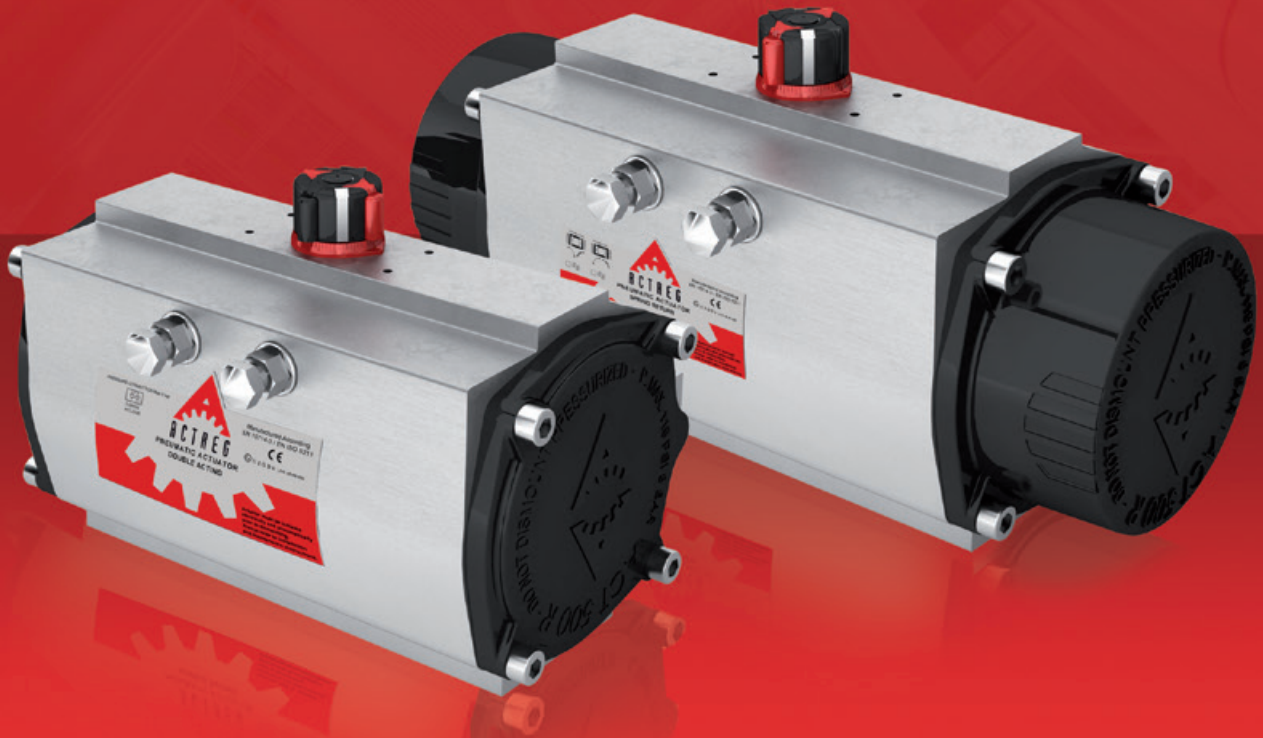




The art of power and perfection



PNEUMATIC ACTUATORS RACK AND PINION

三千控制阀网
www.cv3000.com





The art of power and perfection

ACTREG, established in 1992, is a multinational company specializing in the manufacture and sales of high quality actuators for valves requiring a rotary quarter turn movement for either On/Off or modulating duty. The expertise and know how has made ACTREG leader in actuation technology.



ACTREG provides world coverage thanks to the strategic locations of its factories and offices. The international distribution ensures quick availability and more important, personalized service for valve manufacturers, valve stocking distributors and contractors.

ESTABLISHED IN
1992

INTERNATIONAL
Distribution

DESIGN &
Quality

PERSONALIZED
Service



The art of power and perfection

RACK AND PINION
Aluminium housing

TORQUES UP TO
6.500 Nm

ACTUATORS IN
14 different sizes

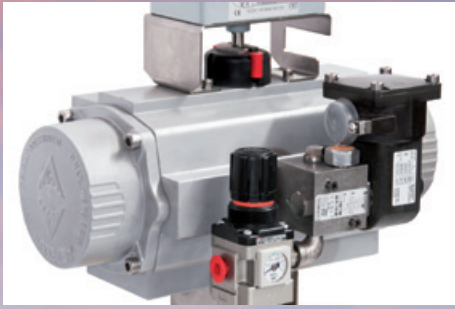
We are a manufacturer of rack and pinion aluminium housing actuators with torque figures up to 6,500 Nm and scotch yoke actuators for heavy duty service up to 700.000 Nm. Our products offer reliable and dependable automation for ¼ turn valves.

Engineered and built to withstand most of the applications and environmental conditions, the precision in design and quality provides a long and safe operational performance in valve control.

ACTREG has invested in quality assurance, state-of-the-art machining and testing facilities in order to assist customers in safely controlling their processes.

ACTREG engineers are happy to help you with your automation requirements.

