# Interface boards entrelec' 

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Interruptible interface

Spacing $78 \mathrm{~mm} \mathrm{3.07"}$


Single-wire sensors or actuators

## Two-wire <br> Interface <br>  <br> Two-wire sensors or actuators <br> J umper allowing either + or - distribution (J umper position : see wiring diagram of each module)

Three-wire
Interface
common
PLC connector interface 8 channels with screw-clamp connection Omnic onnect Product range

## Applications

Single-wire
Interface


Blue schematic:
products equipped
with LED

Three-wire interface with + and - common

Spacing 78 mm 3.07"


Blue schematic:
products equipped
with LED



## interfast

## PLC connector interface 16 channels with screw-clamp connection Omnic onnect Product range



## Two-wire <br> Interface



## Three-wire

Interface


Single-wire interface

ing either + or - distribution (J umper position : see wiring diagram of each module)
Single-wire sensors or actuators教



## interfast

## PLC connector interface

## 16 channels

with screw-clamp connection Omnic onnect Product range

## Applications



Single-wire sensors or actuators


Three-wire
Interface


Three-wire interface with + and - common and fuse on each I/O
 products equipped with LED
 $\left({ }^{\circ} \mathrm{C}\right)$



## interfast

## PLC connector interface 2x16 channels <br> with screw-clamp connection Omniconnect Product range



## Two-wire Interface




## Compact Two-wire interface

## Compact <br> Three-wire interface



Blue schematic: with LED




## interfast



Interruptible interface with a common and

PLC connector interface with screw-clamp connection Male Sub D product range

## Applications

I/O ANA insulated without shielding connection


I/O ANA insulated with shielding connection


I/O ANA with positive side distribution and shielding connection


|  | $\mathbf{2 m m}$ dia. test points on each side of isolator BL = Shielding |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Part numbers | Type | Part number |  | L inch | Type | Part number | mm | inch |
| 9 points | BFSUBD 9 M -ANA-S | 0021060.23 | 55 | 2.17 |  |  |  |  |
| 15 points | BFSUBD 15 M -ANA-S | 0021061.10 | 90 | 3.55 |  |  |  |  |
| 25 points | BFSUBD 25 M -ANA-S | 0021062.11 | 138 | 5.44 |  |  |  |  |
| 37 points | BFSUBD 37 M -ANA-S | 0021063.12 | 197 | 7.76 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Characteristics |  | Without LED |  |  |  | Without LED |  |  |
| Maximum voltage |  | $60 \mathrm{~V} \mathrm{AC/DC}$ |  |  |  |  |  |  |
| Maximum current per point |  | 1 A |  |  |  |  |  |  |
| Maximum current in common wires |  | 5 A |  |  |  |  |  |  |
| Current per LED |  |  |  |  |  |  |  |  |
| Fuses on the power supply |  |  |  |  |  |  |  |  |
| Fuses per point |  |  |  |  |  |  |  |  |
| Test voltage |  | 0,5 kV |  |  |  |  |  |  |
| Operating temperature |  | $-20^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |  |  |  |  |  |  |
| Storage temperature |  | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |  |  |  |  |
| Type of connector |  | 1 female SUBD |  |  |  |  |  |  |
| Wire capacity |  | 0-2,5 mm ${ }^{\text {2 }}$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |





