ASCO™ Series Solenoid Valve

Integrated Pilot Operated, Spool Type, Single/Dual Solenoid, Aluminium Body, 1/4", NAMUR and THREADED Style

Series **531**

Features

- Dual 3/2-Way to save cost and space
- Small footprint & ideal for panel installation (manifold type)
- The “NAMUR” style spool valve comes with threaded port connection and Namur interface, while the “THREADED” style spool valve comes with threaded port connection
- All the exhaust ports of this spool valve are connectable, providing better environmental protection, particularly recommended for sensitive areas such as clean rooms as well as applications in the pharmaceutical and food processing sectors
- The valve offers environmental protection against the ingress of liquids, dusts, or any other foreign matters (environmentally protected construction)





General

Type	Differential pressure [1 bar=100 kPa]	Flow (Qv at 6 bar)
THREADED Dual 3/2-Way	2.5-10 bar	550 l/min (ANR)
NAMUR 3/2 NC-5/2 and THREADED-5/2	2-10 bar	1100 l/min (ANR)

Fluids (*)	Temperature Range (TS)	Seal Material (*)
air, inert gas, filtered	-25 to +60	NBR (nitrile) + PUR (polyurethane)

Materials in Contact with Fluid

(*) Ensure that the compatibility of the fluids in contact with the materials is verified	
Body	Aluminium, black anodized
End cover (spring)	Glass fiber filled PA
Internal parts	Zamak, stainless steel, POM, aluminium
Seals	NBR+PUR
Core and plugnut	Stainless steel
Shading coil	Copper

Specifications

Pipe Size	Orifice Size	Flow Coefficient Kv		Operating Pressure Differential (bar)			Power Level	Optional Prefix Solenoids			Basic Catalog Number
				Min.	Max. Air			ATEx/IECEx/CCC		IP65	
								Ex mb	Ex em		
(inch)	(mm)	(m^3/h)	(l/min)		AC	DC	AC/DC	PV	WBLP	SC	
NAMUR 3/2 NC - 5/2 - Solenoid air pilot operated - spring return (Single Solenoid)											
1/4	6	0.95	15.5	2	10	10	MP (1)	•	-	-	❖531C001 MS
1/4	6	0.95	15.5	2	10	10	RP (1)	-	•	•	❖531C001 MS
NAMUR 3/2 NC - 5/2 - Solenoid air pilot operated (Double Solenoid)											
1/4	6	0.95	15.5	2	10	10	MP	•	-	-	❖531C002 MS
1/4	6	0.95	15.5	2	10	10	RP	-	•	•	❖531C002 MS
THREADED 5/2 - Solenoid air pilot operated - spring return (Single Solenoid)											
1/4	6	0.95	15.5	2	10	10	MP	•	-	-	❖531C017 MS
1/4	6	0.95	15.5	2	10	10	RP	-	•	•	❖531C017 MS
THREADED 5/2 - Solenoid air pilot operated (Double Solenoid)											
1/4	6	0.95	15.5	2	10	10	MP	•	-	-	❖531C018 MS
1/4	6	0.95	15.5	2	10	10	RP	-	•	•	❖531C018 MS
THREADED Dual 3/2- Solenoid air pilot operated (Double Solenoid)											
NPT 1/4	6	0.47	7.7	2.5	10	10	MP	o	-	-	X531562224001F1
G 1/4	6	0.47	7.7	2.5	10	10	MP	o	-	-	X531562224002F1

•Available Feature for AC and DC; - Not available; o Available feature in DC only

(1) MP = Medium Power; RP = Reduced Power

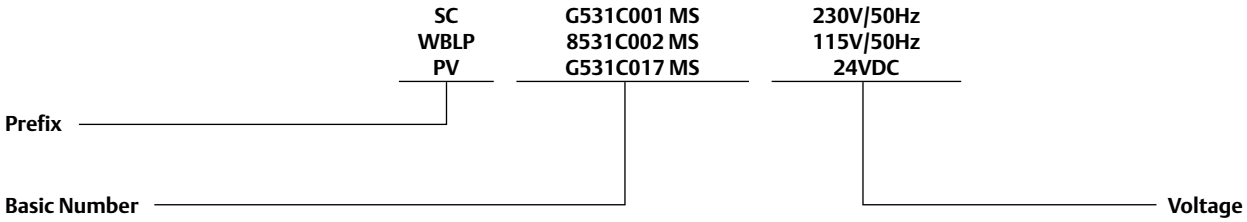
❖ 8 for NPT; G for G Thread;

TR000183ENUS-02_07-23
Availability, design and specifications are subject to change without notice. All rights reserved.

