

HANDBOOK



INTELLISOFTPOCKET

CONTENTS

1. Compared Day constations	D 2
1>General Presentation	Page 3
2 > Software setup and starting	Page 3
3 > Menu presentation	Page 5
3.1 > « Check » menu	Page 5
3.2 > « Setting » menu	Page 6
3.3 > « Change » menu	Page 6
3.4 > « Operate » menu	Page 7
3.5 > « Acquisition » menu	Page 8
4 > Technicals characteristics	Page 8
4.1 >The data sheet	Page 8
4.2 > Monitoring actuator activity	Page 10
4.3 > Alarms	Page 10
5 > Adjusting an actuator on a valve	Page 11
6>The torque	Page 14
6.1 >Torque setting	Page 15
6.2 > Measured torque	Page 15
7 > Commands	Page 16
7.1 > Auxiliary remote commands	Page 16
7.2 > Local command	Page 18
7.3 > Local stop	Page 18
7.4 > Remote stop	Page 18
7.5 > Priorities	Page 18
7.6 > Fault tolerance ESD	Page 19
7.7 > Partial stroke	Page 19
8 > Indications	Page 20
8.1 > Local indications	Page 20
8.2 > Remote indication	Page 21
9 >Timing control during actuation	Page 24
10 > Positioner	Page 25
11 > Position indication	Page 26
12 > Fieldbus	Page 27
12.1 > Profibus	Page 27
12.2 > Modbus	Page 28
12.3 > Fieldbus Foundation	Page 28
13 > Save and download a configuration file	Page 29
13.1 > Read and save the actuator configuration	Page 29
13.2 > Read or modify a configuration file	Page 30
13.3 > Download a file into the actuator	Page 31

1 > GENERAL PRESENTATION

The INTELLI+ actuator is equipped with a two-way (read and write) infrared link used to communicate with the INTELLIPOCKET software installed on a PocketPC.

The INTELLIPOCKET software provides on-screen acces to all INTELLI+ functions. Like the INTELLISOFT software, it is also used to load instantaneously preset configurations and to acquire torque/position graph of the last electrical actuation.

2 > SOFTWARE SETUP AND STARTING

INTELLIPOCKET is designed to Windows Mobile 2003. The installation of Microsoft Compact Framework V1.0 SP3 (or later version) and OpenNETCF V1.2 library (or later version) on the PocketPC is necessary to the INTELLIPOCKET using.

INTELLIPOCKET installation instructions with Windows Mobile 2003:

Microsoft Compact Framework installation:

- Check a Microsoft Compact Framework presence to the PocketPC. If this version is later than V1.0 SP3, go to OpenNETCF installation.
- In other case, install « Microsoft .NET Compact Framework » to the PocketPC. The V1.0 SP3 version is available to this directory:
- « ...\ZRessources\NETCFSetup_SP3.msi ».
- Follow instructions on the screen.

OpenNETCF library installation:

- Check an OpenNETCF presence to the PocketPC.If this version is later than V1.2, go to INTELLI-POCKET installation.
- In other case, install « OpenNETCF » library to the PocketPC.
- The V1.2 version is available to this directory
- Follow instructions on the screen.

INTELLIPOCKET V2.0 installation:

- The INTELLIPOCKET V2.0 version is available to this directory:
- « ...\IntelliPocket V2.0\Setup\Release\IntelliPocket Setup.msi ».
- Follow instructions on the screen.

The software is normally installed and the INTELLIPOCKET icon must be visible on "Start\Programs" to the PocketPC.







To start INTELLIPOCKET, click on the icon located on "Start\Programs" and the following window appears.

You can choose your language with this window. This language attends you for all manipulations with INTELLIPOCKET. Click on your language to continu with the main window or click on "Exit" to quit INTELLIPOCKET.

The main menu (in English) is as follows:



The main menu opening starts a connection attempt with an actuator. To communicate with INTELLI+, set up the actuator in local mode, and they got inferred connection of Parliat C. and activator force to force

then set infrared connection of PocketPC and actuator face to face. The connection is established when "Ir" is displayed on the actuator display and the following icon on the PocketPC screen.



After a few moments, if the connection was not established, the "Lost communication" message appears. In that case, you can only read a configuration file with the "Open" iron:



You can try again to establish a communication. Set infrared port face to face until you can see the rights icons on the devices.

3 > MENU PRESENTATION

Notes:

For all parameters, the default configuration is written in bold type for each INTELLIPOCKET window.

Some parameters are manufacturer data and these parameters cannot be changed by users but only check to inform users.

For all data entry, check that the enter value follows the range indicates in this document. An out of range, wrong or missing value will not be saved and the current window will not be quit when you click on the "Ok" button.

