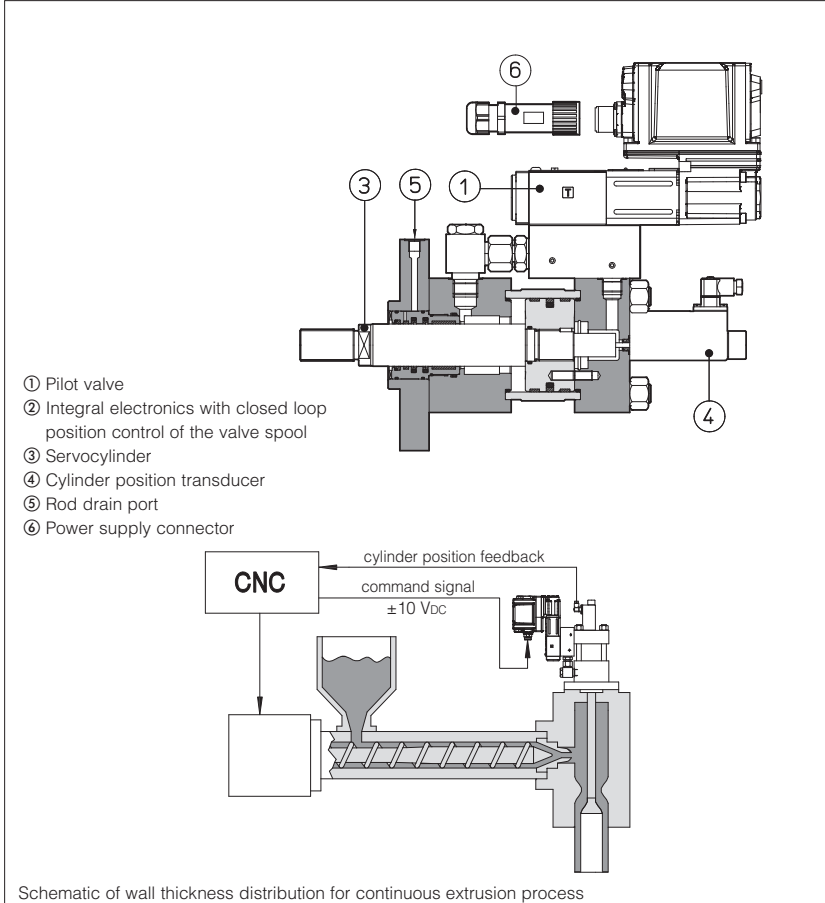


Electrohydraulic actuators for PARISON controls

in blow molding machines
Available only on request



Description

The Parison control is a well known process used in the plastic blow molding machines for the wall thickness distribution of continuous extruded profiles. It is mainly used to obtain hollow items, as plastic bottles, tanks, etc, whose thickness can be modulated depending to the required localized mechanical resistance. The wall thickness is realized by means of a specific servoactuator operated in position closed loop control (see below the application scheme).

The Atos actuators CKG are special servo cylinders operated by a high dynamic proportional valve providing high performance and high regulation repeatability. The integral and compact execution ensures the best stiffness of the hydraulic system and it permits high dynamics and position accuracy.

Characteristics

The actuator is composed by:

- special cylinder equipped with low friction seals and with LVDT position transducer. The rod end is threaded for the connection to the extrusion head
- high dynamic servo proportional valve with zero lapped spool and LVDT position transducer

Available sizes: ø63/28, ø80/36, ø100/45, ø125/45, ø160/70, ø200/90 mm
 Stroke: 12 mm.