The art of power and



SCOTCH YOKE
Heavy duty service

TORQUES UP TO
700.000 Nm

ACTUATORS IN
29 different sizes

Certificates

ACTREG, S.A. has a Quality Management System certified in accordance with the requirements of ISO 9001:2008 for the design, development, manufacturing and distribution of pneumatic actuators and accessories for valves. Certified by BVQI No. ESPMDD005463.

ADA/ASR 10 up to ADA/ASR 300 are classified as category SEP in accordance with the requirements of Pressure Equipment Directive 97/23/EC. ADA/ASR 500 up to ADA/ASR 4000 are classified as Category I, Procedure module A.

All ACTREG pneumatic actuators are classified for use in potentially explosive atmospheres as Group II Category 2, suitable for zones 1, 2, 21 and 22 in accordance with Annex VIII of Directive 94/9/CE (ATEX). Technical file is deposited to LCIE, No. LCIE 05 AR 022.

ACTREG pneumatic actuators have SIL 3 (Safety Integrity level 3) certificate. The ACTREG actuators meets manufacturer design process requirements of Safety Integrity Level (SIL) 3. This is intended to achieve sufficient integrity against systematic errors of design by the manufacturer.



perfection

MAIN FEATURES & CHARACTERISTICS

- 1 BODY**

The body is hard anodized aluminum with low surface roughness making it extremely abrasion resistant. Every single actuator is tested and provided with a unique serial number for traceability. This heat number is stamped on the body.
- 2 PINION**

The carbon steel shaft is electroless nickel plated that protects against external and internal corrosion and is an anti-blowout design.
- 3 ADJUSTMENT STROKE**

External stroke adjustment for 5 degree is placed on opposite side of Namur connection for better manipulation when the solenoid valve is assembled.
- 4 PISTONS**

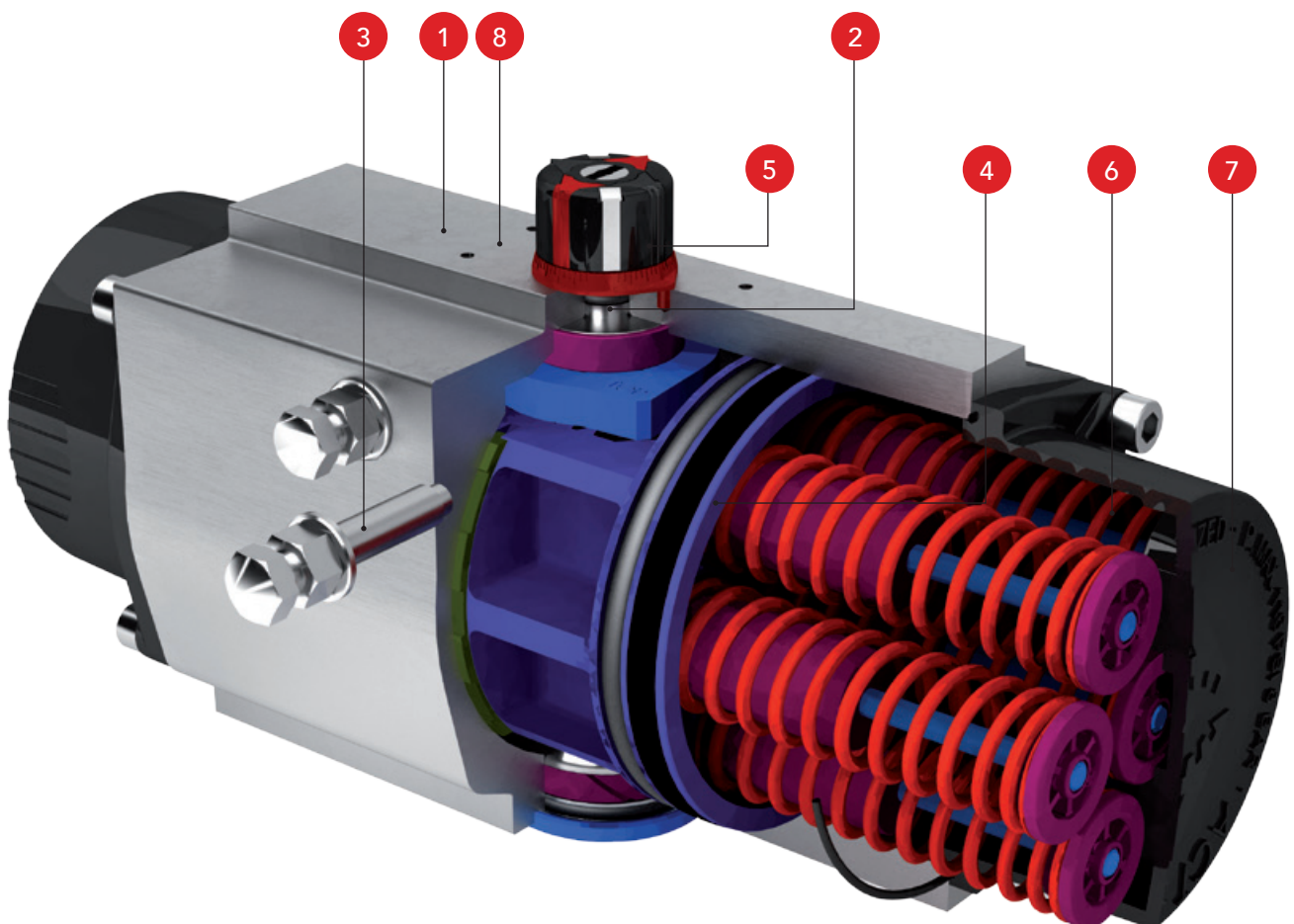
Pistons are coated with a special treatment for corrosion resistance. Backlash is avoided by a special tooth machining. The pistons have a 3-way guide for low friction between body and pistons. The pistons are also provided with an integral guide machined between pistons and pinion.
- 5 POSITION INDICATOR**