3.1 > « CHECK » MENU

The "Check" menu permits to consult (read only) characteristics and settings of an actuator connected or an actuator configuration saved in a configuration file. In the main menu, click on the "Check" button to display this window.



3.2 > « SETTING » MENU

The "Setting" menu permits to adjust an actuator and to configure this adjustment. In the main menu, click on the "Set up" button to display this window.

Return Closing mode Direction to close Closing setting Opening setting

3.3 > « CHANGE » MENU



The "Change" menu is similar to the "Check" menu. But this menu permits to change actuator parameters. In the main

menu, click on the "Change" button to display this window.

Note:

Parameters modifications will be really saved when you confirm modifications by a click on the "Ok" button of the window entitled "Valid modifications?" which appear when you quit the "Change" menu.

3.4 > « OPERATE » MENU

The "Operate" menu appears with a click on the "Operate" button in the main menu. This window permits to open or close the valve. Click on the "Open" button to open the valve or click on the "Close" button to close the valve. Click on the "Stop" button to stop operations.

Current position (% of valve opening) and torque (% of actuator maximum torque) are readable on this window.





An operation by proportional command is possible with a click on the "Proportionnal command" button. This action displays this window.

This command is used to position the valve in accordance with a set point. Select a position to reached (% of valve opening) in the "Signal" frame and start the operation with a click on the "Ok" button. The valve goes to this selected position. The "Stop" button stops the operation.



5 ///////////

3.5 > « ACQUISITION » MENU

The "Acquisition" main permits to display the torque/position curves of the last electrical opening and closing.

Note

These curves are not recorded during actuator settings operations. It is necessary to operate full stroke, open and close, to display the curves.

Return Gpering Cloving

CHARACTERIST

Tyl

46 17:32

C

second(s)

milimeter(s)

tour(s).

Battery

⊕ No

Return

Ratio position system 1/ o

External gear ratio 1/

O Explosion-proof Waterpre

.ocked motor

Thread mm

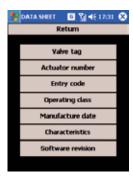
Motor — O 1 phase

(a) 3 phases

Measured stroke

4 > TECHNICALS CHARACTERISTICS

4.1 > THE DATA SHEET



The data sheet is available with the "Check/Data sheet" menu to consultation and the "Change/Data sheet" menu to modifications.

This menu gives following informations about the actuator:

- Valve tag number (manufacturer data)
- Actuator number (manufacturer data)
- Entry code (user data)
- Operating class: On-off, classe III ou classe II (manufacturer data)
- Manufacture date (manufacturer data)
- Softwares revisions of INTELLI+ and INTELLIPOCKET (manufacturer data)

A click on the "Characteristics" button display this window with actuator characteristics.

- Locked motor: Indicates the time the motor is locked while energized before removal of power supply. (manufacturer data) (range: 1...25s)
- Reverse delay: Indicates the stop timeout following reversion of direction of rotation. (manufacturer data) (range: 50...500ms by 50ms step)
- Ratio position system: Indication of the reduction ratio between output shaft and position sensor, to display the stroke in number of revolutions. (manufacturer data) (range: 0,01...9,90)

Note: use "," character to enter a point and not use "."

- External gear ratio: Indicates the reduction ratio of an additional reduction gear. For example, a gear with ratio 1/120, enter 120. Stroke will be now in degrees. (manufacturer data) (range: 1...65535)
- Thread mm: Indicates the pitch of a linear system allowing the stroke to be displayed in mm, rather than in number of revolutions. (manufacturer data) (range: 0...50mm)
- Measured stroke: Indicates the stroke measured when adjusting the valve. (manufacturer data)
- Motor: Specifies whether the motor is three-phase or single-phase. (manufacturer data)
- Battery(*): Specifies a battery presence. (manufacturer data)
- Protection: Specifies the protection type, waterproof or explosion-proof. (manufacturer data)

4.2 > MONITORING ACTUATOR ACTIVITY

Datas about actuator activity, since its release date, are available with the "Check/Activity" menu. This following window is displayed.

Following data are displayed:

- Number of starts or running time to obtain the accumulated figures since actuator manufacturing. (partials counters are also available)
- Starts last 12h: Indicate the number of actuator's starts during the last 12 hours. This data permit to know the recent activity of the actuator.
- Handwhell action: Indicates wether the handwhell has been actuated since the last electrical actuation (only deviations in excess of 10% of stroke are stored)

Note:

Partials counters can be initialized with the "Change" menu.

4.3 > ALARMS

Alarms are used for fault location purposes. They are not permanent and disappear when the fault is cleared. The following icon is display to indicate the presence of an alarm.



□ Va 46 17:30 Ø

Torque switch
Travel switch
24V auxiliary
Battery Low

Return

ALARMS

Locked motor OP.

Locked motor CL.

