

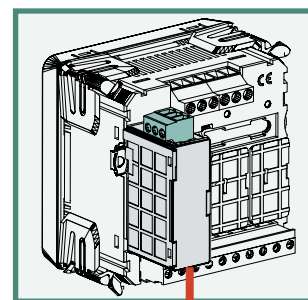
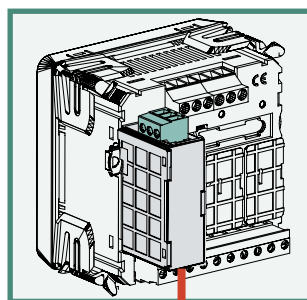
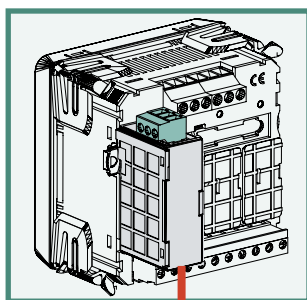
Interfaccia Comunicazione RS485 per Nemo 96HD/HD+

Il modulo IF96001 abbinato a strumenti della serie **Nemo 96HD/HD+** ne rende disponibili tramite comunicazione **RS485** tutti i dati riguardanti le misure effettuate ed i parametri di configurazione

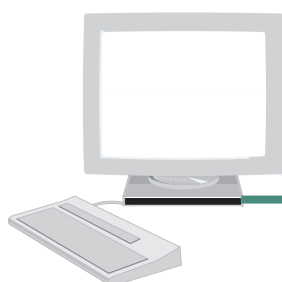
Interface RS485 communication for Nemo 96HD/HD+

Module IF96001 combined with meters of **Nemo 96HD/HD+** series makes available, by **RS485** communication, all the data relevant to carried out measurement as well as the configuration parameters.

Nemo MD



RS485



CODICI DI ORDINAZIONE ORDERING CODE	
IF96001	Comunicazione RS485 / RS485 communication

COMUNICAZIONE RS485

Isolata galvanicamente da ingressi misura e alimentazione (Nemo 96HD/HD+)
Standard: RS485 - 3 fili
Trasmissione: asincrona seriale
Protocollo: compatibile JBUS/MODBUS
Numero bit: 8
Bit di stop: 1
Tempo di risposta a interrogazione: $\leq 200\text{ms}$
N° massimo di apparecchi collegabili in rete: 32 (fino a 255 con ripetitore RS485)
Distanza massima dal supervisore: 1200m

PARAMETRI PROGRAMMABILI

N° indirizzo: 1...255
Velocità trasmissione: 4.800 - 9.600 - 19.200 - 38.400 ¹ bit/s
¹ 38.400 : solo per Nemo 96HD / HD+
Bit di parità: nessuna - pari - dispari
Formato word messaggio Modbus: Big Endian, Little Endian, Swap
ESEMPIO
Messaggio richiesta: FF 03 03 01 00 02 80 51
Risposta:
Big Endian = FF 03 04 01 02 03 04 XX YY
Little Endian = FF 03 04 04 03 02 01 XX YY
Swap = FF 03 04 03 04 01 02 XX YY

ALIMENTAZIONE AUSILIARIA

Valori riferiti all'abbinamento strumento multifunzione Nemo 96HD/HD+ e interfaccia IF96001
Autoconsumo: $\leq 5\text{VA}$

ISOLAMENTO

(EN61010)

Valori riferiti all'abbinamento strumento multifunzione Nemo 96HD/HD+ e interfaccia IF96001
Prova a tensione alternata 2 kV valore efficace 50Hz/1min
Circuiti considerati: ingresso misura, alimentazione ausiliaria, comunicazione RS485

CUSTODIA

Custodia: modulo con connettore per inserimento strumento Nemo 96HD/HD+
Profondità massima: 81mm (Nemo 96HD/HD+ e modulo)
Connessioni: morsetti fissaggio a vite
Portata morsetti: cavo rigido max. 4,5mm ² , cavo flessibile max. 2,4mm ²
Materiale custodia: policarbonato autoestinguente
Peso: 30 grammi