* Load limit for DC
a : resistance
b : inductive load, $L / R=20 \mathrm{~ms}$

| Part numbers | Type |  | P/N |
| :---: | :---: | :---: | :---: |
| The units are delivered equipped with relays. <br> The relays are also available separately. | RIOM 8 | VDC | 0021084.00 |
|  | Schrack ${ }^{\circledR}$ relay 24 V |  | 0179208.24 |
| Characteristics |  |  |  |
| COIL |  |  |  |
| Rated voltage +20\%,-15\% | 24 VDC |  |  |
| Rated current | 15 mA |  |  |
| Trip voltage | 2,4 VDC |  |  |
| CONTACT  |  |  |  |
| Type | 1 RT |  |  |
| Voltage mini. / max. | $5 \mathrm{~V} / 250 \mathrm{VAC}$ |  |  |
| Switching current mini. / max. | $1 \mathrm{~mA} / 8 \mathrm{~A}$ |  |  |
| Breaking capacity AC1 mini. / max. | $5 \mathrm{mVA} / 2000 \mathrm{VA}$ |  |  |
| DC1 mini. / max. | $5 \mathrm{~mW} /$ see graphs |  |  |
| Max. load | see graph |  |  |
| Number of operations on load | $10^{5}$ |  |  |
| Number of operations off load | $30 \times 16^{6}$ |  |  |
| Operating speed C/O | $7 \mathrm{~ms} / 8 \mathrm{~ms}$ |  |  |
| Bounce | 1 ms |  |  |
| Isolation Coil / Contact | 5 kV |  |  |
| Resistance to shock waves Coil / Contact | 10 kV |  |  |
| Isolation Contact / Contact | 2 kV |  |  |
| E.M.C. | Level 4 |  |  |
| TEMPERATURE |  |  |  |
| Ambient temperature Storage | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |
| Operating | $-20^{\circ} \mathrm{C}$ to $+74^{\circ} \mathrm{C}$ |  |  |
|  |  |  |  |
| Wire capacity | 8 ms |  |  |
| Accessories | Type |  | P/N |
| Rail EN 50035 2 m | PR1.Z2 | $32 \times 15$ | 0163050.04 |
| Rail EN 50022 2 m | PR3.22 | $35 \times 7,5 \times 1$ | 0174300.17 |
| Rail EN 50022 2 m | PR4 | $35 \times 15 \times 2,3$ | 0168500.12 |
| Rail | PR5 | $35 \times 15 \times 1,5$ | 0168700.22 |
| End stop (all rails) | BAM | th. 9,1 mm | 0103002.26 |

Wiring diagram

Interface with negative or positive common connection.

J umper allowing either a common + or a commonDelivered connected with a common -


Interface compatible with automate output cards with negative or positive common connection.

PLC decoupling interface
8-relay interface
Omnic onnect product
range

## Width: $\mathbf{1 2 7 ~ m m ~ 5 . 0 0 " ~}$

Pluggable relay.
Delivered with $5 \times 20 \mathrm{~mm}$ fuse - High interrupting capacity.
$1 \mathrm{~A}-250 \mathrm{~V}$ fuse on PLC power supply.
$5 \mathrm{~A}-250 \mathrm{~V}$ fuse on common contact.
Wiring diagram




PLC decoupling interface
8-relay interface Omniconnect product range


Wiring diagram


* Load limit for DC
a: resistance
b : inductive load, $L / R=20 \mathrm{~ms}$

| Part numbers | Type |  | P/N |
| :---: | :---: | :---: | :---: |
| The units are delivered equipped with relays. The relays are also available separately. | RI OM 8 |  | 0021074.15 |
|  | Schrack ${ }^{\circledR}$ relay 24 V |  | 0210021.26 |
| Characteristics |  |  |  |
| COIL |  |  |  |
| Rated voltage + 20\%, - 15\% | 24 VDC |  |  |
| Rated current | 21 mA |  |  |
| Trip voltage | 2,4 VDC |  |  |
| CONTACT |  |  |  |
| Type | 2 RT |  |  |
| Voltage mini. / max. | $12 \mathrm{~V} / 250$ VAC |  |  |
| Switching current mini. / max. | $100 \mathrm{~mA} / 4 \mathrm{~A}$ |  |  |
| Breaking capacity AC1 mini. / max. | 1,2 VA / 1000 VA |  |  |
| DC1 mini. / max. | 1,2 W/ see graphs |  |  |
| Max. load | see graph |  |  |
| Number of operations on load | $2 \times 10^{5}$ |  |  |
| Number of operations off load | $30 \times 16^{6}$ |  |  |
| Operating speed C | 9 ms |  |  |
| 0 | 12 ms |  |  |
| Bounce | 2 ms |  |  |
| Isolation Coil / Contact | 3,5 kV |  |  |
| Resistance to shock waves Coil / Contact | 10 kV |  |  |
| Isolation Contact / Contact | 2 kV |  |  |
| E.M.C. | Level 4 |  |  |
| TEMPERATURE |  |  |  |
| Ambient temperature Storage <br> Operating  | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |
|  | $-20^{\circ} \mathrm{C}$ to $+54^{\circ} \mathrm{C}$ |  |  |
| Wire capacity | 0-2,5 mm ${ }^{2}$ |  |  |
| Accessories | Type |  | P/N |
| Rail EN 50035 | PR1.22 | $32 \times 15$ | 0163050.04 |
| Rail EN 50022 2 m | PR3.22 | $35 \times 7,5 \times 1$ | 0174300.17 |
| Rail EN 50022 2 m | PR4 | $35 \times 15 \times 2,3$ | 0168500.12 |
| Rail | PR5 | $35 \times 15 \times 1,5$ | 0168700.22 |
| End stop(all rails) | BAM | th. 9,1 mm | 0103002.26 |

Wiring diagram

Interface with negative common connection.