Direction of rotation OP.

Torque sensor

Position sensor
Direction of rotation CL

Overtravel
Too many starts

Loss of phase Loss of signal

Thermal overload

Configuration memory

Too long travel Pumping

Activity memory

Base memory

ACTIVITY

□ Vi 4€ 17:05 ②

Ok

Alarms are readable to the following window available with the "Check/Alarms" menu. For example, the following window shows "Battery low" alarm is selected. This window is not available with the "Change" menu.

Alarms listing:

Locked motor open:
 Locked motor close:
 Torque sensor:
 Position sensor:
 Motor locked in the closing direction
 Torque sensor power supply fault
 Position sensor power supply fault

- Direction of rotation close : Closing direction of rotation discrepant - Direction of rotation open : Opening direction of rotation discrepant

- Overtravel : Position overshoot >5% after motor shutdown
- Too manu starts : Startina rate exceeding the actuator class average

- Loss of phase : In three-phase, a phase is missing

- Loss of signal: 4-20mA signal lost

- Thermal overload: The motor thermal relau has tripped

- Too long travel: The total stroke requested exceeds the encoder capacity

- Pumping : Actuator pumping detected
- Configuration memory : Configuration data memory fault
- Activity memory : Activity data memory fault
- Base memory : Base memory fault

- Torque switch : Electrical contact fault
- Travel switch : Electrical contact fault

- 24V auxiliary: Auxiliary power supply fault for externals circuits
 - Battery Low(*): Battery low or battery selected but board is missing

Note

(*): "Battery Low" alarm cannot be present on INTELLI+ before V2.0 revision.





5 > ADJUSTING AN ACTUATOR ON A VALVE

The "Set up" menu is used to manually set the open and closed positions after the actuator is installed on the valve. Upon completing of setting, the stroke is displayed.

Setting is only possible if an INTELLI+ infrared connection is established with the PocketPC. Without connection, "Set up" menu is not available to the main menu.

INTELLIPOCKET permits to set a valve according to the desired closing mode. With the "Set up/ Closing mode", select the right closing mode (on position, on torque or on torque opening/closing). And select the direction to close with the "Set up/Direction to close" menu.

The procedure starts with opening and closing setting. Click on the "Closing setting" button or "Opening setting" button in the "Setting" window.



For each setting mode, the question appears: "Valve closed?" or "Valve open?" like this window. Select your response "Yes" or "No".

Select "No", this command window appears:

After your setting, click on the "Ok" button. "Valve closed?" (or "Valve open?") reappears. If your setting is right choose "Yes", if not choose "No" and repeat the procedure.





If you choose "Yes", this confirmation window appears:

For a closing setting, the message may be as follows:

- Position OK! : Setting is saved.
- No! Close on torque. Observe the closing mode selected above, you choose to close on torque but the load limiter has not been triggered.
- No! Close on position. : Observe the closing mode selected above, you choose to close on position but the load limiter has been triggered.
- Set limit switch: You are using travel limit switch but this one has not been tripped.

For an opening manual setting, the message may be as follows:

- Position OK! : Setting is saved.
- No! Open on torque. : Observe the opening mode selected above, you choose to open on torque but the load limiter has not been triggered.
- No! Open on position.: Observe the opening mode selected above, you choose to open on position but the load limiter has been triggered.
- Set limit switch: You are using travel limit switch but this one has not been tripped.

The "No valid" message means the stroke from open position to close position is shorter. Try again and click on the "Ok" button to adjust the inadequate position.



Upon completing of setting, the stroke is displayed:

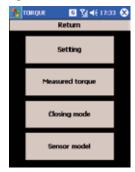
Click on the "Ok" button to valid and save setting or click on the "Cancel" button to cancel and exit setting.

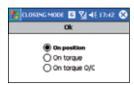
Notes:

- From the actuator, you can exit the setting by a click on "Ok" button. The program returns to the first window of "Setting" menu.
- If infrared is broken, setting is cancelled.
- The stroke is displayed in turns/degrees/mm according to actuator configuration.

6 > THE TORQUE

To consult torque parameters, go to "Check/Torque" menu. To change torque parameters, go to "Change/Torque" menu. The following window is displayed.





Closing mode is usually defined in the "Set up" menu, but this parameter is also available to the "Change/Torque/Closing mode" menu and the following window:

The sensor model is available with this window and the "Check/Torque/Sensor model" menu.

Sensor model tupe selected depending of equipment:

- Coder
- Analogical

The gauge is the calibration of coder or analogical sensor. In this window, all parameters are manufacturer data.





6.1 > TOROUE SETTING

To consult torque settings, go to the "Check/Torque/Torque setting" menu. To change torque settings, go to the "Change/Torque/Torque setting" menu. The following window is displayed.

