

Modulair 150 G3/4 - G1 version: See P710-39

APPLICATION

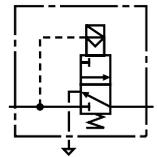
- This unit provides two main functions:
 - **Pneumatic system venting.**
 - **Gradual pressurisation** after an outage leading to venting of the system.
- This product allows for machines and installations to conform to the European Directives.



OPERATING PRINCIPLE

■ **SHUT-OFF VALVE**

The 3/2 NC shut-off valve, controlled by a solenoid valve of the CNOMO pad-mounting type, vents the system by de-energising the solenoid valve.

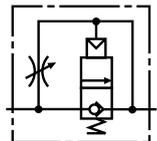


■ **SOFT-START DEVICE**

Upon pressurisation, when the soft-start device is in its initial position, an adjustable air flow ensures gradual filling of the downstream circuit, so that the actuators move slowly. The transition to the full flow position depends on which of the following soft-start devices is chosen:

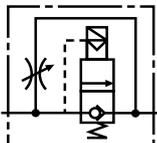
• **AUTOMATIC SOFT-START DEVICE** (Modulair 107-112)

Automatic switch-over to the full flow position as soon as the downstream pressure reaches 60 to 70% of the supplied pressure (upstream pressure). Operating cycles take place at normal speed thereafter. The soft-start device remains in the full flow position as long as the upstream pressure is maintained. The device returns into its initial position when the air supply is cut off.



• **SOLENOID/AIR CONTROLLED SOFT-START DEVICE** (Modulair 112)

This device, which complies to technical CNOMO specifications (E05.03.135.N), can be used to gradually feed air into the system whenever restarting after a shutdown or pressure cut-off. The system is slowly returned into the end-of-cycle position. As soon as this condition is reached, the solenoid pilot valve is energised in accordance with the automatic control **specified by the user**. The soft-start device then switches to the full-flow position allowing the subsequent operating cycles to take place at normal speed.

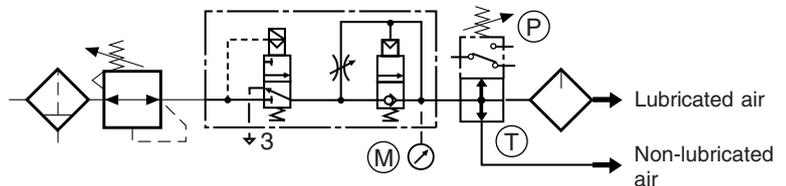
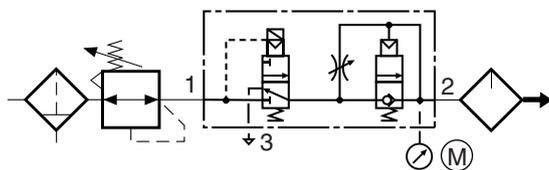


The solenoid pilot valve must be kept energised under normal operating conditions. Any de-energisation of the solenoid pilot valve sets the soft-start device into the low-flow position.

Note: In both soft-start device versions, the filling rate, i.e. the pressure build-up in the downstream circuit, is adjusted by means of a fine-thread screw with can be locked to prevent unauthorised adjustment of regulated pressure.

MOUNTING AND OPERATING RECOMMENDATIONS

- The shut-off and soft-start valve unit must be mounted first in the pneumatic system, **after** the filter, filter/regulator or filter + regulator and **before** any lubricator (see examples below). The standard assembly kit (see accessories) enables direct connection of the unit to a FRL system of the MODULAIR type 107 or 112.



(M) Matching pressure gauge for monitoring downstream pressure build-up (see accessories).
A pressure gauge can also be mounted at the outlet of the shut-off valve.

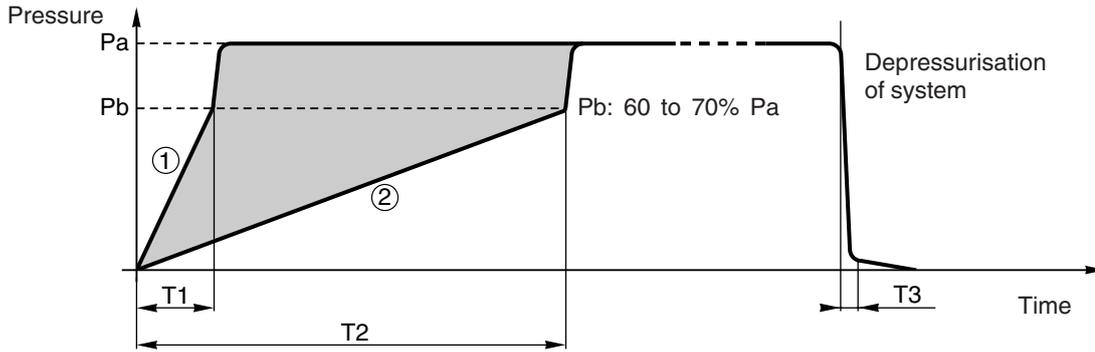
(P) Matching pressure switch

(T) By-pass module

- **Do not obstruct exhaust port 3.** It is recommended to mount an exhaust silencer (available as accessory, see page 31).
- **The shut-off valve must only be de-energised in case of need** when the system is generally shutdown or in case of power supply failure.
- For systems which are operated only infrequently, **the correct functioning of the shut-off and soft start valve unit must be regularly checked - at least once per month -** (full exhaust and gradual pressurisation of the system).

SYSTEM PRESSURISATION AND DEPRESSURISATION CURVES

• WITH AUTOMATIC SOFT-START DEVICE



The adjustment range for the pressurisation time lies between curves (1) and (2).

