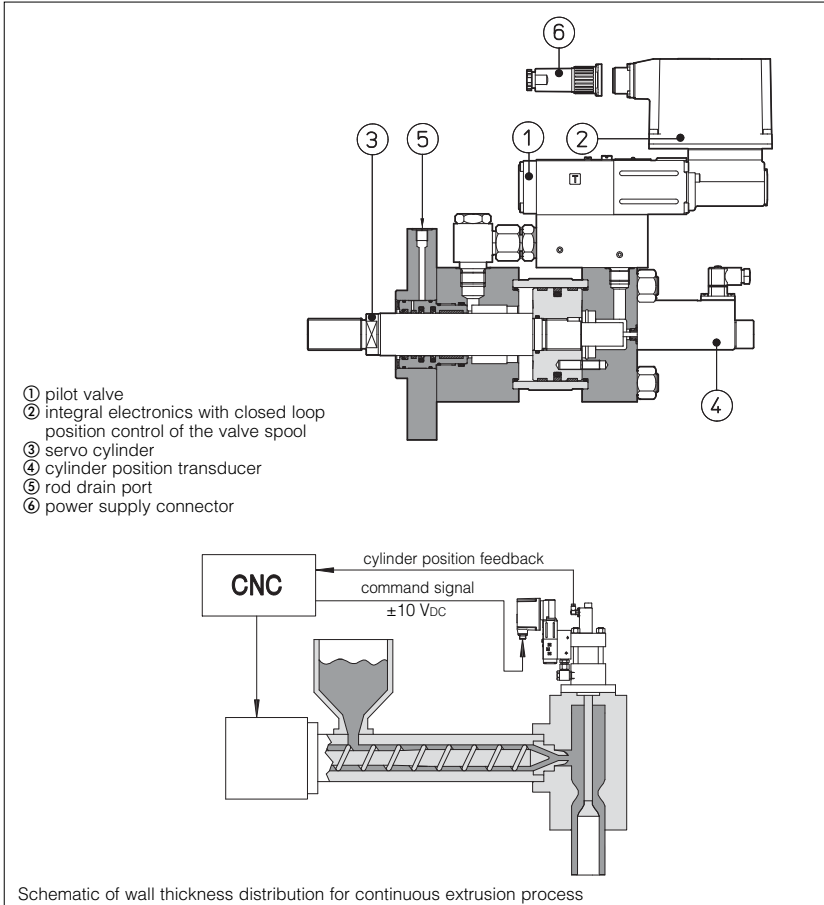


Actuators for PARISON controls

in blow molding machines



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

060820	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

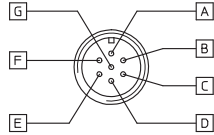
Actuator model code	Servo cylinder code	Servo proportional pilot valve code (see tab. F180)
060280 CKG-HL-N-10-63/28*0012-A	07K0323 CKT/10-9-63/28*0012-A002 L	DLHZO-TE-040-L51/B
060820 CKG-HL-N-10-80/36*0012-A	02K1260 CKT/10-9-80/36*0012-A002 L	
060820 CKG-HL-N-10-100/45*0012-A	06K0120 CKT/10-9-100/45*0012-A002 L	
060820 CKG-HL-N-10-125/45*0012-A	06K0122 CKT/10-9-125/45*0012-A002 L	
060820 CKG-HL-N-20-160/70*0012-A	06K0219 CKT/20-9-160/70*0012-A002 L	DLKZOR-TE-140-L31/B
060820 CKG-HL-N-20-200/90*0012-A	T806532 CKT/20-9-200/90*0012-A002 L	

3 MAIN CHARACTERISTICS

Bore diameter	[mm]	80	100	125
Rod diameter	[mm]	36	45	45
Working stroke	[mm]	12		
Max pressure	[bar]	160		
Max force (KN)	Pull	64	100	170
	Push	80	125	190
Max speed	[m/s]	0,5		
Command signal	[VDC]	±10 VDC		
Linearity		0,03		
Response time at step signal (0-100%)	[m/s]	115	300	320

4 INTEGRAL ELECTRONICS WIRING

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)



POWER SUPPLY CONNECTOR
(front view)

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

Note:

- 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.

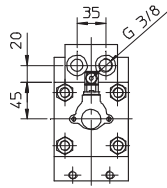
4.1 Model codes of power supply and transducer

CONNECTOR CODE	Power supply		Transducer
	SP-ZM-7P (1)	SP-ZH-7P (1)	SP-345
PROTECTION DEGREE	IP66	IP67	IP67

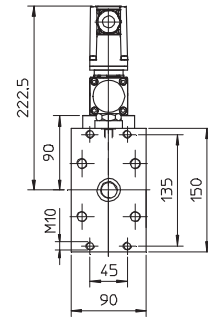
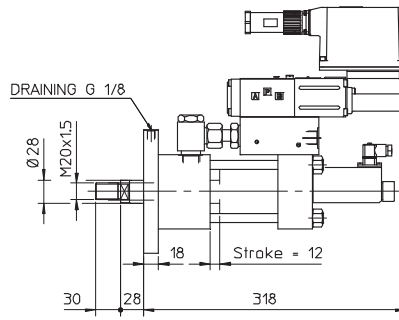
(1) to be ordered separately