Multi-function indicator suitable for mechanical or inductive switches is a standard feature. There are many different combinations so no need for external indicators.
- 6 SPRINGS**

This system allows an easy fit for the necessary torque to open or close the valve which offers safe replacement and manipulation.
- 7 END CAPS**

There are different end caps for double acting and spring return for quick and safe identification without need to read label. End caps are epoxy coated as a standard protecting them against environmental corrosion.
- 8 CONNECTION VDI/VDE 3845**

The assembly of switch boxes, proximity switches or positioners take place by means of the Namur connection VDI/VDE 3845, which is a standard feature in all of our models. The height of the axis for all our products is 30mm, which means with a single model box or positioner all manufacturing ranges can be covered.



Types of Actuators

Double Acting & Spring Return



ADA
DOUBLE
ACTING
ACTUATOR



ASR
SPRING
RETURN
ACTUATOR

Rack and pinion design | Linear torque | Rotation angle $90^\circ \pm 5^\circ$ | Antifriction sliding bearings | Long life without maintenance | Total safety for springs replacement | Mounting of solenoid valves acc. NAMUR Std. | Mounting of devices acc. NAMUR VDI/VDE 3845 Std. | Coupling according to ISO 5211 and DIN 3337 (Octagonal drive) | Multi-function position indicator suitable for mechanical and inductive direct switches.

Working temperature:

- 30 °C to 100 °C in Standard Construction.
- 15 °C to 150 °C with FKM O-rings (high temperature execution).
- 40 °C to 80 °C with Silicone O-rings (low temperature execution).
- 60° C to 80° C with Silicone O-rings and 316 pinion (extreme low temperature).

Maximum working pressure:

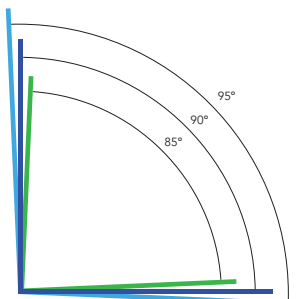
8 bar (116 psig). (Except ADA10 at 10 barg)

Bi-Directional Travel Stops

ACTREG pneumatic actuators are provided with bi-directional pinion travel stops.

Side located stops allow a full $\pm 5^\circ$ travel adjustment between 85° and 95° . These travel stops are designed to absorb the maximum rated torque of the actuator and the maximum impact loads associated with recommended travel speed.

Adjustment of the travel limits are accomplished by unscrewing the locking nuts, turning the respective left and right stop studs to reduce or increase the travel angle and screwing the locking nuts.



Options On Request

- Locking device with padlock.
- Fast acting actuators.
- 100% travel adjustment stroke.
- Fire proof systems (K-mass, blanket).

Coatings for special applications

Actreg Pneumatic actuators are protected against external corrosion by proper material selection or surface treatment.

Standard execution

Anticorrosive C3 according to EN-ISO 12944-2

PARTS	DESCRIPTION	COATING
BODY	Hard anodized	25-30 μm
END CAPS	Epoxy painted	80-90 μm
STEM	Carbon Steel + ENP	25-30 μm
SCREWS	A2	

Execution A

Anticorrosive C5-I/C5-M according to EN-ISO 12944-2

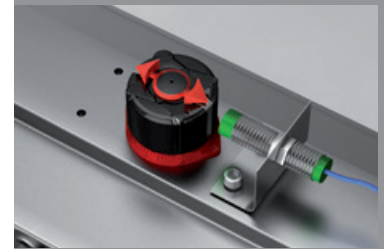
PARTS	DESCRIPTION	COATING
BODY	Epoxy painted	200-300 μm
END CAPS	Epoxy painted	140-180 μm
STEM	SS 316	
SCREWS	A4	

Execution B

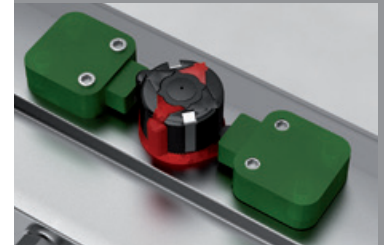
Anticorrosive C4 according EN-ISO 12944-2

PARTS	DESCRIPTION	COATING
BODY	Epoxy painted	80-90 μm
END CAPS	Epoxy painted	80-90 μm
STEMS	Carbon Steel + ENP	
SCREWS	A2	

Multi-function position indicator



Inductive switch indicating open or closed position



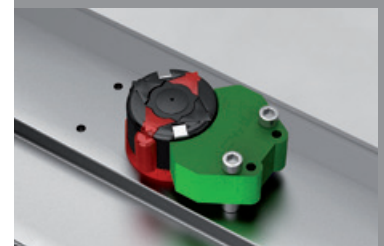
Mechanical switches indicating open and close



Inductive switches indicating open and closed position



Namur connection for direct mounting switch box



Inductive switches indicating open and closed position (45° detecting switches...)

