

## Series 2200 "OPTYMA-Sc"

### General

Optyma solenoid valves series it's completed by "Compact" version. It is useful in case a limited number of solenoid valves is needed without managing input and output signals. Standard base blocks provide 4 or 6 solenoid valves positions. Standard base blocks can be individually sold even without solenoid valves to allow maximum configuration flexibility.

Solenoid valves can be chosen from whole Optyma-S range.

Manifolds made in this way allow great room and weight saving against correspondent pneumatic group from Optyma-S series.

- Flow rate: up to 550[Nl/min], using the modular base with Ø8 quick fitting tube.
- Modular base available with Ø4, Ø6, Ø8 quick fitting tube.
- The solenoid pilots are low consumption and fitted on the same side of the valve.
- Mono and bistable valves have the same dimension.
- Easy and fast assembly on the sub base thanks to the "one screw" mounting solution.
- Possibility to replace a valve without the need of disconnecting the pneumatic pipes.
- Electrical and pneumatic connections positioned on the same side.
- Possibility to operate with different pressures and vacuum.
- 4 or 6 electric signals management (two signals per position, independently of the mounted solenoid valve).
- The electrical connection is achieved thanks to a 9 or 15 poles connector.
- The protection grade is IP65 directly integrated in the manifold components.

**"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power-Directional control valves-Measurement of shifting time"**

### Main characteristics

One size: 12.5mm thick  
 Monostable and bistable valves with same dimensions  
 Modular subbase with two positions  
 Quick coupling connections directly integrated in sub base  
 Integrated and optimized electrical connection system.  
 IP65 protection grade as standard

### Construction characteristics

Body	Technopolymer
Spacer	Technopolymer
Spacers	NBR
Piston seals	NBR
Springs	AISI 303 stainless steel
Operators	Technopolymer
Pistons	Technopolymer
Spools	AISI 303 stainless steel


### Functions

SV 5/2 MONOSTABLE SOLENOID-SPRING  
 SV 5/2 MONOSTABLE SOLENOID-DIFFERENTIAL  
 SV 5/2 BISTABLE SOLENOID-SOLENOID  
 SV 5/3 C.C. SOLENOID-SOLENOID  
 SV 2x3/2 N.C.-N.C. (=5/3 O.C.) SOLENOID-SOLENOID  
 SV 2x3/2 N.O.-N.O. (=5/3 P.C.) SOLENOID-SOLENOID  
 SV 2x3/2 N.C.-N.O. SOLENOID-SOLENOID  
 SV 2x3/2 N.O.-N.C. SOLENOID-SOLENOID


### Technical characteristics

Voltage	24VDC ±10% PNP (NPN and AC on request)
Pilot consumption	0,5 Watt
Pilot working pressure (12-14)	from 2,5 to 7 bar max.
Valve working pressure [1]	from vacuum to 10 bar max.
Operating temperature	from -5°C to +50°C
Protection degree	IP40
Life (standard operating conditions)	50000000
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous

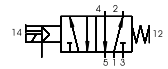
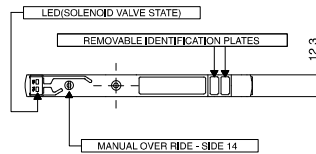
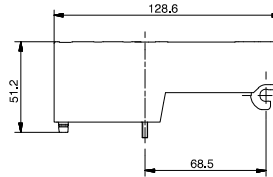
## Solenoid - Spring


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Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	2,5 ÷ 7
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	550
Response time according to ISO 12238, activation time (ms)	12
Response time according to ISO 12238, deactivation time (ms)	20


	VOLTAGE
	02 = 24 VDC PNP
	SHORT FUNCTION CODE "A"
	Weight 67 g

Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001




Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2248.01  tube Ø8= 550

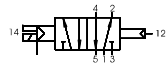
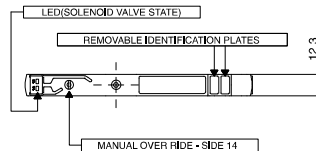
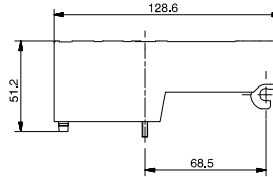
## Solenoid-Differential


