

SPEEDMATIC 101110
SPEEDMATIC 101165
SPEEDMATIC 101110 MASTER
SPEEDMATIC 101165 MASTER



EN

INSTALLATION AND OPERATING INSTRUCTIONS (14 ... 18)

IT

FR

ES

D

Warning symbols contained in this service manual - Simboli di avvertenze contenute in queste istruzioni
Symboles d'avertissement contenus dans le présent chapitre - Símbolos de advertencia contenidos en este manual-
In diesem Handbuch enthaltene Warnzeichen



Only applies to type MASTER.
 Si applica soltanto al tipo MASTER.
 Il applique seulement au type MASTER.
 Sólo aplica al tipo MASTER.
 Nur auf den Typ MASTER anwendbar.



Risk by electric shock.
 Rischio di scosse elettriche.
 Risque de choc électrique.
 Riesgo por energía eléctrica.
 Gefahren durch elektrische Energie.



Rischio per le persone e/o per gli oggetti.
 Risk for people and/or objects.
 Risque pour les objets et/ou de gens.
 Riesgo para personas y/o objetos.
 Risiken für Personen und/oder Gegenstände

GARANZIA, RACCOMANDAZIONI E GENERALITÀ

IT

Il prodotto "Speedmatic ed Speedmatic MASTER" ha una garanzia di 2 anni dalla data di fabbricazione del prodotto. Il fabbricante non si responsabilizza della garanzia del prodotto nel caso d'una installazione o manipolazione incorretta.

⚠ Leggere attentamente questo manuale per fare l'installazione del prodotto.

Non gettare il manuale dopo avere realizzato le operazioni di installazione, può essere utili per qualsiasi modifica nell'installazione, anche per risolvere qualche posteriore problema come allarme di sicurezza, allarme per mancanza d'acqua, ecc.

L'installazione sia idraulica sia elettrica deve essere fatta per personale qualificato rispettando le prescrizioni di sicurezza e perfino le normative vigenti per ogni paese.

Per l'installazione elettrica è raccomandabile usare un interruttore differenziale di alta sensibilità: $I_{\Delta n} = 30 \text{ mA}$ (clase A o AC). È raccomandato usare un magnetotermico di 16A. È raccomandato usare una linea elettrica indipendente, con la finalità di evitare possibili interferenze elettromagnetiche che possano creare alterazioni non desiderate su apparecchi elettrodomestici dell'installazione.

L'apparecchio deve funzionare con un flusso d'acqua limpido, nel caso che esista la possibilità di presenza di ghiaia o particelle (installazioni con pompe sommerse); è raccomandato usare un filtro adeguato per evitare la possibilità di bloccare il sensore di flusso.

Lo Speedmatic soltanto può essere usato per menare l'acqua limpida non può essere usato con altri liquidi.

È raccomandato usare un vaso di espansione adeguato per ogni installazione con la finalità di evitare avviamenti innecesari dovuti a gocciolamenti per deteriori inevitabili di rubinetti, valvole, ecc. così come per evitare possibili colpi d'ariete normalmente prodotti per elettrovalvole o valvole con un pazo d'acqua considerabile.

⚠ ATTENZIONE, in caso che si deva effettuare qualche manipolazione interna nel circuito elettronico, posteriore al funzionamento di questo, si dovrà mettere fuori dalla rete elettrica ed attendere un minimo di 2 minuti per evitare qualsiasi scarica elettrica.

WARRANTY AND RECOMMENDATIONS

EN

The product "Speedmatic and Speedmatic MASTER" is guaranteed the first 2 years after its production date.

This guarantee does not include damages in case of an inadequate installation or manipulation.

⚠ Read carefully this instructions manual before installation.

Do not throw away this manual after installation, it can be usefull for later modifications or for solving the different types of alarms.

Hydraulic and electrical installations must be set up by qualified personnel according to the safety prescriptions as well as the standards and legislation of every country. When carrying out the electrical connection it is recommended to use a differential switch of high sensitivity: $I_{\Delta n} = 30 \text{ mA}$ (clase A o AC). It is recommended to use a 16 A magnetothermic switch. It is recommended to use an independent electrical line, with the purpose of avoiding electromagnetic interferences that could create non wished alterations in household electronic devices.

The device must operate with a clean water flow, if there is risk of presence of gravel or small particles (facilities with submersible pumps) is recommended to use a filter to avoid the possibility of blocking the flow sensor.

Speedmatic should be used only for vehiculation of clean water, it cannot be used for transport of another kind of liquids.

It is recommended to use an expansion tank in order to avoid continuous start-stops due to the deterioration of taps, valves, ... and also to prevent "water hammer" in installations with valves of wide diameter.

⚠ WARNING, before doing any maintenance inside the device, it must be unplugged from the electric supply and wait a minimum of 2 minutes after the disconnection to avoid electrical discharges.

GARANTIE RECOMMANDATIONS

FR

Le produit "Speedmatic et Speedmatic MASTER" a une garantie de 2 années depuis de la date de fabrication du produit.

Le fabricant ne se fera pas responsable de la garantie du produit en cas d'une installation ou d'une manipulation inadéquate.

⚠ Lisez avec attention ce manuel pour effectuer l'installation du produit.

Ne rejetez pas le manuel après avoir effectué les opérations d'installation, il peut être utile pour toute modification de cette installation, ainsi que pour résoudre quelque problème postérieur comme alarmes de sécurité, alarmes par manque d'eau, etc. Les installations hydraulique comme électrique doivent être effectuée par personnel qualifié, il faut suivre les prescriptions de sécurité ainsi que les réglementations en vigueur de chaque pays.

Pour l'installation électrique on recommande d'utiliser un interrupteur différentiel de haute sensibilité: $I_{\Delta n} = 30 \text{ mA}$ (classe A ou AC). On recommande d'utiliser un magnetothermique de 16 A. On recommande, aussi, d'utiliser une ligne électrique indépendante, afin d'éviter de possibles interférences électromagnétiques qui peuvent créer des modifications non souhaitées dans des appareils électroménagers de l'installation.

L'appareil doit fonctionner avec un flux d'eau nettoie, dans le cas ou il existe la possibilité de présence de gravier ou particules (installations avec des pompes submersibles) on recommande d'utiliser un filtre adéquat pour éviter la possibilité de blocage du senseur de flux.

Le Speedmatic peut seulement être utilisé pour le transporte d'eau propre.

On recommande d'utiliser un verre d'expansion adéquat pour chaque installation afin d'éviter des mises en marche inutiles consequence des écoulements par détériorations inévitables de robinets, valves, etc, ainsi que pour éviter le marteau de l'eau produits mormalment par electrovalves ou valves avec un pas de débit considérable.

⚠ ATTENTION, avant d'effectuer toute manipulation dans l'appareil, il devra être déconnecté du réseau électrique et on attendra un minimum de 2 minutes après le débranchement pour éviter de possibles décharges électriques.

GARANTÍA, RECOMENDACIONES Y GENERALIDADES

ES

El producto "Speedmatic y Speedmatic MASTER" tiene una garantía de 2 años a partir de la fecha de fabricación del producto.

El fabricante no se hará responsable de la garantía del producto en caso de una instalación o manipulación inadecuada.

⚠ Lea atentamente este manual para realizar la instalación del producto.

No deseche el manual después de haber realizado las operaciones de instalación, puede ser útil para cualquier modificación de dicha instalación, así como para solucionar cualquier problema posterior como alarmas de seguridad, alarmas por falta de agua, etc.

La instalación tanto hidráulica como eléctrica tiene que ser realizada por personal cualificado respetando las prescripciones de seguridad así como las normativas vigentes de cada país.

Para la instalación eléctrica se recomienda utilizar un interruptor diferencial de alta sensibilidad: $I_{\Delta n} = 30 \text{ mA}$ (clase A o AC). Se recomienda utilizar un magnetotérmico de 16 A. Se recomienda utilizar una línea eléctrica independiente, con la finalidad de evitar posibles interferencias electromagnéticas que puedan crear alteraciones no deseadas en aparatos electrodomésticos de la instalación.