1 MODEL CODE

061820	CKG	-	H	L	-	N	-	1	0	-	80/36	*0012	-	A
Mounting flange type: with threaded holes														Front flange attachment
Actuator type: CKG = ISO 6020-2														Stroke = 12 mm
Control type: H = proportional control														Piston/rod size [mm] 63/28 80/36 100/45 125/45 160/70 200/90
Position/speed transducer type: L = LVDT														Subplate type: 0 = standard
No pressure/force transducer														Proportional valve size: 1 = size 06 (only for cylinder size 63/28, 80/36, 100/45) 2 = size 10 (only for cylinder size 160/70 and 200/90)

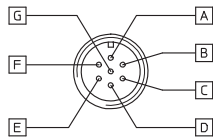
2 ACTUATOR COMPOSITION

Actuator model code	Servocylinder code	Servo proportional pilot valve code (see tab. F180)
061820 CKG-HL-N-10-63/28*0012-A	07K0323 CKT/10-9-63/28*0012-A002-L-B1X1	DLHZO-TEB-SN-NP-040-L51/B
061820 CKG-HL-N-10-80/36*0012-A	02K1260 CKT/10-9-80/36*0012-A002-L-B1X1	
061820 CKG-HL-N-10-100/45*0012-A	06K0120 CKT/10-9-100/45*0012-A002-L-B1X1	
061820 CKG-HL-N-10-125/45*0012-A	06K0123 CKT/10-9-125/45*0012-A002-L-B1X1	
061820 CKG-HL-N-20-160/70*0012-A	06K0219 CKT/20-9-160/70*0012-A002-L-B1X1	
061820 CKG-HL-N-20-200/90*0012-A	08K0125 CKT/20-9-200/90*0012-A002-L-B1X1	DLKZOR-TEB-SN-NP-140-L31/B

3 MAIN CHARACTERISTICS

Bore diameter	[mm]	63	80	100	125	160	200
Rod diameter	[mm]	28	36	45	45	70	90
Working stroke	[mm]	12					
Max pressure	[bar]	160					
Max force (kN)	Pull	40	64	100	170	260	400
	Push	50	80	125	190	320	500
Max speed	[m/s]	0,5					
Command signal	[VDC]	±10 VDC					
Linearity		0,03 %					
Response time at step signal (0-100%)	[ms]	85	115	300	320	300	

4 INTEGRAL ELECTRONICS WIRING

 <p style="text-align: center;">POWER SUPPLY CONNECTOR (front view)</p>	POWER SUPPLY CONNECTOR		
	PIN	SIGNAL DESCRIPTION	TECHNICAL SPECIFICATION
	A	Power supply 24 V _{DC}	Stabilized: +24V _{DC}
	B	Power supply zero	Filtered and rectified: V _{rms} = 21 ÷ 33 (ripple max 2V _{pp})
	C	Signal zero	Reference 0 V _{DC}
	D	Input signal +	±10 V _{DC}
	E	Input signal -	
	F	Monitor (Spool position)	±10 V _{DC}
G	Earth	Connect only when the power supply is not conform to VDE 0551 (CEI 14/6)	

POSITION TRANSDUCER CONNECTOR OF PILOT VALVE	
PIN	Signal description
1	OUTPUT SIGNAL 0÷10 V _{DC} (0 V _{DC} = rod fully in; 10 V _{DC} = rod fully out)
2	SUPPLY -15 V _{DC}
3	SUPPLY +15 V _{DC}
4	GND

Notes:

- electrical signals (e.g. actual - feedback signals) acquired via valve electronics must not be used to switch off the machine safety functions. This is in accordance with the European standards (Safety requirements of fluid technology systems and components - hydraulics, EN-892)
- installation notes with basic information for commissioning and start-up, are always supplied with relevant components, together with the specific technical tables

4.1 Model codes of power supply and transducer

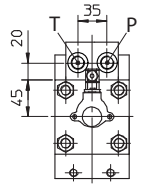
CONNECTOR CODE	Power supply		Transducer
	ZM-7P (1)	ZH-7P (1)	345
PROTECTION DEGREE	IP67	IP67	IP67

(1) to be ordered separately

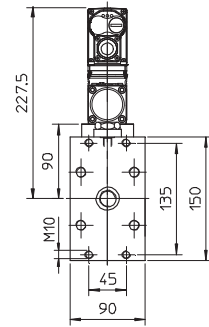
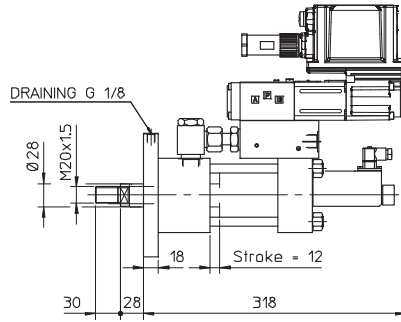
5 INSTALLATION DIMENSIONS [mm]