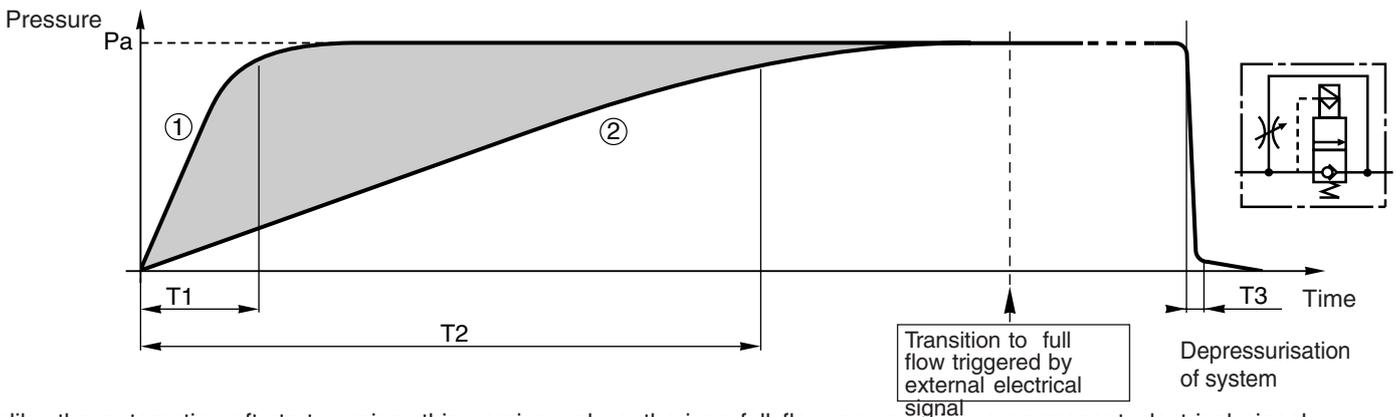
The transition to full flow takes place automatically as soon as the downstream pressure reaches 60 to 70% of the upstream pressure.

Filling and venting times (in seconds):

	Modulair 107	Modulair 112
T1 (with screw loosened by 6 turns).	11,5	8
T2 (with screw loosened by 1 turn).	250	75
T3 (venting time)	6,5	2

These times correspond to a supply pressure (Pa) of 6.3 bar, a transition pressure (Pb) of 60% to 70% Pa (not adjustable) and a downstream system capacity of **10 litres**.

• WITH A SOLENOID/AIR CONTROLLED SOFT-START DEVICE (Modulair 112 type only)



Unlike the automatic soft-start version, this version only authorises full flow on receiving a permanent electrical signal (see note below).

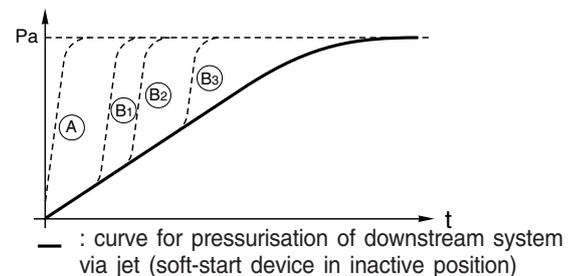
The adjustment range for the pressurisation time lies between curves (1) and (2).

Filling and venting times (in seconds):

	Modulair 112
T1 (with screw loosened by 6 turns)	12
T2 (with screw loosened by 1 turn)	110
T3 (venting time)	2

These times correspond to a supply pressure (Pa) of 6.3 bar, a downstream system capacity of **10 litres** and a pressure of 90% Pa.

The full flow position is determined by the solenoid pilot valve which must be energised after checking that all the end-of-cycle sensors are activated. It also enables fast initiation of pressurisation if an emergency shutdown occurs at end of cycle (see curve A) or near end of cycle (see curves B₁, B₂, B₃, etc.) Minimum pressurisation time (curve A): 1s with an upstream pressure of 6.3 bar and a capacity of 10 litres.



The solenoid/air controlled soft-start device also enables:

- Full flow operation in an "automatic" mode and slow speed operation in an "adjustment" mode for step-by-step manual setup.
- On returning to the "automatic" mode, carrying out one or more cycles at low speed (while the solenoid pilot valve is not energised).

MODULAIR 107

MODULAIR 112

SPECIFICATION

FLUID	:air filtered 25 µm, non-lubricated	:air filtered 25µm, non-lubricated
PORTS	:G1/8 - G1/4	:G 1/4 - G 3/8 - G 1/2
OPERATING PRESSURE	:2,5 to 10 bar	:3 to 10 bar
MAX. FLOW (at 6.3 bar)	:1000 l/min (G1/8-G1/4)	:1800 l/min (G1/4) :2700 l/min (G3/8-G1/2)
AMBIENT TEMPERATURE	:0°C to + 50°C	:0°C to + 50°C

CONSTRUCTION

VALVE AND SOFT-START DEVICE

Metal body
Internal parts: brass and acetal resin (POM), nitrile seals (NBR)
Steel micrometric screw and locking pin of steel
Air flow direction indicated by arrow

PILOT SOLENOID VALVE CONSTRUCTION

	Series 302	Series 190	Series 192
Body	: filled 6/6 polyamide (PA)	filled 6/6 polyamide (PA)	filled polyarylamide (PAM)
Seals	: nitrile (NBR)	nitrile (NBR)	nitrile (NBR) and polyurethane (PUR)
Electric equipment standards	: NF C 79300	NF C 79300	NF C 79300
Coil and magnetic circuit	: moulded monobloc type	moulded monobloc type	moulded monobloc type
Exhaust connection	: not collectable	M5 (+ drain protector)	G 1/8 (+ drain protector)
Connector	: size 15 CM6 (Pg 7P)	ISO 4400	ISO 4400
Protection class	: IP65	IP65	IP65



ELECTRICAL CHARACTERISTICS

CNOMO mating surface	Valve serial No.	Modulair		Voltage		Consumption		Insulation class	Connection
		107	112	Inrush	Holding				
Size 15 (E06.36.120N)	302	●		~	24 V, 115 V, 230 V - 50/60 Hz	2,6 VA (2 W)		F	Connector size 15 rotatable x 90° CM 6 (Pg 7P)
				=	24 V	1 W			
Size 30 (E06.05.80)	189	●	●	~	24 V, 115 V, 230 V - 50 Hz	6 VA	3,5 VA (2,5 W)	F	Connector size 22 rotatable at 180° - CM 8 (Pg 9P)
				=	24 V	2,5 W			
	190 ⁽¹⁾	●	●	~	24 V, 48 V, 115 V, 230 V - 50 Hz	9 VA	4 VA (3 W)	F	Connector rotatable x 90° ISO 4400-AFNOR NF E 48411 CM 10 (Pg 11P) simplified connection type
				=	12 V, 24 V, 48 V, 110 V	3 W			
192	●		~	24 V, 115 V, 230 V - 50 Hz	12 VA	6 VA (4 W)	F		
			=	24 V	5 W				

(1) The type 190 solenoid valve is dual voltage: (24 V~,12 V=)(48 V~, 24 V=)(115 V~,48 V=)(230 V~, 110 V=). Other voltage and 60Hz frequency, consult us.