El aparato debe funcionar con un flujo de agua limpio, en el caso en el que exista la posibilidad de presencia de grava o partículas (instalaciones con bombas sumergibles) se recomienda utilizar un filtro adecuado para evitar la posibilidad de bloquear el sensor de flujo.

El Speedmatic solo puede ser utilizado para la vehiculación de agua limpia.

Se recomienda utilizar un vaso de expansión adecuado para cada instalación con la finalidad de evitar puestas en marcha innecesarias debido a goteos por deterioros inevitables de grifos, válvulas, etc., así como para evitar posibles golpes de ariete producidos normalmente por electroválvulas o válvulas con un paso de caudal considerable.

⚠ ATENCION, antes de realizar cualquier manipulación en el interior del aparato, deberá ser desconectado de la red eléctrica y se esperará un mínimo de 2 minutos después de la desconexión para evitar posibles descargas eléctricas.

GARANTIE, EMPFEHLUNGEN UND ALLGEMEINES

D

Das Gerät "Speedmatic und Speedmatic MASTER" steht ab seinem Herstellungsdatum für 2 Jahre unter Garantie.

Aus der vom Hersteller gewährten Garantie ausgeschlossen bleiben jedoch Schäden, die infolge einer fehlerhaften Montage oder eines unsachgemäßen Gebrauchs des Geräts entstanden sind.

⚠ Lesen Sie sich dieses Handbuch vor der Montage des Geräts aufmerksam durch.

Werfen Sie dieses Handbuch nach Abschluss der Montagearbeiten nicht weg, da es bei Abänderungen an dieser Installation und zur Lösung eventuell später auftretender Vorfälle, wie etwa Sicherheitswarnmeldungen, Warnmeldungen wegen Wassermangels, usw., nützlich sein könnte.

Sowohl die hydraulische als auch die elektrische Montage darf nur von gebührend qualifiziertem Personal und unter Beachtung der Sicherheitsvorschriften und der im jeweiligen Land geltenden einschlägigen Regelungen durchgeführt werden.

Es wird empfohlen, für die elektrische Installation einen Fehlerschutzschalter mit hoher Empfindlichkeit zu verwenden: $I_{\Delta n} = 30 \text{ mA}$ (Klasse A oder AC). Ebenso wird empfohlen, einen thermomagnetischen Schutzschalter für 16 A zu benutzen.

Es wird außerdem empfohlen, eine unabhängige elektrische Leitung zu benutzen, um mögliche elektromagnetische Interferenzen, die ungewünschte Störungen der Haushaltsgeräte der Installation verursachen könnten, zu vermeiden.

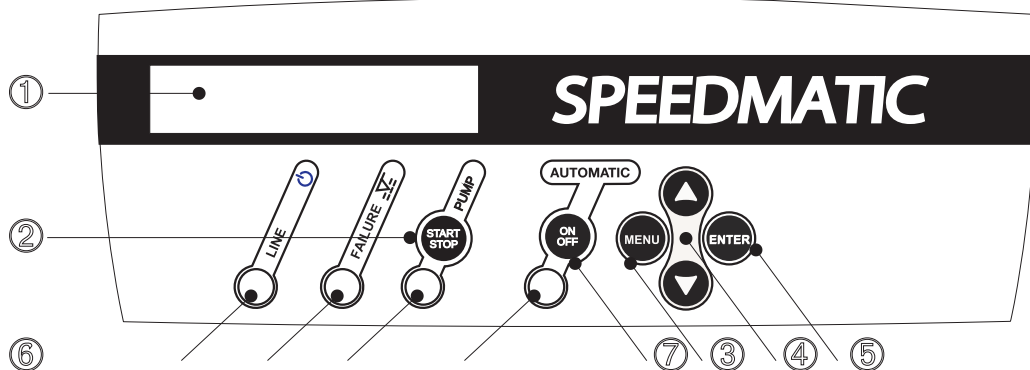
Das Gerät darf nur mit sauberem durchfließendem Wasser betrieben werden. Wenn die Möglichkeit besteht, dass Kies oder andere hinderliche Teilchen vorhanden sind (Anlagen mit Tauchpumpen), so wird empfohlen, einen geeigneten Filter einzusetzen, um eine eventuelle Blockierung des Durchflusssensors zu vermeiden.

Der Speedmatic darf nur zur Führung von sauberem Wasser verwendet werden.

Es wird empfohlen, für jede Anlage einen Druckausgleichsbehälter zu benutzen, um ein unnötiges Ingangsetzen wegen Tropfens infolge undicht gewordener Wasserhähne, Ventile, usw., beziehungsweise infolge von Druckstößen zu vermeiden, die gewöhnlich durch Magnetventile oder Ventile mit Durchflussregulierung verursacht werden.

⚠ ACHTUNG: Vor dem Hantieren im Inneren des Geräts muss dieses immer vom Stromnetz abgeschlossen werden. Nach dem Abschalten muss noch 2 Minuten zugewartet werden, um den Empfang möglicher Stromstöße zu vermeiden.

Fig. 1 PANNELLO DI CONTROLLO - CONTROL PANEL -PANNEAU DE COMMANDE



1- Schermo **LCD** multifunzione.

In situazione di lavoro mostra la pressione.

2 - Pulsante **MANUALE START-STOP**.

3 - Pulsante per entrare oppure uscire del **MENU**.

4 - Pulsanti per aumentare o diminuire valori di programmazione che si mostrano nello schermo (1).

5 - **ENTER** per entrare nella memoria dei valori selezionati. Ad ogni pulsazione di entrata gli segue la presentazione di un nuovo campo del **MENU DI PROGRAMMAZIONE**. Per uscire in qualsiasi momento pulsare **MENU** (3)

6 - Leds di indicazione:

- **LINE** verde: Alimentazione elettrica, si accende se è collegato.
- **FAILURE** rosso: Si accende intermittente o permanentemente.
- **PUMP** giallo: Accesso indica lavorando nella pompa. Spento se ci siamo con la pompa arrestata oppure senza tensione da linea.
- **AUTOMATIC** verde: Si accende in modo automatico. In modo MASTER & SLAVE l'intermittenza indica che questo dispositivo sarà l'ausiliario nel seguente ciclo.

7 - **ON/OFF**: Permite passare dal modo **AUTOMATICO** a **MANUALE** e viceversa.

IT

1- **LCD** screen. Shows the pressure in working mode.

2 - **MANUAL START-STOP** pushbutton.

3 - Pushbutton for **ENTER** or **EXIT** menu.

4 - With these pushbuttons we can change programming values showed in the **LCD** screen (1).

5 - **ENTER** for saving programmed values. Every pulsation is succeeded by a new field of the **CONFIGURATION MENU**. Whenever we want to quit the configuration sequence press **MENU** (3).

6 - Led lights:

- **LINE** green: Electric supply. ON when it is connected.
- **FAILURE** red: Bright or intermittent depending on type of failure.
- **PUMP** yellow: When it is bright means pump working. It is lit with the pump stopped or when the device is not connected.
- **AUTOMATIC** green: it is bright in **AUTOMATIC** mode. When it is intermittent in **MASTER&SLAVE** mode it means that this device will be auxiliary in the following cycle.

7- **ON/OFF**: It allows to change from **AUTOMATIC** to **MANUAL** mode or vice versa.

EN

1 - Ecran **LCD** multifonction.

En situation de travail il indique la pression.

2 - Poussoirs **MANUEL START-STOP**.

3 - Poussoir pour entrer ou sortir de **MENU**.

4 - Poussoirs pour augmenter ou diminuer les valeurs de programmation qui se montrent sur l'écran (1).

5 - **ENTER** pour entrer en mémoire les valeurs sélectionnées. A chaque frappe d'entrée, il suit la présentation d'un nouveau élément du **MENU DE PROGRAMMATION**. Pour sortir éventuellement, pousser **MENU** (3).