ASCO™ Series Solenoid Valve

Integrated Pilot Operated, Spool Type, Single/Dual Solenoid, Aluminium Body, 1/4", NAMUR and THREADED Style

How to Order
NAMUR 3/2-Way NC-5/2-Way and THREADED-5/2-Way



THREADED Dual 3/2-Way

Type	Basic Catalog Number
NPT 1/4	X531562224001F1
G 1/4	X531562224002F1

Explanation of Temperature Ranges of Solenoid Valves

Valve temperature range — The valve temperature range is determined by the selected seal material, the temperature range for proper operation of the valve and sometimes by the fluid (e.g. steam)

Operator ambient temperature range — The operator ambient temperature range is determined by the selected power level (LP, RP, MP or BP) and ATEX safety code

Total temperature range — The temperature range of the complete solenoid valvle is determined by the limitations of both temperature range above

Electrical Characteristics

Prefix Opetion	Coil Type	Norminal Power Rating				Oprating Ambient Temparature Range TS (° C)	Safety Code	Electrical Enclosure Protection (EN60529)	Replacement Coil		Type(1)
		Inrush AC	Holding AC		Hot/ Cold DC				AC	DC	
		(VA)	(VA)	(W)	(W)				230V/50Hz	24VDC	
Medium Power (MP)											
PV	EM5	9	5	4	3.0/4.0	-40 to +60	IECEX/ II2G Ex mb IIC T5.. T3 Gb IECEX/ II2D Ex mb IIIC T100°C.. T200°C Db CCC Ex mb IIC T5.. T3 Gb CCC Ex mbD 21 T100°C.. T200°C	Moulded IP67	129658 -1E-197	129658 -1E-042	02/05/ 07
Reduced Power (RP)											
WBLP	WBLP	-	-	3.5	-/4.0	-40 to +65	II2G Ex e mb IIC T4, II2D Ex tb IIIC Db	IP67 PBT	-	-	03/06
SC	CM22	6	3.5	2.5	2.5/3.0	-25 to +60	EN60730	Moulded IP65	43004886	43004869	01/04

(1) Refer to dimensional drawing

Electrical Connections

Prefix	Connection
SC	Spade plug connector with cable gland DIN 43650, 11mm, industry standard B, for cables with an outer diameter from 6 to 8 mm (Type 01 / 04)
PV	Moulded - in cable, standard length 2m (Type 02 / 05 / 07)
WBLP	M20 cable gland for cables with an outer diameter from 7 to 8.5 mm. With an internal and external facility for an earthing or bonding conductor (Type 03 / 06)

Additional Options

- Other pipe threads are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2m, SC prefix only (Consult ASCO Office)
- Moulded-in cable, standard length 2m (Type 02 /04), other length on request

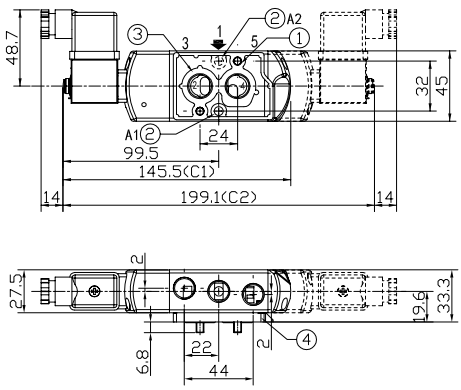
Installation

- Installation/maintenance instructions are included with each valve
- The solenoid valves can be mounted in any position without affecting operation
- Spool valve supplied with two interface plates with NAMUR mating surfaces. Depending on function (NC 3/2 or 5/2), position one of the two plates on the spool valve body before installing onto actuator
- It is necessary to connect pipes or fittings to the exhaust ports to protect the internal parts of the spool valve and its pneumatic operator if used outside or in harsh environments (dusts, liquids, etc.)
- Dowel pin (if necessary), bolts and gaskets are standard supplied
- Threaded pipe connection identifier is: 8 = NPT (ANSI 1.20.3); G = G (ISO 228/1)

DIMENSIONS (mm), WEIGHT (Kg)