5 INSTALLATION DIMENSION [mm]

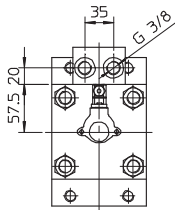
060820 CKG-HL-N-10-63/28*0012-A



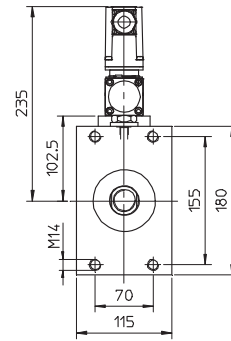
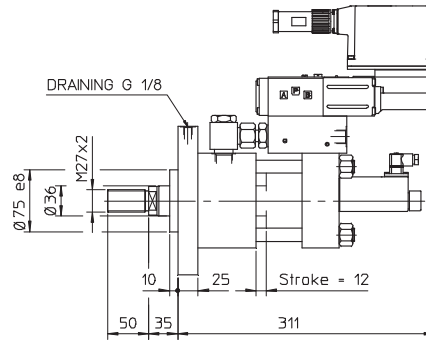
Mass: 18 Kg



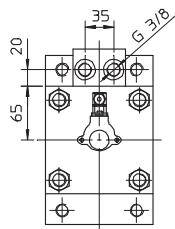
060820 CKG-HL-N-10-80/45*0012-A



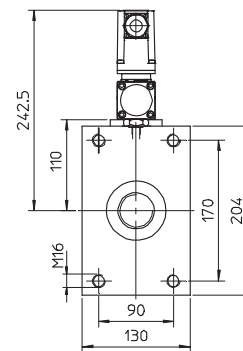
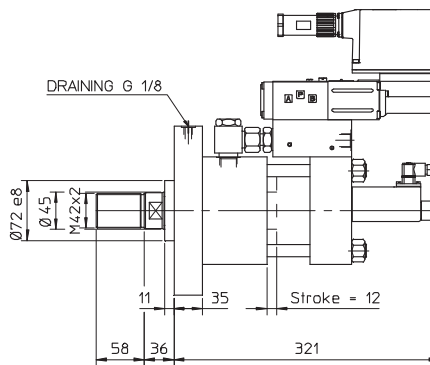
Mass: 26 Kg



060820 CKG-HL-N-10-100/45*0012-A

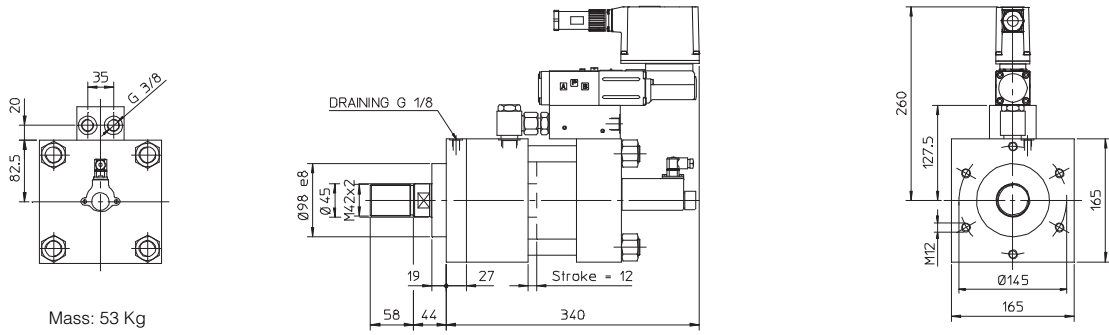


Mass: 36 Kg

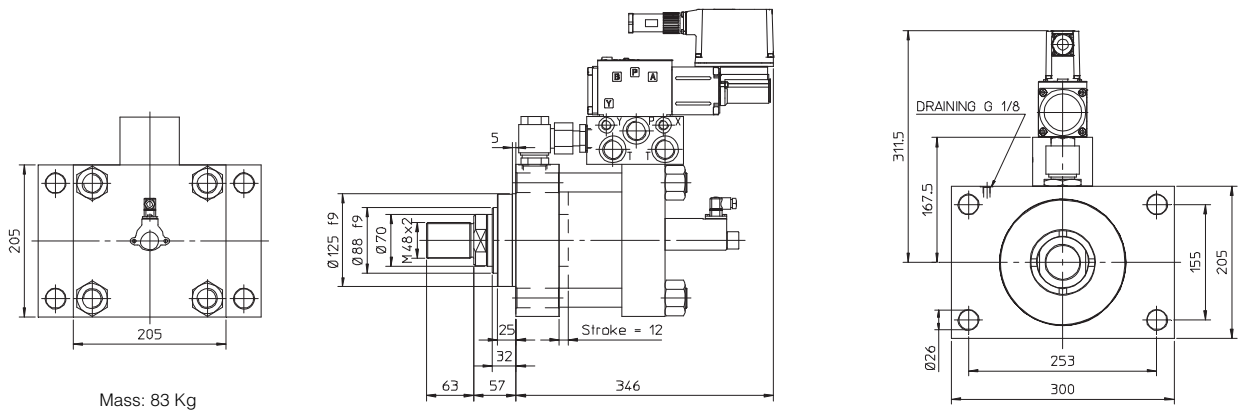


5 INSTALLATION DIMENSION [mm]

060820 CKG-HL-N-10-125/45*0012-A



060820 CKG-HL-N-10-160/70*0012-A



060820 CKG-HL-N-10-200/90*0012-A

