ASCO™ Advanced Redundant Control System

Series
141

The ASCO ARCS are specially designed redundant solution for emergency shut down valves (ON/OFF vales)[1] and various redundant configurations (1oo2, 2oo2 & 2oo3) to meet both safety & availability.

ASCO ARCS 2oo3 redundant solenoid valve piloting system combines the advantages of both 1oo2 & 2oo2 systems to achieve a high level of process safety and reliability.

[1] For fail safe application of control valves, please contact ASCO representative

Redundant Configurations

1oo2 - Redundancy built to achieve a high level of process safety
Hardware fault tolerant = 1 SIL3

2oo2 - Redundancy built to achieve high availability and prevent nuisance trips
Hardware fault tolerant = 0 SIL2

2oo3 - Redundancy built to achieve a high level of process safety and availability
Hardware fault tolerant = 1 SIL3

** 2oo3 configuration with 3 channels and 3oo4 configuration with 4 channels wiring

Solenoid Valves are Based on ASCO 327-Series, 3 Way

- Direct-acting solenoid valve technology
- Low friction = Low power = High reliability
- Reduced total cost of ownership (TCO)

Options Available

- Aluminum or stainless steel solenoid operator option including Flameproof or Intrinsically safe
- Manual operator or manual reset function
- Pressure gauge, visual indicator (stainless steel)
- Solenoid valve diagnostics (pressure or go switch options)
- Options with Ex proof and intrinsically safe wiring for pressure switches
- High flow and low temperature available

Full Range of Certifications and Approvals

327 certified for SIL applications (Exida)
Up to SIL 3 accreditation from Exida for redundant configuration

Online Maintenance

Common by pass - allows online replacement of solenoid valve
Individual isolation - 2oo2 & 2oo3 - Hot swapping that allow on-line replacement of solenoid valve while maintaining the system capability to bring the process to safe mode in the event of an emergency.

Features & Benefits

- Complete redundant solenoid valve configuration (1oo2/2oo2/2oo3)
- Compact and fully integrated module
- Direct valve-to-valve design
- Status indication & feedback
- Online maintenance-individual isolation / common bypass
- Safe & proven technology

General

Differential pressure 1 - 10 bar [1 bar = 100kPa]
Maximum viscosity 65 cSt (mm^2/s)
Response times 75 - 100 ms

Fluid	Temperature Range (TS)	Seal Materials
Dry & Non Lubricated Air	-20°C to +80°C	FPM[1]
	-40°C to +40°C	(F)VMQ

[1] Highflow limited to -10°C

Specifications

Pipe Size	Operating Pressure		Power Level	Prefix Solenoid Options														Operation	Fluid Temperature Ts[3] (°C)	Material of Construction	Basic Solenoid Valve	Basic Ordering Code for Solenoid Valve
				Exd				Ex e mb	Ex d m	Exi		Type 7/9				IP67	IP65					
NPT	Min	Max	~/=	NF/ WSNF	WSCR	JE	WSJE	EM/ WSCREM	VCEF/ VCEV	NFIS/ WSNFIS/ WSCRIS	WSTIS	EV	EVMF/ EVMH	JBEF	WP/ WS	SC						
1/4"	0/1[2]	10	BP						•			•		•			Auto Reset	-20 to +120	SS316L	327G042	536408
									•			•		•			Auto Reset	-40 to +55	SS316L	327G052	545554
									•			•		•			Manual Reset	-20 to +120	SS316L	327G032	536407
			MP	•	•			•							•	•	Auto Reset	-20 to +120	SS316L	327B202	536398
				•				•							•	•	Auto Reset	-50 to +60	SS316L	327B212	545550
				•				•							•	•	Manual Reset	-20 to +120	SS316L	327B232	536401
				•				•							•	•	Auto Reset	-20 to +120	Aluminum	327B203	536403
			RP	•	•	•	•	•							•	•	Auto Reset	-20 to +120	SS316L	327B102	536397
				•	•	•	•	•							•	•	Auto Reset	-50 to +60	SS316L	327B112	545549
				•		•	•	•							•	•	Manual Reset	-20 to +120	SS316L	327B132	536400
				•		•	•	•							•	•	Manual Reset	-50 to +60	SS316L	327B182	545552
									•								Auto Reset	-20 to +120	SS316L	327H102	536404
									•								Manual Reset	-20 to +120	SS316L	327H132	536409
									•								Auto Reset	-50 to +60	SS316L	327H112	545555
									•								Manual Reset	-50 to +60	SS316L	327H182	545556
				•				•							•	•	Auto Reset	-20 to +120	Aluminum	327B103	536402
			LP	•	•	•		•		•							Auto Reset	-20 to +120	SS316L	327B302	536399
				•	•	•		•		•							Auto Reset	-50 to +60	SS316L	327B312	545551
					•			•									Manual Reset	-20 to +120	SS316L	327B332	536406
					•			•									Manual Reset	-50 to +60	SS316L	327B382	545553
				•						•							Auto Reset	-20 to +120	Aluminum	327B303	536405
												•	•	•			Auto Reset	-20 to +60	SS316L	327H302	548533
												•	•	•			Auto Reset	-50 to +60	SS316L	327H312	548534
											•						Auto Reset	-20 to +60	SS316	307B005[1]	503838
1/2"			BP	•	•	•		•							•	•	Auto Reset	-10 to +90	SS316L	327A610	543587
				•	•	•		•							•	•	Auto Reset	-50 to +60	SS316L	327A606	543588
			MP	•	•	•		•							•	•	Manual Reset	-10 to +90	SS316L	327A620	543589
			RP	•	•	•		•							•	•	Manual Reset	-40 to +40	SS316L	327A616	543590

[1] For detail specification and dimensions, please refer to ASCO representative
[2] Zero bar applicable for redundant configuration without online maintenance and diagnostic feature options only
[3] Can be limited by the operator ambient temperature range for explosion proof solenoids

Flow Rate

Size	Function	Flow Coefficient Kv	
		(m^3/h)	(l/m)
1/4"	1oo2	0.19	3.2
	2oo2	0.39	6.5
	2oo3	0.29	4.8
1/2"	1oo2	0.39	6.5
	2oo2	0.76	13
	2oo3	0.64	11

Explanation of Temperature Ranges of Solenoid Valves

Valve temperature range	The valve temperature range (TS) 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 and the safety code
Total temperature range	The temperature range of the complete solenoid valve is determined by the limitations of both temperature range above

