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[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, 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.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

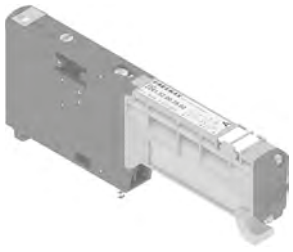
Coding: 2241.52.00.39.Ⓥ

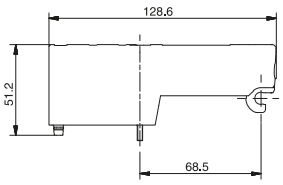
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	2,5 ÷ 7
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (Nl/min)	550
Responce time according to ISO 12238, activation time (ms)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

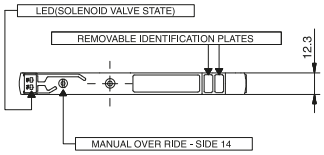
Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

Ⓥ	VOLTAGE
	02 = 24 VDC PNP

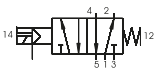
SHORT FUNCTION CODE "A"
Weight 67 g







Flow rate at 6 bar with Δp=1 (Nl/min) with Base cod. 2248.01Ⓥ tube Ø8= 550



Solenoid-Differential

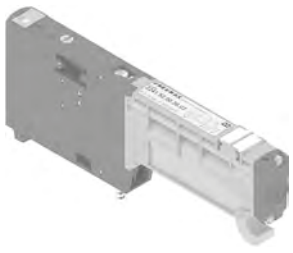
Coding: 2241.52.00.36.Ⓥ

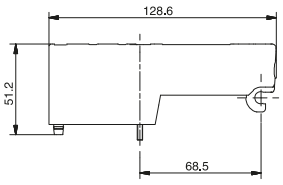
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	2,5 ÷ 7
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (Nl/min)	550
Responce time according to ISO 12238, activation time (ms)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

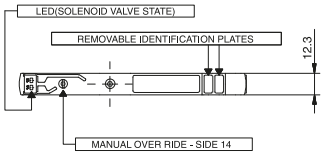
Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

Ⓥ	VOLTAGE
	02 = 24 VDC PNP

SHORT FUNCTION CODE "B"
Weight 67 g







Flow rate at 6 bar with Δp=1 (Nl/min) with Base cod. 2248.01Ⓥ tube Ø8= 550

Solenoid-Solenoid

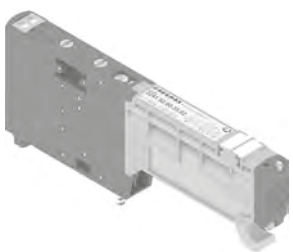
Coding: 2241.52.00.35.Ⓥ

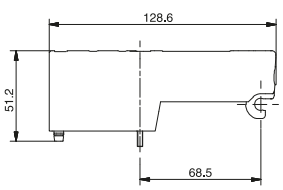
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	2,5 ÷ 7
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (Nl/min)	550
Responce time according to ISO 12238, activation time (ms)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

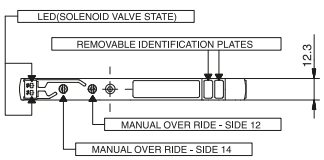
Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

Ⓥ	VOLTAGE
	02 = 24 VDC PNP

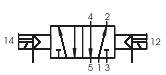
SHORT FUNCTION CODE "C"
Weight 67 g







Flow rate at 6 bar with Δp=1 (Nl/min) with Base cod. 2248.01Ⓥ tube Ø8= 550



Solenoid-Solenoid 5/3 (Closed centres)

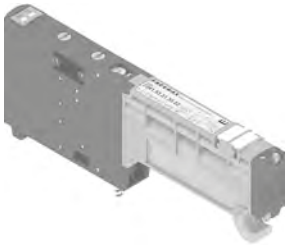
Coding: 2241.53.31.35.Ⓥ

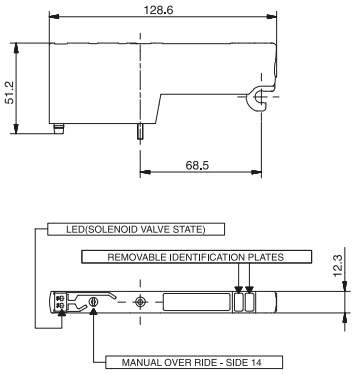
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	2,5 ÷ 7
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (Nl/min)	400
Responce time according to ISO 12238, activation time (ms)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

