

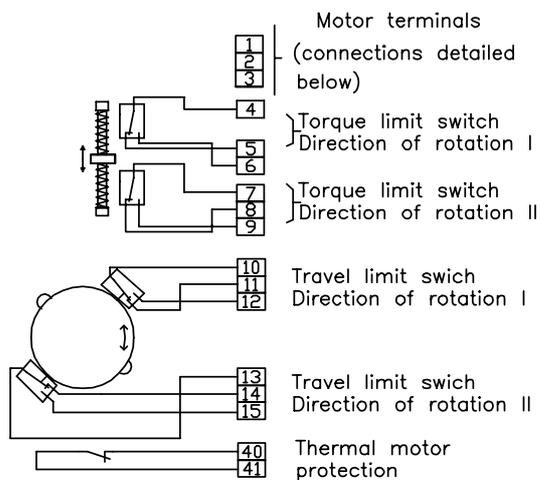


Wiring diagrams

ST Range

*All data in this brochure are given for information only
and are subject to change without notice.*

ACTUATOR WITH TORQUE LIMITING DEVICE



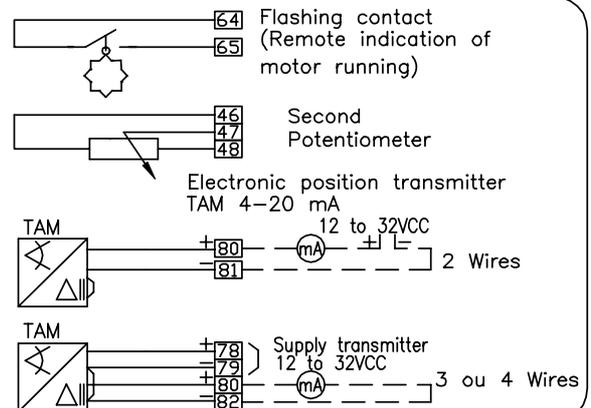
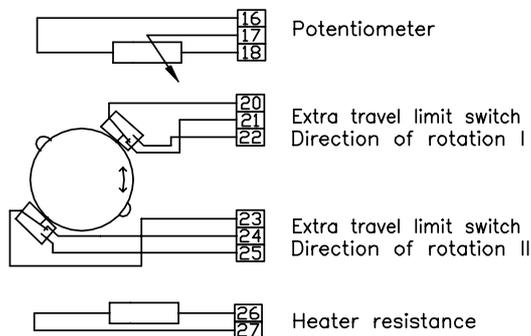
FUNCTION OF SWITCHES

- Direction of rotation
- I) anticlockwise (normally opening)
- II) Clockwise (normally closing)

Travel limit switches and torque limit switches give maintained contact

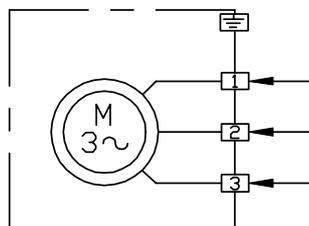
Direction of rotation seen on opposite side of fixing flange of actuator

OPTIONAL ACCESSORIES



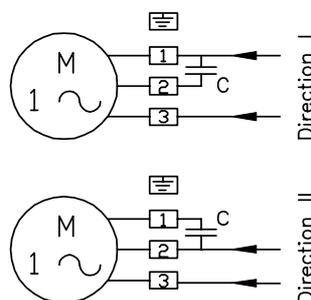
MOTOR

THREE PHASE

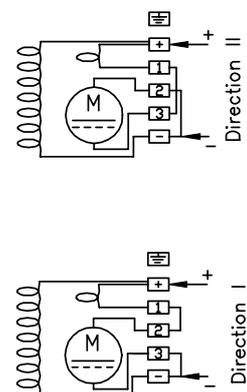


NOTA: 3Ph phase direct=DirectionII

SINGLE PHASE



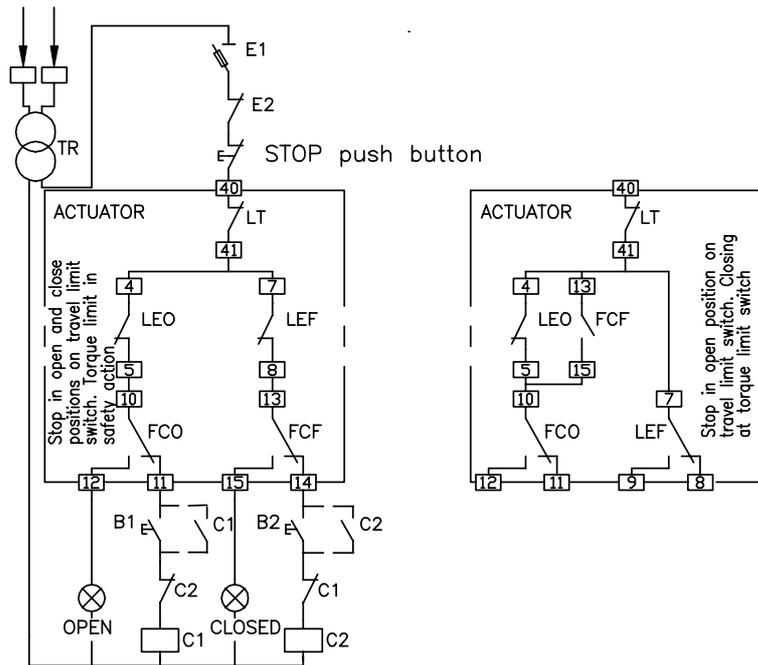
D.C.



EXAMPLE OF WIRING DIAGRAM FOR STANDARD ACTUATOR

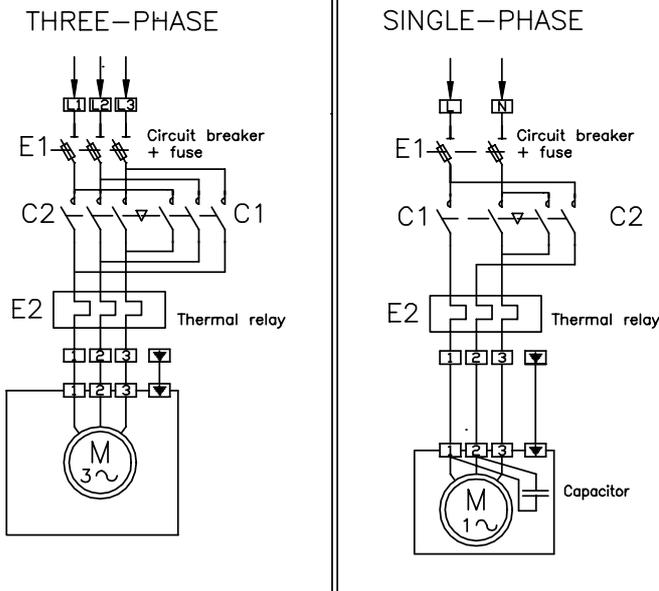
This diagram illustrates Actuator in intermediate position