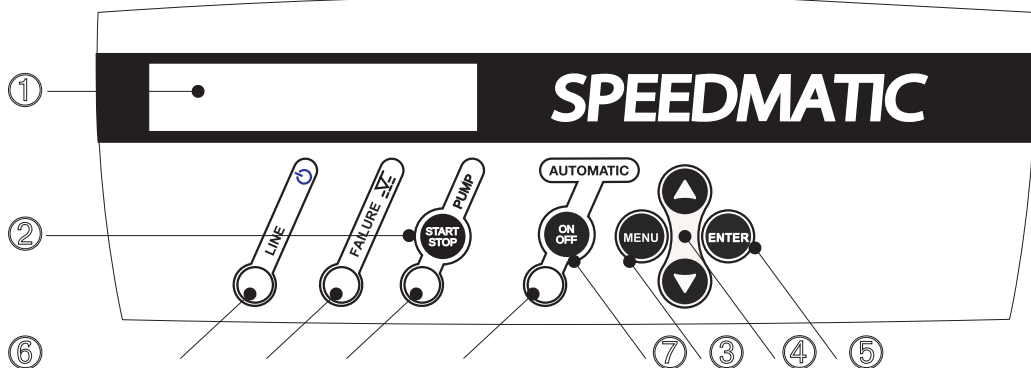
6 - Témoins lumineux d'indication:

- **LINE** verd: alimentation électrique.
- **FAILURE** rouge: allumé en état permanent ou clignotant selon l'erreur détecté.
- **PUMP** jaune: Allumé il indique pompe en marche. Éteint avec la pompe arrêtée ou bien sans tension de ligne.
- **AUTOMATIC** verd: Allumé dans mode **AUTOMATIC**. Dans le mode de fonctionnement "**MASTER** et **SLAVE**", clignotant nous indique que cet appareil sera le secondaire dans le cycle suivant

7 - **ON/OFF**: Pour passer du mode **AUTOMATIC** à **MANUEL** et vice versa.

FR

Fig. 1 PANEL DE CONTROL-SCHALTAFEL



1 - Pantalla **LCD** multifunción.

En situación de trabajo indica la presión.

2 - Pulsador **MANUAL START-STOP**.

3 - Pulsador para entrar o salir de **MENU**.

4 - Pulsadores para aumentar o disminuir valores de programación que aparecen en pantalla (1).

5 - **ENTER** para entrar en memoria los valores seleccionados. A cada pulsación de entrada le sucede la presentación de un nuevo campo de **MENÚ DE PROGRAMACIÓN**. Para salir en cualquier momento pulsar **MENU** (3).

6 - Leds de indicación:

- **LINE** verde: Alimentación eléctrica, se enciende si está conectado.
- **FAILURE** rojo: Se enciende intermitente o permanente según tipo de fallo.
- **PUMP** amarillo: Encendido indica trabajando bomba. Apagado con la bomba parada o bien sin tensión de línea.
- **AUTOMATIC** verde: Se enciende en modo automático. En modo **MASTER&SLAVE** la intermitencia indica que este dispositivo será el auxiliar en el siguiente ciclo.

7 - **ON/OFF**: Permite pasar modo **AUTOMATIC** a modo **MANUAL** y viceversa.

ES

1 - Mehrzweck-**LCD**-Bildschirm.

Er zeigt während des Betriebs den Druck an.

2 - Drucktaste **MANUELLER START-STOP**.

3 - Drucktaste für den Zugang zum oder das Verlassen des **MENÜS**.

4 - Drucktasten zur Erhöhung oder Verminderung der programmierten Werte, die auf dem Bildschirm angezeigt werden (1).

5 - **ENTER** für den Zugang zum Arbeitsspeicher, der die gewählten Werte enthält. Auf jedes Drücken der Enter-Taste folgt die Anzeige eines neuen **PROGRAMM-MENÜ-Datenfeldes**. Dieses kann jederzeit verlassen werden, indem auf **MENÜ** gedrückt wird (3).

6 - Led-Anzeigen:

- **LINE** grün: Stromspeisung. Diese Anzeige leuchtet auf, wenn das Gerät an die Stromspeisung angeschlossen wird.
- **FAILURE** rot: Je nach dem aufgetretenen Fehler blinkt diese Anzeige oder leuchtet kontinuierlich
- **PUMP** gelb: Diese Anzeige leuchtet, wenn die Pumpe in Betrieb ist und schaltet sich bei Stillstand derselben oder bei fehlender Spannung in der Leitung aus.
- **AUTOMATIC** grün: Diese Anzeige schaltet sich im automatischen Betriebsmodus ein. Im MASTER&SLAVE Modus zeigt die blinkende Anzeige an, dass dieses Gerät im folgenden Arbeitszyklus als Hilfsgerät zum Einsatz kommt.

7 - **ON/OFF**: Mit dieser Taste kann vom **AUTOMATISCHEN** zum **MANUELLEN** Modus übergewechselt werden oder umgekehrt. Im MANUELLEN Modus arbeitet das Gerät mit 30 Hz. Zur Erhöhung oder Verminderung der Frequenz muss gleichzeitig auf START/STOP+ ▲ oder START/STOP+ ▼ gedrückt werden.

D

Fig. 2a
INDIVIDUAL ASSEMBLY - MONTAGGIO INDIVIDUALE - ASSEMBLAGE INDIVIDUEL - MONTAJE INDIVIDUAL-
EINZELMONTAGE.



Fig. 2b
GROUP ASSEMBLY - MONTAGGIO IN GRUPPO - ASSEMBLAGE EN GROUPE - MONTAJE EN GRUPO-
GRUPPENMONTAGE.



M

Fig. 3 INSTALLATION SCHEME-SCHEMA IMPIANTO-SCHÉMA INSTALLATION-ESQUEMA MONTAJE - MONTAGEPLAN.

OSSERVAZIONI:

A) Gli accessori ③, ④, ⑤, ⑦ e ⑧ sono raccomandabili ma non indispensabili.

B) Nel caso del vaso di espansione ⑦, si raccomanda la sua utilizzazione nelle installazioni dove si pretenda evitare i colpi d'ariete.

OBSERVATIONS:

A) Accessoires ③, ④, ⑤, ⑦ and ⑧ are recommendable but nonessential.

B) In the case of the expansion tank ⑦, its use in facilities is recommended when it is tried to avoid the water hammer.

OBSERVATIONS :

A) Les accessoires ③, ④, ⑤, ⑦ et ⑧ sont recommandables mais non indispensables.

B) Dans le cas de la verre d'expansion ⑦, on recommande son utilisation dans des installations où on prétend éviter le coup

OBSERVACIONES:

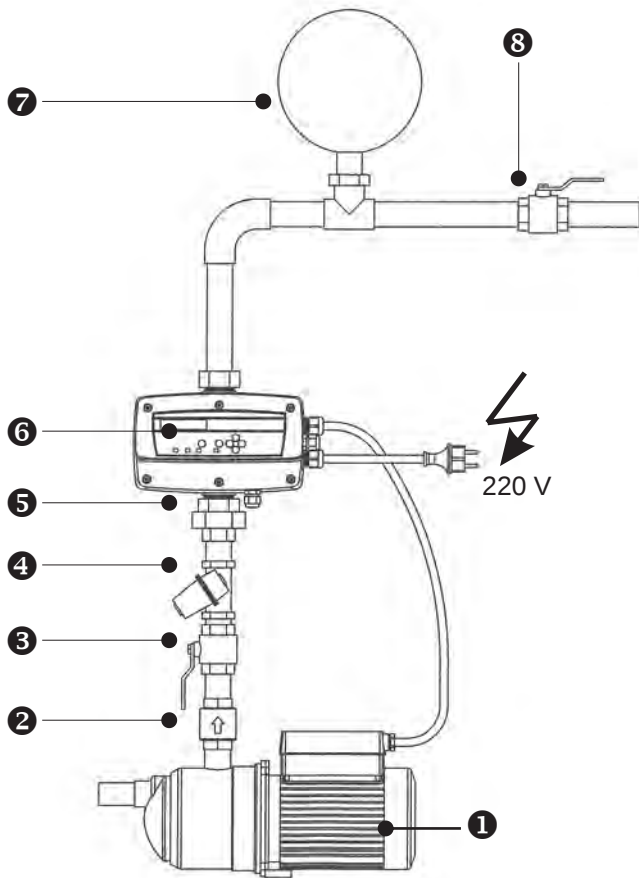
A) Los accesorios ③, ④, ⑤, ⑦ y ⑧ son recomendables pero no imprescindibles.