These torque are available:

- Closing torque limit
- Opening torque limit
- Close tight torque limit
- Open breakout torque limit

The torque control depends to the closing mode. In a torque closing, all torque are controlled. In a position closing, closing torque and opening torque are only controlled. With this window, you can specify torque limits on the other side of the actuator stops. All torque values are expressed in percent of actuator maximal torque.



Note:

If "open breakout torque limit" is greater than 100%, the display reads "No limit" which amouts to shunting the load limiter at beginning of opening.

6.2 > MEASURED TOROUE

To consult measured torque, go to the "Check/Torque/Measured torque" menu. The following window is displayed.

This window permits to visualize the last measure of each torque and to compare these measures with some reference. It is a diagnosis tool to give a torque timing evolution.



To update reference, click on the "Yes" button in the "Change/Torque/Measured torque" menu. Click on the "No" button to cancelled this update.

7 > COMMANDS

To consult commands parameters, go to the "Check/Commands" menu. To change commands parameters, go to the "Change/Commands" menu. The following window is displayed.



7.1 > AUXILIARY REMOTE COMMANDS

INTELLI+ is equipped with two set up auxiliary commands. The following window is displayed with "Check/Commands/Auxiliary command 1(2)" or "Change/Commands/Auxiliary command 1(2)".

Austiary comn 🗓 🌠 ◀€ 17:08 🗴 Ok No assigned C Local/Remote O Local+Remote/Remote O Local command inhibition Open inhibition O Close inhibition Auto/On-off O ESD dose C ESD open C ESD stop O Partial stroke

Auxiliary commands listing:

- Local/Remote:

Substitutes for the local/Remote selector of the actuator and is used to remotely enabled either remote control or local control.

After selecting this command with the "Change" menu, the contact status must be selected (Close contact=remote or Open contact=remote).

- Local+Remote/Remote:

Same definition as above, but local and remote control can be simultaneously enabled.

- Local command inhibition:

The local command inhibit is remotely controlled. This command inhibits the local opening and closing commands, and enables remote commands, even if the local/remote selector of the actuator is set to local

After selecting this command with the "Change" menu, the contact status must be selected (close contact=inhibition or open contact=inhibition). To also inhibit local stop and general stop, select "No" in "Local stop" box.

- Open inhibition, close inhibition:

These commands are used to inhibit opening or closing of the actuator.

After selecting this command with the "Change" menu, the contact status must be selected (Close contact=inhibition or Open contact=inhibition).

- Auto/On-Off:

For an actuator used in regulation with positioner function, it is possible to issue remote commands via a continuous signal (ex: 4-20mA) or via opening/closing/stop commands. The auto/on-off command is used to switch over from one type of command to another.

After selecting this command with the "Change" menu, the contact status must be selected (close contact=auto or open contact=auto).

- ESD close, ESD open, ESD stop:

The ESD (Emergency Shut Down) is an emergency remote command, which overrides all other commands. According to the valve operation, the emergency command will be an opening, closing or immediate stop.

After selecting this command with the "Change" menu, the contact status must be selected (close contact=commande or open contact=commande).

- Partial stroke(*):

The auxiliary remote commands can be used to control an actuator partial stroke. They are the single commands used to the partial stroke function. The partial stroke is set to the "Change/ Commands/Partial stroke" menu.

After selecting this command with the "Change" menu, the contact status must be selected (Close contact=commande or Open contact=commande).

(*): The partial stroke function cannot be present on INTELLI+ before V2.0 revision.



////////////// 10 11 ////////////

7.2 > LOCAL COMMAND

This window permits to select the local commande type:

- Pulse control: self-held command, a pulse is enough to achieve an opening or closing command)
- Maintained control: Opening or closing command must be maintened to activate the actuator.
- 0-100%: Local command with 1% increments.

7.3 > LOCAL STOP

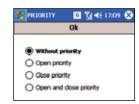
In standard, it is possible to stop the actuator locally, even if the selector local/remote is on remote position. To inhibit a local stop when the selector is on remote position, select "No" on this window available by "Change/Commands/Local stop" menu.

7.4 > REMOTE STOP

Select the remote stop contact status (closed=command or open=command). This window is available bu "Check/Commands/Remote stop" or "Chanae/Commands/Remote stop".

7.5 > PRIORITIES

To consult priority, go to the "Check/Commands/Priority" menu. To change priority, go to the "Change/Commands/Priority" menu. This window permits to define the actuator rotation direction priority.



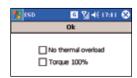
Priorities are used:

- To reverse the direction of travel during actuation, without the need for a stop command. In this case an open and close priority is required.
- To give priority to a direction of travel. If the actuator receives two conflicting orders simultaneously, the order with the right priority will be execute.