Electrical Characteristics

Prefix	Inrush (~)	Holding (~)	Power Rating (~)	Power Rating Hot/Cold =	Operator Ambient Temperature Range	Safety Code	Coil Insulation Class	Electrical Enclosure Protection (EN60529)
	VA	VA	W	W	(°C)			
Basic Power (BP)								
VCEF/VCEV	12	12	12	11.6	-40 to +52/60	II 2GD Ex db mb IIC T6/T5 Gb, Ex mb tb IIIC Db	F	IP66/67, Alu, SS
EV	12	12	12	11.6	-40 to +60	Class I, Division 1, Groups A, B, C, D, Class II, Division 1, Groups E, F, G	F	Type 7/9, moulded
JBEF	12	12	12	11.6	-40 to +60	Class I, Division 1, Groups B, C, D, Class II, Division 1, Groups E, F, G	F	Type 7/9, moulded, Alu junction box
JE	11.2	11.2	11.2	10	-40 to +60	Ex db IIC T4 Gb, Ex tb IIIC Db	H	IP66/67, Alu
NF/WSNF	14.1	14.1	14.1	11/14	-60 to +40/60/90	II2G Ex db IIC Gb T6/T5, II2D Ex tb IIIC Db	H	IP66/67, Alu/SS
WSCR	10	10	10	9/10	-60 to +25/60/90	II2G Ex db IIC Gb T5/T4/T3, II2D Ex t IIIC Db	H	IP66/67, SS
EM	14.1	14.1	14.1	11/14	-40 to +40	II2G Ex eb mb IIC Gb T3, II2D Ex tb IIIC Db	H	IP66/67, steel
WSCREM	10	10	10	9/10	-60 to +25/60/90	II2G Ex eb mb IIC Gb T5/T4/T3, II2D Ex tb IIIC Db	H	IP66/67, SS
WP/WS	14.1	14.1	14.1	11/14	-40 to +90	EN 60730	H	IP67, steel/SS
SC	14.1	14.1	14.1	11/14	-40 to +90	EN 60730	F	IP65, moulded
Medium Power (MP)								
JE	5.8	5.8	5.8	5.7	-10 to +60	Ex db IIC T5 Gb, Ex tb IIIC Db	H	IP66/67, Alu
NF/WSNF	5.8	5.8	5.8	5.2/5.7	-60 to +60/75/90	II2G Ex db IIC Gb T6/T5/T4, II2D Ex tb IIIC Db	H	IP66/67, Alu/SS
WSCR	5.8	5.8	5.8	5.2/5.7	-60 to +40/60/90	II2G Ex db IIC Gb T6/T4/T3, II2D Ex t IIIC Db	H	IP66/67, SS
EM	5.8	5.8	5.8	5.2/5.7	-40 to +40/75/90	II2G Ex eb mb IIC Gb T5/T4, II2D Ex tb IIIC Db	H	IP66/67, steel
WSCREM	5.8	5.8	5.8	5.2/5.7	-60 to +40/60/90	II2G Ex eb mb IIC Gb T6/T4, II2D Ex tb IIIC Db	H	IP66/67, SS
WP/WS	5.8	5.8	5.8	5.2/5.7	-40 to +90	EN 60730	H	IP67, steel/SS
SC	5.8	5.8	5.8	5.2/5.7	-40 to +90	EN 60730	F	IP65, moulded
Reduced Power (RP)								
VCEF	-	-	-	3.9	-40 to +52/60	II 2GD Ex db mb IIC T6/T5 Gb, Ex mb tb IIIC Db	H	IP67, Alu
JE	3.7	3.7	3.7	3.6	-40 to +60	Ex db IIC T6 Gb, Ex tb IIIC Db	H	IP66/67, Alu
WSJE	3.7	3.7	3.7	3.6	-40 to +60	Ex db IIC T6 Gb, Ex tb IIIC Db	H	IP66/67, SS
NF/WSNF	3.7	3.7	3.7	3.2/3.6	-60 to +60	II2G Ex db IIC Gb T6, II2D Ex tb IIIC Db	H	IP66/67, Alu/SS
WSCR	3.7	3.7	3.7	3.2/3.6	-60 to +40/60/90	II2G Ex db IIC Gb T6/T5/T4, II2D Ex t IIIC Db	H	IP66/67, SS
EM	3.7	3.7	3.7	3.2/3.6	-40 to +40/55	II2G Ex eb mb IIC Gb T6/T5, II2D Ex tb IIIC Db	H	IP66/67, steel
WSCREM	3.7	3.7	3.7	3.2/3.6	-60 to +40/60/90	II2G Ex eb mb IIC Gb T6/T5/T4, II2D Ex tb IIIC Db	H	IP66/67, SS
WP/WS	3.7	3.7	3.7	3.2/3.6	-40 to +55	EN 60730	H	IP67, steel/SS
SC	3.7	3.7	3.7	3.2/3.6	-40 to +55	EN 60730	F	IP65, moulded
Low Power (LP)								
JE	2	2	2	1.8	-40 to +60	Ex db IIC T6 Gb, Ex tb IIIC Db	H	IP66/67, Alu
(NF/WSNF/WSCR)	1.85	1.85	1.85	1.5/1.8	-60 to +55	II2G Ex db IIC Gb T6, II2D Ex tb IIIC Db	H	IP66/67, Alu/SS
WSCREM	1.85	1.85	1.85	1.5/1.8	-60 to +55	II2G Ex eb mb IIC Gb T6, II2D Ex tb IIIC Db	H	IP66/67, SS
EV	-	-	-	2	-20 to +60	Class I, Division 1, Groups A, B, C, D, Class II, Division 1, Groups E, F, G	F	Type 7/9, moulded
EVMF	-	-	-	2.4	-50 to +60	Class I, Division 1, Groups A, B, C, D, Class II, Division 1, Groups E, F, G	F	Type 7/9, moulded, surge suppression
EVMH	-	-	-	2.9	-20 to +90	Class I, Division 1, Groups A, B, C, D, Class II, Division 1, Groups E, F, G	H	Type 7/9, moulded, surge suppression, high Ambient
JBEF	-	-	-	2	-40 to +60	Class I, Division 1, Groups B, C, D, Class II, Division 1, Groups E, F, G	F	Type 7/9, moulded, Alu junction box
Intrinsically Safe (IS)								
(NFIS/WSNFIS/WSCRIS)	-	-	-	0.5	-40 to +60	II2G Ex ia IIC T6 Gb, II2D Ex tb IIIC Db	H	IP66/67, Alu/SS
WSTIS	-	-	-	0.4	-20 to +60	Ex ia IIC T6 Gb, Ex t IIIC Db	H	IP66/67, SS