Interface compatible with automate output cards with positive common connection.
interfast
PLC decoupling interface
8-relay interface Omniconnect product range


Width : 140 mm 5.51"

Pluggable relay
Delivered with $5 \times 20 \mathrm{~mm}$ fuse - Hight interrupting capacity.
Rating $1 \mathrm{~A}-250 \mathrm{~V}$. on PLC board power supply. Rating $2 \mathrm{~A}-250 \mathrm{~V}$. on relay contact.

- Command indication by green LED.
$5 \times 20 \mathrm{~mm}$ fuse in series with the relay contact which protects the solenoïd valve in case of a short circuit.

8 N relays
1T relay output interface for solenoïd valve control


## Wiring diagram

In the automobile industry, $50 \%$ of PLC outputs control solenoïd valves which work in pairs to control pneumatic or hydraulic cylinders.
Each solenoïd valve is protected by a fuse, equipped with an isolating switch, and is grounded with a green/yellow wire.


If an insulation failure occurs between the solenoïd valve's E1 $(+)$ and the ground (coil wire in contact with the frame), the fuse provides short circuit protection. A fault may appear between the solenoïd valve's E2 $(-)$ and the ground without disturbing operation.
To detect these faults, inspection operations are conducted.
Inspection operation:
After opening S2, measure the resistance between the circuit and the ground; by successively opening all of the isolating switches S1, the solenoïd valve (E2) in contact with ground is detected when the ohmmeter registers a high value.

| Part numbers | Type |  | P/N |
| :---: | :---: | :---: | :---: |
| The units are delivered equipped with relays. <br> The relays are also available separately. | RIOM 8 CEV - 24 VDC |  | 0021075.16 |
|  | Schrack ${ }^{\text {® }}$ relay 24 V |  | 0179208.24 |
| Characteristics |  |  |  |
| COIL |  |  |  |
| Rated voltage + 20\%, - 15\% | 24 VDC |  |  |
| Rated current | 15 mA |  |  |
| Trip voltage | 2,4 VDC |  |  |
| CONTACT |  |  |  |
| Type | 1 T |  |  |
| Voltage mini. / max. | $5 \mathrm{~V} / 250 \mathrm{VAC}$ |  |  |
| Switching current mini. / max. | $1 \mathrm{~mA} / 5 \mathrm{~A}$ |  |  |
| Breaking capacity AC1 mini. / max. | 5 m VA / 1250 VA |  |  |
| DC1 mini. / max. | $5 \mathrm{~mW} /$ see graphs |  |  |
| Max. load | see graph |  |  |
| Number of operations on load | $10^{5}$ |  |  |
| Number of operations off load | $30 \times 10^{6}$ |  |  |
| Operating speed $\mathrm{C} / 0$ | $7 \mathrm{~ms} / 8 \mathrm{~ms}$ |  |  |
| Bounce | 1 ms |  |  |
| Isolation Coil / Contact | 2,5 kV |  |  |
| Resistance to shock waves Coil / Contact |  |  |  |
| Isolation Contact / Contact |  |  |  |
| Distribution on the positive side of the contacts | 16 A by group of 8 |  |  |
| Distribution on the negative side of the EV's | 16 by group of 8 |  |  |
| TEMPERATURE |  |  |  |
| Ambient temperature Storage | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |
| Operating | $-20^{\circ} \mathrm{C}$ to $+51^{\circ} \mathrm{C}$ |  |  |
| Wire capacity | 0-2,5 mm ${ }^{2}$ |  |  |
| Accessories | Type |  | P/N |
| Rail EN 50035 | PR1.22 | $32 \times 15$ | 0163050.04 |
| Rail EN 50022 2 m | PR3.22 | $35 \times 7,5 \times 1$ | 0174300.17 |
| Rail EN 50022 2 m | PR4 | $35 \times 15 \times 2,3$ | 0168500.12 |
| Rail | PR5 | $35 \times 15 \times 1,5$ | 0168700.22 |
| End stop(all rails) | BAM | th. $9,1 \mathrm{~mm}$ | 0103002.26 |

