



The art of power and perfection

PNEUMATIC ACTUATORS

ACT-500

PDS-AC-500 Rev. 5



Manufacturing program:

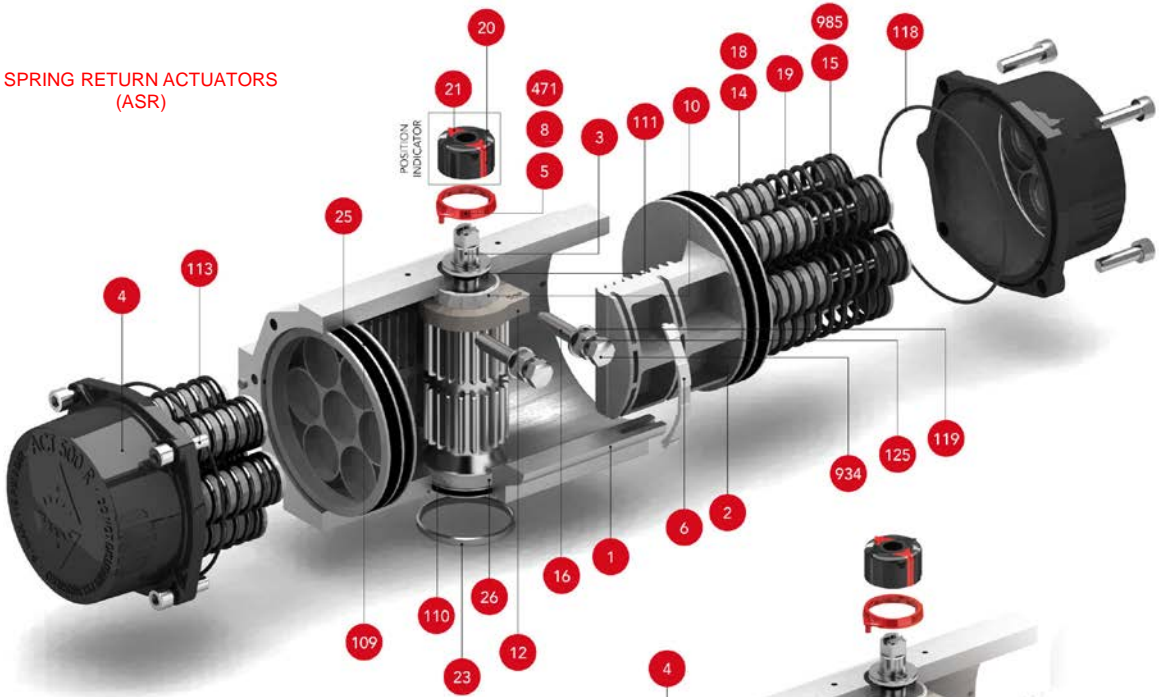
Ex II 2 G D c – LCIE 05 AR 022

Quality & Environmental Management:



TECHNICAL FEATURES

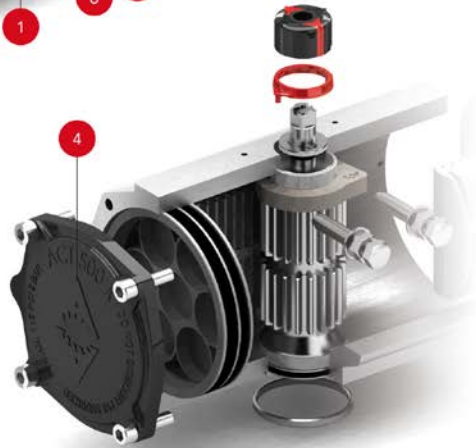
SPRING RETURN ACTUATORS (ASR)