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Electrical Connections

Code	Connection	Prefix
FN	Solenoid Housing, Die Cast Aluminum, Explosion Proof with 1/2 NPT Cable Entry, Safety Code II2G Ex db IIC Gb T6/T5/T4, II2D Ex tb IIIC Db, ATEX/IEC Ex Certified	NF
FT	Solenoid Housing, Die Cast Aluminum, Explosion Proof with M20*1.5 Cable Entry, Safety Code II2G Ex db IIC Gb T6/T5/T4, II2D Ex tb IIIC Db, ATEX/IEC Ex Certified	NFET
8E	Dual Chamber Solenoid Housing, Die Cast Aluminum, Explosion Proof with 1/2 NPT Cable Entry, Safety Code: Ex db IIC T6/T5/T4 Gb, Ex tb IIIC Db, ATEX/IEC Ex Certified	JE
8F	Dual Chamber Solenoid Housing, Die Cast Aluminum, Explosion Proof with M20 * 1.5 Cable Entry, Safety Code: Ex db IIC T6/T5/T4 Gb, Ex tb IIIC Db, ATEX/IEC Ex Certified	JEET
FS	Solenoid Housing, Stainless Steel, Explosion Proof with 1/2 NPT Cable Entry, Safety Code II2G Ex db IIC Gb T6/T5/T4, II2D Ex tb IIIC Db (WSNF-IECEx) ATEX/IEC Ex Certified	WSNF
FU	Solenoid Housing, Stainless Steel, Explosion Proof with M20 * 1.5 Cable Entry, Safety Code II2G Ex db IIC Gb T6/T5/T4, II2D Ex tb IIIC Db, (WSNF-IEC Ex) ATEX/IEC Ex Certified	WSNFET
WR	Solenoid Housing, Stainless Steel, Explosion Proof with 1/2 NPT Cable Entry, Safety Code II2G Ex db IIC Gb T6/T5/T4/T3, II2D Ex t IIIC Db, (WSCR-IEC Ex) ATEX/IEC Ex Certified	WSCR
X2	Solenoid Housing, Stainless Steel, Explosion Proof with M20 * 1.5 Cable Entry, Safety Code II2G Ex db IIC Gb T6/T5/T4/T3, II2D Ex t IIIC Db, (WSCR-IEC Ex) ATEX/IEC Ex Certified	WSCRET
8G	Dual Chamber, Stainless Steel Explosion Proof with Cable Entry 1/2 NPT, Safety Code: Ex db IIC Gb T6, Ex tb IIIC Db, ATEX/IEC Ex Certified	WSJE
8H	Dual Chamber, Stainless Steel Explosion Proof with Cable Entry M20*1.5, Safety Code: Ex db IIC Gb T6, Ex tb IIIC Db, ATEX/IEC Ex Certified	WSJEET
F1	Solenoid Housing, Die Cast Aluminum, Intrinsically Safe with 1/2 NPT Cable Entry, Safety Code II2G Ex ia IIC Gb T6, II2D Ex tb IIIC Db (Standard Flow Only), ATEX/IEC Ex Certified	NFTIS
X1	Solenoid Housing, Die Cast Aluminum, Intrinsically Safe with M20 * 1.5 Cable Entry, Safety Code II2G Ex ia IIC Gb T6, II2D Ex tb IIIC Db (Standard Flow Only), ATEX/IEC Ex Certified	NFETIS
FV	Solenoid Housing, Stainless Steel, Intrinsically Safe with 1/2 NPT Cable Entry, Safety Code II2G Ex ia IIC Gb T6, II2D Ex tb IIIC Db (Standard Flow Only), ATEX/IEC Ex Certified	WSNFTIS
FW	Solenoid Housing, Stainless Steel, Intrinsically Safe with M20*1.5 Cable Entry, Safety Code II2G Ex ia IIC Gb T6, II2D Ex tb IIIC Db (Standard Flow Only), ATEX/IEC Ex Certified	WSNFETIS
X3	Solenoid Housing, Stainless Steel, Intrinsically Safe with 1/2 NPT Cable Entry, Safety Code: II2G Ex ia IIC Gb T6, II2D Ex tb IIIC Db (Standard Flow Only), ATEX/IEC Ex Certified	WSCRTIS
X4	Solenoid Housing, Stainless Steel, Intrinsically Safe with M20 * 1.5 Cable Entry, Safety Code: II2G Ex ia IIC Gb T6, II2D Ex tb IIIC Db (Standard Flow Only) , ATEX/IEC Ex Certified	WSCRETIS
X5	Solenoid Housing, Stainless Steel, Intrinsically Safe with 1/2 NPT Cable Entry, Safety Code: Ex ia IIC Gb T6, Ex t IIIC Db (Standard Flow Only), CC0E	WSTIS
X6	Solenoid Housing, Stainless Steel, Intrinsically Safe with M20 * 1.5 Cable Entry, Safety Code: Ex ia IIC Gb T6, Ex t IIIC Db (Standard Flow Only), CCOE	WSETIS
VA	Solenoid Housing, Die Cast Aluminum, Explosion Proof with 1/2 NPT Cable Entry, Safety Code II2G Ex db mb IIC Gb T6/T5, II2D Ex mb tb IIIC Db (Standard Flow Only), Top Cable Entry, ATEX/IEC Ex Certified	VCEFAM
VB	Solenoid Housing, Die Cast Aluminum, Explosion Proof with M20*1.5 Cable Entry, Safety Code II2G Ex db mb IIC Gb T6/T5, II2D Ex mb tb IIIC Db (Standard Flow Only), Top Cable Entry, ATEX/IEC Ex Certified	VCEFAP
VJ	Solenoid Housing, Stainless Steel, Explosion Proof with 1/2 NPT Cable Entry, Safety Code II2G Ex db mb IIC Gb T6/T5, II2D Ex mb tb IIIC Db (Standard Flow Only), Top Cable Entry, ATEX/IEC Ex Certified	VCEVAM
VK	Solenoid Housing, Stainless Steel, Explosion Proof with M20*1.5 Cable Entry, Safety Code II2G Ex db mb IIC Gb T6/T5, II2D Ex mb tb IIIC Db (Standard Flow Only), Top Cable Entry, ATEX/IEC Ex Certified	VCEVAP
MV	Solenoid Housing, Steel, Increased Safety with 1/2"NPT Cable Entry, Safety Code: II2G Ex eb mb IIC Gb T6/T5/T4/T3, II2D Ex tb IIIC Db, ATEX/IEC Ex Certified	EM
MT	Solenoid Housing, Steel, Increased Safety with M20 *1.5 Cable Entry, Safety Code: II2G Ex eb mb IIC Gb T6/T5/T4/T3, II2D Ex tb IIIC Db, ATEX/IEC Ex Certified	EMT
X7	Solenoid Housing, Stainless Steel, Increased Safety with 1/2"NPT Cable Entry, Safety Code: II2G Ex eb mb IIC Gb T6/T5/T4/T3, II2D Ex tb IIIC Db, ATEX/IEC Ex Certified	WSCREM
X8	Solenoid Housing, Stainless Steel, Increased Safety with M20 *1.5 Cable Entry, Safety Code: II2G Ex eb mb IIC Gb T6/T5/T4/T3, II2D Ex tb IIIC Db, ATEX/IEC Ex Certified	WSCREMET
X9	Waterproof IP67 - with M20*1.5 Cable Gland, Metal Enclosure	WP
XA	Waterproof IP67 - M20*1.5 Cable Entry, Metal Enclosure	WPET
XC	Waterproof IP67 - with M20*1.5 Cable Gland, Stainless Steel Enclosure	WS
XD	Waterproof IP67 - M20*1.5 Cable Entry, Stainless Steel Enclosure	WSET
XE	Waterproof IP67 - 1/2"NPT Cable Entry, Metal Enclosure	WPT
XF	Waterproof IP67 - 1/2"NPT Cable Entry, Stainless Steel Enclosure	WST
S1	Spade Plug Connector (EN/IEC 60730), IP65	SC
H1	Explosionproof, Epoxy Molded Solenoid Housing with Integral ½" NPT Stainless Steel Conduit Hub and 18" Leads, UL/CSA Approvals, Class I Div 1 Groups A, B, C, D; Class II Div 1 Group E, F, G (UL/CSA -Solenoid Only)	EV
H6	Surge Suppression, Explosionproof, Epoxy Molded Solenoid Housing with Integral ½" NPT Stainless Steel Conduit Hub and 18" Leads, UL/CSA Approvals, Class I Div 1 Groups A, B, C, D; Class II Div 1 Group E, F, G, (UL/CSA -Solenoid Only)	EVMF/ EVMH
7N	Explosionproof Junction Box Enclosure, Die Cast Aluminum, ½" NPT Conduit Connection, UL/CSA Approvals, Class I, Div 1 Groups B, C, D; Class II, Div. 1, Groups E, F, G, (UL/CSA -Solenoid Only)	JBEF