B) En el caso del vaso de expansión ⑦, se recomienda su utilización en instalaciones donde se pretenda evitar el golpe de ariete.

ANMERKUNGEN:

A) Die Zubehörteile ③, ④, ⑤, ⑦ und ⑧ werden empfohlen, sind jedoch nicht unbedingt notwendig.

B) Die Verwendung eines Druckausgleichbehälters ⑦ wird in Anlagen empfohlen, in denen Druckstöße vermieden



①.- Pump / Pompa/ Pompe / Bomba/ Pumpe.

②.- Check valve / Valvola di non ritorno / Clapet antiretour / Válvula de retención/ Rückschlagventil.

③.- Ball valve / Valvole a sfera / Robinet à tournant sphérique / Válvula de esfera/ Kugelhahn.

④.- Filter / Filtro / Filtre / Filtro/ Filter.

⑤.- Quick release coupling / Raccord avec embout rapide / Raccordo con bocchettone rapido / Racor 3 piezas/ Verbinder, 3-teilig.

⑥.- Speedmatic.

⑦.- Expansion tank / Vaso di espansione / Vase d'expansion / Vaso de expansión/ Druckausgleichsbehälter.

⑧.- Ball valve / Valvole a sfera / Robinet à tournant sphérique / Válvula de esfera/ Kugelhahn.

**Fig. 4 LATERAL OR BACK CONNECTION - COLLEGAMENTO LATERALE O POSTERIORE
CONNEXION LATÉRALE OU ARRIÈRE - CONEXION LATERAL O TRASERA-
SEITLICHER ODER HINTERER ANSCHLUSS.**

EN 61800-3 C2

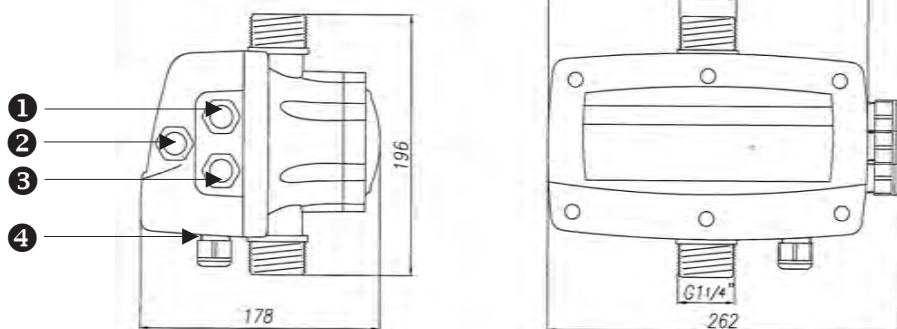
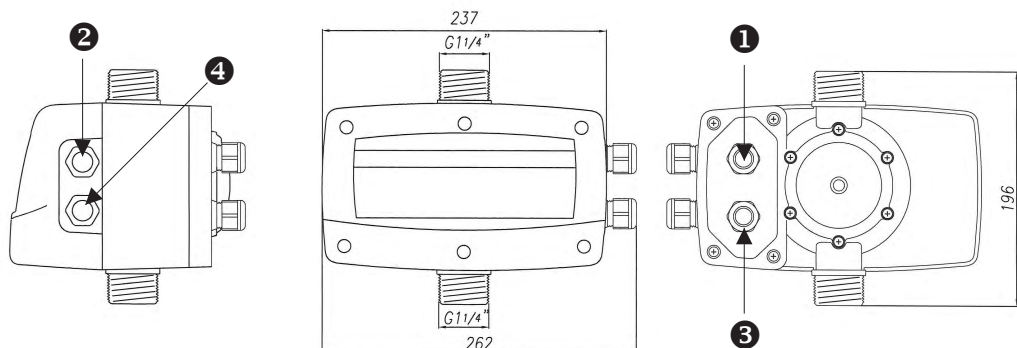


Fig. 4b EN 61800-3 C1



1 Pump / Pompe / Pompe / Bomba/ Pumpe

L (m)	S (mm ²)
1 ÷ 5	1
5 ÷ 25	2.5
25 ÷ 50	4

2 Nivel mínimo (opcional) / Minimal level (optional) / Niveau minimal (optionnel)

Livello minimo (facoltativo) / Mindeststandsonde (optional)

3 Alimentación general / Power supply / Alimentation generale
Alimentazione elettrica / Allgemeine Stromspeisung

4 Master&Slave communications cable

M Cavo delle comunicazioni Master&Slave
Câble de communication Master&Slave
Cable de comunicación Master&Slave
Master&Slave Verbindungskabel

Fig. 5 BODY CONNECTIONS - COLLEGAMENTO CORPO - CONNEXIONS DU CORPS - CONEXIONES CUERPO- ANSCHLÜSSE DES KÖRPERS

Fig. 5a EN 61800-3 Class C2

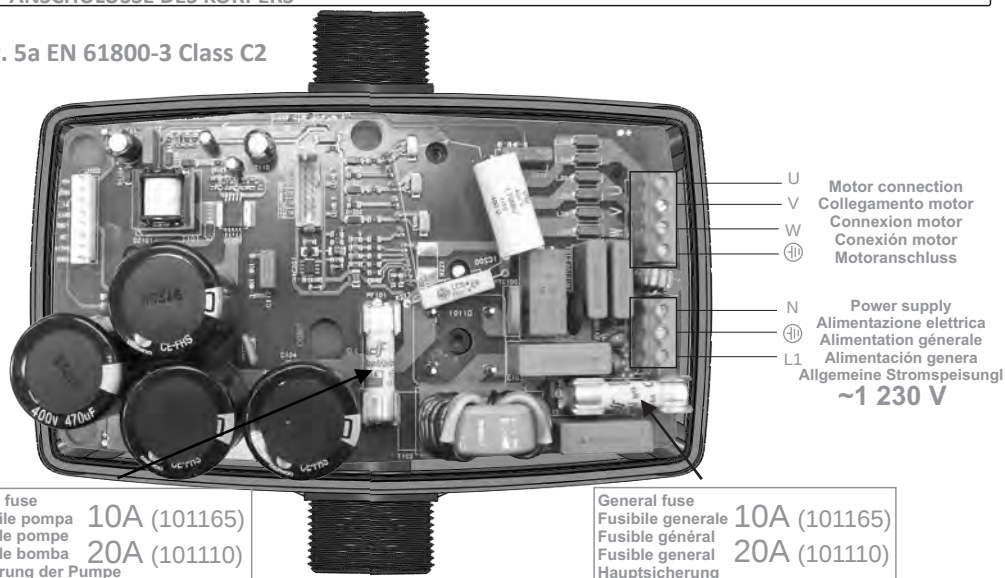
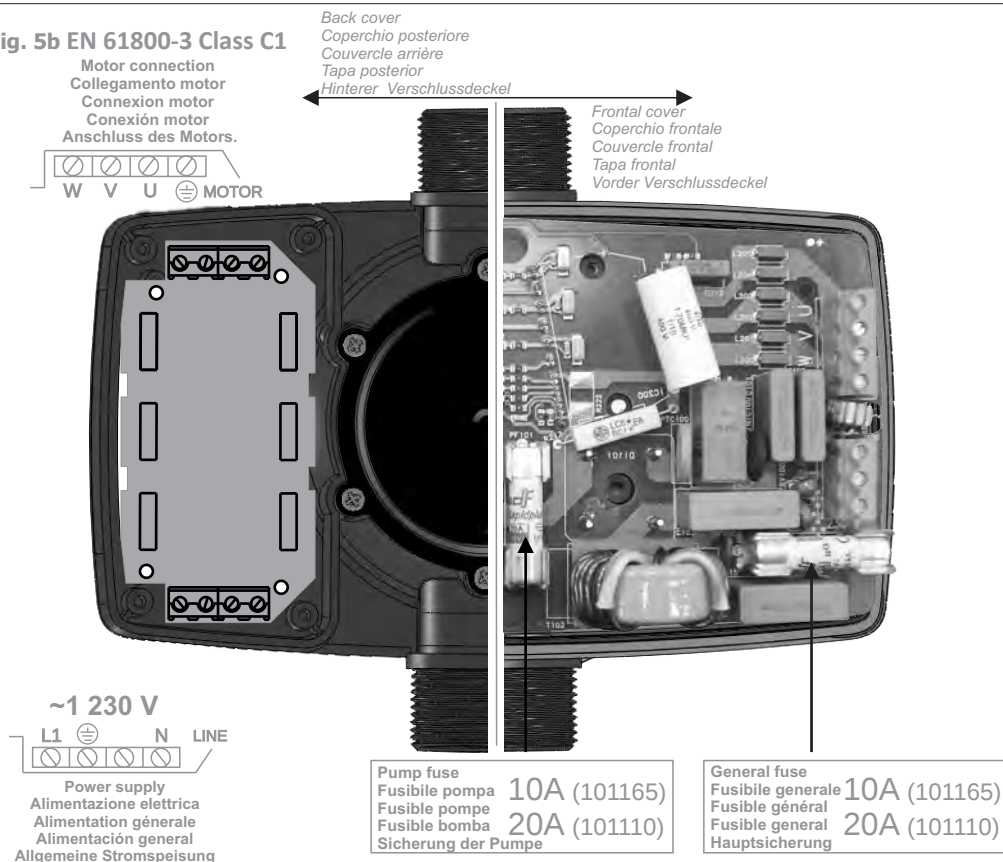