POSITION INDICATOR



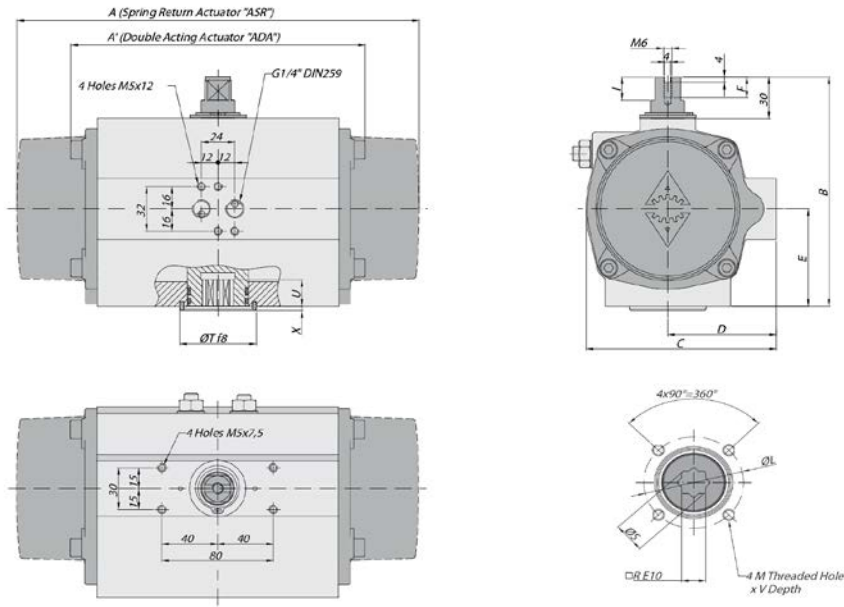
DOUBLE ACTING ACTUATORS (ADA)



PARTS & MATERIALS

| Item | Description | Material | Item | Description | Material |
|------|----------------------------|-----------------------------|------|----------------------|-----------------------------|
| 1 | Body | Aluminium Hard Anodized | 23 | Centering Ring | Nickel Plated Carbon Steel |
| 2 | Piston | Aluminium | 24 | Plug Air Stop | NBR |
| 3 | Pinion | Nickel Plated Carbon Steel | 25 | Slide Guide | Polyamide PA 6.6 + 30% G.F. |
| 4 | End Caps | Aluminium Epoxy Coated | 26 | Lower Pinion Bearing | Hostalen RCH 1000 |
| 5 | Soft Pinion Washer | Polyamide PA 6.6 | 109 | O-Ring | NBR |
| 6 | Slide piston | Polyamide PA 6.6 + 30% G.F. | 110 | O-Ring | NBR |
| 8 | Pinion Washer | Stainless Steel | 111 | O-Ring | NBR |
| 10 | Upper Pinion Bearing | Hostalen RCH 1000 | 113 | Bolt | Stainless Steel |
| 12 | Stop | ASTM A-105 | 118 | O-Ring | NBR |
| 14 | (*) Spring's Long Support | Polyamide PA 6.6 | 119 | O-Ring | NBR |
| 15 | (*) Spring's short Support | Polyamide PA 6.6 | 125 | Washer | Stainless Steel |
| 16 | Levelling Screw | Stainless Steel | 913 | Set Screw | Stainless Steel |
| 18 | (*) Bolt | Stainless Steel | 471 | External Circlip | Stainless Steel |
| 19 | (*) Spring | DIN 2076 -D-5.6 | 934 | Nut | Stainless Steel |
| 20 | Position Indicator | Polyamide | 985 | (*) Nut | Stainless Steel |
| 21 | Cam | Polyamide | | | |

(*) Only for serie ASR.



DIMENSIONS

| A | A' | B | C | D | E | F | I | R | ØS | ISO 5211 | ØL | M x V | ISO 5211 | ØL1 | M1 x V1 | ØT | X | U |
|-----|-----|-----|-----|----|----|----|------|----|------|----------|-----|--------|----------|-----|---------|----|---|----|
| 397 | 304 | 199 | 173 | 96 | 85 | 12 | 12,5 | 22 | 28,5 | F10 | 102 | M10x16 | | | | 70 | 3 | 32 |

(*) Dimensions in mm.