CHOICE OF COMPOSITION (Shut-off valve + soft-start units)

Products can be ordered separately (see page P710-38)

FUNCTION Symbol	DESCRIPTION	MODULAIR type	CNOMO pilot	Ø Port	2 CODES ⁽²⁾ for ordering		(M)
					Shut-off valve + soft-start UNITS	Series 302,189,190 or 192 SOLENOID VALVE ~ / =	
	3/2 NC shut-off valve and automatic NC 2/2 soft-start device (without silencer)	107	size 15	G 1/8	+ 1 x	343 94 013 } 30211112--A (-) 343 94 014 } 30211112--D (=)	▼
				G 1/4			▼
			size 30	G 1/8	+ 1 x	189 00 007 } 190 00 005 } 190 00 017 }	×
				G 1/4			×
		112	size 30	G 1/4	+ 1 x	189 00 007 } 190 00 005 } 190 00 017 } 192 00 007 } 192 00 009 }	×
				G 3/8			×
G 1/2	▼						
G 1/2	×						
	3/2 NC shut-off valve and solenoid/air operated NC 2/2 soft-start device (without silencer)	112	size 30	G 1/4	+ 2 x	189 00 007 } 190 00 005 } 190 00 017 } 192 00 007 } 192 00 009 }	×
				G 3/8			×
				G 1/2			▼
				G 1/2			×

(2) The unit (shut-off valve + soft-start device) and the solenoid valve(s) are ordered separately stating the quantity and code of each component. The solenoid valves are not supplied pre-installed on the system.

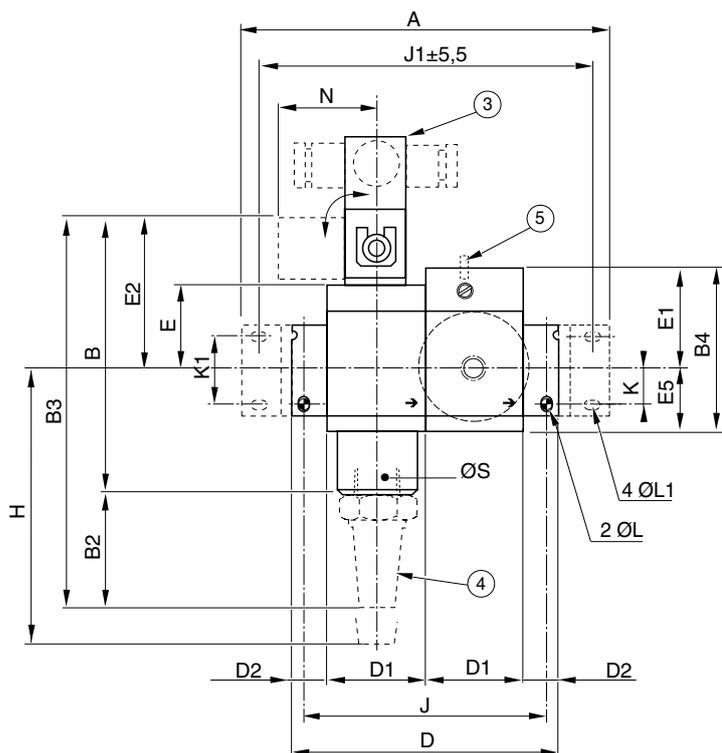
(M) Manual operator × : none ▼ : impulse. Do not use locking manual operator

NOTE: These products can be pneumatically piloted in which case it is necessary to separately order the pneumatic connection flange(s) (G1/8), code 881 26 401 instead of the above solenoid valves

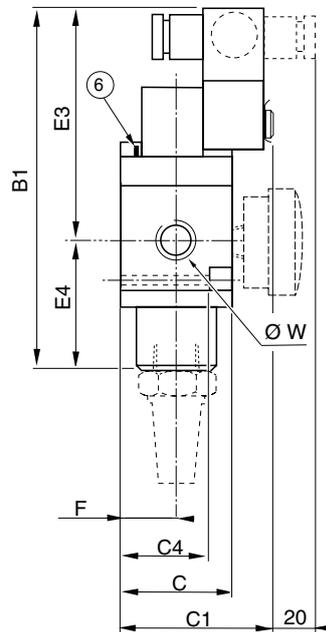
ACCESSORIES	CODES	
	Modulair 107	Modulair 112
Assembly kit for connection to FRL	343 04 001	343 03 001
Set of 2 side mounting brackets	343 04 003	343 03 003
Pressure gauge 0-12 bar (Mod. 107: Ø40 mm - Mod. 112: Ø50 mm)	343 00 041	342 00 062
Sintered bronze silencer (to be placed under the shut-off valve)	346 00 002	346 00 004
Porous plastic silencer (to be placed under the shut-off valve)	346 00 407	346 00 409

OVERALL DIMENSIONS

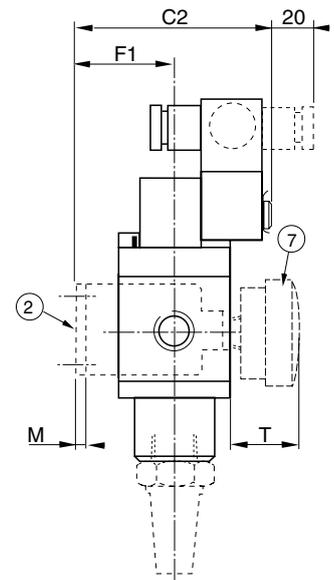
SHUT-OFF VALVE + **AUTOMATIC** SOFT-START DEVICE (MODULAIR 107 and 112)



DIRECT FRONTAL MOUNTING ①



MOUNTING WITH BRACKETS



Ø W	MODULAIR Type	
	107	112
	G1/8	G1/4
	G1/4	G3/8
		G1/2
A	125	171
B	122	140,5 (146,5)
B1	173 [147]	182,5 (179,5)
B2	34	56
B3	158	196,5 (202,5)
B4	71	80
C	42	55
C1	74 [54]	73 (100)
C2	93 [73]	92 (119)
C4	38	47,5
D	84	125
D1	-	46
D2	-	16,5
E	45 [55]	41
E1	45	49
E2	75	73 (79)
E3	126 [100]	115 (112)
E4	47	67,5
E5	26	31
F	21	27,5
F1	40	46
H	89	135,5
J	74	116
J1	110,5	155
K	10	17
K1	28	33,5
Ø L	4,1	5,5
ØL1	4,5	5,5
M	3	4
N	57 [37]	57 (56)
ØS	G1/4	G1/2
Weight (kg)	0,800 [0,670]	1,400(1,550)