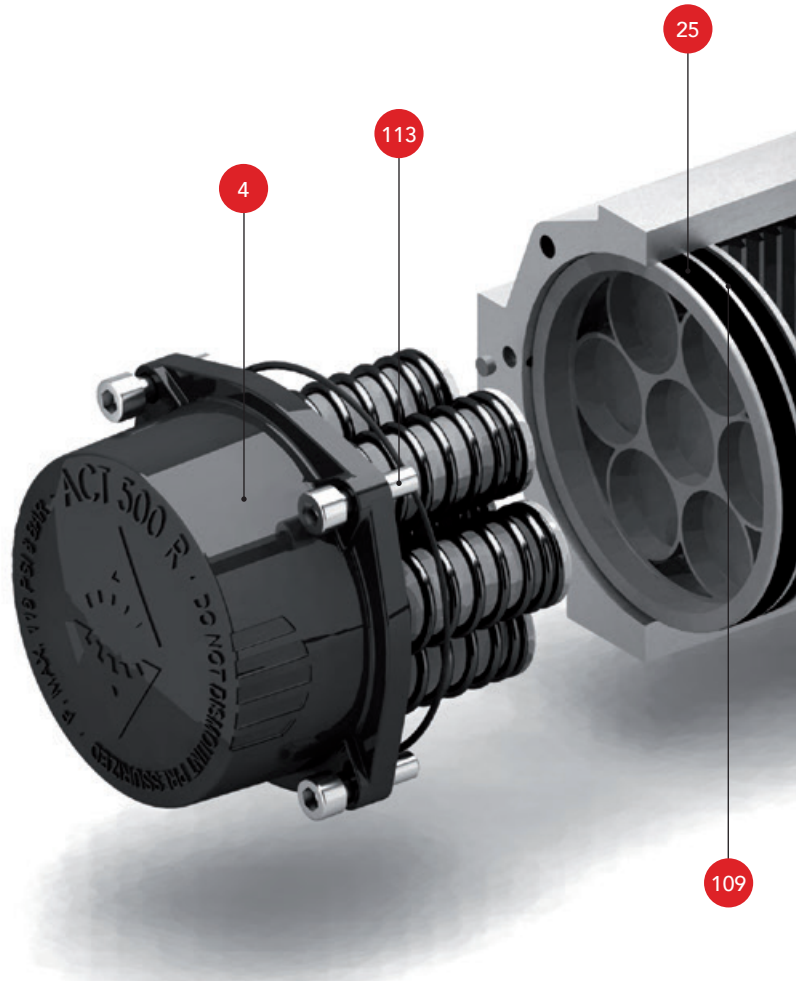


Inductive switches indicating open and closed position (up/down detecting switches...)

PARTS & MATERIALS

- 1 Body
Aluminium Hard Anodized
- 2 Piston
Aluminium
- 3 Pinion
Nickel Plated Carbon Steel
- 4 End Caps
Aluminium Epoxy Coated
- 5 Soft Pinion Washer *
Polyamide PA 6,6
- 6 Slide Piston *
Polyamide PA 6,6 + 30% G.F.
- 7 Lug **
Nickel Plated Carbon Steel
- 8 Pinion Washer
Stainless Steel
- 10 Upper Pinion Bearing
Polyamide PA 6,6 (bronze for sizes 500 and 2100)
- 12 Stop
ASTM A 105
- 14 Spring's Long Support
Polyamide PA 6,6
- 15 Spring's Short Support
Polyamide PA 6,6
- 16 Leveling Screw
Stainless Steel
- 18 Bolt
Stainless Steel
- 19 Spring
DIN 2076 · D-5.6
- 20 Position Indicator
Polypropylene
- 21 Cam
Polypropylene
- 23 Centering Ring
Nickel Plated Carbon Steel
- 25 Slide Guide *
Polyamide PA 6,6 + 30% G.F.
- 26 Lower Pinion Bearing *
Polyamide PA 6,6
- 109 O-Ring *
NBR
- 110 O-Ring *
NBR
- 111 O-Ring *
NBR

SPRING RETURN ACTUATOR (ASR)



- 113 Bolt
Stainless Steel
- 118 O-Ring *
NBR
- 119 O-Ring *
NBR
- 125 Washer
Stainless Steel
- 471 Slip Washer *
Stainless Steel
- 934 Nut
Stainless Steel
- 985 Nut
Stainless Steel