CONTROL CIRCUIT



Dotted ligne : for short duration type signal (not maintained)

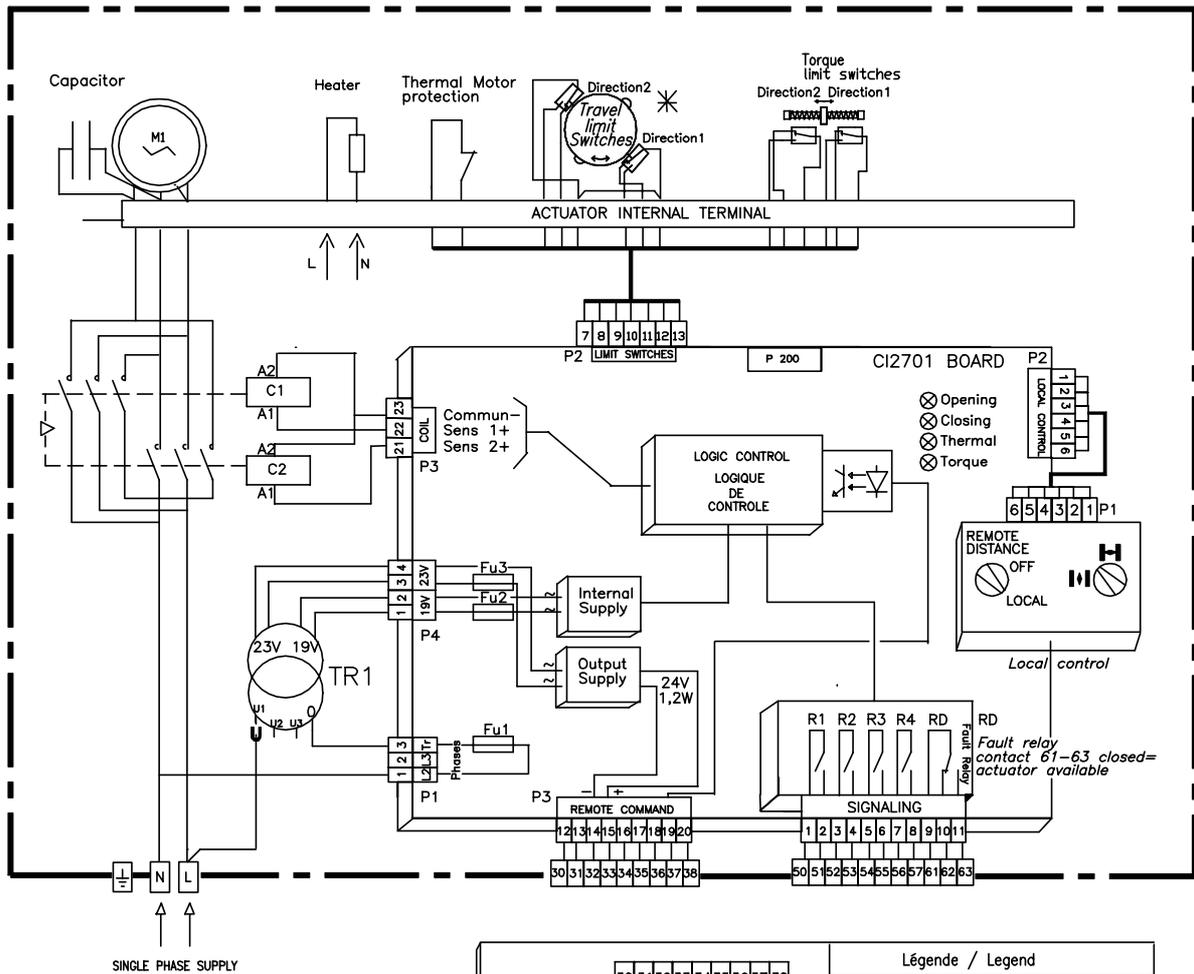
SUPPLY CIRCUIT



Legend

- E1 : Circuit breaker with fuse
- E2 : Thermal relay
- C1 : Contactor OPENING
- C2 : Contactor CLOSING
- FCO : Travel limit switch OPENING
- FCF : Travel limit switch CLOSING
- LEO : Torque limit switch OPENING
- LEF : Torque limit switch CLOSING
- LT : Thermal cut-out in motor
- TR : Transformer
- B1 : OPENING push button
- B2 : CLOSING push button