061820 CKG-HL-N-10-63/28*0012-A

P, T = 3/8"

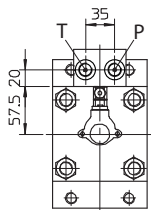


Mass: 18 kg

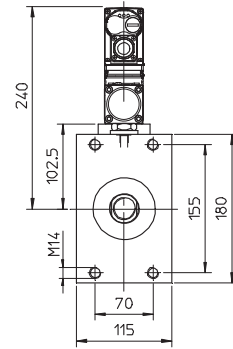
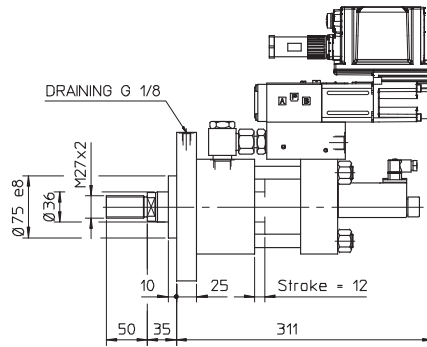


061820 CKG-HL-N-10-80/36*0012-A

P, T = 3/8"

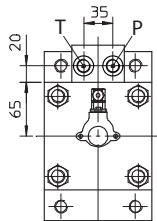


Mass: 26 kg

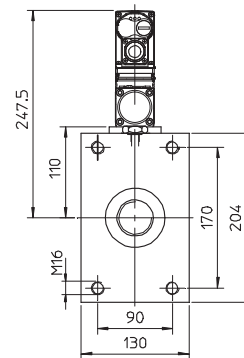
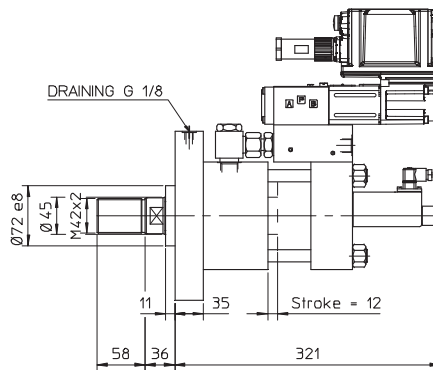


061820 CKG-HL-N-10-100/45*0012-A

P, T = 3/8"

