

The complete solution



The BC PREMIUM label guarantees "The complete solution", with many options and possible configurations to fit at best very specific needs.

Decades of return on experience from very demanding applications such as nuclear qualified valves actuation have shaped our technical orientations and our commitment to quality and safety.

The BC PREMIUM label reflects this long-lasting experience and in-depth expertise, working with the most demanding markets, where the ability to design customized solutions has always been decisive. It is the guarantee of quality and security for installations' actuation in the case of **severe environment, demanding operational constraints and critical applications.**



LABEL



BERNARD CONTROLS GROUP

CORPORATE HEADQUARTERS

4 rue d'Arsonval - CS 70091 / 95505 Gonesse CEDEX France / Tel. : +33 (0)1 34 07 71 00 / Fax : +33 (0)1 34 07 71 01 / mail@bernardcontrols.com

CONTACT BY OPERATING AREAS

> AMERICAS

NORTH AMERICA
BERNARD CONTROLS UNITED STATES
HOUSTON
inquiry.usa@bernardcontrols.com
Tel. +1 281 578 66 66

SOUTH AMERICA
BERNARD CONTROLS LATIN AMERICA
inquiry.southamerica@bernardcontrols.com
Tel. +1 281 578 66 66

> ASIA

CHINA
BERNARD CONTROLS CHINA &
BERNARD CONTROLS CHINA NUCLEAR
BEIJING
inquiry.china@bernardcontrols.com
Tel. +86 (0) 10 6789 2861

KOREA
BERNARD CONTROLS KOREA
SEOUL
inquiry.korea@bernardcontrols.com
Tel. +82 (0)2 553 6957

SINGAPORE
BERNARD CONTROLS SINGAPORE
SINGAPORE
inquiry.singapore@bernardcontrols.com
Tel. +65 65 654 227

> EUROPE

BELGIUM
BERNARD CONTROLS BENELUX
NIVELLES (BRUSSELS)
inquiry.belgium@bernardcontrols.com
inquiry.holland@bernardcontrols.com
Tel. +32 (0)2 343 41 22

FRANCE
BERNARD CONTROLS FRANCE &
BERNARD CONTROLS NUCLEAR FRANCE
GONESSE (PARIS)
inquiry.france@bernardcontrols.com
Tel. +33 (0)1 34 07 71 00

GERMANY
BERNARD CONTROLS DEUFRA
TROIUSDORF (KÖLN)
inquiry.germany@bernardcontrols.com
Tel. +49 2241 9834 0

ITALY
BERNARD CONTROLS ITALIA
RHO (MILANO)
inquiry.italy@bernardcontrols.com
Tel. +39 02 931 85 233

RUSSIA
BERNARD CONTROLS RUSSIA
inquiry.russia@bernardcontrols.com
Tel. +33 (0)1 34 07 71 00

SPAIN
BERNARD CONTROLS SPAIN
MADRID
inquiry.spain@bernardcontrols.com
Tel. +34 91 30 41 139

UNITED KINGDOM
BERNARD CONTROLS UNITED KINGDOM
inquiry.uk@bernardcontrols.com
Tel. +44 (0)7435 266310

> INDIA, MIDDLE EAST & AFRICA

AFRICA
BERNARD CONTROLS AFRICA
ABIDJAN - IVORY COAST
inquiry.africa@bernardcontrols.com
Tel. + 225 21 34 07 82

INDIA
BERNARD CONTROLS INDIA
inquiry.india@bernardcontrols.com
Tel. +971 4 880 0660

MIDDLE-EAST
BERNARD CONTROLS MIDDLE-EAST
DUBAI - U.A.E.
inquiry.middleeast@bernardcontrols.com
Tel. +971 4 880 0660

More than 50 agents and distributors worldwide. Contact details on www.bernardcontrols.com

///// Invest in Confidence /////  /////

Explosionproof
Multi-turn Actuators
STX RANGE

CR02-12-ENG-GRP-REV01A
All data in this brochure are given for information only and are subject to change without notice.
This document and the contents here of are proprietary to Bernard Controls. It can be amended
and changed without prior notice. Any unauthorized reproduction is strictly prohibited.