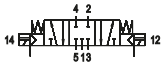
Ⓥ	VOLTAGE
	02 = 24 VDC PNP

SHORT FUNCTION CODE "E"
Weight 83 g





Flow rate at 6 bar with Δp=1 (Nl/min) with Base cod. 2248.01.Ⓥ tube Ø8= 400



Solenoid-Solenoid 2x3/2

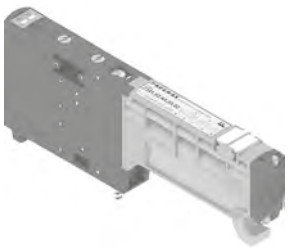
Coding: 2241.62.Ⓕ.35.Ⓥ

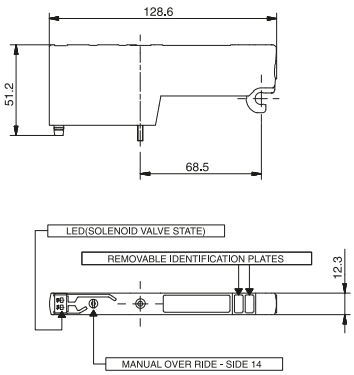
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working pressure (bar)	From vacuum to 10
Pressure range (bar)	≥3+(0,2xInlet pressure)
Temperature °C	-5 ÷ +50
Flow rate at 6 bar with Δp=1 (Nl/min)	420
Responce time according to ISO 12238, activation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

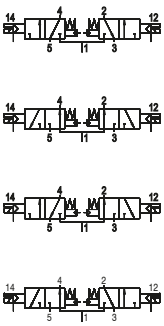
Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001

Ⓕ	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
	02 = 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





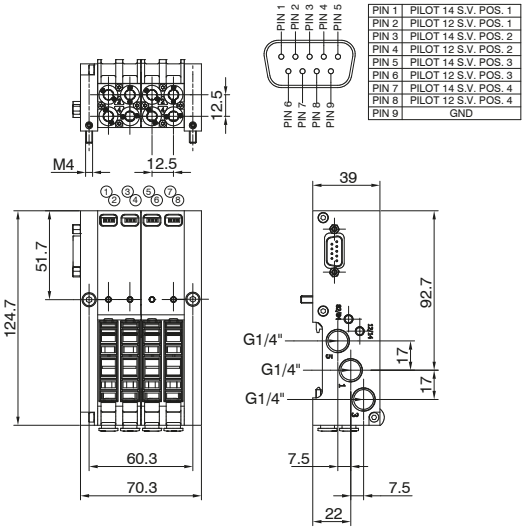


Flow rate at 6 bar with Δp=1 (Nl/min) with Base cod. 2244.01Ⓥ tube Ø4= 140
Flow rate at 6 bar with Δp=1 (Nl/min) with Base cod. 2246.01Ⓥ tube Ø6= 360
Flow rate at 6 bar with Δp=1 (Nl/min) with Base cod. 2248.01Ⓥ tube Ø8= 420

Bases only kit

Coding: CMP(V)(C)P0

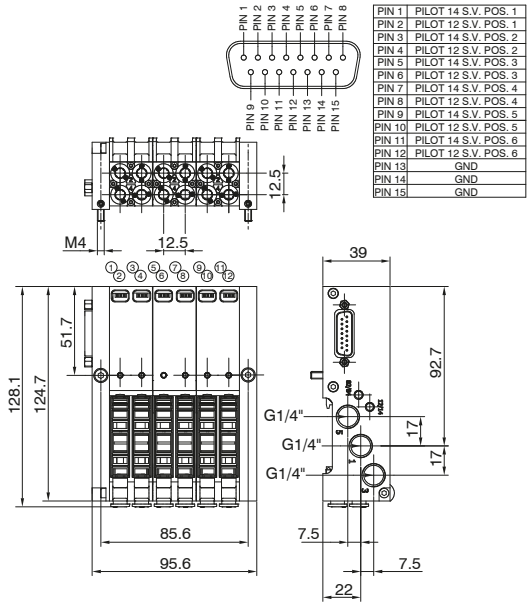
(V)	VERSION
	9E = 9 poles kit
	1E = 15 poles kit
(C)	TUBE DIAMETER
	44 = Ø4-4 (9 poles)
	66 = Ø6-6 (9 poles)
	88 = Ø8-8 (9 poles)
	444 = Ø4-4-4 (15 poles)
	666 = Ø6-6-6 (15 poles)
	888 = Ø8-8-8 (15 poles)