Fig. 5b EN 61800-3 Class C1



Three-phase motor connection
 Collegamento motor a tre fasi
 Connexion motor triphasée
 Conexión motor trifásico
 Anschluss des Dreiphasenmotors.

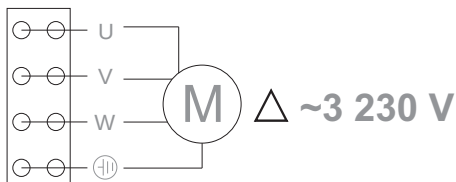


Fig. 6a EN 61800-3 Class C2

Single-phase motor connection
 Collegamento motor monofase
 Connexion motor monophasée
 Conexión motor monofásico
 Anschluss des Einphasenmotors.

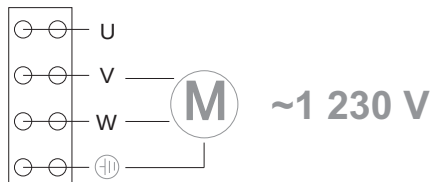


Fig. 7a EN 61800-3 Class C2

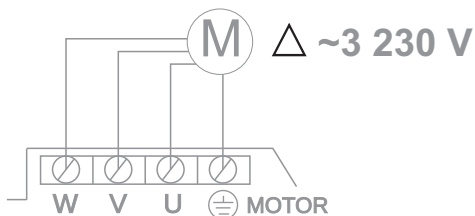


Fig. 6b EN 61800-3 Class C1

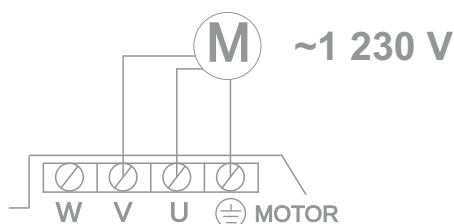


Fig. 7b EN 61800-3 Class C1

- The grey cable should be disabled by its end and isolated electrically using isolating tape.
- Si le dispositif est déjà câblé il faut uniquement d'isoler électriquement le câble gris.
- Se il dispositivo viene già cablato, basta soltanto annullare il filo grigio per il suo fine esterno e isolare elettricamente.
- Si el dispositivo viene cableado de fábrica bastará únicamente anular el cable gris por su extremo y aislarlo eléctricamente.
- Wird das Gerät werkseitig verkabelt geliefert, so muss nur das graue Kabel an seinem Ende stillgelegt und stromisoliert werden.

**Fig. 8 LEVEL CONNECTION / COLLEGAMENTO LIVELLO / CONNEXION NIVEAU / CONEXION NIVEL
 ANSCHLÜSSE DER FÜLLSTANDSONDE**

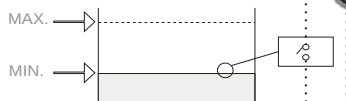


Fig.9 CONNECTION MASTER&SLAVE COMMUNICATION / COLLEGAMENTO COMUNICAZIONE MASTER&SLAVE /
CONNEXION COMMUNICATION MASTER&SLAVE / CONEXIÓN COMUNICACIÓN MASTER&SLAVE /
ANSCHLUSS DER MASTER&SLAVE VERBINDUNG

EN

- 1. Unscrew the cover and loosen the PG located on its basis.
- 2. Insert the communications cord through the PG.
- 3. Remove the connector from its housing.
- 4. Set up the connection following the schema 9.
- 5. Relocate the connectors on its housing. Screw the cover and the PG.

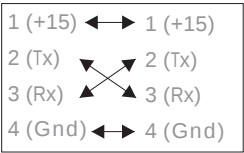


FR

- 1. Dévissez la couverture et détachez la PG situé sur sa base.
- 2. Introduire le câble de communications à travers la PG.
- 3. Enlevez le connecteur de son logement.
- 4. Effectuez le raccordement suivant le schéma 9.
- 5. Remplacez les connecteurs sur son logement. Vissez la couverture et la PG.

IT

- 1. Sviti la copertura ed allenti la PG posizionata sulla relativa base
- 2. Introduca il cavo delle comunicazioni attraverso la PG.
- 3. Rimuova il connettore del relativo alloggiamento.
- 4. Fare il collegamento come è indicato in fig. 9.
- 5. Riassegni i connettori sul relativo alloggiamento. Avviti la copertura e la PG.



SPEEDMATIC 1



SPEEDMATIC 2



SPEEDMATIC 1		SPEEDMATIC 2
① (BLUE/BLU/AZUL/BLAU)	↔	① (BLUE/BLU/AZUL/BLAU)
② (BROWN/MARRONE/MARRÓN/BRAUN)	↔	② (GREY/GRIGIO/GRIS/GRAU)
③ (GREY/GRIGIO/GRIS/GRAU)	↔	③ (BROWN/MARRONE/MARRÓN/BRAUN)
④ (BLACK/NERO/NEGRO/SCHWARZ)	↔	④ (BLACK/NERO/NEGRO/SCHWARZ)

Fig.9 CONNECTION MASTER&SLAVE COMMUNICATION / COLLEGAMENTO COMUNICAZIONE MASTER&SLAVE /
CONNEXION COMMUNICATION MASTER&SLAVE / CONEXIÓN COMUNICACIÓN MASTER&SLAVE /
ANSCHLUSS DER MASTER&SLAVE VERBINDUNG

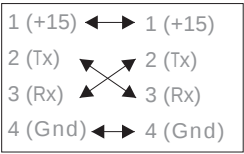
ES

1. Desatornillar la tapa y aflojar el PG pasacables situado en su base.
2. Introducir el cable de comunicaciones a través del PG.
3. Sacar la regleta de conexiones de su alojamiento.
4. Realizar el conexionado como se indica en la fig. 9.
5. Recolocar la regleta en su asiento. Atornillar la tapa y roscar el PG pasacables.



D

1. Den Verschlussdeckel abschrauben und die PG-Kabeldurchführung lockern.
2. Das Verbindungskabel durch die PG-Kabeldurchführung einführen.
3. Die Anschlussleiste von ihrem Lager abnehmen.
4. Die Anschlüsse unter Befolgung der Anleitungen auf Abb. 9b herstellen.
5. Die Anschlussleiste wieder auf ihrem Lager befestigen.
Den Verschlussdeckel anschrauben und die PG-Kabeldurchführung einschrauben.



SPEEDMATIC 1



SPEEDMATIC 2



SPEEDMATIC 1		SPEEDMATIC 2
① (BLUE/BLU/AZUL/BLAU)	↔	① (BLUE/BLU/AZUL/BLAU)
② (BROWN/MARRONE/MARRÓN/BRAUN)	↔	② (GREY/GRIGIO/GRIS/GRAU)
③ (GREY/GRIGIO/GRIS/GRAU)	↔	③ (BROWN/MARRONE/MARRÓN/BRAUN)
④ (BLACK/NERO/NEGRO/SCHWARZ)	↔	④ (BLACK/NERO/NEGRO/SCHWARZ)

OPERATION

SPEEDMATIC is a compact automatic control device (see fig.2) designed for the single and three-phase pump's automation, with an electronic system managed by a software responding to the rigorous requirements of efficiency and safety of the most important builders of pumps. It includes a frequency inverter that regulates the speed of the pump in order to keep constant the pressure independently of the flow given.