ASCO™ Advanced Redundant Control System

How to Order

8	141	A	1	1	0	00	A00	00

Port Type

8	NPT

Product Series

141	ARCS DA Series

Revision

A	Initial Release

Function

1	1oo2 Manifold Assembly, without Online Maintenance & without Diagnostic
2	1oo2 Manifold Assembly, with Common By-pass & without Diagnostic
3	2oo2 Manifold Assembly, without Online Maintenance and Diagnostic
4	2oo2 Manifold Assembly, without Online Maintenance, with Diagnostic
5	2oo2 Manifold Assembly, with Common By-pass with Diagnostic
6	2oo2 Manifold Assembly, with Individual Isolation with Diagnostic
7	2oo3 Manifold Assembly, without Diagnostic and Online Maintenance
8	2oo3 Manifold Assembly, without Online Maintenance, with Diagnostic
9	2oo3 Manifold Assembly, with Common By-pass with Diagnostic
A	2oo3 Manifold Assembly, with Individual Isolation and with Diagnostic

Port Size / Body Material

1	Standard Flow-Port Size 1/4" NPT - Stainless Steel 316
2	Standard Flow-Port Size 1/4" NPT - Aluminum
5	High Flow-Port Size 1/2" NPT - Stainless Steel 316

Solenoid Valve-3 Way, Direct Acting

0	327B102 - Auto Reset, FPM Sealing, SS, Power 3.6/3.7W (RP)
1	327B202 - Auto Reset, FPM Sealing, SS, Power 5.7/5.8W (MP)
2	327B302 - Auto Reset, FPM Sealing, SS, Power 1.8W & IS 0.5W (LP)
3	327B112 - Auto Reset, FVMQ Sealing (Low Temperature), SS, Power 3.6/3.7W (RP)[5]
4	327B212 - Auto Reset, FVMQ Sealing (Low Temperature), SS, Power 5.7/5.8W (MP)[5]
5	327B312 - Auto Reset, FVMQ Sealing (Low Temperature), SS, Power 1.8W & IS 0.5W (LP)[5]
7	327B132 - Tamper Proof Reset, FPM Sealing, SS, Power 3.6/3.7W (RP)
8	327B232 - Tamper Proof Reset, FPM Sealing, SS, Power 5.7/5.8W (MP)
9	327B332 - Tamper Proof Reset, FPM Sealing, SS, Power 1.8W (LP)
A	327B182 - Tamper Proof Reset, FVMQ Sealing (Low Temperature), SS, Power 3.6/3.7W (RP)[5]
C	327B382 - Tamper Proof Reset, FVMQ Sealing (Low Temperature), SS, Power 1.8W (LP)[5]
D	327G042 - Auto Reset, FPM/FKM Sealing Normally Closed, Stainless Steel, Power 11.6/12W. Fluid Temperature -20°C to +120°C
E	327G052 - Auto Reset, (F)VMQ (Low Temperature) Sealing Normally Closed, Stainless Steel, Power11.6/12W. Fluid Temperature -40°C to +55°C[5]
F	327G032 - Tamper Proof Reset, FPM/FKM Sealing Normally Closed, Stainless Steel, Power 11.6/12W. Fluid Temperature -20°C to +120°C
G	327H302 - Auto Reset, FKM Sealing Normally Closed, Stainless Steel, Power 2/2.7W. Fluid Temperature -20°C to +60°C
V	327H312 - Auto Reset, VMQ Sealing Normally Closed, Stainless Steel, Power 2/2.7W. Fluid Temperature -50°C to +60°C[5]
H	327H102 - Auto Reset, FPM Sealing, SS, Power 3.9W (RP)[4]
J	327H132 - Tamper Proof Reset, FPM Sealing, SS, Power 3.9W (RP)[4]
K	327H112 - Auto Reset, FVMQ Sealing (Low Temperature), SS, Power 3.9W (RP)[4][5]
L	327H182 - Tamper Proof Reset, FVMQ Sealing (Low Temperature), SS, Power 3.9W (RP)[4][5]
M	327B103 - Auto Reset, FPM Sealing, Aluminum, Power 3.6/3.7W (RP)[2]
N	327B203 - Auto Reset, FPM Sealing, Aluminum, Power 5.7/5.8W (MP)[2]
P	327B303 - Auto Reset, FPM Sealing, Aluminum, Power 1.8W & IS 0.5W (LP)[2]
Q	307B005 - Pilot Operated, Auto Reset, FPM Sealing, SS, Power IS 0.35W (LP)[3][4]
R	327A610 - High Flow Auto Reset, FPM Sealing, SS, Power 14/14.1W (BP)[1]
S	327A606 - High Flow Auto Reset, FVMQ Sealing (Low Temperature), SS, Power 14/14.1W (BP)[1][5]
T	327A620 - High Flow Manual Reset, FPM Sealing, SS, Power 5.7/5.8W (MP)[1]
U	327A616 - High Flow Manual Reset, FVMQ Sealing (Low Temperature), SS, Power 3.6/3.7W (RP)[1][5]

[1] Applicable only for high flow-1/2" in port size selection
[2] Applicable only for aluminum version in body material selection
[3] Applicable for electrical connection type X5 and X6. For other specification and dimensions please contact ASCO representative
[4] Applicable for electrical connection type H1
[5] Selection in options list A01 & B01 are not applicable

Voltage

H3	12V DC	F3	12V DC
H1	24V DC	F1	24V DC
H9	48V DC	F9	48V DC
HJ	110V DC	FJ	110V DC
HD	120V DC	FD	120V DC
J1	125V DC	E1	125V DC
HQ	24V/50-60HZ AC	FQ	24V/50-60HZ AC
JY	110V/50-60HZ AC	EY	110V/50-60HZ AC
HC	115V/50-60HZ AC	FC	115V/50-60HZ AC
HA	120V/50-60HZ AC	FA	120V/50-60HZ AC
JV	220V/50-60HZ AC[6]	EV	220V/50-60HZ AC[6]
HH	230V/50-60HZ AC[6]	FH	230V/50-60HZ AC[6]

[6] Not applicable for low and reduced power options

Option List[8]

A00	No options
A01	SS Visual Indicator
A02	SS Pressure Gauge
B01	Pressure Switch - Potential Free for Intrinsically Safe Wiring
B02	Pressure Switch - Potential Free for Exproof Wiring (Flying Leads)
M01	with Manual Override[7]
D01	INMETRO
D02	KOSHA
D03	CUTR
D04	CCC/NEPSI
D05	PESO

[7] Manual override M01 option applicable for auto reset solenoid valve only
[8] Select options using + Example: A01+B01+D01
For multiple options, please use online configurator on the website to generate the part number or consult ASCO representative

Electrical Connection Type

FN	NF	VA	VCEFAM
FT	NFET	VB	VCEFAP
8E	JE	VJ	VCEVAM
8F	JEET	VK	VCEVAP
FS	WSNF	H1	EV
FU	WSNFET	H6	EVMF/EVMH
WR	WSCR	7N	JBEF
X2	WSCRET	MV	EM
8G	WSJE	MT	EMT
8H	WSJEET	X7	WSCREM
F1	NFTIS[9]	X8	WSCREMET
X1	NFETIS[9]	X9	WP
FV	WSNFTIS[9]	XA	WPET
FW	WSNFETIS[9]	XC	WS
X3	WSCRTIS[9]	XD	WSET
X4	WSCRETIS[9]	XE	WPT
X5	WSTIS[9]	XF	WST
X6	WSETIS[9]	S1	SC

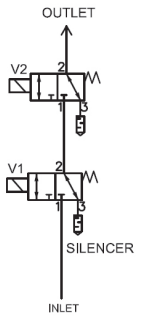
[9] Intrinsically safe voltage selection restricted to 24Vdc H1 option

Disclaimer: Selection chart shown for reference.
For detailed configuration/available options/other explosion proof operators, please use ARCS configurator in www.asco.com or contact local ASCO sales office.