7.6 > FAULT TOLERANCE ESD

As standard, the protection device are active and therefore stop the actuator in case of defect. In the case of an emergency command, it is possible to bypass certain protection device to achieve operation even in the presence of defects.

In the "Change/Commands/ESD" menu, it is possible to select an operation without thermal overload and/or a torque limit set to 100%.



7.7 > PARTIAL STROKE

This window and partial stroke function cannot be present on INTELLI+ before V2.0 revision.

To consult partial stroke parameters, go to "Check/Commands/Partial stroke" menu. To change partial stroke parameters, go to "Change/Commands/Partial stroke" menu. The following window is displayed.



The partial stroke function permits to operate the actuator to a limited stroke. To use this function, several parameters are available:

- Operating time: Actuation time at normal actuator speed. This parameter is also available with the "Change/Timer" menu. (range: 0...65535s)
- Start position: Start position in "open" valve or "closed" valve.
- Stroke: Partial stroke, in percent of the total stroke.

Note:

To change the operating time value, click on the editbox and the keyboard will appear.

8 > INDICATIONS

To consult indications parameters, go to "Check/Signaling" menu. To change indications parameters, go to "Change/Signaling" menu. The following window is displayed. Two menus are available, the local indication configuration and the remote indication configuration.



8.1 > LOCAL INDICATION

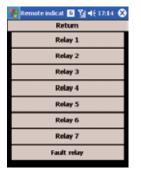
This is the local indication window. It is possible to configure the INTELLI+ display with the opposite display(*), the torque display and the led which indicate the valve position(*).

Note:

(*): These parameters cannot be present on INTELLI+ before V2.0 revision.

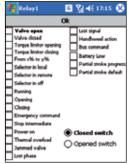


8.2 > REMOTE INDICATION



Remote indication is possible via bistable relays and permit to indicate actuator status. As standard, the INTELLI+ is equipped with 4 bistable relays, 3 additionnal monostable relays (the contact is open when the relay is de-enerziged) can be added as an option. It is possible to configure each relays with this window.

Relays 1 to 7: Indications possibilities can be configure with this window.



It is possible to define the contact status (closed or opened) when the selected action is active.



Indication functions listing:

- Valve open: confirms that the valve is open - Valve closed: confirms that the valve is closed

- Torque limitor opening: torque limiter action in the opening direction - Torque limitor closing: torque limiter action in the closing direction

- From x% to u%: intermediate limit switch

When this option is selected, a window is displayed to define x% and y%.

- Selector in local: selector status - Selector in remote: selector status - Selector in off: selector status

- Runnina: the actuator is actuated

When this option is selected, a window is displayed to define the contact type (held or blinking).

- Opening: the actuator is actuated in the opening direction

When this option is selected, a window is displayed to define the contact type (held or blinking).

- Closina: the actuator is actuated in the closing direction

When this option is selected, a window is displayed to define the contact type (held or blinking).

- Emeraencu command: the actuator receives an emergency command - Stop intermediate: the actuator is at a stop, neither open or closed

- Power on: the actuator is normally powered - Thermal overload: the motor thermal relay has tripped

- lammed valve: actuation could not be completed due to excess torque

- Lost phase: in three-phase, a phase is missing

- Lost sianal: 4-20mA signal lost

- Handwhell action: the handwheel has been actuated since the last electrical actuation if fieldbus option installed, this relay is assigned to an external command - Bus command:

With a fieldbus, relays are useless for signalling as signalling is routed over the fieldbus. These relays can however be used for commands in the actuator environment, with the commands sent from the control room over the fieldbus and relayed by the actuator.

Battery status - Batteru Low(*):

- Partial stroke progress(*): A partial stroke progress - Partial stroke default(*): A partial stroke is default

Note:

(*): Indications "Battery low", "Partial stroke progress" and "Partial stroke default" cannot be present on INTELLI+ before V2.0 revision.

Fault relau:

Fault signalling is transmitted by a changeover relay normally energized, which breaks when de-energized or if the actuator is unavailable. This relay can be configuring with this window and this detailed option

Faults listing:

- Power off: control circuit power lost

- Fuse: fuse blown

- Thermal overload: thermal relay has tripped - Locked motor: the motor is locked

- Lost phase: in three-phase, a phase is missing

- lammed valve: actuation could not be completed due to excess torque

local/remote selector set to local - Selector in local: - Selector in off: local/remote selector set to off

- Emergency command: the actuator receives an emergency command - Command inhibition: the actuator receives an actuator inhibit - Overtravel: position overshoot >5% after motor shutdown

- Lost signal: 4-20mA signal lost

FAURT RELAY 🔟 🖫 🛠 17:15 🛠 Ok Power off Fuse Thermal overload Locked motor Lost phase 3ammed valve Selector in local Selector in Off Emergency and Cmd inhibition Overtravel Lost signal

9 > TIMING CONTROL DURING ACTUATION

The INTELLI+ contains a timina module used to reduce the actuator operating speed, for example to protect a pipe against pressure surges.