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Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	2,5 ÷ 7
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	550
Response time according to ISO 12238, activation time (ms)	20
Response time according to ISO 12238, deactivation time (ms)	25


	VOLTAGE
	02 = 24 VDC PNP
	SHORT FUNCTION CODE "B"
	Weight 67 g

Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001




Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2248.01  tube Ø8= 550

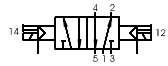
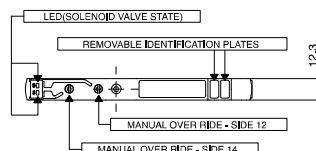
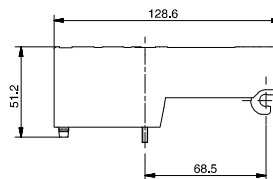
## Solenoid-Solenoid


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Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	2,5 ÷ 7
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	550
Response time according to ISO 12238, activation time (ms)	10
Response time according to ISO 12238, deactivation time (ms)	10

	VOLTAGE
	02 = 24 VDC PNP
	SHORT FUNCTION CODE "C"
	Weight 67 g

Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001



Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2248.01  tube Ø8= 550

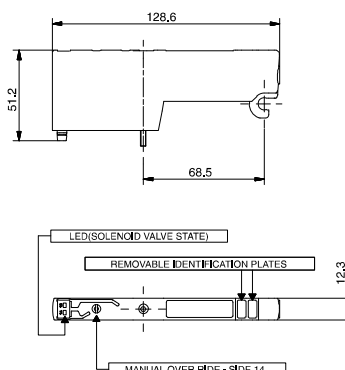
## Solenoid-Solenoid 5/3 (Closed centres)

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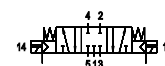
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	2,5 ÷ 7
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	400
Response time according to ISO 12238, activation time (ms)	15
Response time according to ISO 12238, deactivation time (ms)	20

	VOLTAGE
<b>02</b>	= 24 VDC PNP
SHORT FUNCTION CODE "E"	
Weight 83 g	

Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001



Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2248.01. tube  $\varnothing 8$  = 400



## Solenoid-Solenoid 2x3/2

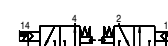
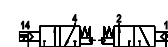
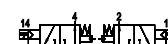
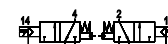
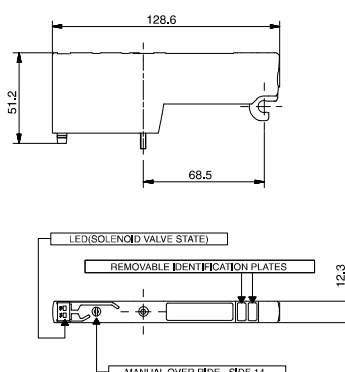
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Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	$\geq 3 + (0,2 \times \text{Inlet pressure})$
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	420
Response time according to ISO 12238, activation time (ms)	15
Response time according to ISO 12238, deactivation time (ms)	25

Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

	FUNCTION
	44 = NC-NC (5/3 Open centres)
	45 = NC-NO (normally closed-normally open)
	54 = NO-NC (normally open-normally closed)
	55 = NO-NO (5/3 Pressured centres)
	VOLTAGE
<b>02</b>	= 24 VDC PNP

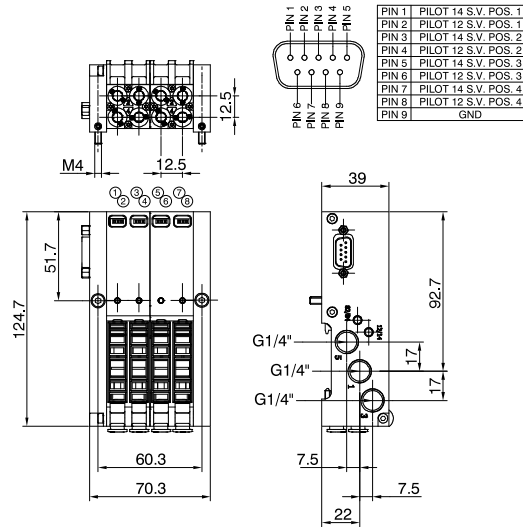
SHORT FUNCTION CODE:  
NC-NC (5/3 Open centres) = "F"  
NO-NO (5/3 Pressured centres) = "G"  
NC-NO = "H"  
NO-NC = "I"  
Weight 75 g



Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2244.01 tube  $\varnothing 4$  = 140  
Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2246.01 tube  $\varnothing 6$  = 360  
Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2248.01 tube  $\varnothing 8$  = 420

**Bases only kit**

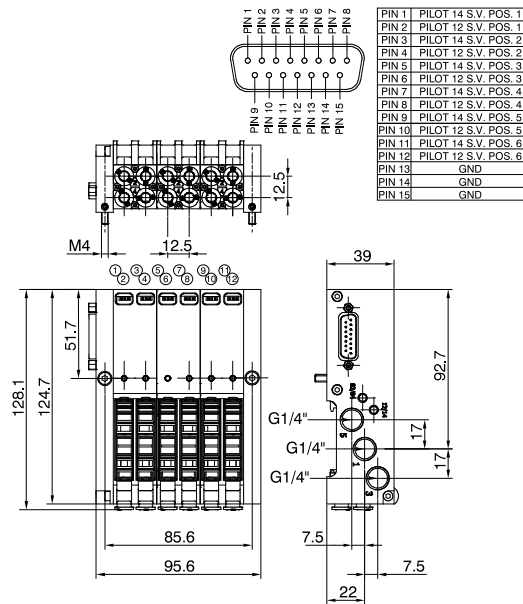
Coding: CMPVCP0



VERSION	
V	9E = 9 poles kit
	1E = 15 poles kit
TUBE DIAMETER	
44	= Ø4-4 (9 poles)
66	= Ø6-6 (9 poles)
C	88 = Ø8-8 (9 poles)
444	= Ø4-4-4 (15 poles)
666	= Ø6-6-6 (15 poles)
888	= Ø8-8-8 (15 poles)

Weight 400 g

CMP9ECP0



Weight 500 g

CMP1ECP0

**Available bases**

Tube Ø4

Tube Ø6

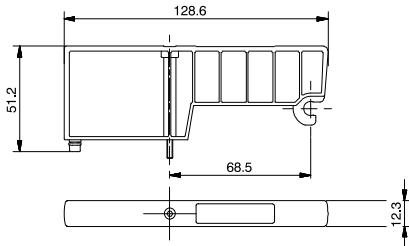
Tube Ø8



Closing plate

Coding: 2240.00

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Temperature °C	-5 ÷ +50



Weight 30 g  
SHORT FUNCTION CODE "T"