S20200/00

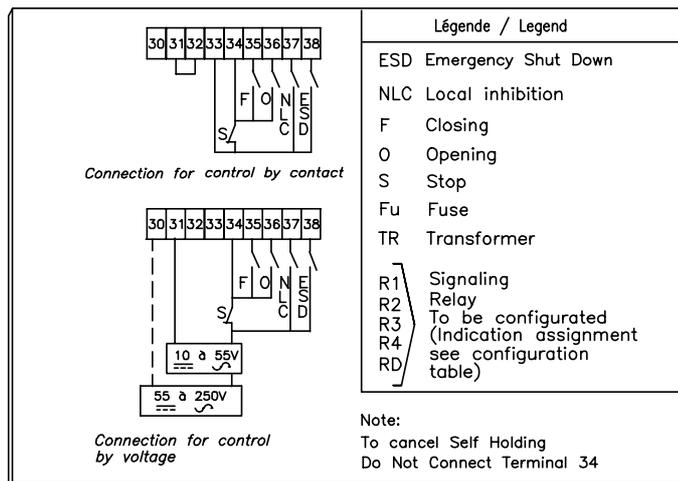


SINGLE PHASE SUPPLY

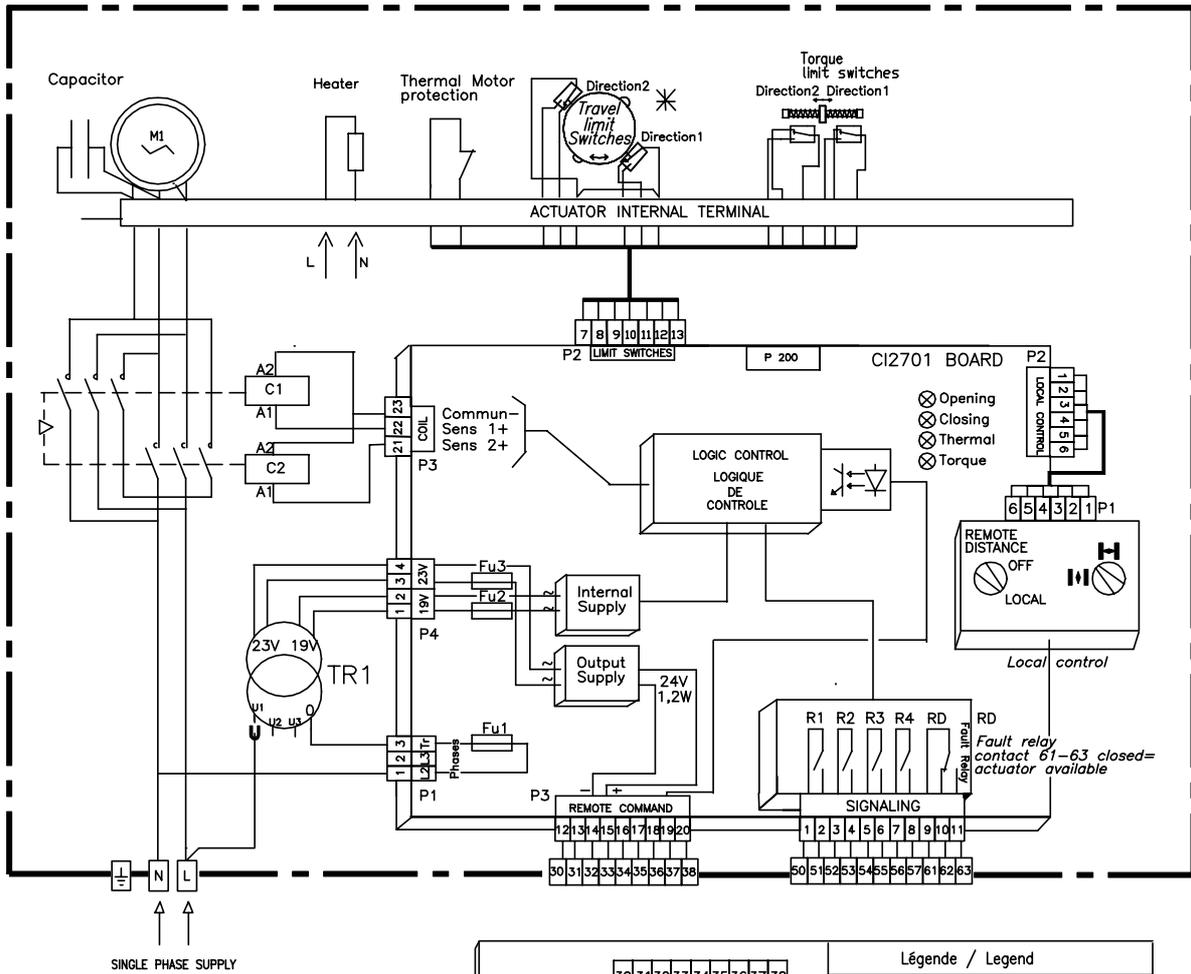
The order in phase is not important.
If one phase is missing, the actuator will not start and gives a signal (fault relay).