> STX range

The complete solution

for multi-turn explosionproof electric actuators



STX SWITCH



STX SWITCH on a bevel gearbox



STX INTELLI+®



STX INTELLI+® on a bevel gearbox

Product benefits

HEAVY DUTY DESIGN SECURITY AT ALL LEVELS

• Trouble-free operation

- > Gearing is self-locking at all speeds
- > Continuous gear drive between motor and valve
- > Main mechanical parts unaffected by vibration
- > No preventative maintenance required Gearing is lubricated for lifetime
- > High efficiency gearing reduce wear
- > Easy to remove motors with sealed ball bearings fitted at front and rear

• Power to Spare

- > S4 Service Duty
- > Asynchronous motor with high starting torque
- > Excellent starting torque / nominal torque ratio: actuators can operate in any difficult case and can also support repetitive starts

Absolute position sensors & torque mechanically linked to the output shaft



Separated control box



Laptop with Intellisoft



INTELLI+ INTEGRATED AND INTELLIGENT CONTROL SOLUTION

• User friendly & intuitive controls

- > The LCD display gives a clear status of the actuator and of the control system

• Local signaling

- > With 2 red and green LEDs

• Local commands

- > Can be inhibited remotely

• User Friendly Menu

• Separated control box or LCS (option)

• Double-sealing protector

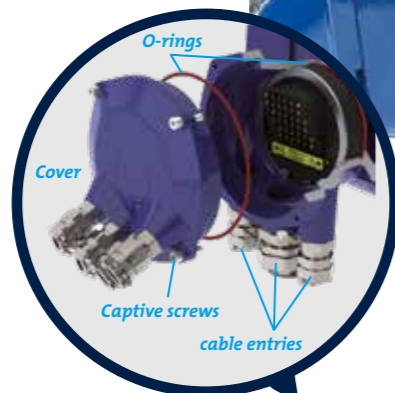
- > Two barriers fitted with O-rings insure an optimum protection against water ingress

• Infrared communication

• Bluetooth communication (option)

• Open fieldbus protocols (option)

- Profibus DPV1, Modbus, Foundation Fieldbus, Hart



Double-sealing principle

Bluetooth communication

Product specifications

- 25 to 2,200 Nm (direct) & up to 20,000 Nm on request
- Compliance with international explosionproof standards : ATEX, INMETRO, IEC-Ex, EAC-Ex, NEMA 7 & 9...
- Type of Controls :
 - > Integrated INTELLI+ as standard
 - > Electromechanical SWITCH on request*
- BC Duty & Modulating Classification :
 - > On-Off: Class A+
 - > Inching/Positioning: Class B+
 - > Modulating: Class III+
- Environment :
 - > IP 68 / C3 up to C5-M /
 - > T: -20°C...+70°C (option low T: -60°C)
- Special configurations : Corrosion protection, Fire proofing, Extreme temperatures

*All electronic features and specifications on this brochure refer to INTELLI+(R) version



Product benefits

SECURITY AT ALL LEVELS

• Actuator & valve protection

- > Thanks to ABSOLUTE SENSORS , which constantly measure the position & torque of your valve INTELLI+ gets precise and reliable information.

• INTELLI+ Phase monitoring

- (automatic phase correction device)

• Protection of change in direction

- > Signaling continuity (option)

• Fire protection (option) :

- a fire jacket or an intumescent coating allow the actuator to operate for 30 min. in fire temperature over 1000°C (tested to UL1709 criteria)

• Motor thermal protection

- > SIL2 (option)

• Self-locking at all speeds

• Protection of your installation

- > **Partial Stroking** to check the availability of the connected MOVs. Starting position as well as partial stroke amplitude are programmable.

• Fieldbus lighting protection

• Fault monitoring relay

• Protection by password

- > **Alarms indication** : INTELLI+® continuously monitors the actuator performances. Up to 17 different types of faults and alarm scan be reported.

• Emergency shutdown (ESD)

- : Depending upon the valve operation, ESD can be configured as an Open, Close or Stop command.

- > **Programmable Timer** : to increase in operating time of the actuator, to avoid water-hammer effect in a pipe.

EASY SITE MANAGEMENT

• During the actuator on valve setting procedure, the user is guided step by step by INTELLI+®

- > Choice of closing (on torque or on position)
- > Choice of direction to close
- > Drive the actuator to the closed and the open position and validate the position
- > The setting can be done automatically or manually by choosing the closed or open positions.

• Diagnostic & preventative maintenance

Thanks to its absolute sensors and its microprocessor technology, INTELLI+® continuously monitors its components as well as the actuator status and measures some important valve parameters. INTELLI+® provides users with a great deal of information to help with system diagnostic and aid in scheduling their valves preventative maintenance. INTELLI+® helps maximise process availability by reducing maintenance downtime.

• Detachable thrust unit (for rising stem valves)

The A form is bolted on both actuator and valve flanges. This offers a lot of flexibility and safety at the installation phase as well as for maintenance operations.

• Dec clutch-free handwheel with electric command priority

• Bus continuity

BERNARD CONTROLS actuators can host a special Profibus connexion board which, ensures continuity of signal throughout the line even when the actuator is removed from the field.



Full range description, product specifications and technical data on BERNARD CONTROLS' website.