Cable complete with connector, 9 Poles, IP40

Coding: 2400.09.**L**.00



<b>L</b>	CABLE LENGTH
	03 = 3 meters
	05 = 5 meters
	10 = 10 meters

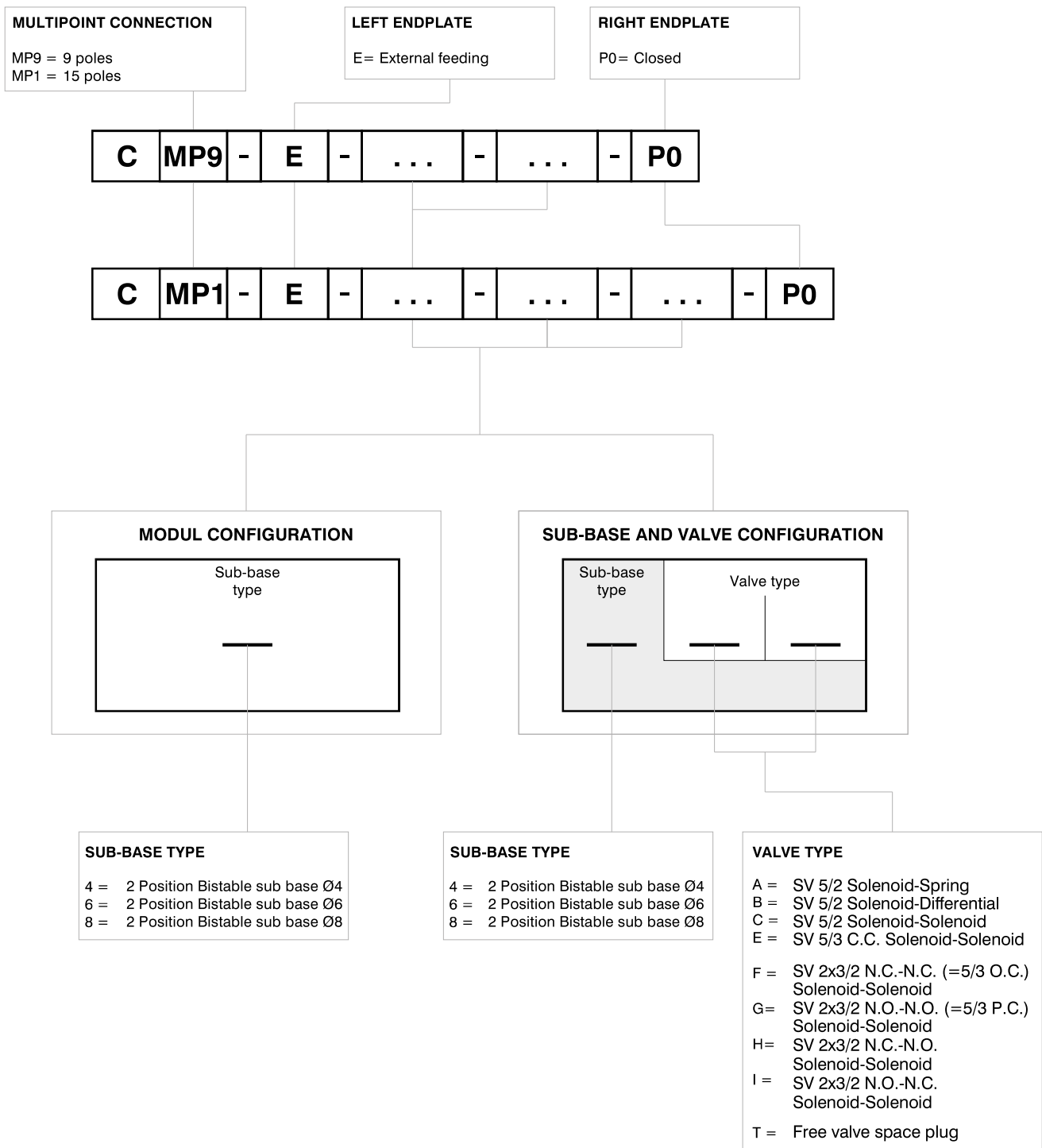
Cable complete with connector, 15 Poles, IP40

Coding: 2400.15.**L**.00




<b>L</b>	CABLE LENGTH
	03 = 3 meters
	05 = 5 meters
	10 = 10 meters

## Manifold layout configuration



Series 2200 OPTYMA-Sc solenoid valve manifolds managed by multipoint connection are  
"well tried components"

	<b>Well-tried component</b>	<ul style="list-style-type: none"> <li>- The product is well-tried product for a safety-related application according to ISO 13849-1.</li> <li>- The relevant basic and well-tried safety principles according ISO 13849-2 for this product are fulfilled.</li> <li>- The suitability of the product for a precise application must be verified and confirmed by the user.</li> </ul>
<b>B<sub>10d</sub></b>	50.000.000	

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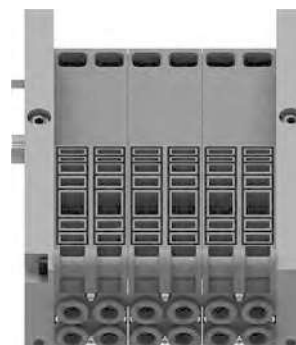
AIR DISTRIBUTION



**Example shown : CMP9E68P0**  
Manifold with external supply, 9 poles multipolar, base Ø6, base Ø8



To be completed with solenoid valves before use



**Example shown : CMP1E666P0**  
Manifold with external supply, 15 poles multipolar, base Ø6, base Ø6, base Ø6



To be completed with solenoid valves before use



**Example shown : CMP1E6CA6CC6FFP0**  
Manifold with external supply, 15 poles multipolar, base Ø6 with solenoid valves, base Ø6 with solenoid valves, base Ø6 with solenoid valves



Two signals per position, independently of the mounted solenoid valve



**Example shown : CMP9E6TF6ACP0**  
Manifold with external supply, 9 poles multipolar, base Ø6 with solenoid valves, base Ø6 with solenoid valves



Two signals per position, independently of the mounted solenoid valve

## Supply ports and maximum possible size according to valves used