Wiring diagram

* Load limit for DC a : resistance
b : inductive load,
$\mathrm{L} / \mathrm{R}=20 \mathrm{~ms}$
De-rating curve


Interface with negative common connection.
Interface compatible with automate output cards with positive common connection.



## interfast

PLC decoupling
interface
16-relay interface
Omniconnect product
range
HE 10/26 product range

Width 252 mm 9.92"

Pluggable relay.
Delivered with $5 \times 20 \mathrm{~mm}$ fuse - High interrupting capacity. Rating 1 A- 250 V .

## 16 N/P relays

 1 RT relay output interface

Wiring diagram


* Load limit for DC
a : resistance
b : inductive load, L/R = 20 ms

| Part numbers | Type |  | P/N |
| :---: | :---: | :---: | :---: |
| The units are delivered equipped with relays. <br> The relays are also available separately. | RIOM 1 | 24 VDC | 0021082.06 |
|  | Schrack |  | 0179208.24 |
| C haracteristics |  |  |  |
| COIL |  |  |  |
| Rated voltage + 20\%, - 15\% | 24 VDC |  |  |
| Rated current | 15 mA |  |  |
| Trip voltage | 2,4 VDC |  |  |
| CONTACT |  |  |  |
| Type | 1 RT |  |  |
| Voltage mini. / max. | $5 \mathrm{~V} / 250 \mathrm{VAC}$ |  |  |
| Switching current mini. / max. | $1 \mathrm{~mA} / 8 \mathrm{~A}$ |  |  |
| Breaking capacity AC1 mini. / max. | 5 m VA / 2000 VA |  |  |
| DC1 mini. / max. | $5 \mathrm{~mW} /$ see graphs |  |  |
| Max. load | see graph |  |  |
| Number of operations on load | $10^{5}$ |  |  |
| Number of operations off load | $30 \times 10^{6}$ |  |  |
| Operating speed C | 7 ms |  |  |
| 0 | 8 ms |  |  |
| Bounce | 1 ms |  |  |
| Isolation Coil / Contact | 5 kV |  |  |
| Resistance to Shock waves Coil / Contact |  |  |  |
| Isolation Contact / Contact | 2,5 kV |  |  |
| TEMPERATURE |  |  |  |
| Ambienter $\quad$ Operating | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |
|  | $-20^{\circ} \mathrm{C}$ to $+74^{\circ} \mathrm{C}$ |  |  |
| Wire capacity |  |  |  |
| Accessories |  |  |  |
|  | Type |  | P/N |
| Rail EN 50035 | PR1.22 | $32 \times 15$ | 0163050.04 |
| Rail EN 50022 2 m | PR3.22 | $35 \times 7,5 \times 1$ | 0174300.17 |
| Rail EN 50022 2 m | PR4 | $35 \times 15 \times 2,3$ | 0168500.12 |
| Rail | PR5 | $35 \times 15 \times 1,5$ | 0168700.22 |
| End stop(all rails) | BAM | th. 9,1 mm | 0103002.26 |

Wiring diagram

Interface with negative or positive common connection. J umper allowing either a common + or a commonDelivered connected with common -


Interface compatible with automate output cards with positive or negative common connection.
interfast
PLC decoupling interface
16-relay interface Omniconnect product range

## 16 N/P relays Compact 1 RT relay output interface

Width : 165 mm 6.49"

Pluggable relay
Delivered with $5 \times 20 \mathrm{~mm}$ fuse - High interrupting capacity
Rating $1 \mathrm{~A}-250 \mathrm{~V}$.