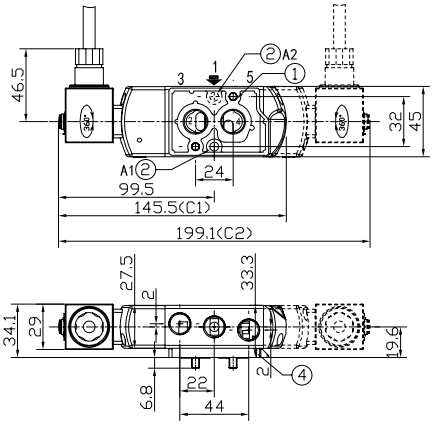
TYPE 01: Prefix SC
Moulded IP65
Reduced power
IEC 335 / DIN 43650
G531C001 MS / G531C002 MS
8531C001 MS / 8531C002 MS



(C1): monostable
(C2): bistable
Port 1, 3 and 5: NPT/G 1/4



TYPE 02: Prefix PV
IECEX/Ⓔx II2G Ex mb IIC T5.. T3 Gb
IECEX/Ⓔx II2D Ex mb IIIC T100°C.. T200°C Db
CCC Ex mb IIC T5.. T3 Gb
CCC Ex mbD 21 T100°C.. T200°C
Medium power
Epoxy moulded
EN60079 -18 and EN 61241-18
G531C001 MS / G531C002 MS
8531C001 MS / 8531C002 MS

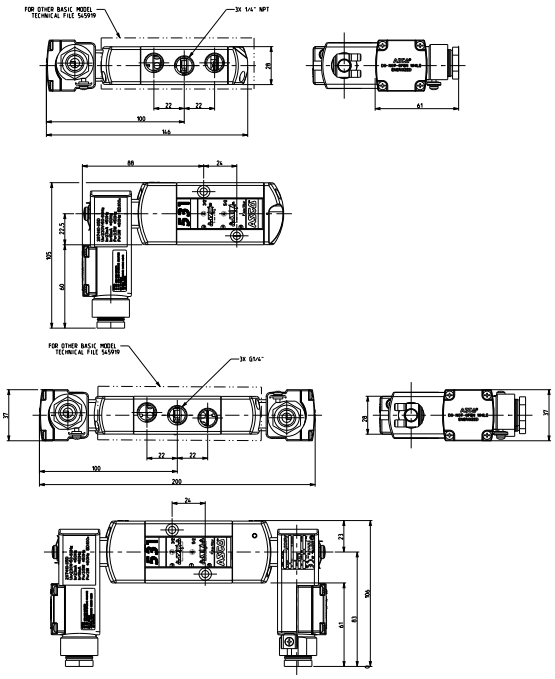


① 2 mounting holes: 5.3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
② One 5 mm dia. hole for dowel pin:
- in position A1: 3/2 NC function plate
- in position A2: 5/2 function plate

③ 2 O-ring seals (supplied)
④ Interface plate

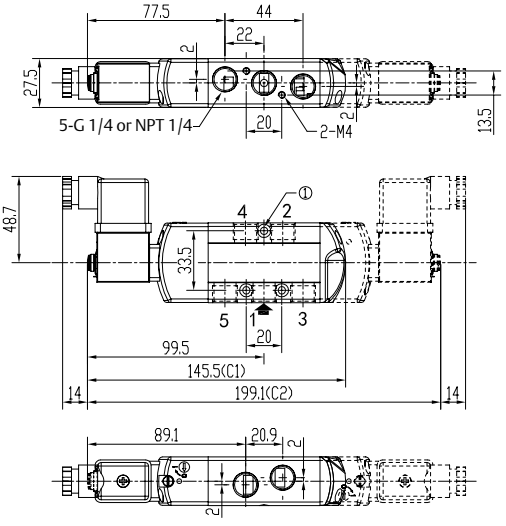


TYPE 03: Prefix WBLP
8531C001 MS / 8531C002 MS





TYPE 04: Prefix SC
Moulded IP65
Reduced power
IEC 335 / DIN 43650
G531C017 MS / G531C018 MS



(C1): monostable
(C2): bistable
① 3 mounting holes 4.2 mm dia.