RS485 COMMUNICATION

Galvanically insulated from input and aux. supply (Nemo 96HD/HD+)
Standard: RS485 - 3-wire
Transmission: serial asynchronous
Protocol: compatible JBUS/MODBUS
Bit number: 8
Stop bit: 1
Required response time to request: $\leq 200\text{ms}$
Meters that can be connected on the bus: 32 (up to 255 with RS485 repeater)
Highest distance from supervisor: 1200m

PROGRAMMABLE PARAMETERS

Address: 1...255
Baud rate: 4.800 - 9.600 - 19.200 - 38.400 ¹ bit/s
¹ 38.400 : only for Nemo 96HD / HD+
Parity bit: none - even - odd
Modbus message word format: Big Endian, Little Endian, Swap
EXAMPLE
Request message: FF 03 03 01 00 02 80 51
Answer:
Big Endian = FF 03 04 01 02 03 04 XX YY
Little Endian = FF 03 04 04 03 02 01 XX YY
Swap = FF 03 04 03 04 01 02 XX YY

AUXILIARY SUPPLY

Value referred to combination Nemo 96HD/HD+ multifunction meters + IF96001 interface
Rated burden: $\leq 5\text{VA}$

INSULATION

(EN61010)

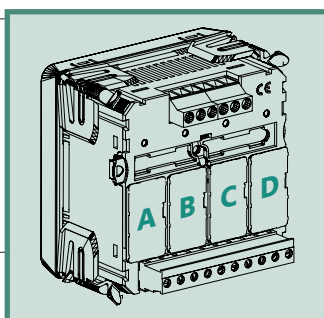
Value referred to combination Nemo 96HD/HD+ multifunction meters + IF96001 interface
A.C. voltage test 2 kV r.m.s. value 50Hz/1min
Considered circuits: measure, aux. supply, RS485 communication

HOUSING

Housing: module with connector for connection Nemo 96HD/HD+ meter
Max. depth: 81mm (Nemo 96HD/HD+ and module)
Connections: screw terminals
Terminals range: rigid cable max. 4,5mm ² , flexible cable max. 2,4mm ²
Housing material: self-extinguishing polycarbonate
Weight: 30 grams

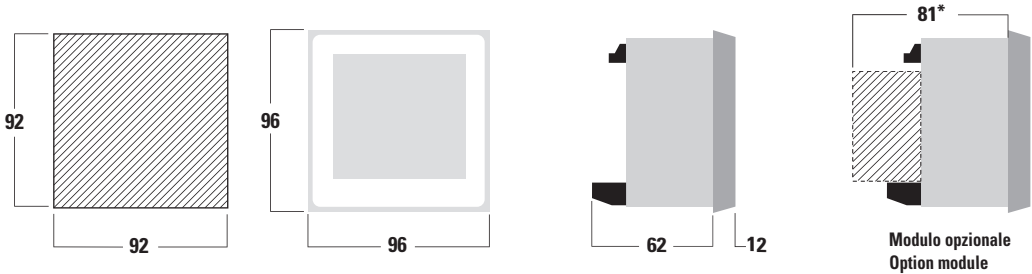
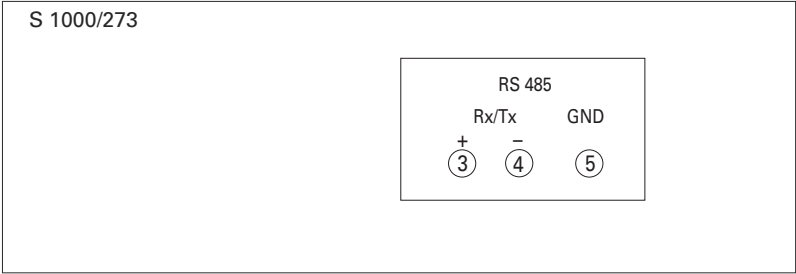
CODICE CODE	DESCRIZIONE DESCRIPTION	N. MASSIMO N. MAX.	POSIZIONE POSITION				VERSIONE' FIRMWARE ¹
			A	B	C	D	
IF96001	Comunicazione RS485 RS485 communication	1	•				Tutte All

¹ **VERSIONE FIRMWARE:** in tabella viene indicata la versione dello strumento necessaria a supportare la funzione del modulo aggiuntivo.
Utilizzando un modulo comunicazione IF96001 (RS485) o IF96002 (RS232) è possibile aggiornare la versione firmware direttamente in campo, con l'aiuto di un PC e del software necessario.