Wiring diagram


* Load limit for DC

De-rating curve
a : resistance
b : inductive load, $\mathrm{L} / \mathrm{R}=20 \mathrm{~ms}$

| Part numbers | Type |  | P/N |
| :---: | :---: | :---: | :---: |
| The units are delivered equipped with relays. <br> The relays are also available separately. | RICOM |  | 0020915.10 |
|  | Schrack |  | 0179208.24 |
| C haracteristics |  |  |  |
| COIL |  |  |  |
| Rated voltage + 20\%, - 15\% |  | 24 VD |  |
| Rated current |  | 15 mA |  |
| Trip voltage |  | 2,4 VD |  |
| CONTACT |  |  |  |
| Type |  | 1 RT |  |
| Voltage mini. / max. |  | $5 \mathrm{~V} / 250$ |  |
| Switching current mini. / max. |  | $1 \mathrm{~mA} / 5$ |  |
| Breaking capacity AC1 mini. / max. |  | $5 \mathrm{mVA} / 12$ |  |
| DC1 mini. / max. |  | $5 \mathrm{~mW} / \mathrm{see}$ |  |
| Max. load |  | see gra |  |
| Number of operations on load |  | $10^{5}$ |  |
| Number of operations off load |  | $30 \times 1$ |  |
| Operating speed C |  | 7 ms |  |
|  |  | 8 ms |  |
| Bounce |  | 1 ms |  |
| Isolation Coil / Contact |  | 2,5 kV |  |
| Resistance to shock waves Coil / Contact |  |  |  |
| Isolation Contact / Contact |  | 1,5 kV |  |
| TEMPERATURE |  |  |  |
| Ambient temperature |  | $-40^{\circ} \mathrm{C}$ to + |  |
|  |  | $-20^{\circ} \mathrm{C}$ to + |  |
|  |  |  |  |
| Wire capacity |  | 0-2,5 m |  |
| Accessories | Type |  | P/N |
| Rail EN 50035 | PR1.22 | $32 \times 15$ | 0163050.04 |
| Rail EN 50022 2 m | PR3.22 | $35 \times 7,5 \times 1$ | 0174300.17 |
| Rail EN 50022 2 m | PR4 | $35 \times 15 \times 2,3$ | 0168500.12 |
| Rail | PR5 | $35 \times 15 \times 1,5$ | 0168700.22 |
| End stop(all rails) | BAM | th. $9,1 \mathrm{~mm}$ | 0103002.26 |

Wiring diagram

Interface with negative or positive common connection.
J umper allowing either a common + or a common
Delivered connected with common -


Interface compatible with automate output cards with positive or negative common connection.

## interfast

PLC decoupling interface
16-relay interface Omniconnect product range HE 10/26 product range

## 16 N/P relays 1 RT relay output interface with fused on common contact

## Width: 254 mm 10.0"

Pluggable relay
Delivered with $5 \times 20 \mathrm{~mm}$ fuse.
$1 \mathrm{~A}-250 \mathrm{~V}$ fuse on PLC power supply.
A - 250 V fuse on common contact.


Wiring diagram


* Load limit for DC
a : resistance
b : inductive load, $\mathrm{L} / \mathrm{R}=20 \mathrm{~ms}$


Wiring diagram

Interface with negative or positive common connection. umper allowing either a common + or a common Delivered connected with common -


Interface compatible with automate output cards with positive or negative common connection.