*

configuration	7A	7B
Direction1	Opening	Closing
Direction2	Closing	Opening



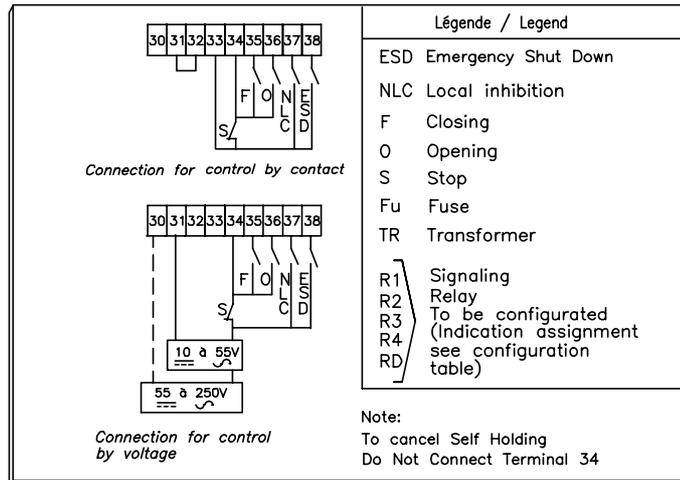
S20100/00

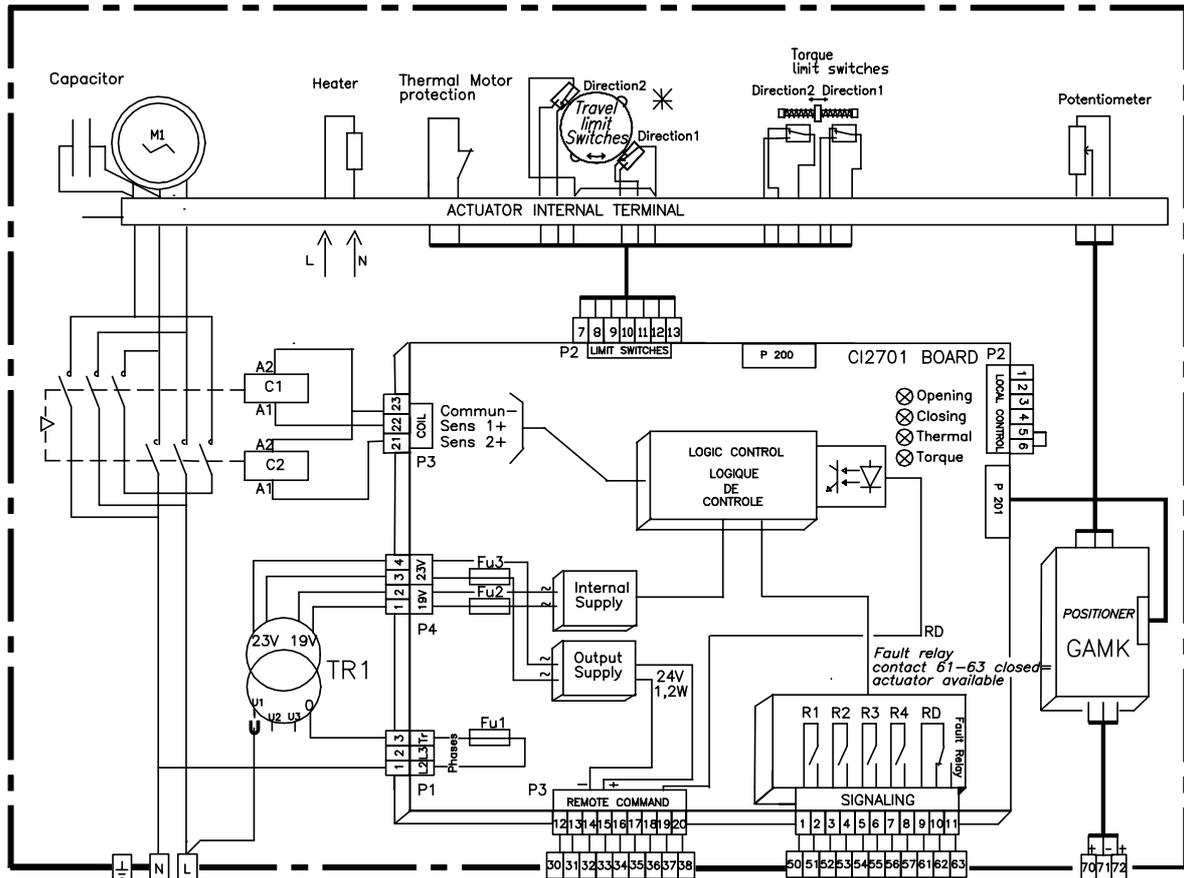


The order in phase is not important.
If one phase is missing, the actuator will not start and gives a signal (fault relay).

*

configuration	7A	7B
Direction1	Opening	Closing
Direction2	Closing	Opening





SINGLE PHASE SUPPLY

The order phase is not important.
If one phase is missing, the actuator
will not start and gives a signal (fault relay).

✱

configuration	7A	7B
Direction1	Opening	Closing
Direction2	Closing	Opening

Connection for control by contact

Connection for control by voltage

Légende / Legend

ESD Emergency Shut Down
 OC Closed contact = ON-OFF control
 F Closing
 O Opening
 S Stop
 Fu Fuse
 TR Transformer

R1 Signaling
 R2 Relay
 R3 To be configurated (indication assignment see configuration table)
 R4
 RD

Note:
 To cancel Self Holding
 Do Not Connect Terminal 34

Input Signal

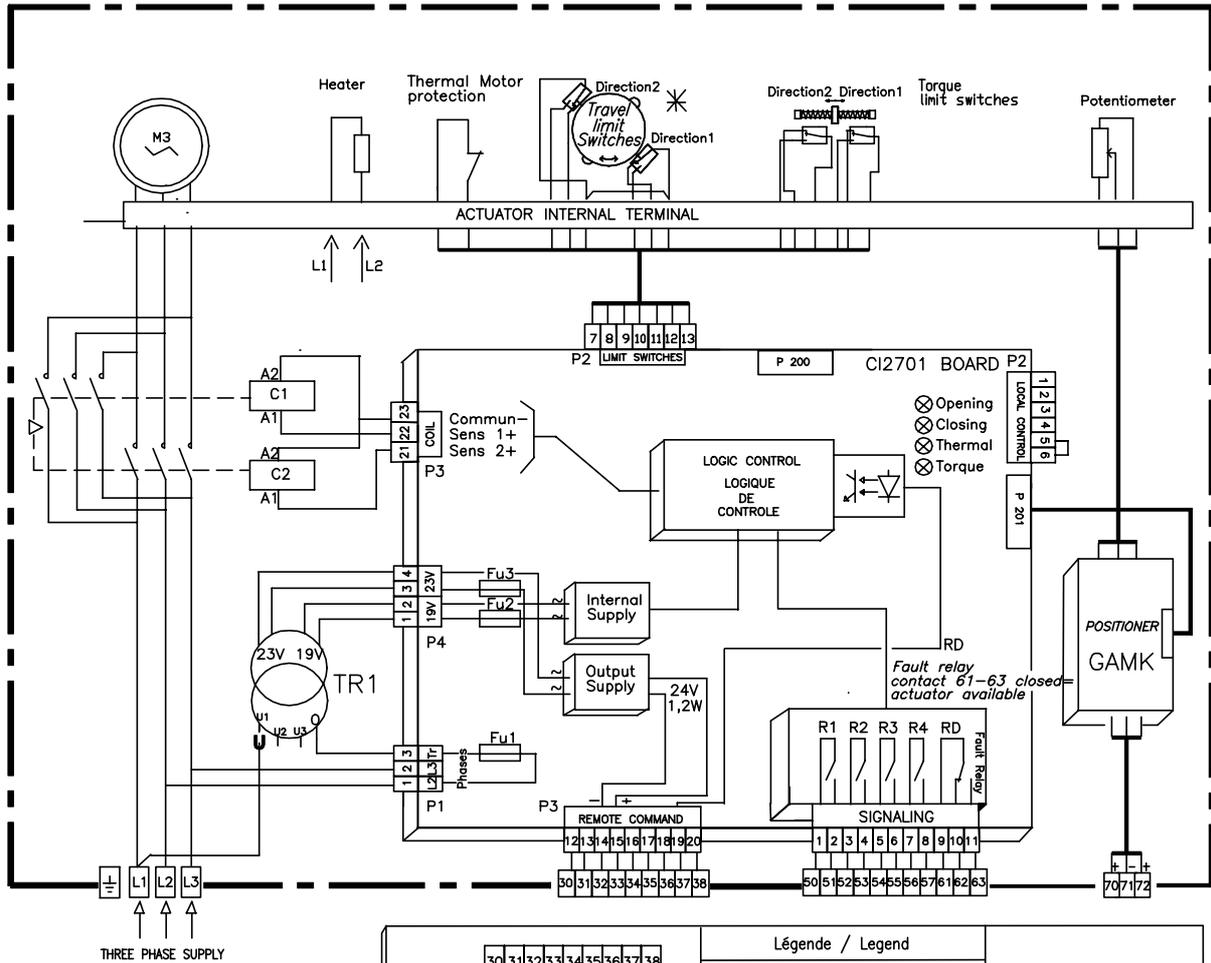
Output Signal

4-20mA
 0-20mA (260 ohms)
 0-10V (10 kohms)

4-20mA
 0-20mA (300 ohms max)

Connecting for Positioner

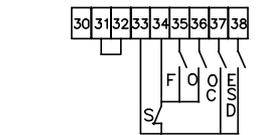
S25100/00



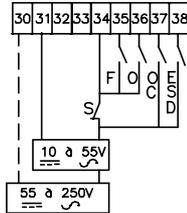
The Order in Phase is not important.
If one Phase is missing, the Actuator will not start and gives a signal (fault Relay).