ASCO™ Series Solenoid Valve

Integrated Pilot Operated, Spool Type, Single/Dual Solenoid,
Aluminium Body, 1/4", NAMUR and THREADED Style

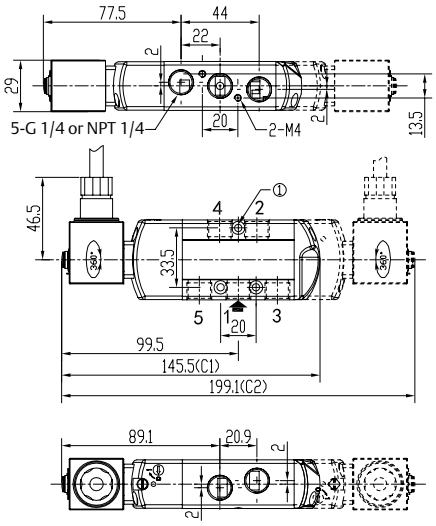
DIMENSIONS (mm), WEIGHT (Kg)

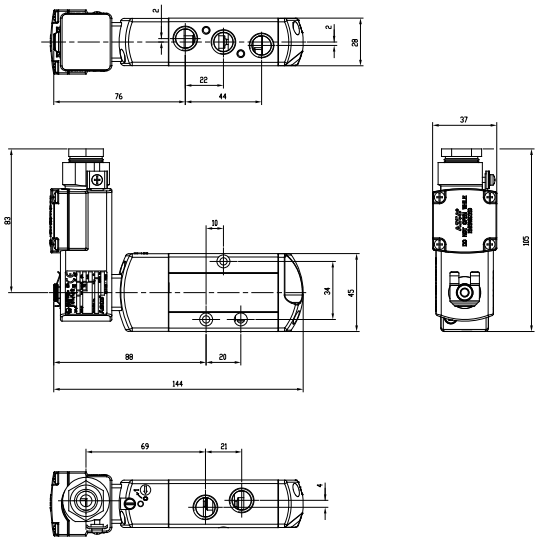


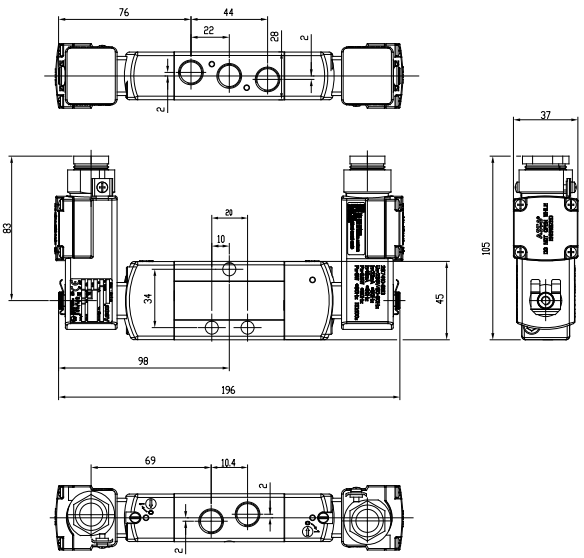
TYPE 05: Prefix PV
IECEX/ Ex II2G Ex mb IIC T5.. T3 Gb
IECEX/ Ex II2D Ex mb IIIC T100°C.. T200°C Db
CCC Ex mb IIC T5.. T3 Gb
CCC Ex mbD 21 T100°C.. T200°C
Medium power
Epoxy moulded
EN60079 -18 and EN 61241-18
G531C017 MS / G531C018 MS



TYPE 06: Prefix WBLP
IECEX/ II2 Ex e mb IIC T4
IECEX/ II2 Ex tb IIIC Db
CCC Ex e mb IIC T4 Gb
CCC Ex tD A21 IP67 T135°C
Reduce power
8531C017 MS / 8531C018 MS



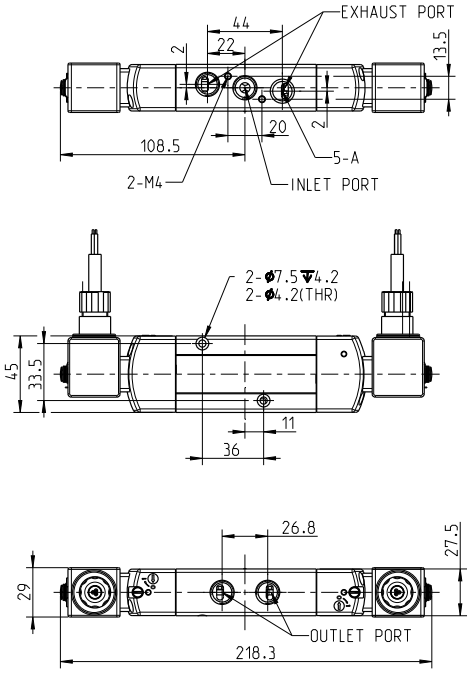




DIMENSIONS (mm), WEIGHT (Kg)