TR000117ENUS-02_12-20

ASCO™ Advanced Redundant Control System

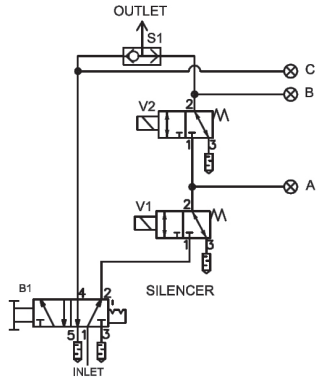
1oo2 without Online Maintenance and Diagnostic



V1 - VALVE 1
V2 - VALVE 2

Schematic 1

1oo2 with Common Bypass, without Diagnostic



V1 - VALVE 1
V2 - VALVE 2
B1 - BYPASS VALVE

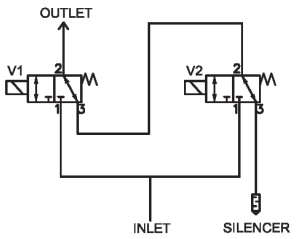
S1 - SHUTTLE VALVE
A, B & C - INDICATORS

Schematic 2

1oo2 Logic Table		
CH 1	CH 2	Outlet
V1	V2	
1	1	1
1	0	0
0	1	0
0	0	0

CH 1 - CHANNEL 1
CH 2 - CHANNEL 2
0 - VALVE DE-ENERGIZED
1 - VALVE ENERGIZED

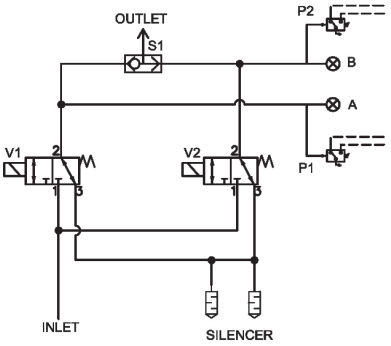
2oo2 without Online Maintenance and Diagnostic



V1 - VALVE 1
V2 - VALVE 2

Schematic 3

2oo2 without Online Maintenance with Diagnostic



V1 - VALVE 1
V2 - VALVE 2

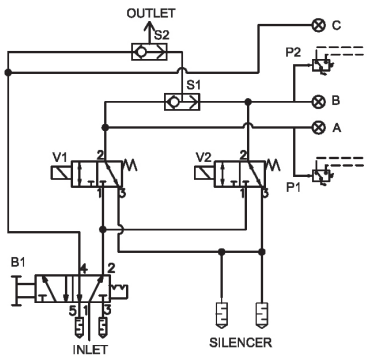
S1 - SHUTTLE VALVE
A, B - INDICATORS
P1 & P2 - PRESSURE SWITCHES

Schematic 4

2oo2 Logic Table		
CH 1	CH 2	Outlet
V1	V2	
1	1	1
1	0	1
0	1	1
0	0	0

CH 1 - CHANNEL 1
CH 2 - CHANNEL 2
0 - VALVE DE-ENERGIZED
1 - VALVE ENERGIZED

2oo2 with Common Bypass and Diagnostic

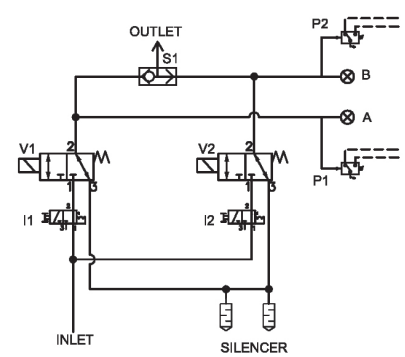


V1 - VALVE 1
V2 - VALVE 2
B1 - BYPASS VALVE

S1 & S2 - SHUTTLE VALVES
A, B & C - INDICATORS
P1 & P2 - PRESSURE SWITCHES

Schematic 5

2oo2 with Individual Isolation and Diagnostic

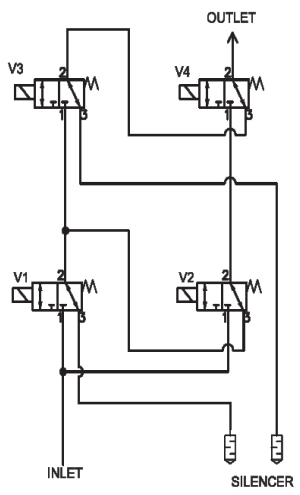


V1 - VALVE 1
V2 - VALVE 2
I1 - ISOLATION VALVE
I2 - ISOLATION VALVE

S1 - SHUTTLE VALVE
A, B - INDICATORS
P1 & P2 - PRESSURE SWITCHES

Schematic 6

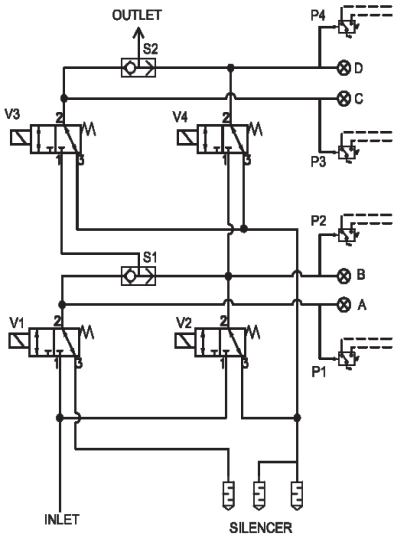
2oo3 without Online Maintenance and Diagnostic



V1 - VALVE 1
V2 - VALVE 2
V3 - VALVE 3
V4 - VALVE 4

Schematic 7

2oo3 without Online Maintenance with Diagnostic



V1 - VALVE 1
V2 - VALVE 2
V3 - VALVE 3
V4 - VALVE 4

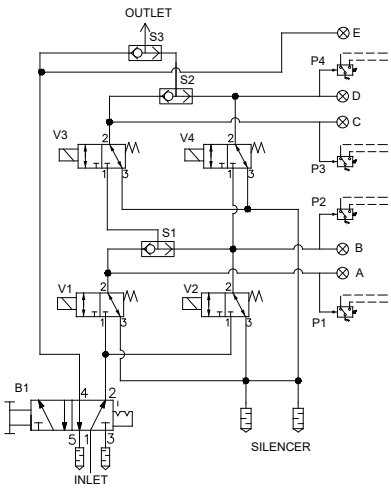
S1 - SHUTTLE VALVE 1
S2 - SHUTTLE VALVE 2
A, B, C & D - INDICATORS
P1, P2, P3 & P4 - PRESSURE SWITCHES

Schematic 8

2oo3 Logic Table*				
CH 1	CH 2		CH 3	Outlet
V1	V2	V3	V4	
1	0	0	0	0
1	1	0	0	0
1	1	1	0	1
1	1	1	1	1
0	1	0	0	0
0	1	1	0	0
0	1	1	1	1
0	1	0	1	1
0	0	1	0	0
0	0	1	1	0
1	0	1	1	1
1	0	1	0	1
0	0	0	1	0
1	0	0	1	1
1	1	0	1	1
0	0	0	0	0