- ① Direct frontal mounting: 2 holes of dia. L and depth C4
- ② Mounting with 2 side brackets (accessory)
- ③ Pilot (supplied separately): 302, 189 or 190 series (Modulair 107)
189, 190 or 192 series (Modulair 112)
- ④ Matching silencer (accessory)
- ⑤ Adjustment locking pin
- ⑥ Solenoid valve installation polariser
- ⑦ Pressure gauge or electronic pressure switch on front of soft-start device or shut-off valve.
(dimension T: pressure gauge = 34 ; electronic pressure switch = 50)

Note: Solenoid valve coils and connectors rotatable by 90° and 180° increments
 - connector size 15 CM6 (Pg 7P) series 302 pilot 302
 - connector size 22 CM8 (Pg 9P) series 189 pilot
 - connector ISO 4400 CM10 (Pg 11P) series 190 or 192 pilot



Standard weights and dimensions correspond to a series 190 solenoid valve.

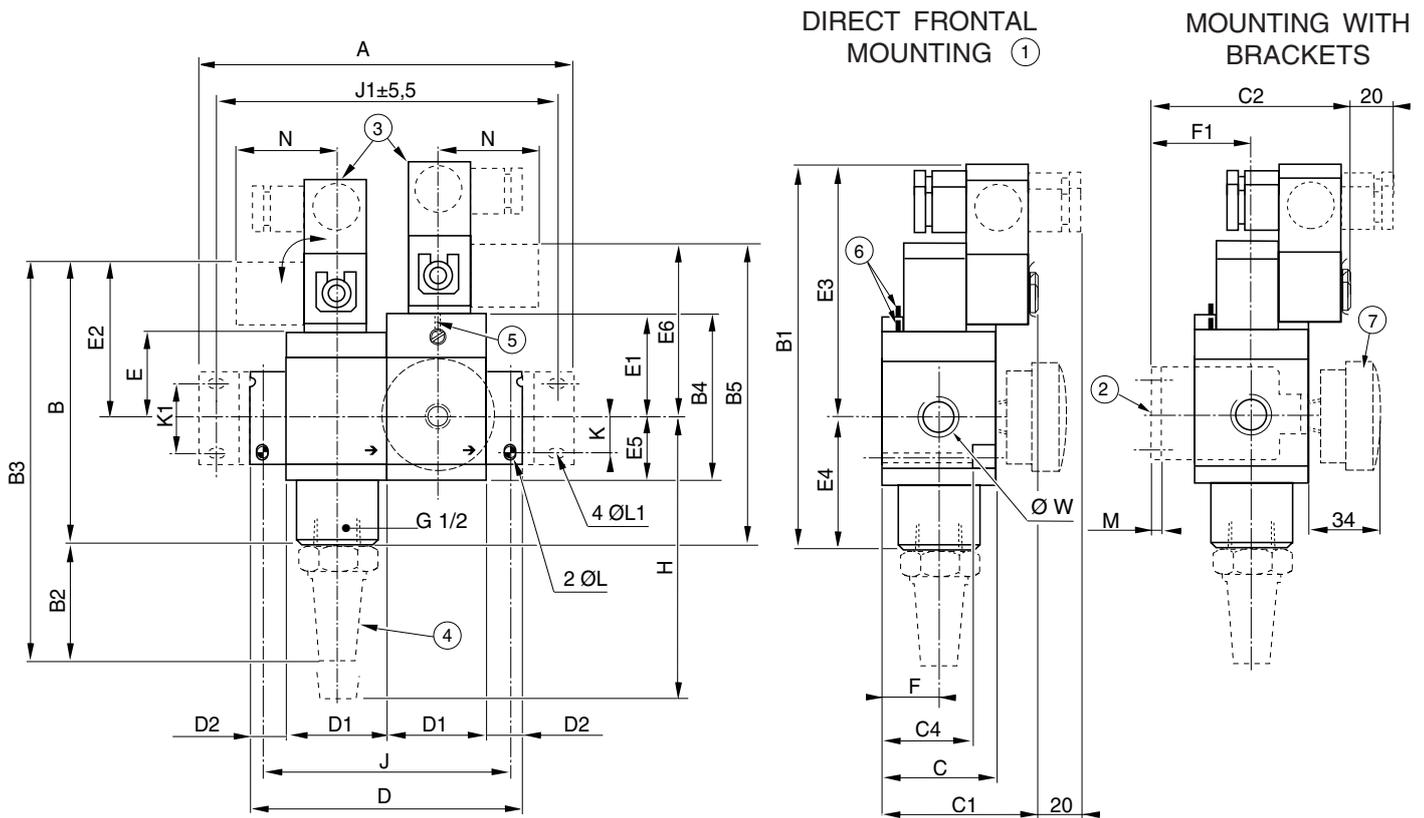
[] : dimensions and weight with series 302 solenoid valve

() : dimensions and weight with series 192 solenoid valve

All leaflets are available on: www.ascojoucomatic.com

OVERALL DIMENSIONS

SHUT-OFF VALVE + SOLENOID/AIR CONTROLLED SOFT-START DEVICE (MODULAIR 112)



Range	MODULAIR
	112
	G1/4
	G3/8
	G1/2
A	171
B	140,5 (146,5)
B1	190,5 (187,5)
B2	56
B3	196,5 (202,5)
B4	80
B5	148,5 (154,5)
C	55
C1	73 (100)
C2	92 (119)
C4	47,5
D	125
D1	46
D2	16,5
E	41
E1	49
E2	73 (79)
E3	123 (120)
E4	67,5
E5	31
E6	81 (87)
F	27,5
F1	46
H	135,5
J	116
J1	155
K	17
K1	33,5
Ø L	5,5
Ø L1	5,5
M	4
N	33 (31)
Weight (kg)	1,520 (1,820)

- ① Direct frontal mounting: 2 holes of dia. L and depth C4
- ② Mounting with 2 side brackets (accessory)
- ③ 190 ou 192 series pilot solenoid valves (supplied separately)
- ④ Matching G 1/2 silencer (accessory)
- ⑤ Adjustment locking pin
- ⑥ Solenoid valve installation polariser
- ⑦ Pressure gauge on front of soft-start device or shut-off valve

Note: Solenoid valves and connectors rotatable by 90° increments, connector ISO 4400 CM10 (Pg 11P)