GENERAL CHARACTERISTICS

| | | | | |
|-------------------------------|---------------|--------------------------------|-------------------------|--------|
| DESIGN STANDARDS | Serie ADA | Actuator | Double | Acting |
| | Serie ASR | Actuator | Spring | Return |
| Mounting of solenoid valves | NAMUR Std. | | | |
| Mounting of devices | NAMUR VDI | NAMUR VDE 3845 Std. | | |
| Coupling according | ISO 5211 | DIN 3337 | | |
| Marking | Ex II 2 G D c | LCIE 05 AR 022 | According to EN 15714-3 | |
| TESTS AND CERTIFICATES | | | | |
| Quality assurance | ISO 9001 | Safety Integral level 3 (SIL3) | | |

| Max. Pressure | Rotation | Screw stroke Adjustment | Chamber Ø (mm) | Air Volume (L) | | Stroke Time Sec. (A) | | Operating Temperature (°C) | | | | |
|---------------|----------|-------------------------|----------------|----------------|---------|----------------------|---------|----------------------------|-----------------|----------------|---------------|-------------------|
| | | | | Opening | Closing | Opening | Closing | STD (standard) | HT (high temp.) | LT (low temp.) | | |
| 8 bar | 90° ±5° | For 1° Need ¼ Turn | 140,2 | 2,95 | 2,74 | D | 0,4 | D | 0,5 | NBR "O" Ring | FPM "O" Ring | Silicone "O" Ring |
| | | | | | | S | 0,9 | S | 1,1 | -30° to +100° | -15° to +150° | -40° to +80° |

DOUBLE ACTING ACTUATOR "ADA" TORQUE OUTPUT IN Nm

| TYPE | Output Torque For Double Acting in Nm | | | | | | | | | | | | | | Weight (Kg) | | | | | | |
|----------|---------------------------------------|-----|---------|-----|-------|-----|---------|-----|-------|-----|---------|-----|-----------|-----|-------------|---------|-----|-------|-----|-------|------|
| | 3 bar | | 3,5 bar | | 4 bar | | 4,5 bar | | 5 bar | | 5,5 bar | | 6 bar (A) | | | 6,5 bar | | 7 bar | | 8 bar | |
| Pressure | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | |
| D | 217 | | 253 | | 289 | | 325 | | 361 | | 397 | | 433 | | 469 | | 505 | | 577 | | 11,2 |

SPRING RETURN ACTUATOR "ASR" TORQUE OUTPUT IN Nm

| TYPE | Output Torque for Spring Return in Nm | | | | | | | | | | | | | | | | Spring stroke | | Weight (Kg) | | | | |
|----------|---------------------------------------|-----|---------|-----|-------|-----|---------|-----|-------|-----|---------|-----|-----------|-----|---------|-----|---------------|-----|-------------|-------|-----|------|-------|
| | 3 bar | | 3,5 bar | | 4 bar | | 4,5 bar | | 5 bar | | 5,5 bar | | 6 bar (A) | | 6,5 bar | | 7 bar | | | 8 bar | | | |
| Pressure | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | END | STAR | |
| S06 | 152 | 119 | 188 | 155 | 224 | 191 | 260 | 227 | 296 | 263 | 333 | 299 | 369 | 335 | 405 | 371 | 441 | 407 | 513 | 480 | 76 | 115 | 13,33 |
| S08 | 131 | 86 | 167 | 122 | 203 | 158 | 239 | 194 | 275 | 231 | 311 | 267 | 347 | 303 | 383 | 339 | 419 | 375 | 492 | 447 | 101 | 153 | 13,84 |
| S10 | | | | | 181 | 126 | 217 | 162 | 254 | 198 | 290 | 234 | 326 | 270 | 362 | 306 | 398 | 342 | 470 | 414 | 126 | 192 | 14,35 |
| S12 | | | | | | | 196 | 129 | 232 | 165 | 268 | 201 | 304 | 238 | 340 | 274 | 376 | 310 | 449 | 382 | 152 | 230 | 14,85 |
| S14 (A) | | | | | | | | | | | 247 | 169 | 283 | 205 | 319 | 241 | 355 | 277 | 427 | 349 | 177 | 268 | 15,36 |



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