CH 1 - CHANNEL 1
CH 2 - CHANNEL 2
CH 3 - CHANNLE 3
0 - VALVE DE-ENERGIZED
1 - VALVE ENERGIZED
* FOR SCHEMATIC - 7

2oo3 with Common Bypass and Diagnostic

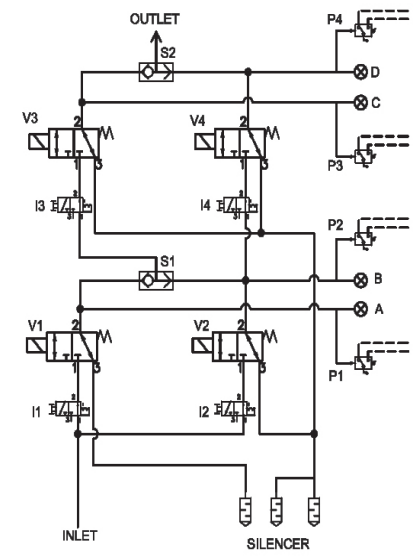


V1 - VALVE 1
V2 - VALVE 2
V3 - VALVE 3
V4 - VALVE 4

B1 - BYPASS VALVE
S1, S2 & S3 SHUTTLE VALVES
A, B, C, D & E - INDICATORS
P1, P2, P3 & P4 - PRESSURE SWITCHES

Schematic 9

2oo3 with Individual Isolation and Diagnostic



V1 - VALVE 1
V2 - VALVE 2
V3 - VALVE 3
V4 - VALVE 4

I1 - ISOLATION VALVE 1
I2 - ISOLATION VALVE 2
I3 - ISOLATION VALVE 3
I4 - ISOLATION VALVE 4

S1 - SHUTTLE VALVE 1
S2 - SHUTTLE VALVE 2
A, B, C & D - INDICATORS
P1, P2, P3 & P4 - PRESSURE SWITCHES

Schematic A

2oo3 Logic Table*				
CH 1		CH2	CH 3	Outlet
V1	V4	V2	V3	
1	0	0	0	0
1	0	1	0	0
1	0	1	1	1
1	1	1	1	1
0	0	1	0	0
0	0	1	1	1
0	1	1	1	1
0	1	1	0	1
0	0	0	1	0
0	1	0	1	0
1	1	0	1	1
1	0	0	1	1
0	1	0	0	0
1	1	0	0	0
1	1	1	0	1
0	0	0	0	0

CH 1 - CHANNEL 1
CH 2 - CHANNEL 2
CH 3 - CHANNLE 3
0 - VALVE DE-ENERGIZED
1 - VALVE ENERGIZED
* FOR SCHEMATIC - 8, 9, A

TR000117ENUS-02_12-20

Dimensions (mm), Weight (kg)

TYPE 01:
Epoxy moulded
SC : IEC 335 / ISO 4400

327B102/202/103/203/132/232/112/212/182
327A610/606/616/620

TYPE 02:
Metal, epoxy coated / AISI 316 SS
WP / WS : IEC 335
EM / WSEM : EN/IEC 60079-7, 60079-18
EN/IEC 60079-31

327B102/202/103/203/132/232/112/212/182
327A610/606/616/620

TYPE 03:
Aluminum, epoxy coated / AISI 316L SS
NF / WSNF : EN/IEC 60079-1, 60079-31
NFIS / WSNFIS : EN/IEC 60079-11, 60079-31

327B102/202/302/103/203/303/132/232/112/212/182/312
327A610/606/616/620

TYPE 04:
AISI 316L SS
WSCR : EN/IEC 60079-0, 60079-1, 60079-31
WSCREM : EN/IEC 60079-0, 60079-7, 60079-18
: EN/IEC 60079-31
WSCRIS : EN/IEC 60079-0, 60079-11, 60079-31

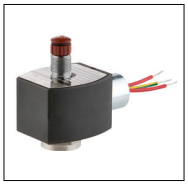
327B102/202/302/332/112/312/382
327A610/606/616/620

TYPE 05:
Epoxy painted die cast aluminum/316L SS
VCEF : EN/IEC 60079-0, 60079-1,
60079-18, 60079-31
EN/ISO 80079-36
VCEV : EN/IEC 60079-1, 60079-18,
60079-31, 13463-1

327H102/132/112/182
327G032/042/052

TYPE 06:
Epoxy painted die cast aluminum/316L SS
JE/WSJE : EN/IEC 60079-0, 60079-1, 60079-31

327B102/B112/B302/B312/B132/B182
327A610/606/616/620



TYPE 07:
Epoxy moulded, Type 7/9
EV : Class I, Division 1, Groups A, B, C, D,
Class II, Division 1, Groups E, F, G
EVMF/EVMH : Surge Suppression,
Class I, Division 1, Groups A, B, C, D,
Class II, Division 1, Groups E, F, G

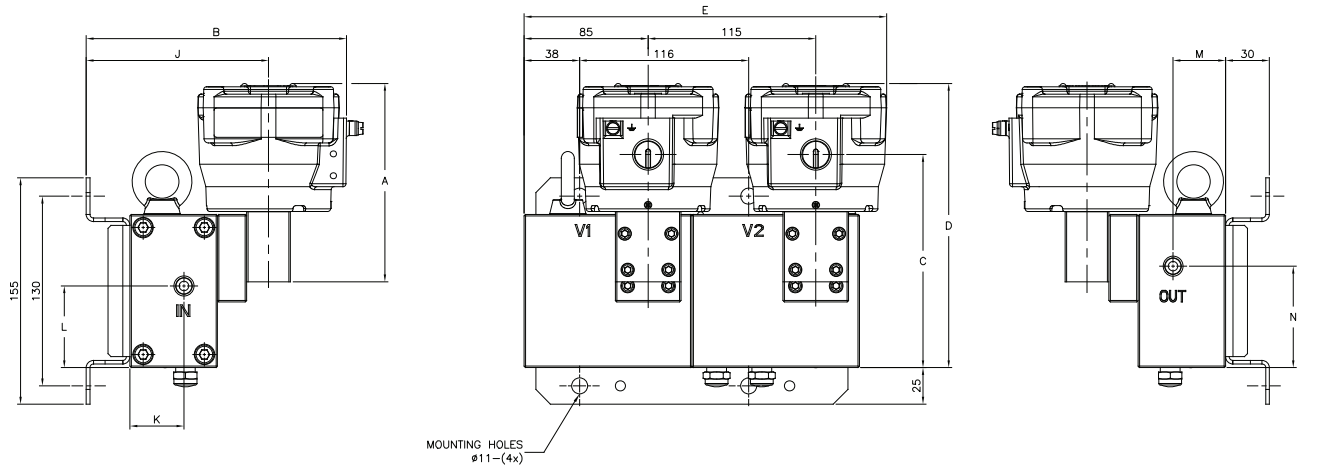
327G032/G042/G052/H302/H312

TYPE 08:
Epoxy moulded, aluminum junction box, Type 7/9
JBEF : Class I, Division 1, Groups B, C, D,
Class II, Division 1, Groups E, F, G

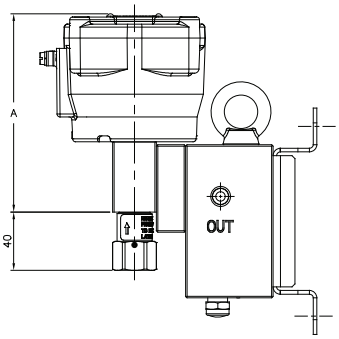
327G032/G042/G052/H302/H312

Dimensions (mm), Weight (kg)

