
Dimensions L x H x P	18 x 90 x 68 mm
Indice de protection du boîtier	IP20
Indice de protection des borniers	IP20
Matière du boîtier	thermoplastique PEI UL94-V0
Section de raccordement	0,4 ... 1,5 mm <sup>2</sup>
Section de raccordement à la terre	0,4 ... 1,5 mm <sup>2</sup>

## Connections

### Version 1 pair



### Version 2 pairs



## References

SURGYS	Versions 1 pair			Versions 2 pairs		
	RS-3 Reference	mA-3 Reference	TEL-3 Reference	RS-3x2 Reference	mA-3x2 Reference	TEL-3x2 Reference
Protection of high speed data and telephone networks	4986 <b>3020</b>			4986 <b>3021</b>		
Protection of measurement-control-regulation circuits and field bus		4987 <b>3420</b>			4987 <b>3421</b>	
Protection of telephone networks			4985 <b>3170</b>			4985 <b>3171</b>

Description of accessories	RS-3 Reference	mA-3 Reference	TEL-3 Reference	RS-3x2 Reference	mA-3x2 Reference	TEL-3x2 Reference
	Spare plug-in module m-RS-3	4986 <b>3029</b>				
Spare plug-in module m-mA-3		4987 <b>3429</b>				
Spare plug-in module m-TEL-3			4985 <b>3179</b>			
Spare plug-in module m-RS-3x2				4986 <b>3028</b>		
Spare plug-in module m-mA-3x2					4987 <b>3428</b>	
Spare plug-in module m-TEL-3x2						4985 <b>3178</b>