# 1

## 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 Opytma-S range.

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

- Flow rate: up to 550[NI/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, indipendently of the mounted solenoid valve).
- The ectrical 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.O.-N.O. SOLENOID-SOLENOID SV 2x3/2 N.O.-N.C. SOLENOID-SOLENOID

#### **Technical characteristics**

Voltage	24VDC $\pm$ 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)	5000000
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous

•		
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	
Responce time according to ISO 12238, activation time (ms)	12	
Responce time according to ISO 12238, deactivation time (ms)	20	

Coding: 2241.52.00.39.**♥** 

VOLTAGE

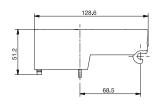
02 = 24 VDC PNP

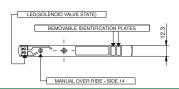
SHORT FUNCTION CODE "A"
Weight 67 g

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

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 Δp=1 (NI/min)	550	
Responce time according to ISO 12238, activation time (ms)	20	
Responce time according to ISO 12238, deactivation time (ms)	25	

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

Coding: 2241.52.00.36.

VOLTAGE

02 = 24 VDC PNP

SHORT FUNCTION CODE\*B\*

Weight 67 g

Coding:

VOLTAGE

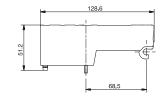
02 = 24 VDC PNP

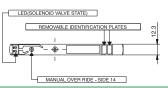
SHORT FUNCTION CODE "C"

Weight 67 g



Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2248.01 0 tube  $\varnothing 8=550$ 







2241.52.00.35.

#### Solenoid-Solenoid

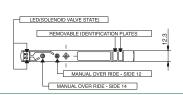
Operational characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working pressure (bar)	From vacuum to 10	
Pressure range (bar)	2,5 ÷ 7	
Temperature °C	-5 ÷ +50	
Flow rate at 6 bar with Δp=1 (NI/min)	550	
Responce time according to ISO 12238, activation time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

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



Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2248.01 0 tube  $\varnothing 8=550$ 

	-	128.6		-
51.2	Ħ		68.5	





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

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 Δp=1 (NI/min)	400
Responce time according to ISO 12238, activation time (ms)	15
Responce time according to ISO 12238, deactivation time (ms)	20

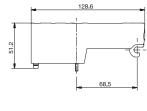
Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

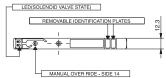
2241.53.31.35. Coding:

VOLTAGE V 02 = 24 VDC PNP

SHORT FUNCTION CODE "E" Weight 83 g







Flow rate at 6 bar with  $\Delta p=1$  (NI/min) with Base cod. 2248.01. 0 tube 08=400



#### Solenoid-Solenoid 2x3/2

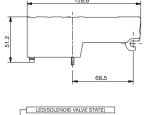
Operational characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working pressure (bar)	From vacuum to 10	
Pressure range (bar)	≥3+(0,2xInlet pressure)	
Temperature °C	-5 ÷ +50	
Flow rate at 6 bar with Δp=1 (NI/min)	420	
Responce time according to ISO 12238, activation time (ms)	15	
Responce time according to ISO 12238, deactivation time (ms)	25	

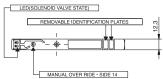
 $Shifting\ time\ of\ pneumatic\ directional\ control\ valves\ or\ moving\ parts, logic\ devices\ were\ measured\ in\ accordance\ to\ ISO\ 12238:2001$ 

Cod	ing: 2241.62. <b>⑤</b> .35. <b>◎</b>
	FUNCTION
	44 = NC-NC (5/3 Open centres)
	45 = NC-NO (normally
	closed-normally open)
9	54 = NO-NC (normally
	open-normally closed)
	55 = NO-NO (5/3 Pressured
	centres)
	VOLTAGE
V	02 = 24 VDC PNP

02 = 24 VDC PNP
SHORT FUNCTION CODE:
NC-NC (5/3 Open centres)="F"
NC-NO (5/3 Pressured centres)="G"
NC-NO="I"
NO-NC="I" Weight 75 g