() : dimensions and weight with series 192 solenoid valve

OVERALL DIMENSIONS OF COMPONENTS

SPECIFICATION OF EQUIPMENT SUPPLIED SEPARATELY

MODULAIR type	CNOMO pilot	Port sizes	Shut-off valve (※)		CODES			
			Solenoid valve	Automatic soft-start device	Solenoid/air controlled soft-start device (※)			
107	size 15	G1/8	343 94 009	+ } 30211112--A(~) (▼)	343 04 021	-		
		G1/4	343 94 010		343 04 022	-		
	size 30	G1/8	343 94 001	+ } 189 00 007 (x)	343 04 021	-		
		G1/4	343 94 002		190 00 005 (x)	343 04 022	-	
112	size 30	G1/4	343 93 101	+ } 189 00 007 (x)	343 03 019	343 93 004 + } 189 00 007 (x)		
		G3/8	343 93 102		190 00 005 (x)		343 93 005 + } 190 00 005 (x)	
		G1/2	343 93 103		190 00 017 (▼)		343 03 020	190 00 017 (▼)
			192 00 007 (x)		343 03 021		343 93 006 + } 192 00 007 (x)	
			192 00 009 (▼)				192 00 009 (▼)	

※ The products + solenoid pilot valve must be ordered separately stating the quantity and code of each component, the solenoid valves are not supplied pre-installed on the system.

- For Size 15 series 302 valves, the codes of the AC and DC versions are different.

- For Size 30 series 190 and 192, the codes vary with the type of manual operator: (x) = none, (▼) = impulse

NOTE: These products can be **pneumatically piloted** in which case it is necessary to separately order the pneumatic connection flange(s) (G1/8), code **881 26 401**, instead of the above solenoid valves.

DIMENSIONS

SHUT-OFF VALVE

Weights:

Modulair 107 with pilot 302: 0,350 kg

Modulair 107 with pilot 189: 0,450 kg / 190: 0,510 kg

Modulair 112 with pilot 189: 0,810 kg

pilot 190: 0,870 kg / 192: 0,990 kg

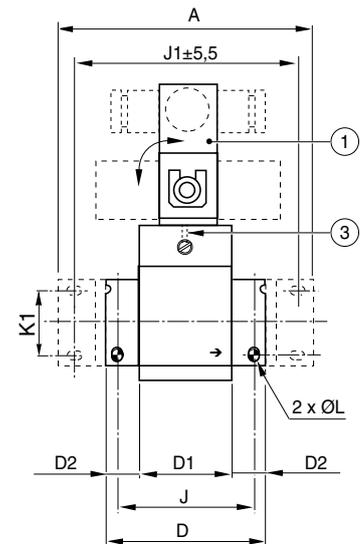
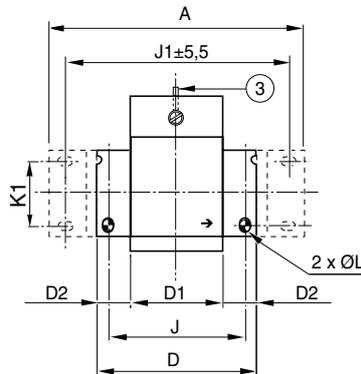
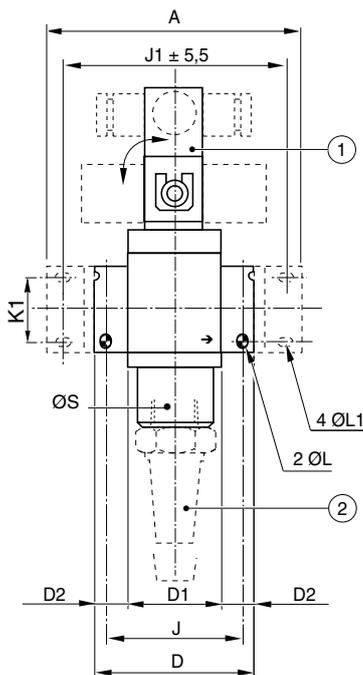
SOFT-START DEVICE

AUTOMATIC

0,290 kg
0,750 kg

SOLENOID/AIR CONTROLLED (Modulair 112 only)

189: 0,810 kg
190: 0,870 kg / 192: 0,990 kg



	MODULAIR type	
	107	112
Ø W	G1/8 G1/4	G1/4 G3/8 G1/2
A	83	125
D	42	79
D1	-	46
D2	-	16,5
J	32	70
J1	68,5	109
K1	28	33,5
Ø L	4,1	5,5
Ø L1	4,5	5,5
Ø S	G1/4	G1/2

① Pilot (supplied separately) : 189,302 or 190 series (Modulair 107)
189,190 or 192 series (Modulair 112)

② Matching silencer (accessory)

③ Adjustment locking pin

Note: Solenoid valve coils and connectors rotatable by 90° and 180° increments
- connector size 15 CM6 (Pg 7P) series 302 pilot
- connector size 22 CM8 (Pg 9P) series 189 pilot
- connector ISO 4400 CM10 (Pg 11P) series 190 or 192 pilot
For overall dimensions of direct frontal or bracket mounting, see preceding pages.

ASSEMBLY OPTION FOR VALVE AND SOFT-START DEVICES ORDERED SEPARATELY

It is possible to combine components ordered separately using the assembly kit and side-mounting brackets for installation. Accessories needed (see page P710-35)

UTILISATION

- This monobloc unit performs two main functions:
 - **pneumatic system venting.**
 - **gradual pressurisation** after an outage leading to venting of the system.
- This product allows for machines and installations to conform to the European Directives.
- Multipurpose, easily adaptable to user requirements.

OPERATING PRINCIPLE

■ SHUT-OFF VALVE

Connection of downstream circuit to exhaust (2) on loss of control signal (12) and gradual pressurisation of return signal (10).

■ SOFT-START DEVICE

On pressurisation of the pilot circuit (12), the device causes the downstream circuit to gradually fill. The filling rate, which is adjustable, is determined by the difference between the two strokes C2 and C1 (C1 being adjustable). The transition to full flow is made in two different ways, depending on the mode of control and return selected (see piloting diagrams below).