The system incorporates a LCD screen where the parameters configuration is very easy and intuitive. Once the configuration parameters are introduced, the SPEEDMATIC manages the start-up of the pump and the frequency inverter. It assures a constant pressure and an important costs reduction because at any time the control will feed the system with the right and necessary output, obtaining a maximum energetic efficiency. In order to establish the ideal pressure in the installation is suitable to consider following criteria:

Hm: Max. water column height in m. It depends on the number of floors and it corresponds to the height from the pump to the last floor. Every 10 m of height corresponds approximately to 1 bar (0.98) bar.

Pw: Available minimum pressure in last floor (usually 1.5 bar).

Pc: Pressure drop. It can be considered with a simplified criteria as 0.033 bar/m.

Prmin: Minimum resultant pressure. It is the sum of the previous pressures and it will be the operating pressure of the pump.

Example for a 5 floors building (15 m) with pump placed at level 0:

$Hm = 15 \text{ m} \rightarrow 1.5 \text{ bar}$ $Pw = 1.5 \text{ bar}$ $Pc = 15 \times 0.033 \text{ bar} \approx 0.5 \text{ bar}$ $Prmin = 1.5 + 1.5 + 0.5 = 3.5 \text{ bar}$

MASTER AND SLAVE OPERATION

The group MASTER-SLAVE is constituted by a device configured as SPEEDMATIC MASTER - responsible of the group's control - and a SPEEDMATIC configured as SLAVE controlled by the master device.

Due to the alternating sequence of operation, the SPEEDMATIC configured as MASTER began the first cycle as MAIN device - its pump is the first to start - but in the next cycle it becomes SECONDARY - its pump is the second to start - and so on.

Therefore, the fact that a device is configured as MASTER involves control of the group but this fact does not avoid its work alternately as SECONDARY device.

CLASSIFICATION AND TYPE

According to IEC 60730-1 and EN 60730-1 this unit is a control electronic device for pressure systems of independent assembly, action type 1Y (transistor output). Operating value: flow 2.5 l/min. Degree of contamination 2 (clean environment).

Impulse rating voltage: cat II / 2500V. Applied temperature for the ball pressure test: enclosure (75°C) and PCB (125°C).

According to EN 61800-3 the unit is class C2 - class C1 under request with integrated back filter.

MAIN CHARACTERISTICS

- DN inlet and outlet ports G1 1/4 " male ISO 228.
- Frequency inverter for the pump control.
- Control and safety system against over-intensities.
- Control and safety system against dry operation.
- **ART** function (Automatic Reset Test). If the device has been stopped due to the action of the safety system against over-intensities, the **ART** tries to connect the pump, with a programmed periodicity because the water supply could have been restored
- Automatic restore system after an interruption of power supply. System is activated in AUTOMATIC mode keeping the configuration parameters (see "CONFIGURATION" chapter).
- Inside pressure transducer.
- Control panel (Fig.1):
 - LCD screen, for alarm menu with permanent pressure indication.
 - START/STOP push-button to act by hand each one of the pumps
 - ENTER pushbutton to save data in memory.
 - ON/OFF pushbutton to change from AUTOMATIC to MANUAL mode or vice versa.
 - MENU push-button
 - Keyboard for the access to programming menu.
 - Digital gauge.
- Connections for detection of minimum water level in aspiration tank. This system is independent of the safety against dry operation. Is optional.
- **AIS** function (Anti-Ice System). If temperatures under 5 °C are detected it will start periodically the pump avoiding the freezing of the water inside the pump.

 **For environment temperatures under 0°C it is very important to take measures to avoid water freezing.**

- Register of operational controls: information about operating hours, counter of starts, counter of connections to the power supply.

 Register of alarms: information about type and number of alarms since the starting up of the device. Mode MASTER & SLAVE. Communication with another device SPEEDMATIC to work in group. Optional.

TECHNICAL CHARACTERISTICS.

	101110 ⁽¹⁾	101165 ⁽²⁾
■ Power supply voltage	~1x230 ± 20% V	~1x230 ± 20% V
■ Frequency	50/60 Hz	50/60 Hz
■ Max. current each phase	10 A (~3 230 V) / 9A (~1 230 V)	6 A (~3 230 V) / 5A (~1 230 V)
■ Max. peak of current	20% during 10"	20% during 10"
■ Max. operating pressure	15 bar	10 bar
■ Max. set pressure	12 bar	8 bar
■ Protection index	Ip55	IP55
■ Max. water temperature	40°C	40°C
■ Max. environment temperature	0-50°C	0-50°C
■ Max. flow	15.000 l/h	10.000 l/h

(1) There is a 20 A fuse for the INVERTER and another 10 A fuse for the main supply.

(2) There is a 10 A fuse for the INVERTER and another 20 A fuse for the main supply.

⚠️ HYDRAULIC CONNECTIONS (fig. 2 y 3)

Before proceeding with hydraulic connection it is essential to install a non-return valve in the pump's inlet.

In case of assembly in group, it must be mounted a collector for the communication of the devices water outputs. The inlet can proceed from a common or independent origin for each device.

The SPEEDMATIC control device must be connected in vertical position (Fig.2), the inlet port (1 1/4" male) directly to the main pump discharge and the outlet port (1 1/4" male) at the main network.

If the pump is operating in full aspiration, is strongly recommended to install the external level detector (Fig.8) because the inner flow sensor of the Speedmatic will protect the pump but it will not avoid loss priming in case of dry-running.

⚡ ELECTRIC CONNECTION (fig. 4, 5, 6, 7, 8 and 9)

Before doing manipulations inside the device, it should be disconnected of the electric supply and after disabling, wait for 2 minutes in order to avoid electrical discharges.

- Use cables type H07RN-F with section enough to the power installed:
- Power supply: $s \leq 1,5 \text{ mm}^2$.
- Motor supply: $s \leq 1 \text{ mm}^2$ depending on the cable length (see fig.4).
- Verify if the power supply is 220/240 V. Dismount the cover of the electronic circuit and carry out the connections according to the indications located on the connection strip base.
- Do the power supply connection (being sure there is a good earth connection): **L1 N ⊕** Do the connection by mean of magnetothermic switch in OFF mode.
- The earth conductor must be longer than the others. It will be the first one to be mounted during the assembly and the last one The earth conductor must be longer than the others. It will be the first one to be mounted during the assembly and the last one to disconnect during disassembling.
- Do the pump connection (Fig. 5, 6 and 7). For the connection of the device to a single-phase motor, the grey cable corresponding to "U" will not be connected as indicated in 7b diagram (in order to disable the blue cable the rest will be cut until the jacket of the cable gland and it will be isolated using the insulating tape) - THE INSIDE OF THE DEVICE SHOULD NOT BE MANIPULATED.
- Min. level control (optional). There is an input for stopping the pump as soon as is disconnected the external switch of minimum level. See fig.8.

M → Connection of 2 devices (optional): for the communication of 2 devices it will be used a cable of $4 \times 0.25 \text{ mm}^2$, it will be inserted throw the PG cable gland located in the bottom/lateral of the device. See Fig.9.

WARNING! Wrong connections could spoil the electronic circuit. The manufacturer declines all responsibility in damages caused by wrong connection.

⚠️ START UP (SINGLE DEVICE).

- Be sure that the pump is correctly primed
- Connect the SPEEDMATIC to the electric supply with the magnetothermic switch, FAILURE led light will be ON. Wait for 10 seconds while the SPEEDMATIC is doing the autotest. Once it finishes, led light FAILURE is OFF and led light LINE is ON. The LCD screen will show message "SPEEDMATIC" and immediately the language display of the configuration mode.
- The device is ready for being configured.

M → START UP (2 DEVICES ASSEMBLY).