*

configuration	7A	7B
Direction1	Opening	Closing
Direction2	Closing	Opening



Connection for control by contact



Connection for control by voltage

Légende / Legend

ESD Emergency Shut Down

OC Closed contact = ON-OFF control

F Closing

O Opening

S Stop

Fu Fuse

TR Transformer

R1 Signaling

R2 Relay

R3 To be configured

R4 (Indication assignment see configuration table)

RD

Note:

To cancel Self Holding

Do Not Connect Terminal 34



Input Signal



Output Signal

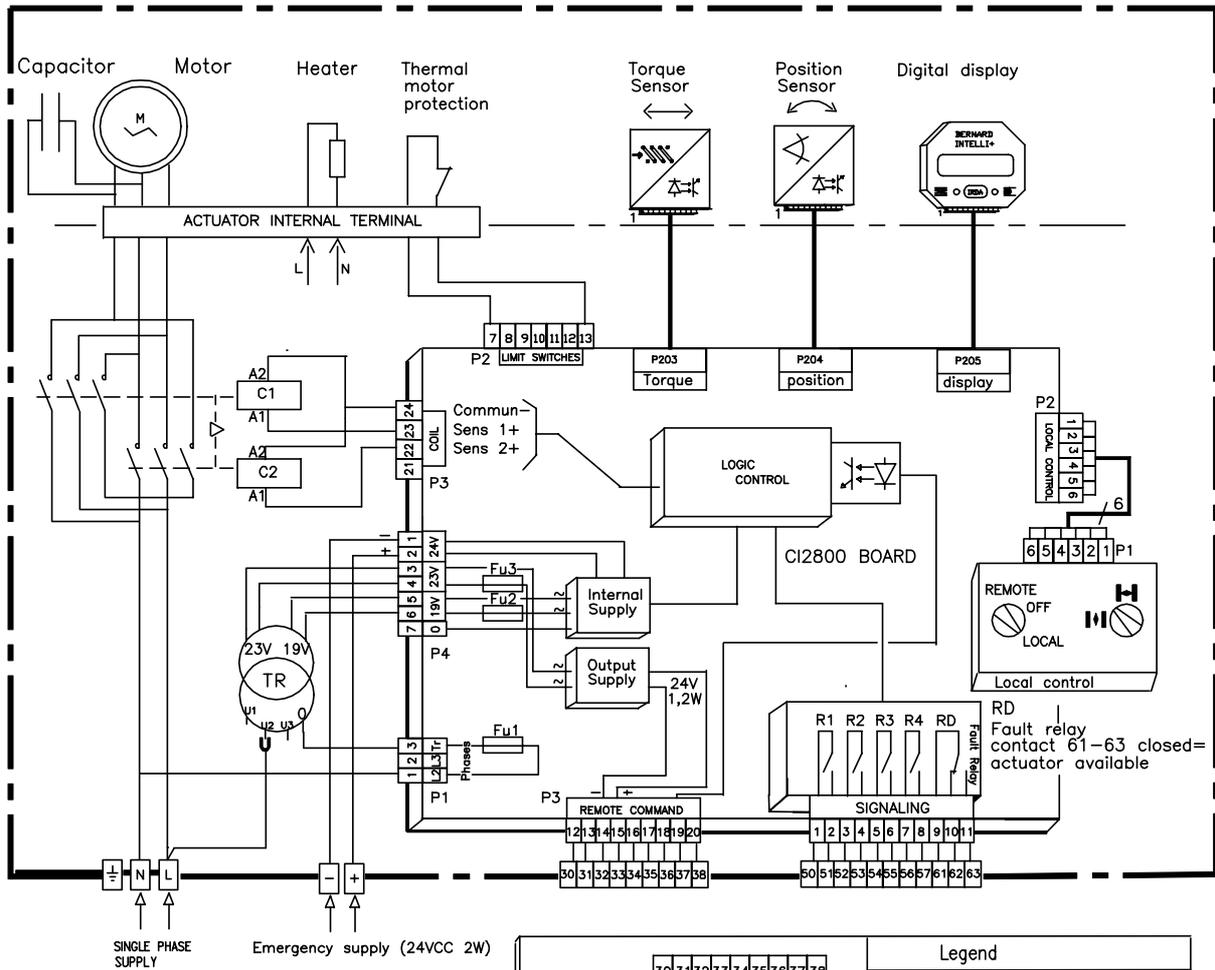
4-20mA
0-20mA
(260 ohms)

0-10V
(10 kohms)

4-20mA
0-20mA
(300 ohms)
max)