POSITION INDICATOR

FROM SIZE 20 TO 850

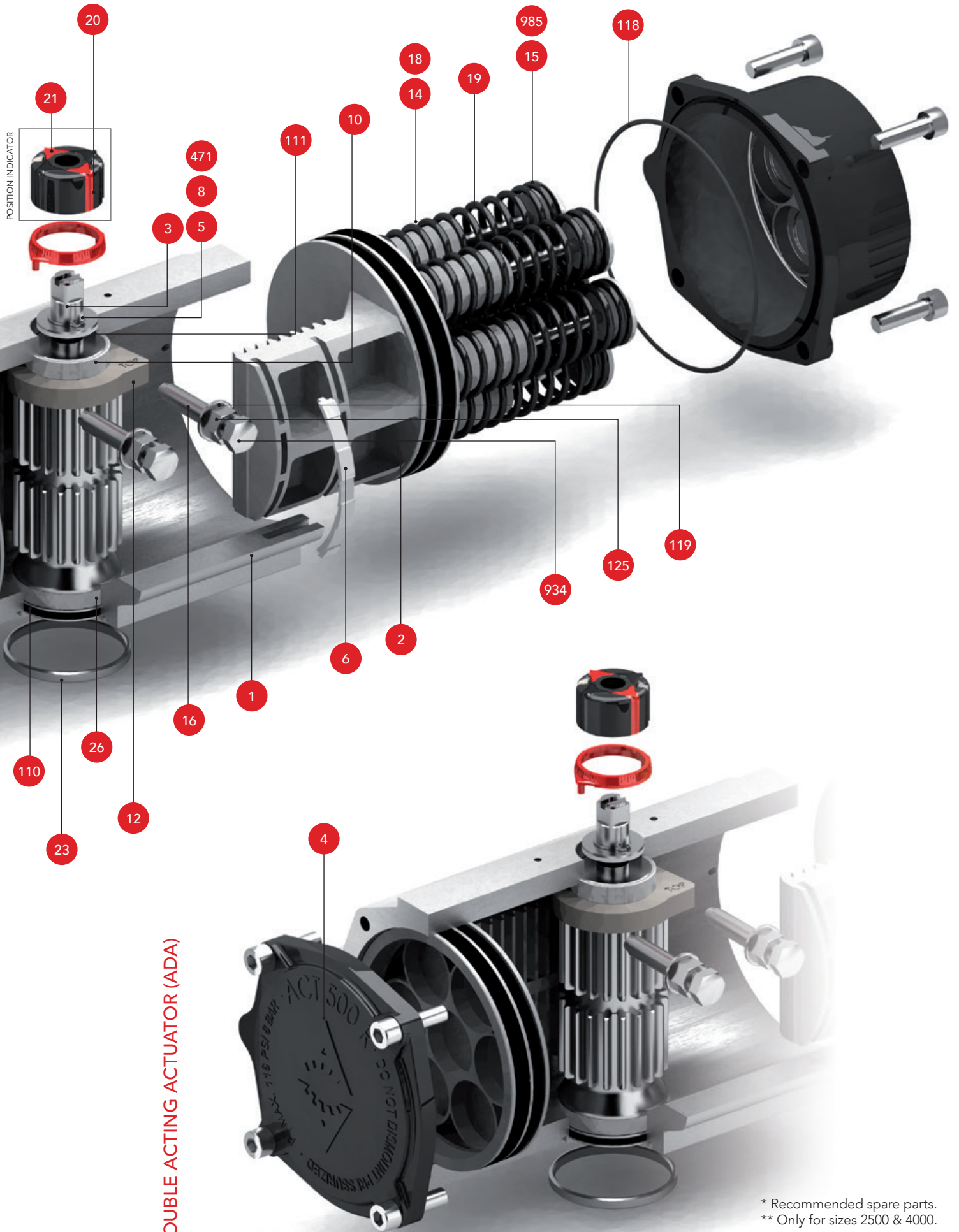


Inserts
Stainless Steel

FROM SIZE 1200 TO 4000



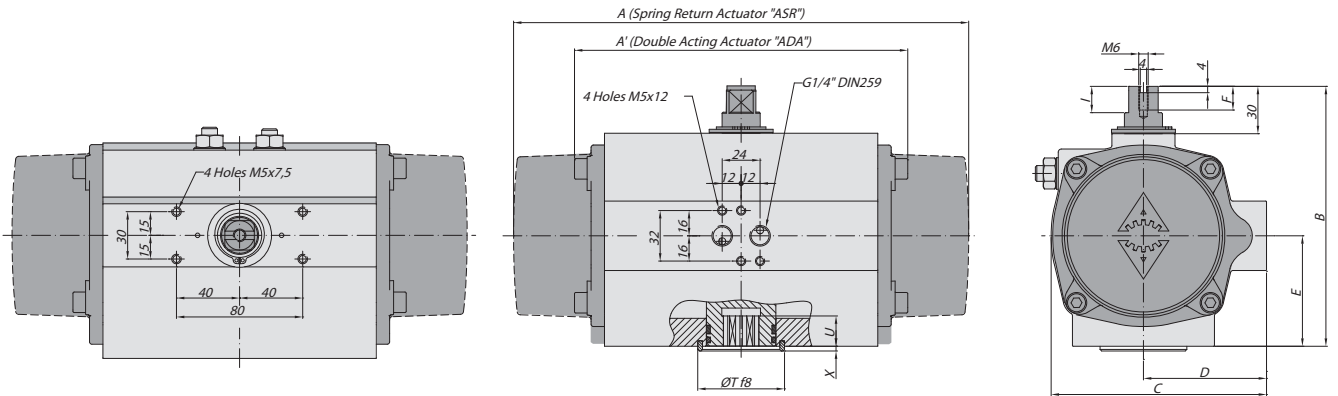
Position indicator & Cams
Polypropylene