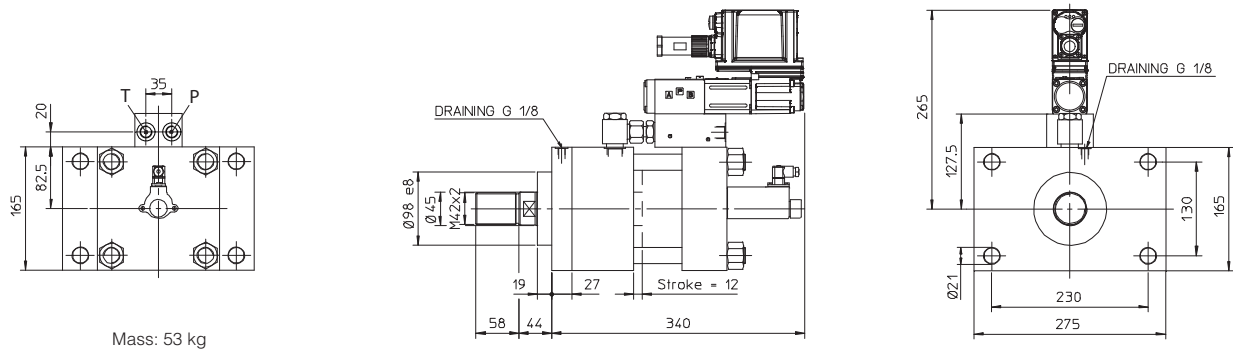


Mass: 36 kg



061820 CKG-HL-N-10-125/45*0012-A

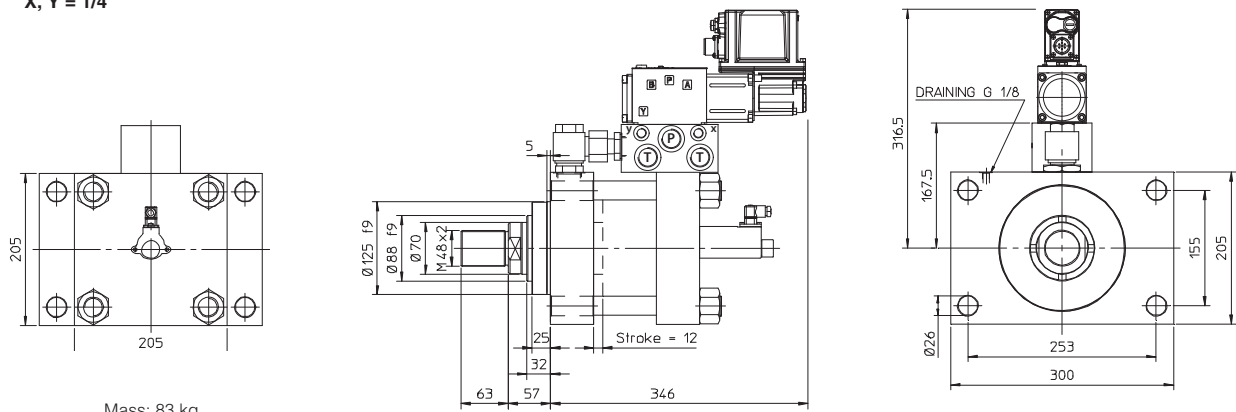
P, T = 3/8"



Mass: 53 kg

061820 CKG-HL-N-10-160/70*0012-A

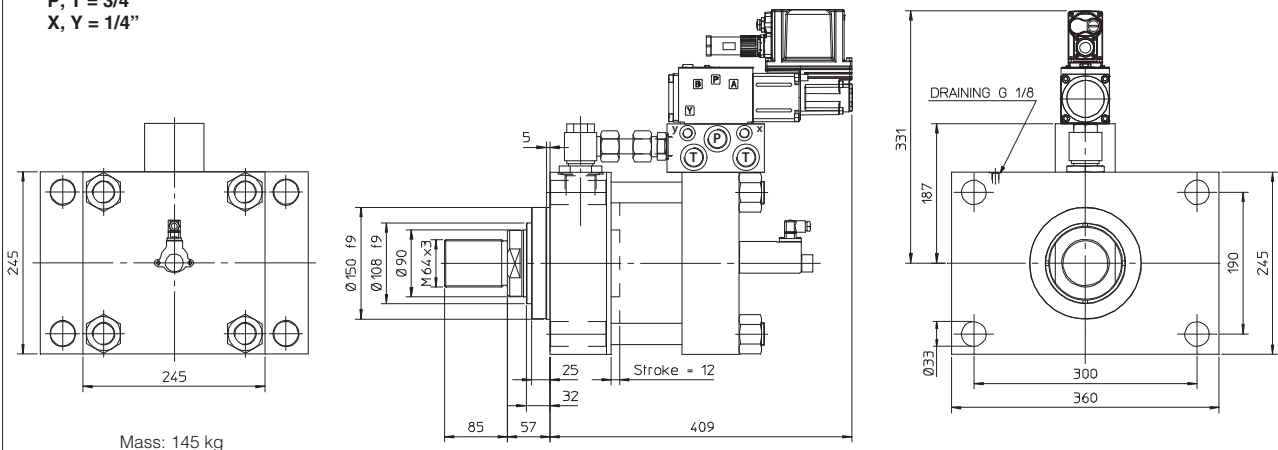
P, T = 3/4"
X, Y = 1/4"



Mass: 83 kg

061820 CKG-HL-N-10-200/90*0012-A

P, T = 3/4"
X, Y = 1/4"



Mass: 145 kg