The **same device** performs the following functions:

- **Automatic** soft start
- **Remote controlled** soft start

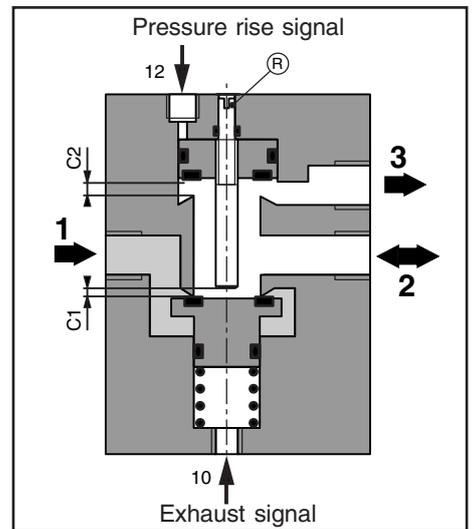
● AUTOMATIC SOFT START

Automatic transition to full flow as soon as the downstream pressure reaches approximately 50% of the upstream pressure.

● REMOTE CONTROLLED SOFT START

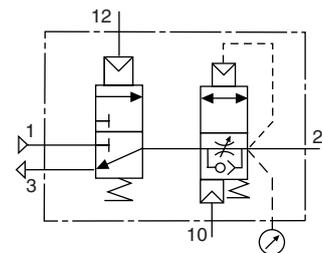
When the device is in the restricted flow position, it slowly brings the entire circuit to the end-of-cycle position. As soon as this position is reached, an automatic response, **set by the user**, energises (A) the normally open 3/2 pilot valve (10). The device then switches to full flow, allowing completion of the following cycles at normal speed, when the pilot (10) must be kept energised.

Note: In both operating modes, the filling rate, i.e. the pressure build-up in the downstream circuit, is adjusted by means of a fine-thread screw (R) in the upper section. A pressure gauge can be fitted to monitor the downstream pressure.



Port 1	= pressure supply
Port 2	= load, downstream circuit
Port 3	= G1 connectable exhaust
Port 10	= return pilot pressure
Port 12	= operate pilot pressure

Functional diagram



AVAILABLE FUNCTIONS (modes of connection)

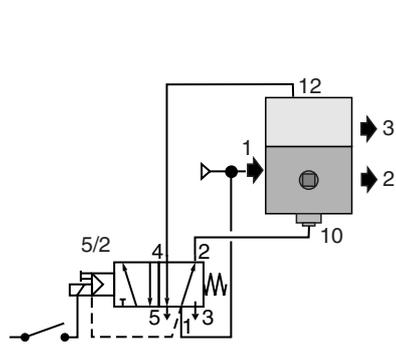
The same device can perform different functions. Depending on the type of solenoid/air pilots and the mode of electrical control, adaptation is carried out as indicated below.

NOTE: The equipment necessary for obtaining functions **2** and **3** is identical, the only difference is in the way the fluid and electrical connections are made

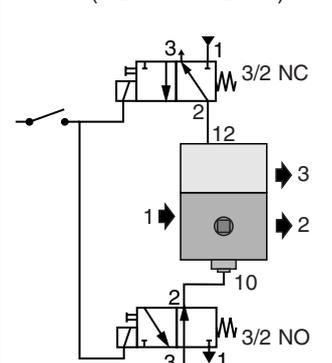
SOFT-START DEVICE AND SHUT-OFF VALVE

automatic version

1 controlled by one 5/2 control valve

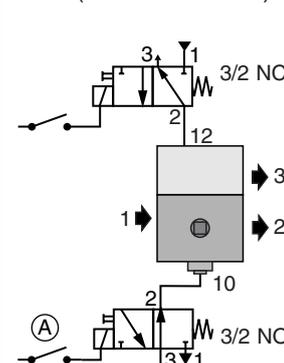


2 controlled by two pilot valves (3/2 NC + 3/2 NO)



remote controlled

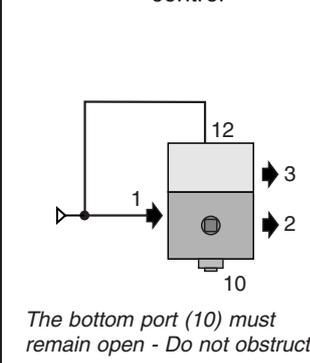
3 by two pilot valves (3/2 NC + 3/2 NO)



SOFT START DEVICE

automatic direct pneumatic control

4



For recommended pilot solenoid valves, see overleaf

Series 343

SPECIFICATION

FLUID	: lubricated or unlubricated filtered neutral gas or compressed air
PORTS	: G3/4 - G1
OPERATING PRESSURE	: 2 to 12 bar
MAX. FLOW (Qv at 6.3 bar)	G3/4 : 14000 l/min. (ANR) G1 : 16000 l/min. (ANR)
OPERATING TEMPERATURE	: 0°C, +50°C
OPERATION AND RETURN	: solenoid/air + spring
PILOT PORTS	: G1/8

CONSTRUCTION

Body	: painted light alloy and zamak
Internal parts	: light alloy and brass
Seals	: nitrile (NBR)

CHOICE OF EQUIPMENT

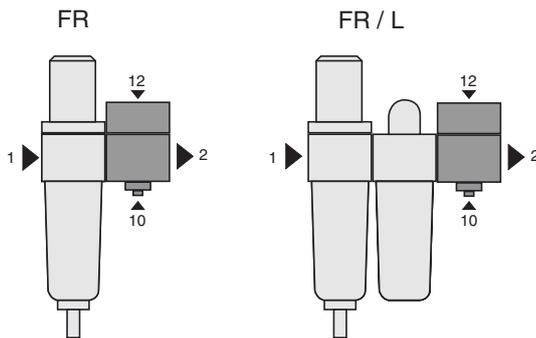
Description	port size (1)	CODES Shut-off valve + soft-start device
3/2 NC shut-off valve and soft-start unit, Modulair 150, air operated (without silencer)	G3/4	343 06 043
	G1	343 06 044

(1) Port 3 (Exhaust), always G1, delivered with silencer (accessorie on request, see below)

ACCESSORIES

- Assembly kit for connection to FRL, Modulair 150, code **343 00 028**
- 50 mm dia. 0-12 bar pressure gauge, code **342 00 062** (procure a G1/4 male to G1/8 female reduction fitting)
- Set of two side mounting brackets, code: **343 00 029**
(Note: all products are supplied with one **special lateral bracket** which is necessary when mounting a G1 silencer to port 3)
- G1 silencer, bronze body, code: **346 00 006**