1oo2 Configuration without Online Maintenance and Diagnostic



CONSTRUCTION REF - 1



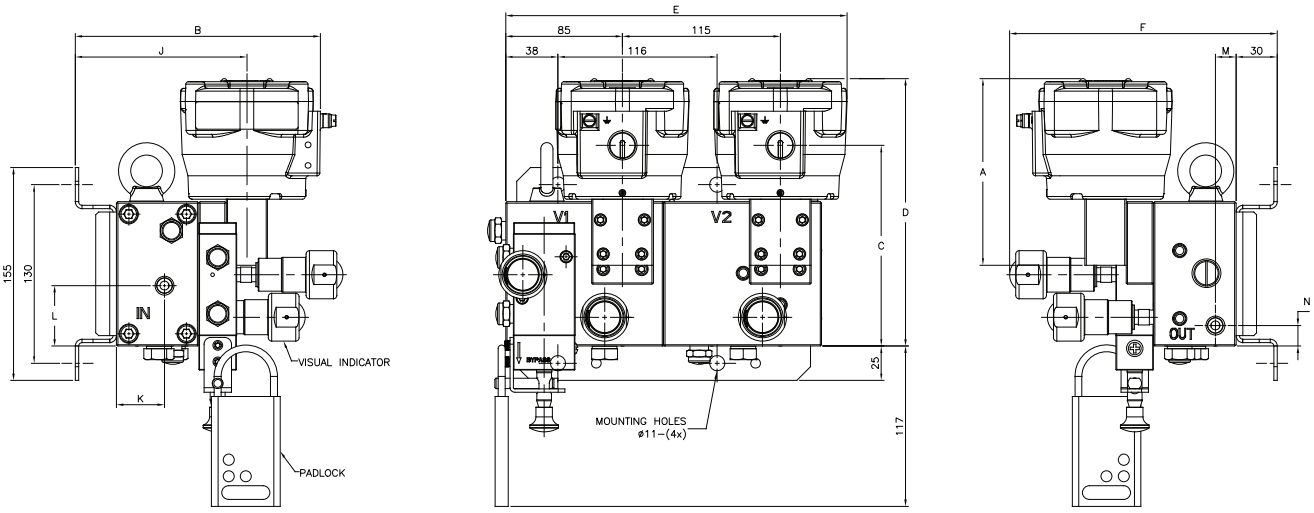
CONSTRUCTION REF - 2

Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	Approx. Weight (Kg)
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	230	125	37	56	36	70	16
		02	WP/WS/EM	112	205	-	171	239						17
		03	NF/WSNF	136	180	146	195	249						19/21
		04	WSCR/WSCREM	140	200	160	199	246						20
	327B102/112	06	JE/WSJE	130	239	-	189	240						18/21
	327B302/312	03	NF/WSNF/NFIS/WSNFIS	146	180	156	205	249						19/21
		04	WSCR/WSCREM/WSCRIS	140	200	160	199	246						20
		06	JE	130	239	-	189	240						18
	327B103/203	01	SC	109	190	-	168	230						8
		02	WP/EM	112	205	-	171	239						8
		03	NF	136	180	146	195	249						11
	327B303	03	NF/NFIS	146	180	156	205	249						11
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	233						17
	327G042/052	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233						17/18
		07	EV	99	177	133	158	230						17
		08	JBEF	118	281	134	177	244						19
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231						17
		08	JBEF	118	281	134	177	244						19
	327A610/606	01	SC	134	175	-	166	230	105	36	51	35	68	17
		02	WP/WS/EM	140	185	126	171	239						17
		03	NF/WSNF	163	160	145	194	249						18/21
		04	WSCR/WSCREM	167	180	159	198	246						20
		06	JE	147	219	-	178	240						18
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	230	125	37	56	36	70	16
		02	WP/WS/EM	112	205	-	171	239						17
		03	NF/WSNF	136	180	146	195	249						20/22
	327B132/182	06	JE/WSJE	130	239	-	189	240						18/21
	327B332/382	04	WSCR/WSCREM	140	200	160	199	246						21
	327G032	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233						17/18
		07	EV	99	177	133	158	230						17
		08	JBEF	118	281	134	177	244						21
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	233						17
	327A620/616	01	SC	134	175	-	166	230	105	36	51	35	68	16
		03	NF/WSNF	163	160	145	194	249						19/21
		04	WSCR/WSCREM	167	180	159	198	246						20
		06	JE	147	219	-	178	240						19
	327A616	02	WP/WS/EM	140	185	126	171	239						17

TR000117ENUS-02_12-20

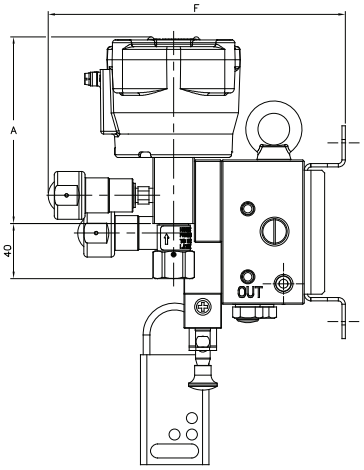
Dimensions (mm), Weight (kg)

1oo2 Configuration with Common Bypass, without Diagnostic



CONSTRUCTION REF - 1

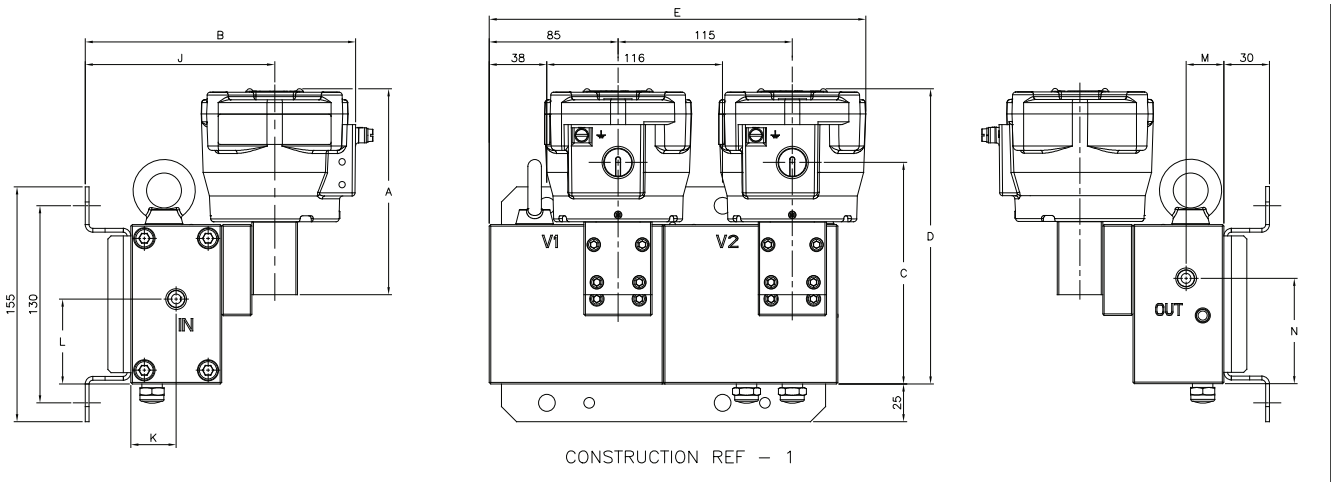
Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	F		Approx. Weight (Kg)
														Visual Indicator	Pressure Gauge	
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	230	125	35	44	15	15	195	202	18
		02	WP/WS/EM	112	205	-	171	239								19
		03	NF/WSNF	136	180	146	195	249								21/23
		04	WSCR/WSCREM	140	200	160	199	246								22
	327B102/112	06	JE/WSJE	130	239	-	189	240								20/23
	327B302/312	03	NF/WSNF/NFIS/ WSNFIS	146	180	156	205	249								21/23
		04	WSCR/WSCREM/ WSCRIS	140	200	160	199	246								22
		06	JE	130	239	-	189	240								20
	327B103/203	01	SC	109	190	-	168	230								10
		02	WP/EM	112	205	-	171	239								10
		03	NF	136	180	146	195	249								13
	327B303	03	NF/NFIS	146	180	156	205	249								13
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	233								19
	327G042/052	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233								19/20
		07	EV	99	177	133	158	230								19
		08	JBEF	118	281	134	177	244								21
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231								19
		08	JBEF	118	281	134	177	244								21
	327A610/606	01	SC	134	175	-	166	230	105	33	34	20	50	202	181	19
		02	WP/WS/EM	140	185	126	171	239								19
		03	NF/WSNF	163	160	145	194	249								20/23
		04	WSCR/WSCREM	167	180	159	198	246								22
		06	JE	147	219	-	178	240								20
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	230	125	35	44	15	15	217	224	18
		02	WP/WS/EM	112	205	-	171	239								19
		03	NF/WSNF	136	180	146	195	249								22/23
	327B132/182	06	JE/WSJE	130	239	-	189	240								20/23
	327B332/382	04	WSCR/WSCREM	140	200	160	199	246								23
	327G032	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233								19/20
		07	EV	99	177	133	158	230								19
		08	JBEF	118	281	134	177	244								21
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	233								19
	327A620/616	01	SC	134	175	-	166	230	105	33	34	20	50	202	181	19
		03	NF/WSNF	163	160	145	194	249								21/23
		04	WSCR/WSCREM	167	180	159	198	246								22
		06	JE	147	219	-	178	240								21
	327A616	02	WP/WS/EM	140	185	126	171	239								19