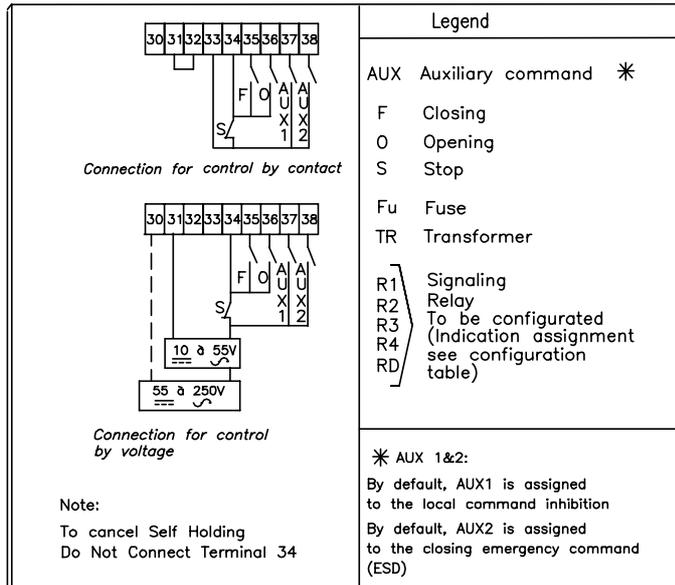
Connecting for Positioner

S40200/00

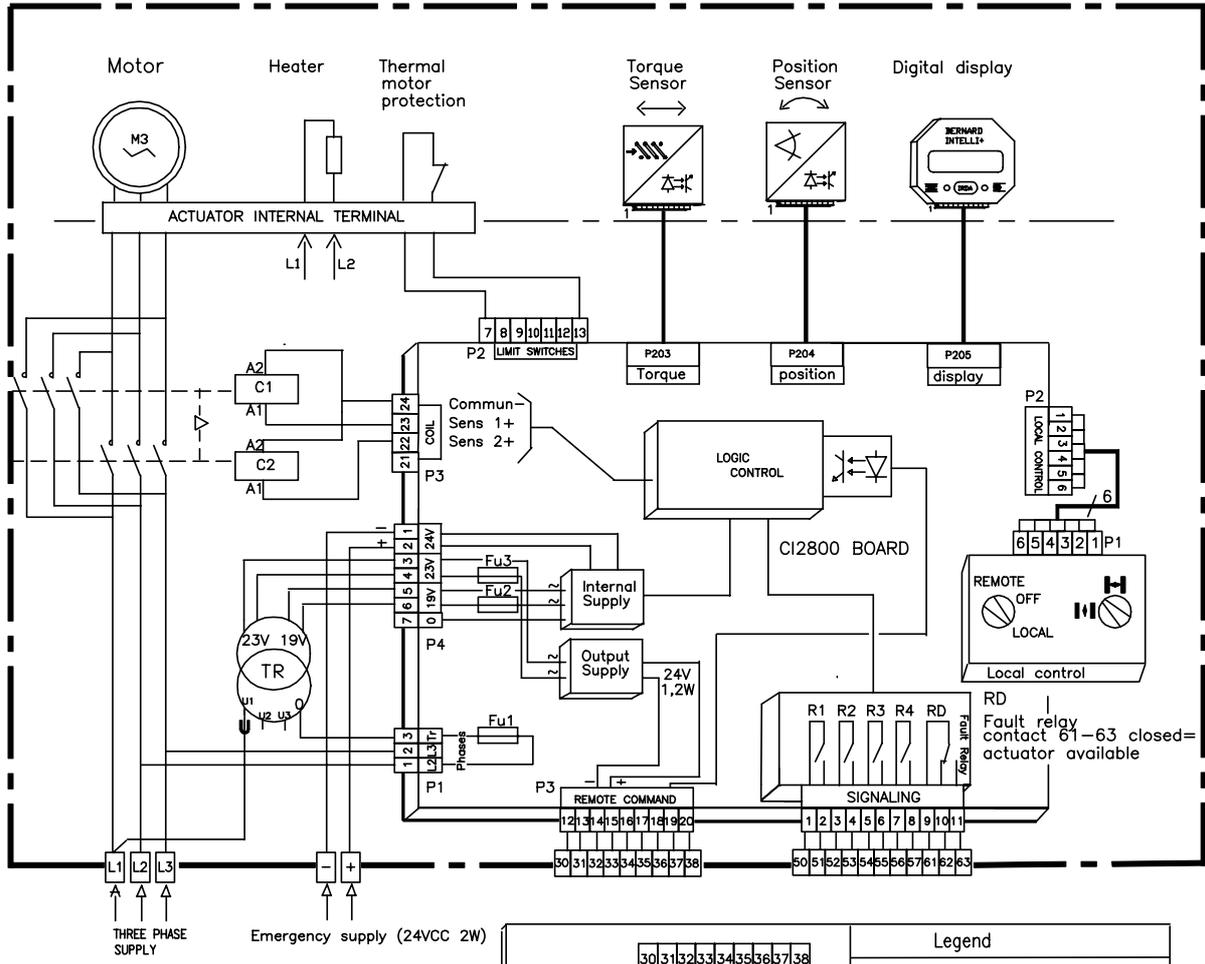


SINGLE PHASE SUPPLY

Emergency supply (24VCC 2W)



S40100/00



The order in the phase is not important
If one phase is missing, the actuator will not start
and gives a signal (Fault relay)

Connection for control by contact

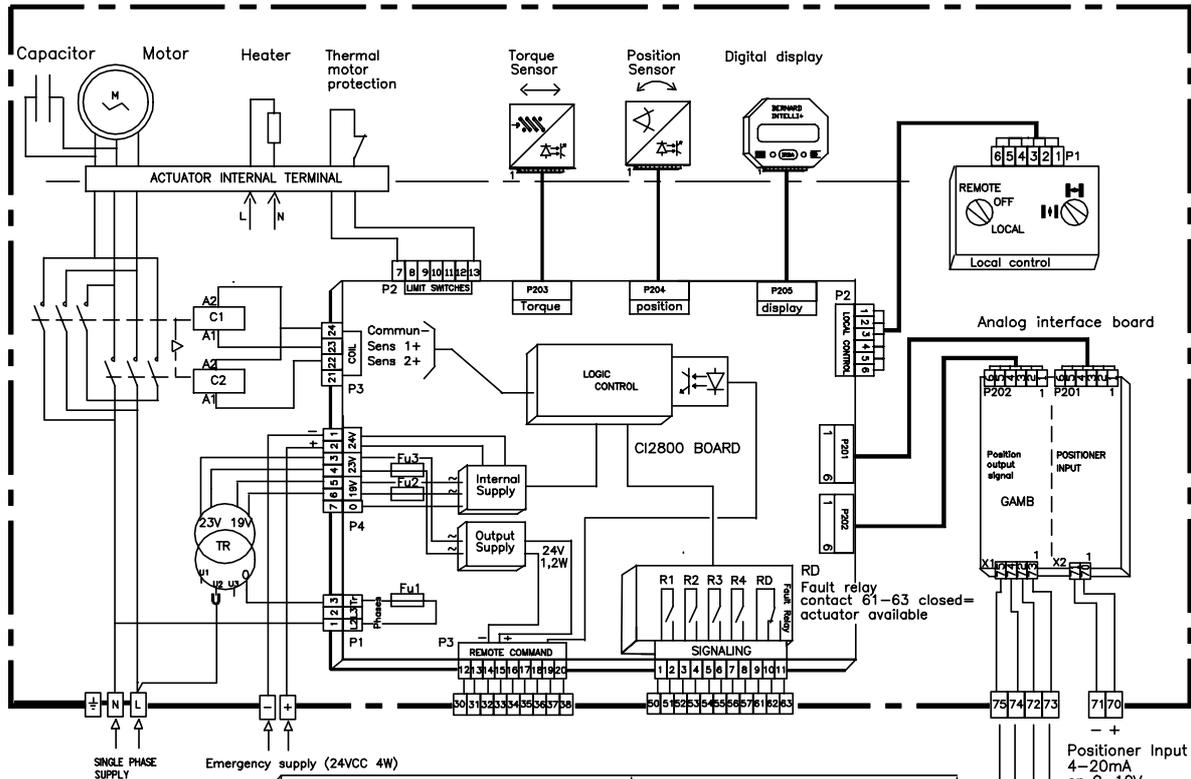
Connection for control by voltage

Note:
To cancel Self Holding
Do Not Connect Terminal 34

Legend	
AUX	Auxiliary command *
F	Closing
O	Opening
S	Stop
Fu	Fuse
TR	Transformer
R1	Signaling Relay To be configured (Indication assignment see configuration table)
R2	
R3	
R4	
RD	Fault relay contact 61-63 closed= actuator available

* AUX 1&2:
By default, AUX1 is assigned
to the local command inhibition
By default, AUX2 is assigned
to the closing emergency command
(ESD)