When an opening or closing command is sent, a timer alternately turns the motor on and off. The valve actuation time may therefore be long. This time is adjustable on site. Settings in the opening and closing directions are independent. It is also possible to apply timing only on part of the stroke, and the rest of the stroke is covered at normal speed.

The setting only consists in indicated the total desired time,

and the INTELLI+ calculates the on and off times.

To consult timing parameters, go to "Check/Timer" menu. To change timing para meters, go to "Change/Timer" menu. The following window is displayed.

For this function, parameters are:

- Operating time: Actuation total time at normal actuator speed (range: 0...65535s)
- Timer open time: total time desired for valve opening (range: 0...65535s)
- Timer close time: total time desired for valve closing (range: 0...65535s)
- Temporized zone definition in opening and closing.

To apply timing to the complete stroke, check the default values:

- Open temporized zone, start : 0%
- Open temporized zone, end: 100%
- Close temporized zone, start: 100%
- Close temporized zone, end: 0%

In the "Change/Timer" menu, to change timer values, click on an editbox and the keuboard will appear.

10 > POSITIONER

The actuator can operate as a positioner, from an analoa signal (4-20mA for example). The input signals are set automatically to the actuator 0-100% stroké which eliminates the need for setting the actuator operating range. The input signals are fully isolated from the INTELLI+ control circuits and the remote indication signals.

To consult the positioner configuration, go to the "Check/Positioner" menu. To change the positioner configuration, go to the "Change/ Positioner" menu. The following window is displayed.

POSITIONNER 🖪 🎇 🐗 17:16 🛠 Ok Signal range Onen signal O Decrease ○ Increase O 12-20mA O 4-20mA O 4-12mA O-20mA(0-10V) - Dead band -0.2% Loss of signal Stayput ○ Closing O Opening Proportional pulse O Yes

TIMER

Eggl 4 B

4 11

End (III

□ Va 4€ 17:16 ②

100%

■ 10000

D 09

Ok

The positioner is defined by a type and a direction of the input signal. The direction is either increase or decrease to opening, and the type should be:

- 4-20mA
- 4-12mA
- 12-20mA
- 0-20mA (0-10V)



The "Dead band" parameter is the maximum difference between input signal and actuator position without command (range: 0.2%...5% of the total stroke). This is a factory parameter set to 1%, but it is possible to adjust it.

If the dead band is to narrow, the actuator may pump. If the dead band is too wide, positioning is less accurate.

The "Loss of signal" parameter specifies the actuator status that it must be if the signal is lost (stayput, closing or opening). This function is only possible with a 4-20mA signal.

The proportional pulse control can be selected. This is a control mode where the position reached by pulses. This mode is used for relatively stable regulations allowing the actuator inertia to be partly compensated. The actuator is cycled more often than by a conventional command.

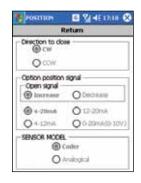
11 > POSITION INDICATION

To consult position sensor parameters and position remote indication, go to the "Check/ Position" menu. To change these parameters, go to "Change/Position" menu. The following window is displayed.

The direction to close is specifying on this window and accepts two values (CW or CCW).

The sensor model is also available. It can be a coder or an analogical sensor. (manufacturer data)

The signal remote indication is an option which permits to remotely indicates the actuator position (0-100%) by sending an analog signal. The output signals are set automatically to the actuator 0-100% stroke which eliminates the need for setting the remote indication signal. The remote indication signal is fully isolated from the INTELLI+ circuits.



The "Option position signal" parameters are only available if the signal remote indication option is present with INTELLI⁺. In that case, it is possible to specify the direction of the output signal (increase or decrease to opening) and the output signal type (4-20mA, 0-12mA, 12-20mà or 0-20mA(0-10V)).

12 > FIELDBUS

Fieldbus interfaces can be used to control and transmit all data over a single line.

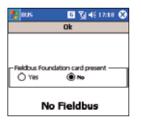
Profibus and Modbus interfaces are detected by INTELLIPOCKET. In that case, it is possible to access interface parameters with the "Check/Bus" menu to a consultation and "Change/Bus" menu to a modification.

A Fieldbus Foundation interface cannot be detected by INTELLIPOCKET. A parameter is readable and writable to specify a Fieldbys Foundation interface presence.

If INTELLI+ has no fieldbus, the "Check/Bus" window displayed "No Fieldbus".

To specify a Fieldbus Foundation interface presence, go to the "Change/ Bus" menu. The following window is displayed.