RECOMMENDED CONFIGURATIONS



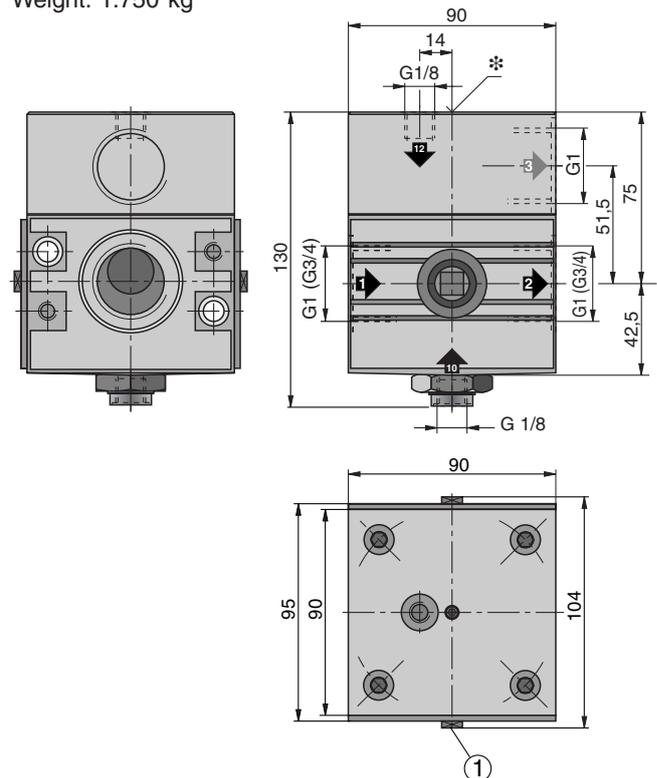
RECOMMENDED PILOT VALVES

for connection, see preceding page

- Function **1**
5/2 control valve, G1/8, solenoid/air operated and spring/differential pressure return, series 520 (see P550-4)
Pilot pressure: 2 to **8 bar**
- Functions **2** and **3**
Same pilot valves for both functions (the difference is in the electrical control)
- NC 3/2 solenoid valve, code: **192 00 007 (X) - 192 00 009 (▼)**
- NO 3/2 solenoid valve, code: **192 00 013 (X) - 192 00 015 (▼)**
- 2 joinable subbases, code: **353 00 057**
Pilot pressure: 2 to **10 bar** (for 12 bar consult us)
Manual operator: (X)= without (▼)= impulse
For safety reasons, **do not keep the manual operator in pressed position**
- Function **4**
None (direct pneumatic piloting)

DIMENSIONS AND WEIGHT

Weight: 1.750 kg



① G1/4 port for mounting 50 mm dia. 0-12 bar pressure gauge (provide for 1/4 to 1/8 adapter)

* Filling rate adjustment screw

Adjustment direction

UTILISATION

- This solenoid air-operated monobloc unit performs two main functions:
 - **pneumatic system venting.**
 - **gradual pressurisation** after an outage leading to venting of the system.
- This product allows for machines and installations to conform to the European Directives.
- Multipurpose, easily adaptable to user requirements.

OPERATING PRINCIPLE

■ SHUT-OFF VALVE

Connection of downstream system to exhaust (2) on loss of control signal on NC 3/2 (12) and NO 3/2 solenoid valves (10).

■ SOFT-START DEVICE

On energising the 3/2 NC solenoid valve (12), the device causes the downstream circuit to gradually fill. The filling rate, which is adjustable, is determined by the difference between the two strokes C2 and C1 (C1 being adjustable).

The transition to full flow is made in two different ways, depending on the mode of control and return selected (see piloting diagrams below).

The **same device** performs the following functions:

- **Automatic** soft start
- **Remote controlled** soft start

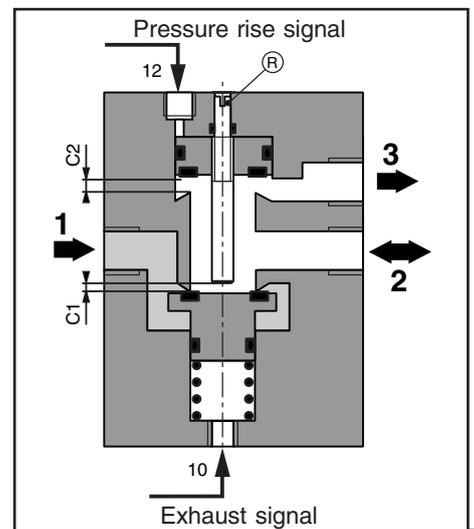
● AUTOMATIC SOFT START

Automatic transition to full flow as soon as the downstream pressure reaches approximately 50% of the upstream pressure.

● REMOTE CONTROLLED SOFT START

When the device is in the restricted flow position, it slowly brings the entire circuit to the end-of-cycle position. As soon as this position is reached, an automatic response, **set by the user**, energises (A) the normally open 3/2 pilot valve (10). The device then switches to full flow, allowing completion of the following cycles at normal speed, when the pilot (10) must be kept energised.

Note: In both operating modes, the filling rate, i.e. the pressure build-up in the downstream circuit, is adjusted by means of a fine-thread screw (R) in the upper section. A pressure gauge can be fitted to monitor the downstream pressure.



Functional diagram

Port 1	= pressure supply
Port 2	= load, downstream circuit
Port 3	= G1 connectable exhaust
Port 10	= return pilot pressure
Port 12	= operate pilot pressure

AVAILABLE FUNCTIONS (modes of connection)

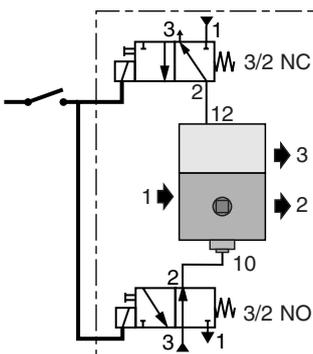
The same device can perform different functions. Depending on the electrical pilot control mode, fitting is carried out as indicated below.