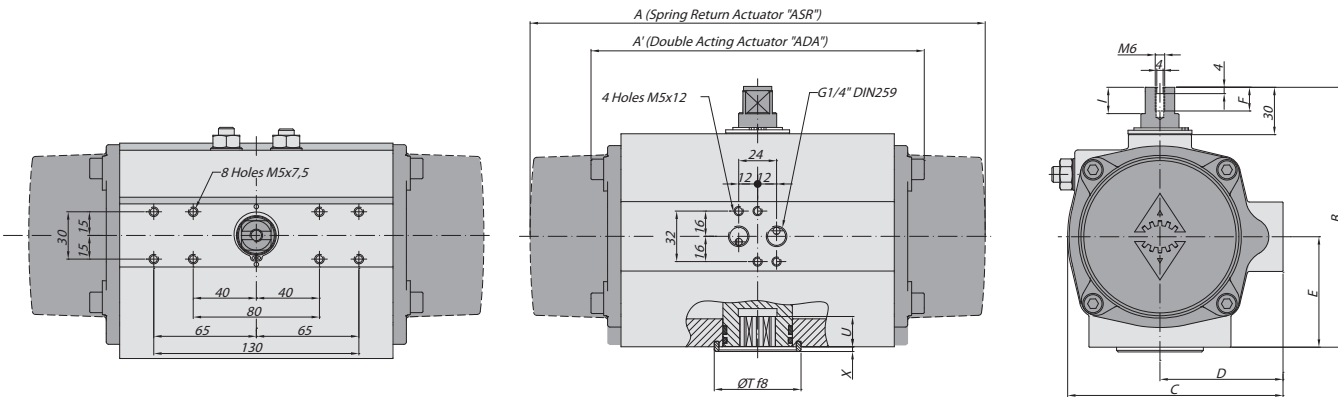
* Recommended spare parts.
 ** Only for sizes 2500 & 4000.

GENERAL DIMENSIONS

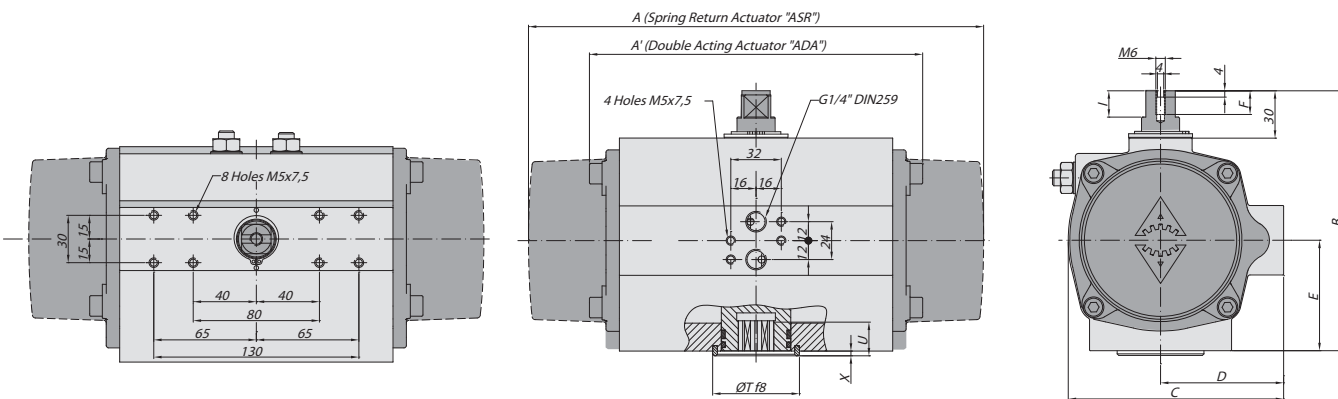
SIZES 10 | 20 | 40 | 80 | 130 | 200 | 300 | 500 | 850