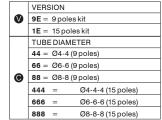


Flow rate at 6 bar with  $\Delta p\!=\!1$  (NI/min) with Base cod. 2244.01  $\!\!\!0$  tube Ø4= 140

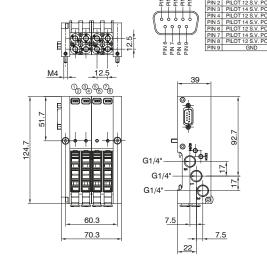
Flow rate at 6 bar with  $\Delta p$ =1 (NI/min) with Base cod. 2246.010 tube  $\emptyset 6$ = 360 Flow rate at 6 bar with  $\Delta p$ =1 (NI/min) with Base cod. 2248.010 tube  $\emptyset 8$ = 420







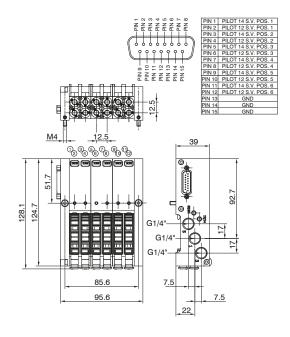




Weight 400 g

CMP9E**⊕**P0





Weight 500 g

CMP1E@P0

### Available bases

Tube Ø4 Tube Ø6 Tube Ø8





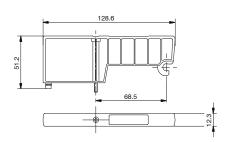




#### Closing plate

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"

Coding: 2240.00

Cable complete with connector, 9 Poles, IP40



Coding: 2400.09. **0**.00

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

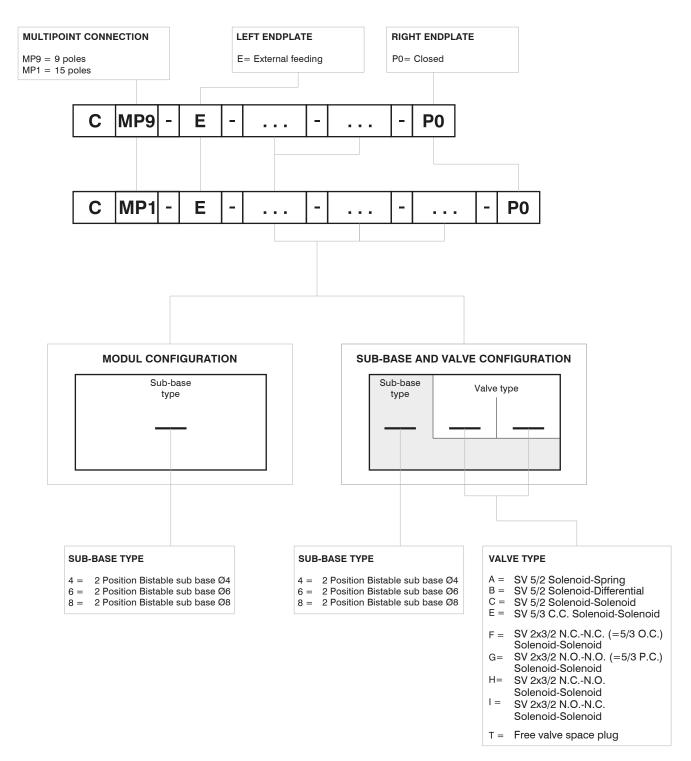
Cable complete with connector, 15 Poles, IP40



Coding: 2400.15. **0**.00

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

## Manifold layout configuration



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

$\Psi$	Well-tried component	- The product is well-tried product for a safety-related application according to ISO 13849-1 The relevant basic and well-tried safety principles according ISO 13849-2 for this product are fullfilled The suitability of the product for a precise application must be verified and confirmed by the user.
B <sub>10d</sub>	50.000.000	





**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, indipendently 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, indipendently of the mounted solenoid valve

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