NOTE: The equipment necessary for obtaining functions **1** and **2** is **identical**, the **only difference is in the way the fluid and electrical connections are made**

SOFT-START DEVICE AND SHUT-OFF VALVE

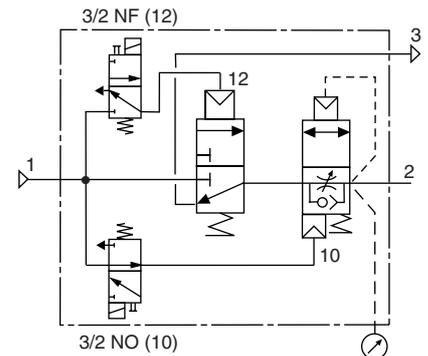
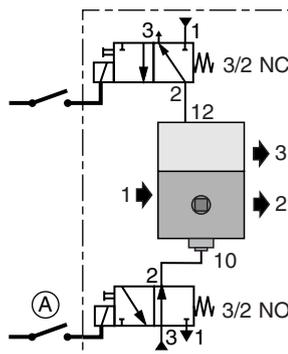
automatic version

- 1** controlled by two pilot valves (3/2 NC + 3/2 NO)



remote controlled

- 2** by two pilot valves (3/2 NC + 3/2 NO)



Solenoid air-operated SOFT-START DEVICE ONLY:
Procure complete device with its 2 pilot valves (see following page). To be connected as shown opposite depending on function mode desired (automatic or remote controlled)

Choice of equipment, see overleaf

Series 343

SPECIFICATION

FLUID	: lubricated or unlubricated filtered neutral gas or compressed air
PORTS	: G3/4 - G1
OPERATING PRESSURE	: 2 to 10 bar (12 bar on request)
MAX. FLOW (Qv at 6.3 bar)	G3/4 : 14000 l/min. (ANR) G1 : 16000 l/min. (ANR)
OPERATING TEMPERATURE	: 0°C, +50°C
OPERATION AND RETURN	: solenoid/air + spring

CONSTRUCTION

Body	: painted light alloy and zamak
Internal parts	: light alloy and brass
Seals	: nitrile (NBR)

CHOICE OF EQUIPMENT

Description	port size (1)	CODES		(M)
		Shut-off valve + soft-start device	+ Solenoid valve (function) (~ / =)	
3/2 NC shut-off valve and soft-start unit, Modulair 150, solenoid air operated (without silencer)	G3/4	343 90 043 (2)	1 x 192 00 007 (3/2 NC)	X
			1 x 192 00 013 (3/2 NO)	X
	G1	343 90 044 (2)	ou-or-oder	
			1 x 192 00 009 (3/2 NC)	▼
			1 x 192 00 015 (3/2 NO)	▼

(1) Port 3 (exhaust), always G1, delivered with silencer (accessorie on request, see below)

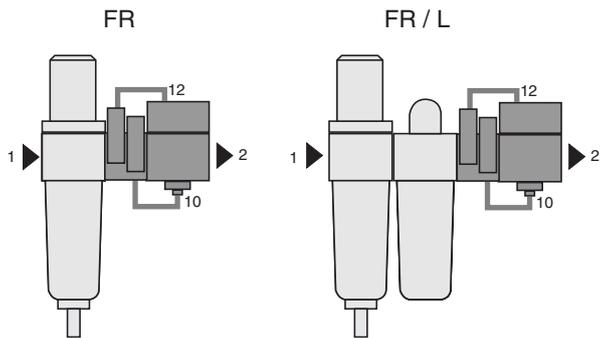
(2) Unit supplied with specific assembly kit including two screws CHc M8 x 150

(M) Manual override : (X) = without , (▼) = impulse

ACCESSORIES

- 50 mm dia. 0-12 bar pressure gauge, code **342 00 062** (procure a G1/4 male to G1/8 female reduction fitting)
- Set of two side mounting brackets, code: **343 00 029**
(Note: all products are supplied with one **special lateral bracket** which is necessary when mounting a G1 silencer to port 3)
- G1 silencer, bronze body, code: **346 00 006**

RECOMMENDED CONFIGURATIONS



RECOMMENDED PILOT VALVES FOR FUNCTIONS 1 - 2

for connection, see preceding page

Same pilot valves for both functions (the difference is in the electrical control)

- NC 3/2 solenoid valve, code: **192 00 007 (X) - 192 00 009 (▼)**
- NO 3/2 solenoid valve, code: **192 00 013 (X) - 192 00 015 (▼)**

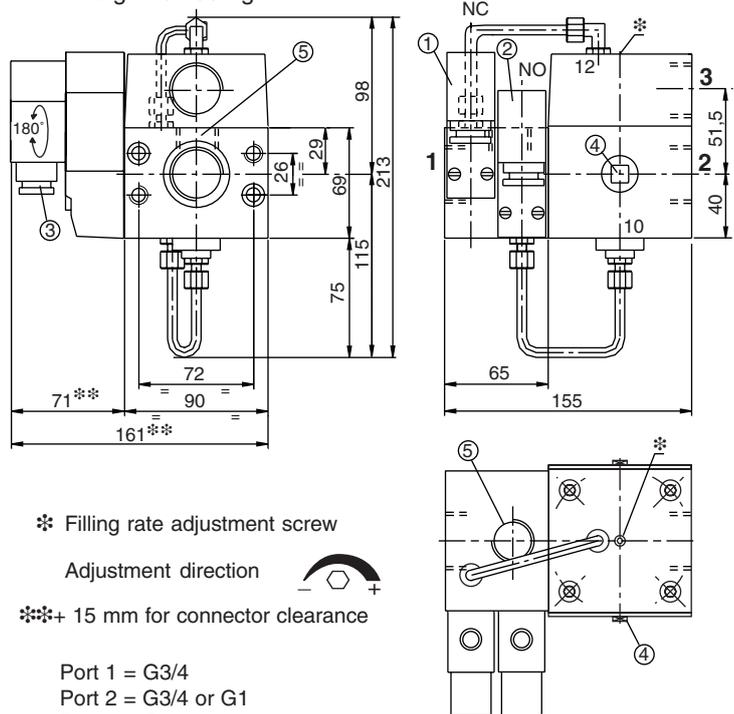
Pilot pressure: 2 to **10 bar** (for 12 bar consult us)

Manual operator: (X)= without (▼)= impulse

For safety reasons, **do not keep the manual operator in pressed position**

DIMENSIONS AND WEIGHT

Weight: 3.400 kg



* Filling rate adjustment screw

Adjustment direction

**+ 15 mm for connector clearance

Port 1 = G3/4

Port 2 = G3/4 or G1

Port 3 = G1

- ① Solenoid valve 3/2 NC (12)
- ② Solenoid valve 3/2 NO (10)
- ③ Connector ISO 4400 CM10 (Pg11P) rotatable by 90° increments
- ④ G1/4 port for mounting 50 mm dia. 0-12 bar pressure gauge (provide for 1/4 to 1/8 adapter)
- ⑤ By-pass port G3/4