¹ **FIRMWARE VERSION:** on the table it is shown the firmware version of the meter which is necessary to support the function of the extra module.
By using an IF96001 (RS485) or IF96002 (RS232) communication module it is possible to update the firmware version directly on field, with the help of a PC and the necessary software.

La I.M.E. S.p.A. si riserva in qualsiasi momento, di modificare le caratteristiche tecniche senza darne preavviso. / I.M.E. S.p.A. reserves the right, to modify the technical characteristics without notice.



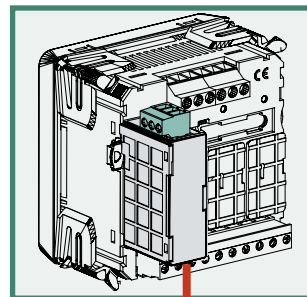
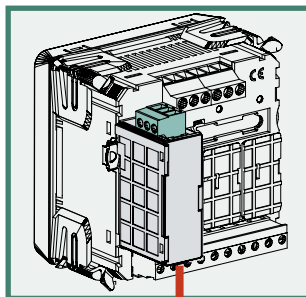
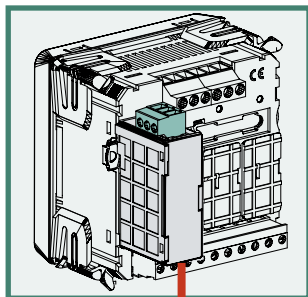
Interface Communication RS485 pour Nemo 96HD

Le module IF96001 raccordé aux centrales de mesure type **Nemo 96HD/HD+**, permet de récupérer par communication **RS485**, toutes les mesures effectuées ainsi que les paramètres de configuration

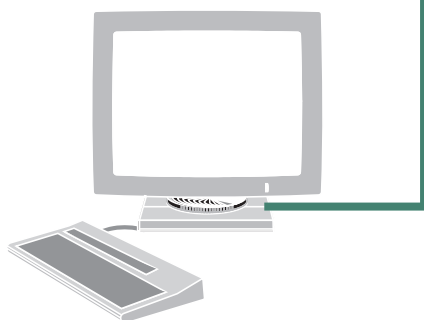
Interface RS485 communication for Nemo 96HD/HD+

Module IF96001 combined with meters of Nemo 96HD/HD+ series makes available, by RS485 communication, all the data relevant to carried out measurement as well as the configuration parameters.

Nemo MD



RS485



REFERENCE ORDERING CODE

9017 6041

Communication RS485 / RS485 communication

COMMUNICATION RS485

Isolée galvaniquement de l'entrée mesure et de l'alim.aux. (Nemo 96HD/HD+)

Standard: RS485 - 3 fils

Transmission: asynchrone série

Protocole: compatible JBUS/MODBUS

Nbre bit: 8

Bit de stop: 1

Temps de réponse à l'interrogation: ≤ 200ms

N° max. d'appareils raccordés en réseau: 32 (jusqu'à 255 avec répéteur RS485)

Distance max. du superviseur: 1200m

PARAMETRES PROGRAMMABLES

N° adresse: 1...255

Vitesse de transmission: 4.800 - 9.600 - 19.200 - 38.400 bit/s

'38.400 : uniquement pour Nemo 96HD/HD+

Bit de parité: sans - pair - impair

Message Modbus format word: Big Endian, Little Endian, Swap

EXEMPLE

Message demande: FF 03 03 01 00 02 80 51

Réponse :