If we wish to mount 2 devices for working in groups, previous point should be exactly followed - the order of connection is irrelevant. During the configuration process we will be able to choose which device is the **MASTER**.

⚠️ CONFIGURATION OF THE MOTOR SUPPLY (single-phase / three-phases):

The device is supplied by default for connection to an three-phase motor. If it must be connected to a single-phase motor the following steps should be followed:

- The electrical connection will be done following the indications of the section "ELECTRICAL CONNECTION" for single-phase motors. (see scheme fig.6).
- Once the device is connected, we will press simultaneously the pushbuttons, **MENU + ENTER**, to enter in the expert menu. In this menu can be modified variables of the program (integration, acceleration and deceleration) and also to be chosen the type of supply of the motor. It is not recommended the modification of the variables.
- Values are changed using **▲ ▼** and pushing **ENTER** to memorize changes. Use **ENTER** 3 times to confirm the initial values of the program variables (integration, acceleration and deceleration) and next, using the pushbuttons **▲ ▼** we will choose single-phase or three-phase. Push **ENTER** to quit the expert menu. Example:

MENU	+	ENTER	INTEGRATION 20	ENTER	ACCELERATION 10	ENTER	DECELERATION 10	ENTER	MOTOR THREE-P U V W	▼	MOTOR SINGLE-P V W	ENTER
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- The device must be unswitched from the electric supply and wait until the LCD will be off. Turn on the device again.



CONFIGURATION. Using ▲▼ we can change the values and press **ENTER** for validation. Whenever we want to quit the configuration sequence press **MENU**. After every **ENTER** it will appear automatically the different screens that constitute the configuration sequence.

P LINE INPUT P 00,0 bar 00,0	To start configuration sequence push MENU during 3".	MENU
SET UP MENU	Being inside configuration menu we are having access to the phase of installation	3"
LANGUAGE ENGLISH	By mean of keys ▲▼ we can choose the languages: "LANGUAGE ENGLISH", "LANGUE FRANÇAISE", "LINGUA ITALIANA" and "IDIOMA ESPAÑOL".	ENTER
MAX. INT. PUMP OFF	By mean of keys ▲▼ input the nominal intensity value in A of pump 1 enabling the thermal protection. This value is located over the characteristics plate of the motor. Press ENTER for validation.	ENTER
ROTATION SENSE 0 Hz	Using the START/STOP pushbutton verify the rotation sense. By mean of keys ▲▼(0/1) we can change it. Press ENTER for validation.	ENTER
MIN. SPEED 15 Hz	Using ▲ we can increase the lower limit of the speed of rotation of the pump's motor.	ENTER
LEVEL PROBE NO	If the installation does not have level probe press ENTER to validate NO. If the installation has a level probe, use keys ▲▼ to change NO by YES.	ENTER
PROGRAMMING	Being inside configuration menu we are having access to the phase of programming.	ENTER
SET POINT 2,0 bar	This will be the system operating pressure. Use keys ▲▼ for modify the initial value (2 bar). WARNING ! The input pressure must be at least 1 bar lower than the maximum pressure of the pumps. NOTE: In case of group assembly, all the system operates at the pressure set in the MASTER device, so that the configuration of set pressure in the slave device is superfluous.	ENTER
DIF. START 0,3 bar	The default value is 0,3 bar. This value of pressure is the one that the system will subtract to the input pressure, resulting the final pressure to which the system will set in motion when the hydraulic network has a demand. Using keys ▲▼ to modify the initial value. It is recommended to maintain this value between 0,3 and 0,6 bar. Example: - Input pressure: 2 bar. - Differential start: 0,3 bar. - Final start pressure: 2 - 0,3 = 1,7 bar. The value should be greater as much as smaller be the accumulation and vice versa.	ENTER
TIMER STOP 5 s	TIMER STOP default value is 5". This will be the employed time by the system in stopping once ceased the consumption in all the installation. Using keys ▲▼ we can modify the initial value.	ENTER
VIEW MODE NORMAL	There are 2 view modes to choose: - NORMAL: it is visualized "P LINE" (real pressure of the installation) and "INPUT P" (configured pressure). - SERVICE: it is visualized "Hz" (working frequency of the inverter), "REF" (configured pressure), "PRESS" (real pressure of the installation) y "FL" (flow sensor state).	ENTER
SERIAL CONTROL SLAVE	The SPEEDMATIC is configured by default as "SLAVE". In case of individual assembly just confirm "SLAVE" by pushing ENTER . In case of group assembly (M-S), we will do the same for the slave device. For the "MASTER" device we will change "SLAVE" by "MASTER" pushing ▼. In case of assembly of more than 2 devices, we will change "SLAVE" by "SWITCHER" pushing ▼ twice - see instructions of our station SPEEDCENTER .	ENTER
DIRECTION CH 1	It allows to set the communication channel. Push ENTER .	ENTER
P LINE INPUT P 00,0 bar 00,0	After pressing ENTER pushbutton, the system will remain configured showing the type of view chosen in the previous section, Press AUTOMATIC in order to quit manual mode. In case of group assembly press AUTOMATIC only in the device configured as MASTER.	AUTOMATIC

In case of group assembly, after pressing **AUTOMATIC** in the MASTER device, the **AUTOMATIC LED LIGHT** of the SLAVE device will start to flash intermittently, indicating that communication between both devices is ready. If this does not happen verify the connection (fig 9).

ALARMS FOR SINGLE ASSEMBLY:

In case of simultaneous alarms, quit the automatic mode and go to manual mode, pressing the pushbutton **AUTOMATIC ON/OFF** (led light PUMP will turn off). Using key **▲▼** will be displayed the successive alarms. Once visualized, for leaving the menu, press **ENTER** returning to **MANUAL** mode.

TYPE LED FAILURE ●	DESCRIPTION	SYSTEM REACTION	SOLUTION
A1 DRY RUNNING * Failure verification ● Final failure	If the system detects dry running during more than 10 seconds, it will stop the pump and the ART (Automatic ResetTest) will be activated.	After 5 minutes ART system will start again the pump during 30 seconds, trying to restore the system. In case of persistent lack of water, it will try it again every 30 minutes for 24 hours. If after all these cycles, the system still detects lack of water, pumps will remain permanently out of order until the damage will be repaired.	Dry running, it has been activated the safety system: you should verify the feeding of the hydraulic network. The pumps can be primed using the push-button START/STOP (the led light AUTOMATIC should be off, if it is not, press the push-button to disable it). Special case: If the pump cannot provide the programmed pressure (configuration mistake) the Speedmatic reacts as it was dry-running.
A2 OVER-INTENSITY * Failure verification ● Final failure	The system pumps are protected against over currents by mean of the intensity values established in the intensity menu. These over currents are produced generally by dysfunctions in the pump or in the electric supply.	When detecting the thermal failure, the pump will be automatically stopped. The system will try again to restart the pump when the demand of consumption require it. The control system will carry out 4 attempts in this circumstances. If the system remain locked after the 4th attempt, the pump will remain definitively out of order.	Verify the state of the pump, for example the impeller could be blocked. Verify intensity values introduced in the configuration menu. Once the problem have been solved the operation will be restored going to the "SET UP" menu (see the chapter configuration) and configuring the adequate intensity values.
A3 DISCONNECTED P. ● Final failure	The SPEEDMATIC has an electronic safety system against short circuits as well as a 20 A fuse.	The device is disconnected.	The wound of the motor and the pump consumption should be verified. Once the problem have been solved the operation will be restored going to the "SET UP" menu (see the chapter configuration) and introducing the adequate intensity values. Verify the 20 A fuses (see Fig.3), in case of being melt contact with technical service.
A5 TRANSDUCER ● Final failure	The transducer damages are showed in the SPEEDMATIC's LCD screen.	The device operation is interrupted.	Contact with technical service.
A6 EXCESSIVE TEMP. ● Final failure	The system has a cooling device to keep the INVERTER in optimum working conditions.	If an excessive temperature is reached the own system leaves the inverter out of service and as consequence the pump too.	Verify the temperature of the water, it should be under 40 °C and the temperature environment should be under 50 °C. Contact with technical service.
A7 SHORTCIRCUIT ● Final failure	The Speedmatic has an electronic system for protection against short circuits as well as a fuse of 20 A.	The pump remains stopped for 10". Then it starts again - 4 attempts. If the problem is not solved, the pump will remain definitively out of order.	Check the pump, if the problem persists, contact the technical service.
A8 OVERVOLTAGE * Failure verification	The SPEEDMATIC has an electronic safety system against overvoltages.	In case of overvoltage the system remains stopped until an adequate value of voltage is reached. In this case, the system is automatically restored.	Check the electric supply.
A9 UNDERVOLTAGE * Failure verification	The SPEEDMATIC has an electronic safety system against too low supply voltages.	In case of undervoltage the system remains stopped until an adequate value of voltage is reached. In this case, the system is automatically restored.	Check the electric supply.
BLANK SCREEN	Blank screen.		Check the electric supply 230 V. In case of being in right conditions, the general fuse (20 A), located in the main plate (fig 3) should be verified.