SIZES 1200 | 1750



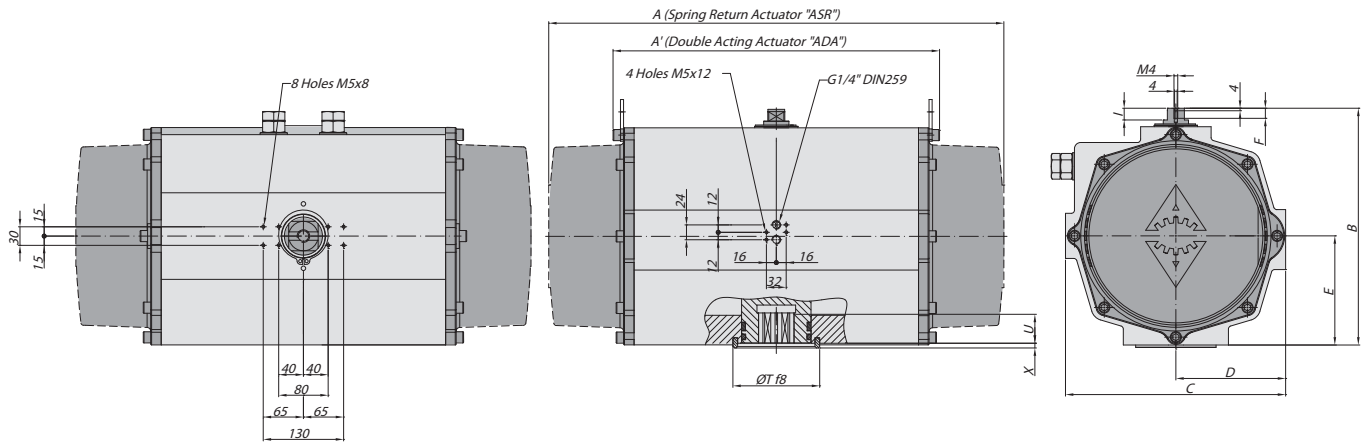
SIZE 2100



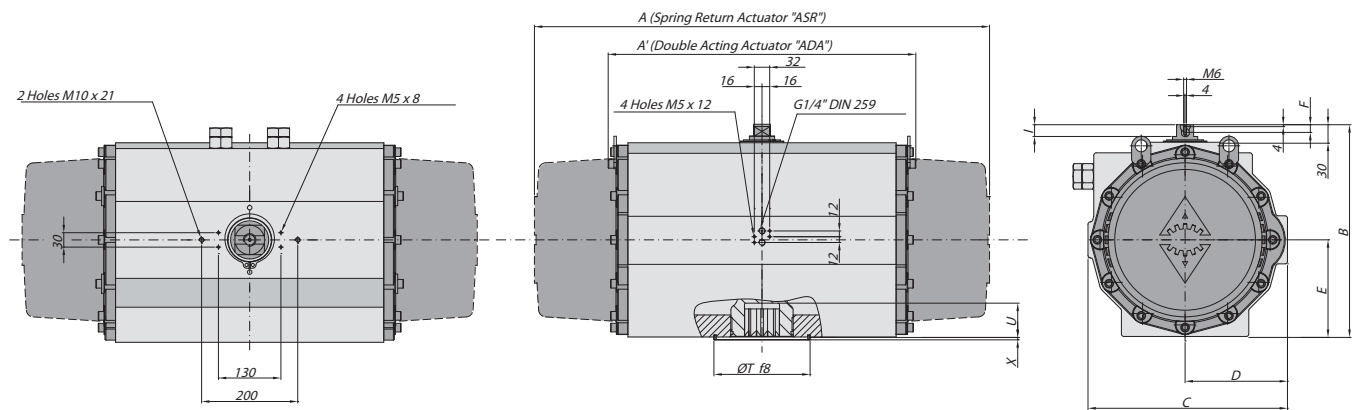
DOUBLE ACTING & SPRING RETURN ACTUATORS GENERAL DIMENSIONS (mm)

SIZE	A	A'	B	C	D	E	F	I	R	øS	ISO 5211	øL	MxV	ISO 5211	øL1	M1xV1	øT	X	U
10	-	100	76	56	33	23	9	6	9	12,5	F03	36	M5x8	-	-	-	11	2	12
20	163	145	96	76	48	34	9	12,5	9	12,5	F03	36	M5x8	F05	50	M6x10	25	2	10
20	163	145	96	76	48	34	9	12,5	14	18,1	F05	50	M6x10	-	-	-	35	3	12
20	163	145	96	76	48	34	9	12,5	14	18,1	F04	42	M5x10	-	-	-	35	3	12
40	195	158	115	91	56	45	9	12,5	14	18,1	F04	42	M5x10	-	-	-	35	3	12
40	195	158	115	91	56	45	9	12,5	14	18,1	F05	50	M6x10	-	-	-	35	3	12
80	217	177	137	111	66	55	12	12,5	17	22,5	F05	50	M6x10	F07	70	M8x16	55	3	19
130	258	196	147	122	71	60	12	12,5	17	22,5	F05	50	M6x10	F07	70	M8x16	55	3	22
200	299	225	165	135,5	78	70	12	12,5	17	22,5	F07	70	M8x16	F10	102	M10x16	55	3	23

SIZE 2500



SIZE 4000



ISO 5211 DETAIL

SIZES

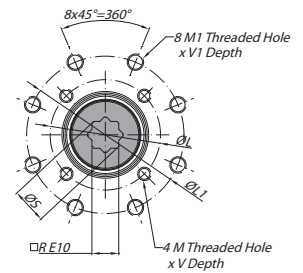
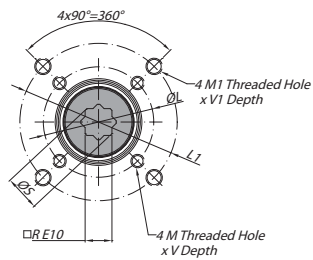
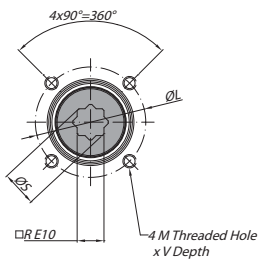
10 | 20 | 40 | 500 | 1750 | 2100 | 2500