Big Endian = FF 03 04 01 02 03 04 XX YY

Little Endian = FF 03 04 04 03 02 01 XX YY

Swap = FF 03 04 03 04 01 02 XX YY

ALIMENTATION AUXILIAIRE

Valeur référée à la combinaison NEMO 96HD/HD+ et interface IF96001

Autoconsommation: ≤ 5VA

ISOLEMENT

(EN61010)

Valeur référée à la combinaison Nemo 96HD/HD+ et interface NEMO MD IF96001

Tension d'essai 2 kV valeur efficace 50Hz/1min

Circuits considérés: entrée mesure, alim.aux., communication RS485

BOITIER

Boîtier: module avec connecteur pour le raccordement sur le Nemo 96HD/HD+

Profondeur maximum: 81mm (Nemo 96HD/HD+ et module)

Raccordement: bornier à vis

Capacité des bornes: fil rigide max. 4,5mm², fil souple max. 2,4mm²

Matériau du boîtier: polycarbonate autoextinguible

Poids: 30 grammes

RS485 COMMUNICATION

Galvanically insulated from input and aux. supply (Nemo 96HD/HD+)

Standard: RS485 - 3-wire

Transmission: serial asynchronous

Protocol: compatible JBUS/MODBUS

Bit number: 8

Stop bit: 1

Required response time to request: ≤ 200ms

Meters that can be connected on the bus: 32 (up to 255 with RS485 repeater)

Highest distance from supervisor: 1200m

PROGRAMMABLE PARAMETERS

Address: 1...255

Baud rate: 4.800 - 9.600 - 19.200 - 38.400 bit/s

'38.400 : only for Nemo 96HD/HD+

Parity bit: none - even - odd

Modbus message word format: Big Endian, Little Endian, Swap

EXAMPLE

Request message: FF 03 03 01 00 02 80 51

Answer :

Big Endian = FF 03 04 01 02 03 04 XX YY

Little Endian = FF 03 04 04 03 02 01 XX YY

Swap = FF 03 04 03 04 01 02 XX YY

AUXILIARY SUPPLY

Value referred to combination Nemo 96HD/HD+ multifunction meters + IF96001 interface

Rated burden: ≤ 5VA

INSULATION

(EN61010)

Value referred to combination Nemo 96HD/HD+multifunction meters + IF96001 interface

A.C. voltage test 2 kV r.m.s. value 50Hz/1min

Considered circuits: measure, aux. supply, RS485 communication

HOUSING

Housing: module with connector for connection Nemo 96HD/HD+ meter

Max. depth: 81mm (Nemo 96HD/HD+ and module)

Connections: screw terminals

Terminals range: rigid cable max. 4,5mm², flexible cable max. 2,4mm²

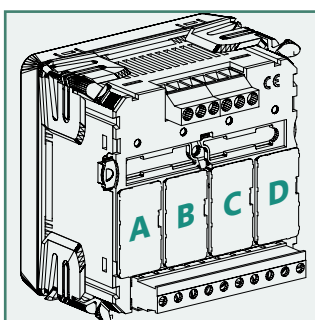
Housing material: self-extinguishing polycarbonate

Weight: 30 grams

CODE	DESCRIPTION	N.MAX	POSITION				VERSION ¹ FIRMWARE ¹
			A	B	C	D	
9017 6041	Communication RS485 RS485 communication	1	●				Toute All

¹VERSION FIRMWARE : sur le tableau figure la version firmware de la centrale nécessaire pour supporter la fonction du module supplémentaire.

En utilisant un module de communication IF96001 (RS485) ou IF96002 (RS232), il est possible de mettre à jour la version firmware directement en façade, à l'aide d'un PC et du logiciel approprié.



¹FIRMWARE VERSION : on the table it is shown the firmware version of the meter which is necessary to support the function of the extra module.

By using an IF96001 (RS485) or IF96002 (RS232) communication module it is possible to update the firmware version directly of field, with the help of a PC and the necessary software.