interfast
 16-relay interface Omniconnect and HE 10/26 product range


## Wiring diagram



| Part numbers | Type |  | P/N |
| :---: | :---: | :---: | :---: |
| The units are delivered equipped with relays The relays are also available separately. | RI 1621 N/P-S-24VDC |  | 0020929.26 |
|  | Schrack ${ }^{\circledR}$ relay 24 V |  | 0179208.24 |
| Characteristics |  |  |  |
| COIL |  |  |  |
| Rated voltage +20\%,-15\% | 24 VDC |  |  |
| Rated current | 15 mA |  |  |
| Trip voltage | 2,4 VDC |  |  |
| CONTACT |  |  |  |
| Type | 1 RT |  |  |
| Voltage mini. / max. | $5 \mathrm{~V} / 250 \mathrm{VAC}$ |  |  |
| Switching current mini. / max. | $1 \mathrm{~mA} / 8 \mathrm{~A}$ |  |  |
| Breaking capacity AC1 mini. / max. | 5 m VA / 2000 VA |  |  |
| DC1 mini. / max. | $5 \mathrm{~mW} /$ see graphs |  |  |
| Max. load | see graph |  |  |
| Number of operations on load | $10^{5}$ |  |  |
| Number of operations off load | $30 \times 10^{6}$ |  |  |
| Operating speed C | 7 ms |  |  |
| 0 | 8 ms |  |  |
| Bounce | 1 ms |  |  |
| Isolation Coil / Contact | 2,5 kV |  |  |
| Resistance to shock waves Coil / Contact |  |  |  |
| Isolation Contact / Contact |  |  |  |
| TEMPERATURE |  |  |  |
| Ambient temperature Storage <br> Operating  | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |
|  | $-20^{\circ} \mathrm{C}$ to $+74^{\circ} \mathrm{C}$ |  |  |
|  |  |  |  |
| Wire capacity | 0-2,5 mm ${ }^{2}$ |  |  |
| Accessories | Type |  | P/N |
| Rail EN 50035 2 m | PR1.22 | $32 \times 15$ | 0163050.04 |
| Rail EN 50022 2 m | PR3.22 | $35 \times 7,5 \times 1$ | 0174300.17 |
| Rail EN 50022 2 m | PR4 | $35 \times 15 \times 2,3$ | 0168500.12 |
| Rail | PR5 | $35 \times 15 \times 1,5$ | 0168700.22 |
| End stop(all rails) | BAM | th. 9,1 mm | 0103002.26 |



## 16 N/P relays 2 RT relay output interface



Wiring diagram


| Part numbers |
| :--- |
| The units are delivered equipped with |
| relays. The relays are also available |



Wiring diagram

Interface with negative or positive common connection. J umper allowing either a common + or a common Delivered connected with a common


Interface compatible with automate output cards with positive or negative common connection.

## interfast

PLC decoupling interface
16-relay interface
Omniconnect and HE 10/26 product range


Pluggable relay
Delivered with $5 \times 20 \mathrm{~mm}$ fuse - Hight interrupting capacity.
Rating 1 A - 250 V . on PLC board power supply. Rating $2 \mathrm{~A}-250 \mathrm{~V}$. on relay contact.
Command indication by green LED
$-5 \times 20 \mathrm{~mm}$ fuse in series with the relay contact which protects the solenoïd valve in case of a short circuit.

## Wiring diagram

In the automobile industry, 50\% of PLC outputs control solenoïd valves which work in pairs to control pneumatic or hydraulic cylinders.
Each solenoïd valve is protected by a fuse, equipped with an isolating switch, and is grounded with a green/yellow wire.


If an insulation failure occurs between the solenoïd valve's $\mathrm{E1}(+)$ and the ground (coil wire in contact with the frame), the fuse provides short circuit protection. A fault may appear between the solenoid valve's E2 (-) and the ground without disturbing operation.
To detect these faults, inspection operations are conducted.
Inspection operation:
After opening S2, measure the resistance between the circuit and the ground; by successively opening all of the isolating swit ches S1, the solenoïd valve (E2) in contact with ground is detected when the ohmmeter registers a high value.

| Part numbers | Type |  | P/N |
| :---: | :---: | :---: | :---: |
| The units are delivered equipped with relays. The relays are also available separately. | RI 16 CEV N/P - 24 V DC |  | 0020931.10 |
|  | Schrack ${ }^{\text {® }}$ relay 24 V |  | 0179208.24 |
| Characteristics |  |  |  |
| COIL |  |  |  |
| Rated voltage +20\%, - 15\% | 24 VDC |  |  |
| Rated current | 15 mA |  |  |
| Trip voltage | 2,4 VDC |  |  |
| CONTACT |  |  |  |
| Type | 1 T |  |  |
| Voltage mini. / max. | $5 \mathrm{~V} / 250 \mathrm{VAC}$ |  |  |
| Switching current mini. / max. | $1 \mathrm{~mA} / 5 \mathrm{~A}$ |  |  |
| Breaking capacity AC1 mini. / max. | 5 m VA / 1250 VA |  |  |
| DC1 mini. / max. | $5 \mathrm{~mW} /$ see graphs |  |  |
| Max. load | see graph |  |  |
| Number of operations on load | $10^{5}$ |  |  |
| Number of operations off load | $30 \times 10^{6}$ |  |  |
| Operating speed $\mathrm{C} / 0$ | $7 \mathrm{~ms} / 8 \mathrm{~ms}$ |  |  |
| Bounce | 1 ms |  |  |
| Isolation Coil / Contact | 2,5 kV |  |  |
| Resistance to shock waves Coil / Contact |  |  |  |
| Isolation Contact / Contact |  |  |  |
| Distribution on the positive side of the contacts | 16 A by group of 8 |  |  |
| Distribution on the negative side of the EV's | 16 A by group of 8 |  |  |
| TEMPERATURE |  |  |  |
| Ambient temperature Storage | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |
| Operating | $-20^{\circ} \mathrm{C}$ to $+51^{\circ} \mathrm{C}$ |  |  |
| Wire capacity |  |  |  |
|  | 0-2,5 mm ${ }^{2}$ |  |  |
| Accessories | Type |  | P/N |
| Rail EN 50035 2 m | PR1.22 | $32 \times 15$ | 0163050.04 |
| Rail EN 50022 2 m | PR3.72 | $35 \times 7,5 \times 1$ | 0174300.17 |
| Rail EN 50022 2 m | PR4 | $35 \times 15 \times 2,3$ | 0168500.12 |
| Rail | PR5 | $35 \times 15 \times 1,5$ | 0168700.22 |
| End stop(all rails) | BAM | th. 9,1 mm | 0103002.26 |