Wiring diagrams



Connection for control by contact

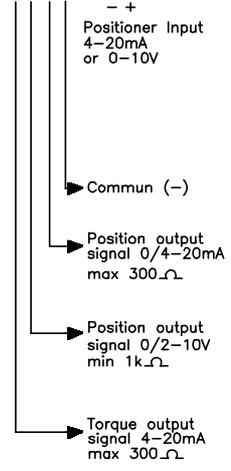
Connection for control by voltage

Note:
To cancel Self Holding
Do Not Connect Terminal 34

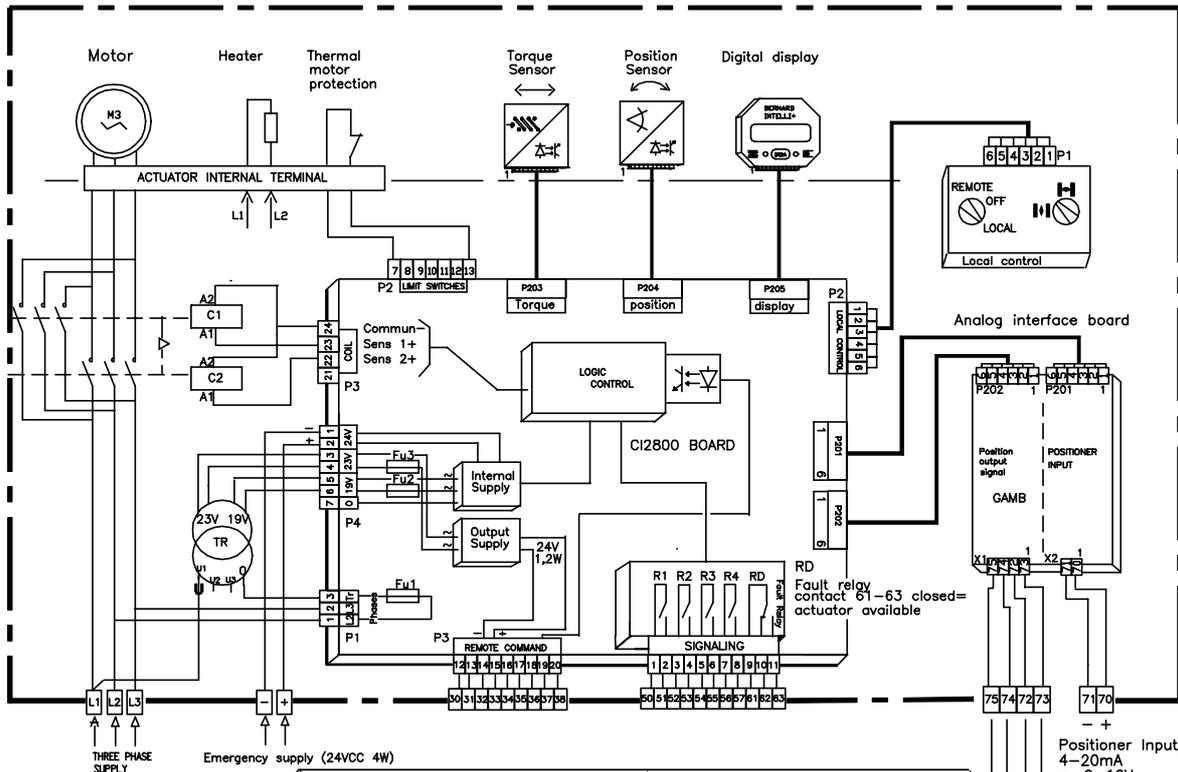
Legend

- AUX Auxiliary command *
- F Closing
- O Opening
- S Stop
- Fu Fuse
- TR Transformer
- R1 Signaling
- R2 Relay
- R3 To be configured (Indication assignment see configuration table)
- R4 To be configured (Indication assignment see configuration table)
- RD Fault relay contact 61-63 closed= actuator available

* AUX 1&2:
By default, AUX1 is assigned to the selection Aut/On-Off
Aut: Positioner
On-Off: Open/Close command
By default, AUX2 is assigned to the closing emergency command (ESD)

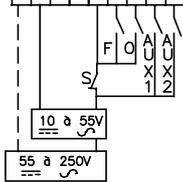


S45100/00



The order in the phase is not important
If one phase is missing, the actuator
will not start and gives a signal (Fault relay)

Connection for control by contact



Connection for control by voltage

Note:
To cancel Self Holding
Do Not Connect Terminal 34

Legend

AUX Auxiliary command *

F Closing

O Opening

S Stop

Fu Fuse

TR Transformer

R1 Signaling
R2 Relay
R3 To be configured
R4 (Indication assignment
see configuration
table)
RD

* AUX 1&2:

By default, AUX1 is assigned
to the selection Aut/On-Off
Aut: Positioner

On-Off: Open/Close command

By default, AUX2 is assigned
to the closing emergency command
(ESD)

Positioner Input
4-20mA
or 0-10V

Commun (-)