SIZES

20 | 80 | 130 | 200 | 300 | 850 | 1200

SIZE

4000



DOUBLE ACTING & SPRING RETURN ACTUATORS GENERAL DIMENSIONS (mm)

SIZE	A	A'	B	C	D	E	F	I	R	øS	ISO 5211	øL	MxV	ISO 5211	øL1	M1xV1	øT	X	U
300	348,5	273	182	152,5	86	80	12	12,5	22	28,5	F07	70	M8x16	F10	102	M10x16	70	3	24
500	397	304	199	173	96	85	12	12,5	22	28,5	F10	102	M10x16	-	-	-	70	3	32
850	473	372	221	191,5	106	98	12	12,5	27	36,5	F10	102	M10x17	F12	125	M12x20	85	3	39
1200	560	439	249	212,5	116	114	16	18,6	36	48,5	F10	102	M10x17	F14	140	M16x26	100	4	48
1750	601	461	280	242,5	131	130	16	18,6	36	48,5	F14	140	M16x26	-	-	-	100	4	50
2100	702	510	313	276,5	148	147	16	18,6	46	60,1	F16	165	M20x29	-	-	-	130	4	50
2500	738	518	383	356	177,5	176,5	16	18,6	46	60,2	F16	165	M20x29	-	-	-	130	4	58
4000	940	630	434	415	213	201	16	18,6	55	72,5	F16	165	M20x30	F25	254	M16x30	200	4	60

OTHER PRODUCTS



SY SERIES

- Heavy duty applications.
- Hydraulic or pneumatic actuators.
- Scotch yoke design.
- Up to 258616 Nm in double acting and 111245 Nm in Spring return.
- Modular design.
- ATEX.
- CE.
- VDI/VDE 3845.
- ISO 5211.



DECLUTCHABLE GEAR BOXES

- Aluminium Housing.
- Rugged construction.
- Sealed to IP-65.
- ACTREG's Actuators direct mounting.
- Compact design-low weight.
- Integral top flange.
- User friendly.
- Double adjustment stroke.



BRACKETS AND COUPLINGS

- Stainless steel, carbon steel or other materials upon request.
- Machined for every kind of valve.



SWITCH BOXES

- Micromechanical switches or inductive switches.
- Inductive switches for direct mounting.
- ATEX execution.
- Feedback and positioner.



PNEUMATIC CONTROL DESIGNS

- Solenoid valves, filters, quick exhaust valves, tubing, regulators...
- Line Break systems.
- Emergency shut down systems.
- Design and manufacturing control cabinets.
- Remote control cabinets.



SPECIAL ACTUATORS

- FIRE-proof.
- Fast acting actuators.
- 100% adjustment stroke actuators.
- Special coatings.
- Special actuators for critical applications.

ACTREG MOBILE APPLICATION

The all-in-one ACTREG interface is a “must have” for the modern automation valve business. Ideal for work, the ACTREG interface can be used to calculate torques with or without safety factors and allows you to make your own configuration with ACTREG actuators. You can also convert any unit of measurement, dimensions, torques, temperatures, and material equivalences from most common standards.

The sleek, easy-to-use interface makes actuator and torque calculations quick and easy. The user-friendly screen interface lets you see items at-a-glance, allowing you to convert quickly while on-the-go.

We have also included some information about ACTREG and the entire product range. This is a highly effective interface made by ACTREG. Anytime, anywhere, and in any situation.



New application

User-friendly interface

Calculate torques

Unit converter



Available on the
App Store



for iPhone
Download now!



Available on the
Google play



for Android
Download now!





ACTREG, S.A.U. (Headquarters)

Carrer de la Ciència, 45-47
08840 Viladecans
Barcelona (Spain)
Phone +34 93 661 44 10
Fax +34 93 654 33 93
actreg@actreg.com

ACTREG do Brasil, Sorocaba (SP)

Avenida Liberdade, 4565
Bairro Iporanga - Sorocaba - SP
CEP 18.087-170
Sao Paulo, Brasil
Phone: 0055 15 3228 1010
Fax: 0055 15 3235 9511
actreg@actregdobrasil.com.br

ACTREG Shanghai Actuator Co. Ltd.

No. 125, Ji Ye Road
SheShan Industrial Zone
Songjiang District, Shanghai, China
P.R.C. 201602
Phone: +86 21 57796818
Fax: +86 21 57792426
sales@jc-valves.net.cn

ACTREG UK, LTD

Units 2 & 3 Henson Close
Telford Way Industrial Estate
Kettering Northants NN 16 8PZ
United Kingdom
Phone: 0044 1536412525
Fax: 0044 1536521616
sales@actreg.co.uk

ACTREG North America

20675 Boul. Industriel
Ste. Anne-de-Bellevue, Québec
H9X 4B2 Canada
Toll Free: 1 800 667 4819
Phone: 001 514 457 5777
Fax: 001 514 457 1348
trueline.sales@trueline.ca

For further information visit our website
www.actreg.com

Edition 11/2016