## PLC connector interface 16 channels with spring connection Omniconnect Product range



## Two-wire <br> Interface



Two-wire sensors or actuators

J umper allowing either + or - distribution (J umper position : see wiring diagram of each module)

## Three-wire

## Interface

Single-wire sensors or actuators

Single-wire interface

Spacing $127 \mathrm{~mm} 5^{\prime \prime}$



and fuse on each I/O
PLC connector interface
16 channels with spring connection Omniconnect Product range

## Applications

Single-wire Interface


Single-wire sensors or actuators

## Two-wire

Interface


Two-wire sensors or actuators

J umper allowing either + or - distribution () umper position : see wiring diagram of each module)

## Three-wire

## Interface




| Part numbers | Type | Part number | mm | inch | Type | Part number | mm | inch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 channels without LED [2] | BFOM-1R-16-TF 2 | 0032153.14 | 138 | 5.44 |  |  |  |  |
| 16 channels with LEDs | BFOM-1R-16-TLF 3 | 0032155.16 | 138 | 5.44 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Characteristics | Witho | D | LEDs |  |  | Without LED | With LEDs |  |
| Maximum voltage | 250 V | C | VDC |  |  |  |  |  |
| Maximum current per point |  | 2 A |  |  |  |  |  |  |
| Maximum current in common wires |  | 5 A |  |  |  |  |  |  |
| Current per LED |  |  | mA |  |  |  |  |  |
| Fuses on the power supply |  | 5 A |  |  |  |  |  |  |
| Fuses per point |  | 2 A |  |  |  |  |  |  |
| Test voltage |  |  | 5 kV |  |  |  |  |  |
| Operating temperature |  | ee derating cu |  |  |  |  |  |  |
| Storage temperature |  | $-40^{\circ} \mathrm{C}$ to +80 |  |  |  |  |  |  |
| Type of connector |  | niconnect plug | poles |  |  |  |  |  |
| Wire capacity |  | 0-2,5 mm |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |



## interfast

PLC connector interface 2x16 channels
with spring connection Omniconnect Product range

Applications
Single-wire
Interface


Two-wire Interface


J umper allowing either + or distribution () umper position : see wiring diagram of each module)

