



The art of power and perfection

# PNEUMATIC ACTUATORS

## ACT-20

PDS-AC-20 Rev. 5



Manufacturing program:

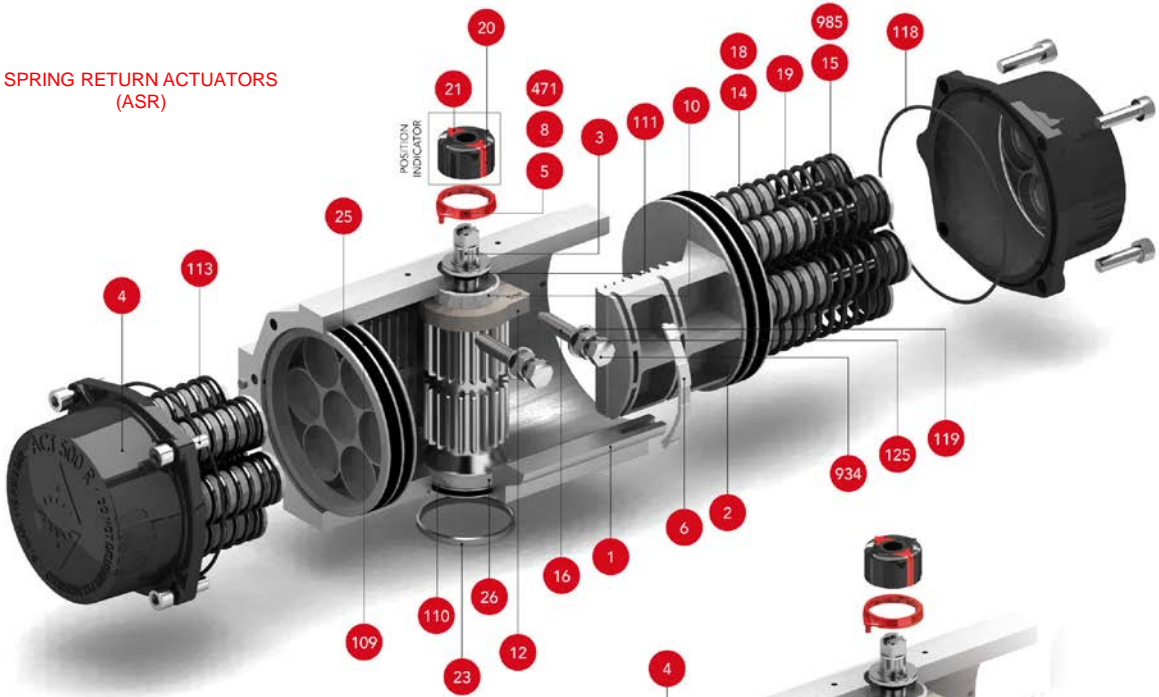
Ex II 2 G D c – LCIE 05 AR 022

Quality & Environmental Management:



## TECHNICAL FEATURES

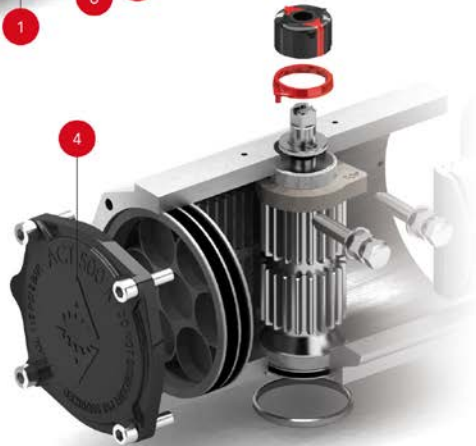
### SPRING RETURN ACTUATORS (ASR)



### POSITION INDICATOR



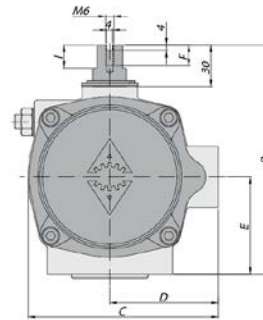
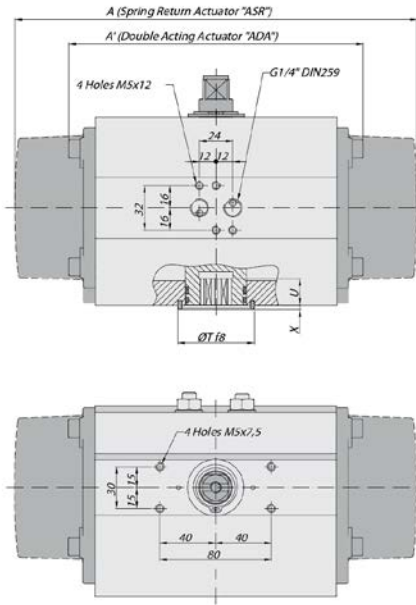
### DOUBLE ACTING ACTUATOR (ADA)



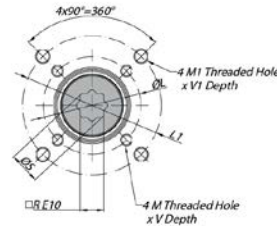
## PARTS & MATERIALS

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	Leveling 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			

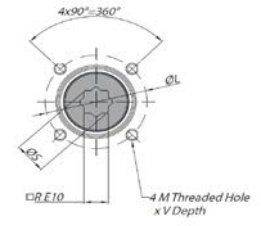
(\*) Only for serie ASR.



F03-F05 ISO 5211



F04 or F05 ISO 5211



### 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
163	145	96	76	48	34	9	12,5	9	12,5	F03	36	M5X8	F05	50	M6X10	25	2	10
										F04	42	M5X10				35	3	12
										F05	50	M6X10				35	3	12

(\*) 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			
Marking	Ex II 2 G D c LCIE 05 AR 022	DIN 3337		

### TESTS AND CERTIFICATES

Quality assurance	ISO 9001	Safety integral level 3 (SIL3)		
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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	45	0,13	0,09	D	0,04	D	0,09	NBR "O" Ring	FPM "O" Ring	Silicone "O" Ring
						S	0,12	S	0,18	-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°	0°	90°	
D		9,7		11,4		13		14,6		16,2		17,8		19,5		21,1		23		26			1,4

### 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°	0°	90°	END STAR		
S04									13	10	14	12	16	13	17	15	19	17	22	20	4	7	1,51		
S06 (A)			8	5	9	7	11	8			11	7	12	9	14	10	15	12	17	13	20	17	7	11	1,54
S08									10	5	12	7	14	9	15	10	18	14	9	15	15	15	1,56		

(A) Standard construction.



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