If a Fieldbus Foundation interface is present, select "Yes" and click on "Ok" button to the Fieldbus Foundation configuration access.



Note:

Fieldbus Foundation cannot be present on INTELLI+ before V2.0 revision.

12.1 > PROFIBUS

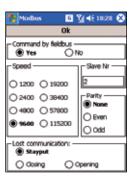


If a Profibus interface is detected on INTELLI+ by INTELLIPOCKET, the configuration window is available with the "Check/Bus" menu or "Change/Bus" menu. The following window is displayed.

These parameters are specified by this window:

- Actuator slave number. The default slave number is 2. (range:
- The commande by fieldbus choice.
- The actuator status which it must achieve if the communication is lost (Stauput, closing position or opening position).

12.2 > MODBUS



If a Modbus interface is detected on INTELLIP by INTELLIPOCKET, the configuration window is available with the "Check/Bus" menu or "Change/Bus" menu. The following window is displayed.

These parameters are specified by this window:

- The command bu fieldbus choice
- Actuator slave number. The default slave number is 2. (range:
- The communication speed (bauds)
- The communication paritu
- The actuator status which it must achieve if the communication is lost (Stauput, closing position or opening position).

12.3 > FIELDBUS FOUNDATION

The Fieldbus Foundation interface cannot be detected by INTELLIPOCKET. To use and configure this interface, specify the Fieldbus Foundation interface presence with the "Change/Bus" menu.

To consult Fieldbus Foundation interface parameters, go to "Check/Bus" menu. To change these parameters, go to "Change/bus" menu. The following window is displayed.



17 /////////// With this window, it is possible to refresh the Fieldbus Foundation interface presence (or not) parameter. The other parameters are:

- The command by fieldbus choice.
- The actuator status which it must achieve if the communication is lost (Stayput, closing position or opening position).

Note:

Fieldbus Foundation cannot be present on INTELLI+ before V2.0 revision

13 > SAVE AND DOWNLOAD A CONFIGURATION FILE

With INTELLIPOCKET, it is possible:

- to read an actuator configuration and to save it in a configuration file.
- to read and modify an actuator configuration saved in a file with INTELLIPOCKET or INTELLISOFT.
- to download a configuration file into an actuator.

13.1 > READ AND SAVE THE ACTUATOR CONFIGURATION

To read an actuator configuration, start to establish infrared communication with the actuator. Then click on "Check" or "Change" button to download the actuator configuration into the PocketPC. Caution: Each modification will modify the actuator configuration.

This one can be saved with a click on the following icon on the main window of INTELLIPOCKET:



This window appears to select the name and the directory of the configuration file. Click on the "Ok" button to save this file or on the "Annuler" button to cancel the operation.

Note:

You can click on the right down corner icon to display the keyboard.

13.2 > READ OR MODIFY A CONFIGURATION FILE

It is possible to read and/or modify an actuator configuration file saved with INTELLISOFT or INTELLIPOCKET.

First off all remove infrared communication link with actuator. Then, click on the following "Open" icon on the main window of INTELLIPOCKET.





The following window appears to select the file to open. Click on its name to open it or click on the "Annuler" button to stop this operation.

Opening a file without communication with an actuator allows to modify parameters in "Change" menu, check parameters in "Check" menu or read the torque/position curves in "Acquisition" menu. The curves displayed come from the actuator when the file has been saved.

With modifications, it is possible to save this new actuator configuration in other file or in the same file with the 13.1 chapter procedure.

13.3 > DOWNLOAD A FILE INTO THE ACTUATOR

With INTELLIPOCKET, it is possible to download a configuration file into an actuator. This is the procedure:



- Check the infrared communication with the actuator is actived
- Click on the "Change" button, enter the password if required
- Click on this "Download" icon



This window appears to choose and open a configuration file to download on the actuator. Click on the corresponding file or click on the "Annuler" button to cancel the operation.

To confirm this operation, click on the "Ok" button when this window appears or click on the "Annuler" button to cancel this operation