PIN 1	PILOT 14 S.V. POS. 1
PIN 2	PILOT 12 S.V. POS. 1
PIN 3	PILOT 14 S.V. POS. 2
PIN 4	PILOT 12 S.V. POS. 2
PIN 5	PILOT 14 S.V. POS. 3
PIN 6	PILOT 12 S.V. POS. 3
PIN 7	PILOT 14 S.V. POS. 4
PIN 8	PILOT 12 S.V. POS. 4
PIN 9	GND

CMP9E(C)P0

Weight 400 g



PIN 1	PILOT 14 S.V. POS. 1
PIN 2	PILOT 12 S.V. POS. 1
PIN 3	PILOT 14 S.V. POS. 2
PIN 4	PILOT 12 S.V. POS. 2
PIN 5	PILOT 14 S.V. POS. 3
PIN 6	PILOT 12 S.V. POS. 3
PIN 7	PILOT 14 S.V. POS. 4
PIN 8	PILOT 12 S.V. POS. 4
PIN 9	PILOT 14 S.V. POS. 5
PIN 10	PILOT 12 S.V. POS. 5
PIN 11	PILOT 14 S.V. POS. 6
PIN 12	PILOT 12 S.V. POS. 6
PIN 13	GND
PIN 14	GND
PIN 15	GND

CMP1E(C)P0

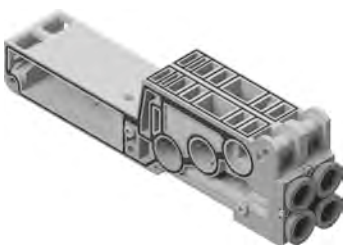
Weight 500 g

Available bases

Tube Ø4

Tube Ø6

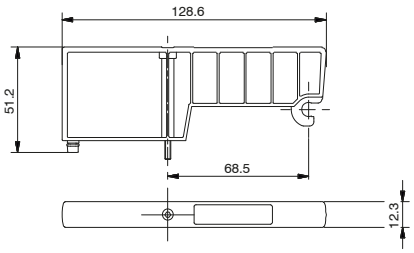
Tube Ø8



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.Ⓛ.00

Ⓛ	CABLE LENGTH
	03 = 3 meters
	05 = 5 meters
	10 = 10 meters

Cable complete with connector, 15 Poles, IP40

Coding: 2400.15.Ⓛ.00

Ⓛ	CABLE LENGTH
	03 = 3 meters
	05 = 5 meters
	10 = 10 meters

Manifold layout configuration

MULTIPOINT CONNECTION

MP9 = 9 poles
MP1 = 15 poles

LEFT ENDPLATE

E= External feeding

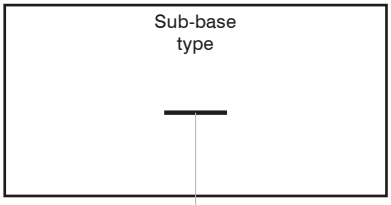
RIGHT ENDPLATE

P0= Closed

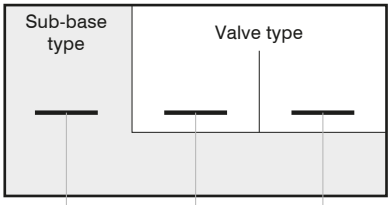
C	MP9	-	E	-	. . .	-	. . .	-	P0

C	MP1	-	E	-	. . .	-	. . .	-	. . .	-	P0

MODUL CONFIGURATION



SUB-BASE AND VALVE CONFIGURATION



SUB-BASE TYPE

4 = 2 Position Bistable sub base Ø4
6 = 2 Position Bistable sub base Ø6
8 = 2 Position Bistable sub base Ø8

SUB-BASE TYPE

4 = 2 Position Bistable sub base Ø4
6 = 2 Position Bistable sub base Ø6
8 = 2 Position Bistable sub base Ø8

VALVE TYPE

A = SV 5/2 Solenoid-Spring
B = SV 5/2 Solenoid-Differential
C = SV 5/2 Solenoid-Solenoid
E = SV 5/3 C.C. Solenoid-Solenoid
F = SV 2x3/2 N.C.-N.C. (=5/3 O.C.) Solenoid-Solenoid
G= SV 2x3/2 N.O.-N.O. (=5/3 P.C.) Solenoid-Solenoid
H= SV 2x3/2 N.C.-N.O. Solenoid-Solenoid
I = SV 2x3/2 N.O.-N.C. Solenoid-Solenoid
T = Free valve space plug

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

	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_{10d}	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