Position output
signal 0/4-20mA
max 300Ω

Position output
signal 0/2-10V
min 1kΩ

Torque output
signal 4-20mA
max 300Ω

AUSTRALIA <i>j.outram@peglerbeacon.com.au</i>	PEGLER BEACON AUSTRALIA Pty Ltd 25 South Street Rydalmere NSW 2116 AUSTRALIA Tel : + 61 2 98 41 23 45 Fax : + 61 2 96 84 64 39	MALAYSIA <i>tcmeng@pc.jaring.my</i>	ACTUATION & CONTROLS ENGINEER 7, Jalan Bayu 2/5 - Taman Perindustrian. Tampoi Jaya - 81200 JOHOR BAHRU Tel : +60 7 23 50 277 / 23 50 281 Fax : +60 7 23 50 280 / 23 50 285
AUSTRIA <i>hammermueller@IPU.co.at</i>	IPU ING PAUL UNGER Hardtmuthgasse 53 1100 WIEN Tel : +43 1 602 41 49 Fax : +43 1 603 29 43	MIDDLE-EAST <i>bernact@emirates.net.ae</i>	BERNARD MIDDLE-EAST Villa N°5-P.O. box 34079, 39b Street Al Jaffliya Compound, Al Jaffliya DUBAI - U.A.E. Tel : +971 4 39 80 726 Fax : +971 4 39 80 726
BELGIUM <i>christian.baert@bernard-benelux.com</i>	BERNARD BENELUX SA Rue Saint-Denis, 135 1190 BRUXELLES Tel : +32 2 34 34 122 Fax : +32 2 34 72 843	THE NETHERLANDS <i>bernard.benelux@12move.nl</i>	BERNARD BENELUX NV Sophialaan 5 3542 AR UTRECHT Tel : +31 30 24 14 700 Fax : +31 30 24 13 949
BRAZIL <i>jcn@jcn.com.br</i>	JCN Av. Mutinga, 3188 - Pirituba CEP 05110-000 Sao Paulo SP Tel : +55 11 39 02 26 00 Fax : +55 11 39 02 40 18	NORWAY <i>post@fagerberg.no</i> <i>www.fagerberg.no</i>	FAGERBERG NORGE a.s P.O box 522 - HØYDEN 1522 MOSS Tel : +47 69 26 48 60 Fax : +47 69 26 73 33
CHINA <i>office@tadella.com</i> <i>www.tadella.com</i>	TADELLA LIMITED B701, Hong-an mansion, 188 Chanoei Street, Dongcheng District, BEIJING - CHINE 100010 Tel : +86 10 6517 0601 / 0602 Fax : +86 10 6517 0603	POLAND <i>matzanke@pol.pl</i>	MARCO Ul. Ksiezykowa 1 01-934 WARSZAWA Tel : +48 22 864 55 43 Fax : +48 22 864 94 22
CZECH REPUBLIC <i>brno@fluidbohemia.cz</i>	FLUIDTECHNIK BOHEMIA s.r.o. Olomoucka 87 627 00 Brno Tel : +420 548 213 233-5 Fax : +420 548 213 238	PORTUGAL <i>import.export@pinhol.com.pt</i>	PINHOL, GOMES & GOMES LDA. Caminho dos Confeiteiros, 41 - 41 A Portela de Carnaxide 2790-051 Carnaxide Tél : +351 21 425 68 50 Fax : +351 21 425 68 59
DENMARK <i>jh@armatec.dk</i> <i>www.armatec.dk</i>	ARMATEC A/S Mjølnersvej 4-8 DK 2600 Glostrup Tel : +45 46 96 00 00 Fax : +45 46 96 00 01	SINGAPORE <i>acesin@singnet.com.sg</i>	ACTUATION & CONTROLS ENG. (ASIA) Block 2 Bukit Batok Street 24 N°07-19 Skytech SINGAPOUR 659480 Tel : +65 65 654 227 Fax : +65 65 650 224
FINLAND <i>info@soffco.fi</i> <i>www.soffco.fi</i>	OY SOFFCO AB Karapellontie 11 FIN-02610 ESPOO Tel : +358 9 54 04 620 Fax : +358 9 54 04 6250	SPAIN <i>bernardservo@wanadoo.es</i>	BERNARD SERVOMOTORES C/ Valentin Beato, 11 - 1°D 28037 MADRID Tel : +34 91 30 41 139 Fax : +34 91 32 73 442
GERMANY <i>bernard@deufra.de</i> <i>www.deufra.de</i>	DEUFRA GMBH Kasinostrasse 22 53840 TROISDORF Tel : +49 22 41 98 340 Fax : +49 22 41 98 34 44	SWEDEN <i>christer.noren@fagerberg.se</i> <i>www.fagerberg.se</i>	G. FAGERBERG AB Postbox 12105 40241 GOETEBORG Tel : +46 31 69 37 00 Fax : +46 31 69 38 00
GREECE <i>yanpap@accig.gr</i>	PI&MS 3 Pendelis Str. Pallini 153 51 Athènes - Hellas Tel : +30 2 10 66 69 129 Fax : +30 2 10 66 69 130	SWITZERLAND <i>info@matokem.com</i> <i>www.matokem.com</i>	MATOKEM AG Binnergstrasse 86 CH - 4123 ALLSCHWIL Tel : +41 61 483 15 40 Fax : +41 61 483 15 42
HUNGARY <i>apagyi@elender.hu</i>	APAGYI TRADEIMPEX KFT 1145 Budapest Stefania u. 63/c. Tel : +36 1 223 1958 Fax : +36 1 273 0680	THAILAND <i>pinvidic@ksc7.th.com</i>	BERNARD SOUTH-EAST ASIA Liaison office Thailand Bangkok 10110 Thailand Tel : +66 1 814 57 30 Fax : +66 2 255 26 38
INDIA <i>mail@ilpgt.com</i>	INSTRUMENTATION LTD Kanjikode West 678623 PALGHAT-KERALA Tel : +91 491 56 61 27 / 56 61 28 Fax : +91 491 56 61 35 / 56 62 40	TURKEY <i>cimtek@superonline.com</i>	CIMTEK A.S. Genclik Caddesi N°9 Isiklar Binasi TANDOGAN 06570 - ANKARA Tel : +90 312 232 67 00 Fax : +90 312 232 53 64
ITALY <i>derman_vanni@pechiney.com</i>	PECHINEY ITALIA S.P.A. Viale F. Restelli 5 20124 MILAN Tel : +39 02 66 89 31 Fax : +39 02 60 81 513	UNITED ARABS EMIRATES <i>emhold@emirates.net.ae</i>	EMIRATES HOLDINGS P.O. Box 984 ABU DHABI Tel : +97 12 644 73 73 Fax : +97 12 644 40 66
JAPAN <i>yoshiro.shimizu@pechiney.com</i>	PECHINEY JAPAN 29 Fl. Shinjuku Mitsui Bldg 2-1-1 Nishi Shinjuku, Shinjuku-ku, Tokyo 163-0429 JAPON Tel : +81 3 33 49 66 39 Fax : +81 3 33 49 67 50	UNITED-KINGDOM <i>enquiries@zoedale.co.uk</i> <i>www.zoedale.co.uk</i>	ZOEDALE Plc Stannard Way / Priory Business Park BEDFORD MK44 3WG Tel : +44 12 83 28 32 Fax : +44 12 83 28 00
KOREA (Rep of) <i>bernard@humanitc.com</i> <i>www.humanitc.com</i>	HUMAN INFRASTRUCTURE TECH. 3 Fl. SungWon Building 813-1 Bangbae-Dong, Seocho-Gu SEOUL 137-832 Tel : +82 2 532 2604 Fax : +82 2 3478 7089	USA <i>bernard.sales@bernardcontrols.com</i> <i>www.bernardcontrols.com</i>	BERNARD CONTROLS Inc 15740 Park Row, Suite 100 HOUSTON - TEXAS 77084 Tel : +1 281 578 66 66 Fax : +1 281 578 27 97

BERNARD

L. BERNARD

4 rue d'arsonval - BP 91 - 95505 GONESSE. France
Tel. +33.1.34.07.71.00 - Fax +33.1.34.07.71.01

E-mail : mail@bernard-actuators.com - Internet . <http://www.bernard-actuators.com>