19 //////////

AUSTRIA

IPU ING PAUL UNGER hammermueller@IPU.co.at WIFD

Tel.: +43 1 602 41 49

BELGIUM

BERNARD CONTROLS BENELUX Info.benelux@bernardcontrols.com BRUXFULES

Tel.: +32 (0)2 343 41 22

BRAZIL

jcn@jcn.com.br SAO PAULO

Tel.: +55 11 39 02 26 00

BERNARD CONTROLS CHINA bcc.info@bernardcontrols.com BEIIING

Tél.: +86 (0) 10 6789 2861

CZECH REPUBLIC

FLUIDTECHNIK BOHEMIA s.r.o. brno@fluidbohemia.cz BRNO

Tel.: +420 548 213 233-5

DENMARK

ARMATEC A/S jo@armatec.dk **GLOSTRUP** www.armatec.dk Tel.: +45 46 96 00 00

EGYPT ATEB

am@atebco.com **ALEXANDRIA** Tel.: +203 582 76 47

FINLAND

TALLBERG TECH OY AB pekka.tontti@tallberg.fi **ESPOO** mmm soffco fi

Tel.: +358 0 207 420 740

GERMANY

BERNARD CONTROLS DEUFRA hcd.mail@bernardcontrols.com TROISDORF

Tel.: +49 22 41 98 340

GREECE

PI&MS Entreprises Ltd ioannis.pappas@pims.gr HAI ADDRI Tel.: +30 210 608 61 52

HUNGARY

APAGYI TRADEIMPEX KFT bela.apagyi@mail.tvnet.hu BUDAPEST Tel.: +36 1 223 1958

ASIA INSTRUMENTS Co. Ltd. info@asiainstrumentsltd.com TEHRAN www.asiainstrumentsltd.com

Tel.: +98 21 8850 3065

ITALY

BERNARD CONTROLS ITALIA info.it@bernardcontrols.com RHO /MILANO

Tel.: +39 02 931 85 233

MAI AVSIA

ACTUATION & CONTROLS ENGINEER tcmeng@pc.jaring.my **IOHOR BAHRU** Tel.: +60 7 23 50 277 / 23 50 281

MIDDLE-EAST

BERNARD CONTROLS MIDDLE-EAST bernact@emirates.net.ae DUBAI - U.A.E. Tel.: +971 4 39 80 726

MOROCCO

AQUATEL sarl aquatel@wanadoo.net.ma CASABLANCA Tel.: +212 22 66 55 71

NETHERLANDS

BERNARD CONTROLS BENELUX NV hans.nobels@bernardcontrols.com AN ZWAAG Tel.: +31 (0)229-298083

DEW ZEALAND

MRCTRANSMARK NZ LTD bill.sunley@mrctransmark.com ALICKI ADD

Tel.: +64 9 276 4149

NORWAY

KSB LINDFLATEN AS firmapost@lindflaten.no LYSAKER

Tel.: +476 71 29 900

POLAND MARCO

matzanke@pol.pl WARSAW

Tel.: +48 22 864 55 43

PORTUGAL

PINHOL, GOMES & GOMES LDA. import.export@pinhol.com.pt CARNAXIDE

Tel.: +351 21 425 68 50

RUSSIA

BERNARD CONTROLS RUSSIA bernard@amotek.net c/o AMOTEK - MOSCOW Mob.: +7 917 562 8591 Tel./Fax: +7 495 343 43 80

RUSSIA

A.E.T. (agent) aet@ctinet.ru ST PETERSBURG Tel./Fax: +7 812 320 55 97 Mob.: +7 812 956 35 14

SINGAPORE

ACTUATION & CONTROLS ENG. (ASIA) acesin@singnet.com.sq SINGAPORE Tel.: +65 65 654 227

BERNARD CONTROLS SPAIN bernardservo@bernard.es MADRID Tel.: +34 91 30 41 139

SOUTH AFRICA

A-O-RATE AUTOMATION CC nor@ujol.co.za BERTSHAM Tel.: +27 11 432 58 31

SOUTH KOREA

RENTEC CO Ltd (Water market) totorokobi@metq.com GYEONGGI-DO Tel.: +82 31 399 73 23

SOUTH KOREA

YOO SHIN E&I Co. Ltd (Oil & Gas market) yooshineni@empal.com **SEOUL**

Tel.: +82 2 406 62 78

SWITZERLAND

MATOKEM AG info@matokem.aa ALLSCHWIL www.matokem.ch Tel.: +41 61 483 15 40

THOU OND

BERNARD CONTROLS SOUTH-EAST ASIA j.chounramany@bernardcontrols.com BANGKOK

Tel.: +66 2 640 82 64

TURKEY

OTKONSAS sales@otkonsas.com ISTANBUL Tel.: +90 216 326 39 39

UNITED ARABS EMIRATES

EMIRATES HOLDINGS emhold@emirates.net.ae **ABU DHABI** Tel.: +97 12 644 73 73

UNITED-KINGDOM

70FDALE PIC enquiries@zoedale.co.uk **BEDFORD** Tel.: +44 12 34 83 28 2

USA/CANADA/MEXICO

BERNARD CONTROLS Inc bsales@bernardcontrols.com **HOUSTON - TEXAS** Tél.: +1 281 578 66 66



BERNARD CONTROLS

4 rue d'Arsonval - BP 70091 - 95505 Gonesse Cedex - France Tel: +33.1, 34.07.71.00 - Fax: +33.1.34.07.71.01

E-mail: mail@bernardcontrols.com Internet: http://www.bernardcontrols.com