M → ALARMS FOR GROUP ASSEMBLY:

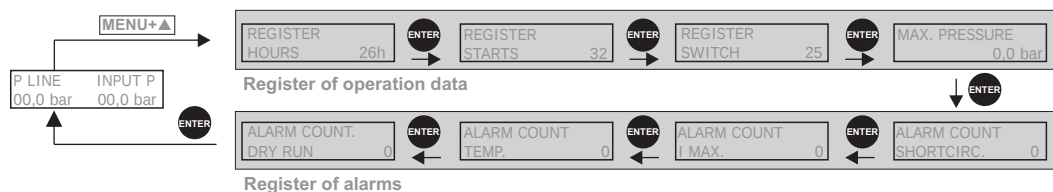
The alarms for assembled devices, are similar to those of the individual one with the specific particularities of operation with 2 communicated devices. Depending on the system's reaction there are 4 types of alarm:

- 1 - **COMMUNICATION FAILURE:** not any alarm is activated. Both devices continue operating independently as SPEEDMATIC 101110.
- 2 - **LACK OF WATER:** if there is a lack of water alarm in a single pump, the other one assumes the role of "main device", if there is an over-demand during next working cycles, the system will try to restore the device in failure. If the device is restored in these conditions then it will be also restored the alternated working mode. If there is lack of water on both devices, the system will activate the ART system in the MASTER unit.
- 3 - **MINIMAL LEVEL IN THE TANK:** the alarm "LACK OF WATER" is activated and the device remains in failure. It will be automatically restored when the level sensor detects water again.
- 4 - **REST OF ALARMS:** If the alarm has occurred in a single device, the other will act as "main device". The system will try to restore the disabled device only in case of over demand, after 4 successive attempts without success the device is turned off, it should be restored manually. In case of alarms in both devices the system performs 4 restore attempts, if it does not succeed the system is disabled.

To restore manually a device disabled by an alarm push **AUTOMATIC ON / OFF** in MASTER device and then **ENTER** in the device with the alarm.

REGISTER OF OPERATION DATA AND ALARMS.

By using simultaneously **MENU + ▲** during 3" is acceded to **REGISTER OF OPERATION DATA AND ALARMS**, by mean of **ENTER** we can advance through the sequence, once finished the sequence we come back to the main display. This is all the sequence:



- REGISTER HOURS. Counter of total time that the pump has been operating.
- REGISTER STARTS. Number of cycles of operation, a cycle is a start and a stop.
- REGISTER SWITCH. Number of connections to the electric supply.
- MAX PRESSURE. Maximum pressure reached by the installation. It allows the detection of water hammer.
- ALARM COUNT. SHORTCIRC. Number of short circuit alarms.
- ALARM COUNT I MAX. Number of overcurrent alarms.
- ALARM COUNT. TEMP. Number of alarms by excessive temperature.
- ALARM COUNT DRY RUN. Number of dry-running alarms.

All the records are saved even if the device has been disconnected from the electric supply.

DÉCLARATION "CE" DE CONFORMITÉ

COELBO CONTROL SYSTEM, S.L. déclare que les matériels désignés ci-dessous, sont conformes aux dispositions des suivantes directives européennes:

2006/95/CE: Matériel électrique de Basse Tension.

2004/108/CE Compatibilité électromagnétique.

2002/95/CE Directive RoHS

Nom du produit/Modèle: SPEEDMATIC/101110-101165

Normes européennes harmonisées:

UNE EN 60730-1:1998+A11:1998+A2:1998+A14:1998+A15:1998+A16:1998+A17:2001+ERRATUM A1:2001+A18:2003

UNE EN 60730-2-6:1997+A1:1998+A2:1999+CORR A1:2001+CORR A2:01

EN 61800-3:2004 Adjustable speed electrical power drive systems Part 3

"CE" STAMENT OF COMPLIANCE.

COELBO CONTROL SYSTEM, S.L. We state, on our's own responsibility, that all materials herewith related comply with the following European standards:

2006/95/EC Low Voltage Directive on Electrical Safety

2004/108/CE Electromagnetic Compatibility.

2002/95/CE RoHS Directive

Product's name/Type: SPEEDMATIC/101110-101165

As per the European Standards:

UNE EN 60730-1:1998+A11:1998+A2:1998+A14:1998+A15:1998+A16:1998+A17:2001+ERRATUM A1:2001+A18:2003

UNE EN 60730-2-6:1997+A1:1998+A2:1999+CORR A1:2001+CORR A2:01

EN 61800-3:2004 Adjustable speed electrical power drive systems Part 3

DICHIARAZIONE DI CONFORMITÀ "CE".

COELBO CONTROL SYSTEM, S.L. Dichiaramo, sotto la nostra responsabilità, che i materiali qui sotto sono conforme alle disposizioni delle seguenti direttive europee:

2006/95/CE Direttiva Bassa Tensione.

2004/108/CE Compatibilità Elettromagnetica.

2002/95/CE Direttiva RoHS

Nome del prodotto/Modelli: SPEEDMATIC/101110-101165

Norme europee armonizzate:

UNE EN 60730-1:1998+A11:1998+A2:1998+A14:1998+A15:1998+A16:1998+A17:2001+ERRATUM A1:2001+A18:2003

UNE EN 60730-2-6:1997+A1:1998+A2:1999+CORR A1:2001+CORR A2:01

EN 61800-3:2004 Adjustable speed electrical power drive systems Part 3

DECLARACIÓN DE CONFORMIDAD "CE".

COELBO CONTROL SYSTEM, S.L. Declaramos, bajo nuestra responsabilidad, que los materiales designados en la presente, están conforme a las disposiciones de las siguientes directivas europeas:

2006/95/CE Material eléctrico de Baja Tensión.

2004/108/CE Compatibilidad Electromagnética.

2002/95/CE Directiva RoHS

Nombre del producto/Modelos: SPEEDMATIC/101110-101165

Normas europeas armonizadas:

UNE EN 60730-1:1998+A11:1998+A2:1998+A14:1998+A15:1998+A16:1998+A17:2001+ERRATUM A1:2001+A18:2003

UNE EN 60730-2-6:1997+A1:1998+A2:1999+CORR A1:2001+CORR A2:01

EN 61800-3:2004 Adjustable speed electrical power drive systems Part 3

"CE" KONFORMITÄTSERKLÄRUNG.

COELBO CONTROL SYSTEM, S.L. Wir erklären in eigener Verantwortung, dass die in diesem Schriftstück genannten Materialien mit den Vorschriften der folgenden europäischen Richtlinien konform sind:

2006/95/EG Elektrische Betriebsmittel im Sinne der Niederspannungsrichtlinie.

2004/108/EG Elektromagnetische Verträglichkeit.

2002/95/EG RoHS-Richtlinie

Produktname/Modelle: SPEEDMATIC/101110-101165

Harmonisierte europäische Normen:

UNE EN 60730-1:1998+A11:1998+A2:1998+A14:1998+A15:1998+A16:1998+A17:2001+ERRATUM A1:2001+A18:2003

UNE EN 60730-2-6:1997+A1:1998+A2:1999+CORR A1:2001+CORR A2:01

EN 61800-3:2004 Adjustable speed electrical power drive systems Part 3

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