Three-wire Interface




## interfast

PLC connector interface with spring connection Male Sub D product range

## Applications

I/O ANA insulated without shielding connection


I/O ANA insulated with shielding connection


I/O ANA with positive side distribution and shielding connection


## Interruptible interface with a common and common shield

Drawing: Male Sub D 9 interface


Schematic: Male Sub D 37 interface


2 mm dia. test points on each side of isolator $\quad \mathrm{BL}=$ Shielding

| Part numbers | Type | Part number | mm | inch | Type | Part number | mm | inch |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 points |  | 0032160.27 |  |  |  |  |  |  |
| 15 points |  | 0032161.14 |  |  |  |  |  |  |
| 25 points |  | 0032162.15 |  |  |  |  |  |  |
| 37 points |  | 0032163.16 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| C haracteristics |  | Without LED |  |  |  | Without LED |  |  |
| Maximum voltage |  | $60 \mathrm{~V} \mathrm{AC/DC}$ |  |  |  |  |  |  |
| Maximum current per point |  | 1 A |  |  |  |  |  |  |
| Maximum current in common wires |  | 5 A |  |  |  |  |  |  |
| C urrent per LED |  |  |  |  |  |  |  |  |
| Fuses on the power supply |  |  |  |  |  |  |  |  |
| Fuses per point |  |  |  |  |  |  |  |  |
| Test voltage |  | 0,5 kV |  |  |  |  |  |  |
| Operating temperature |  | $-20^{\circ} \mathrm{C}$ to +70 |  |  |  |  |  |  |
| Storage temperature |  | $-40^{\circ} \mathrm{C}$ to +80 |  |  |  |  |  |  |
| Type of connector |  | 1 female SUB |  |  |  |  |  |  |
| Wire capacity |  | 0-2,5 mm2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

PLC decoupling interface
8-relay interface with spring connection Omniconnect product range

## Width : 127 mm 5.00

Pluggable relay
Delivered with $5 \times 20 \mathrm{~mm}$ fuse - High interrupting capacity
Rating $1 \mathrm{~A}-250 \mathrm{~V}$.

## 8 N/P relays 1 RT relay output interface




* Load limit for DC
a : resistance
b : inductive load, $L / R=20 \mathrm{~ms}$

| Part numbers | Type | P/N |
| :--- | :--- | :---: |
| The units are delivered equipped with relays. <br> The relays are also available separately. | RI OM 821 N/P-1R-24 VDC | $\mathbf{0 0 3 2} \mathbf{0 0 8 . 2 7}$ |
|  | Schrack $^{\circledR}$ relay 24 V | $\mathbf{0 1 7 9 \mathbf { 2 0 8 . 2 4 }}$ |


| Characteristics |  |  |  |
| :---: | :---: | :---: | :---: |
| COIL |  |  |  |
| Rated voltage + 20\%, - 15\% |  | 24 VD |  |
| Rated current |  | 15 mA |  |
| Trip voltage |  | 2,4 VD |  |
| CONTACT |  |  |  |
| Type |  | 1 RT |  |
| Voltage mini. / max. |  | $5 \mathrm{~V} / 250$ |  |
| Switching current mini. / max. |  | $1 \mathrm{~mA} /$ |  |
| Breaking capacity $\quad$ AC1 mini. / max. |  | $5 \mathrm{mVA} / 20$ |  |
| DC1 mini. / max. |  | $5 \mathrm{~mW} / \mathrm{see}$ |  |
| Max. load | see graph |  |  |
| Number of operations on load | $10^{5}$ |  |  |
| Number of operations off load | $30 \times 16^{6}$ |  |  |
| Operating speed C/O | $7 \mathrm{~ms} / 8 \mathrm{~ms}$ |  |  |
| Bounce | 1 ms |  |  |
| Isolation Coil / Contact | 5 kV |  |  |
| Resistance to shock waves Coil / Contact | 10 kV |  |  |
| Isolation Contact / Contact | 2 kV |  |  |
| E.M.C. | Level 4 |  |  |
| TEMPERATURE |  |  |  |
| Ambient temperature <br> Operating | $-40^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ |  |  |
|  | $-20^{\circ} \mathrm{C}$ to $+74^{\circ} \mathrm{C}$ |  |  |
|  |  |  |  |
| Wire capacity | 0-2,5 mm ${ }^{2}$ |  |  |
|  |  |  |  |
| Accessories | Type |  | P/N |
| Rail EN 50035 2 m | PR1.Z2 | $32 \times 15$ | 0163050.04 |
| Rail EN 50022 2 m | PR3.22 | $35 \times 7,5 \times 1$ | 0174300.17 |
| Rail EN 50022 2 m | PR4 | $35 \times 15 \times 2,3$ | 0168500.12 |
| Rail | PR5 | $35 \times 15 \times 1,5$ | 0168700.22 |
| End stop (all rails) | BAM | th. 9,1 mm | 0103002.26 |

Wiring diagram

Interface with negative or positive common connection.
umper allowing either a common + or a common Delivered connected with a common -


Interface compatible with automate output cards with positive or negative common connection.