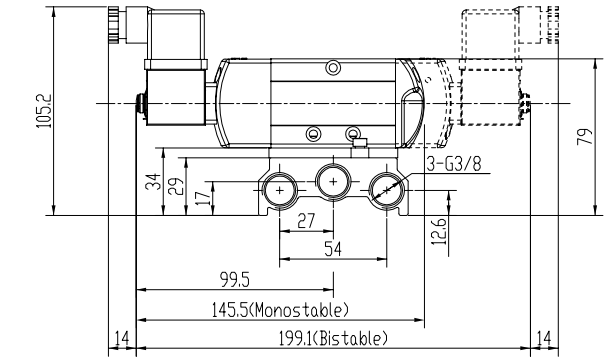


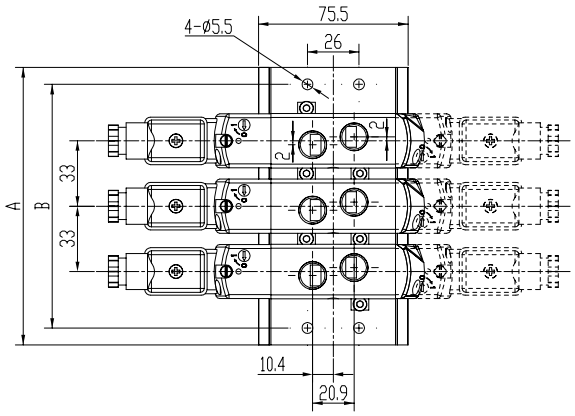
TYPE 07: Prefix PV
IECEX/ⓔx2G Ex mb IIC T5.. T3 Gb
IECEX/ⓔx2D Ex mb IIIC T100°C.. T200°C Db
CCC Ex mb IIC T5.. T3 Gb
CCC Ex mbD 21 T100°C.. T200°C
Medium power
Epoxy moulded
EN60079 -18 and EN 61241-18
X531562224001F1/ X531562224002F1



DIMENSIONS (mm), WEIGHT (Kg)

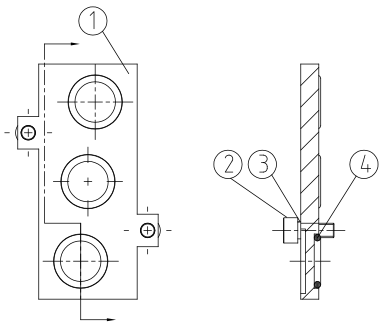
Series 531 Threaded 5/2 Way (Manifold Assembly)





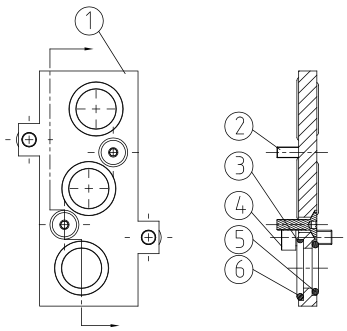
Manifold of Stations	DIM A	DIM B	PART NO.
2 Stations	107	90	M531-1-2-P
3 Stations	140	123	M531-1-3-P
4 Stations	173	156	M531-1-4-P
5 Stations	206	189	M531-1-5-P
6 Stations	239	222	M531-1-6-P
7 Stations	272	255	M531-1-7-P
8 Stations	305	288	M531-1-8-P
9 Stations	338	321	M531-1-9-P
10 Stations	371	354	M531-1-10-P
11 Stations	404	387	M531-1-11-P
12 Stations	437	420	M531-1-12-P

Blank Station Plate Kit 294018-001



DET. NO	NO. REQ'D	Part Name
1	1	Blank Station Plate
2	2	Screw
3	2	Lockwasher
4	3	O-ring

Adaptor Kit 294017-001



DET. NO	NO. REQ'D	Part Name
1	1	Adaptor
2	2	Screw
3	2	Lockwasher
4	2	Screw
5	3	O-ring
6	3	O-ring

Ordering example

1. Each solenoid valve needs to have one adaptor kit (e.g., **5** station manifold= **5** solenoid valve + **5** adaptor kit)
2. If you need to reserve some expansion stations, please order the same number of blank station plate kit (e.g., **5** station manifold= **4** solenoid valve + **4** adaptor kit + **1** blank station plate kit)
   Please contact our sales for more details