CONSTRUCTION REF - 2

Dimensions (mm), Weight (kg)

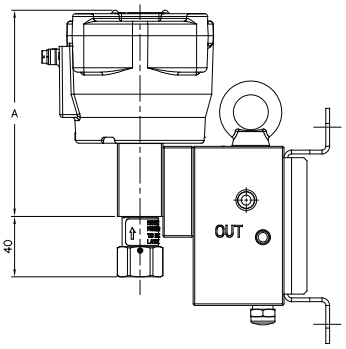
2oo2 Configuration without Online Maintenance and Diagnostic



CONSTRUCTION REF – 1

CONSTRUCTION REF - 1

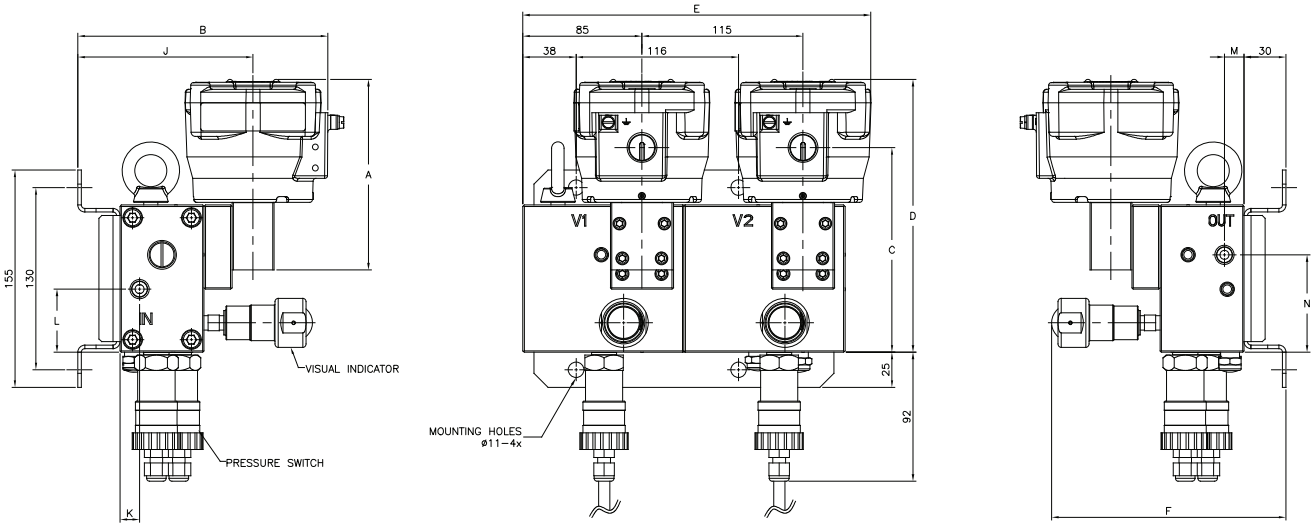
Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	Approx. Weight (Kg)
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	230	125	30	56	25	70	16
		02	WP/WS/EM	112	205	-	171	239						17
		03	NF/WSNF	136	180	146	195	249						19/21
		04	WSCR/WSCREM	140	200	160	199	246						20
	327B102/112	06	JE/WSJE	130	239	-	189	240						18/21
	327B302/312	03	NF/WSNF/NFIS/ WSNFIS	146	180	156	205	249						19/21
		04	WSCR/WSCREM/ WSCRIS	140	200	160	199	246						20
		06	JE	130	239	-	189	240						18
	327B103/203	01	SC	109	190	-	168	230						8
		02	WP/EM	112	205	-	171	239						8
		03	NF	136	180	146	195	249						11
	327B303	03	NF/NFIS	146	180	156	205	249						11
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	233						17
	327G042/052	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233						17/18
		07	EV	99	177	133	158	230						17
		08	JBEF	118	281	134	177	244						19
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231						17
		08	JBEF	118	281	134	177	244						19
	327A610/606	01	SC	134	175	-	166	230	105	40	51	29	68	17
		02	WP/WS/EM	140	185	126	171	239						17
		03	NF/WSNF	163	160	145	194	249						18/21
		04	WSCR/WSCREM	167	180	159	198	246						20
		06	JE	147	219	-	178	240						18
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	230	125	30	56	25	70	16
		02	WP/WS/EM	112	205	-	171	239						17
		03	NF/WSNF	136	180	146	195	249						20/22
	327B132/182	06	JE/WSJE	130	239	-	189	240						18/21
	327B332/382	04	WSCR/WSCREM	140	200	160	199	246						21
	327G032	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233						17/18
		07	EV	99	177	133	158	230						17
		08	JBEF	118	281	134	177	244						19
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	233						17
	327A620/616	01	SC	134	175	-	166	230	105	40	51	29	68	16
		03	NF/WSNF	163	160	145	194	249						19/21
		04	WSCR/WSCREM	167	180	159	198	246						20
		06	JE	147	219	-	178	240						19
	327A616	02	WP/WS/EM	140	185	126	171	239						17



CONSTRUCTION REF - 2

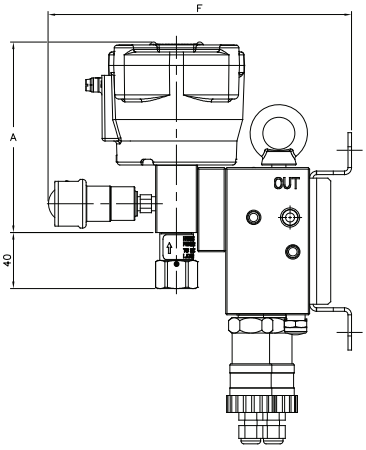
Dimensions (mm), Weight (kg)

2oo2 Configuration without Online Maintenance, with Diagnostic



CONSTRUCTION REF - 1

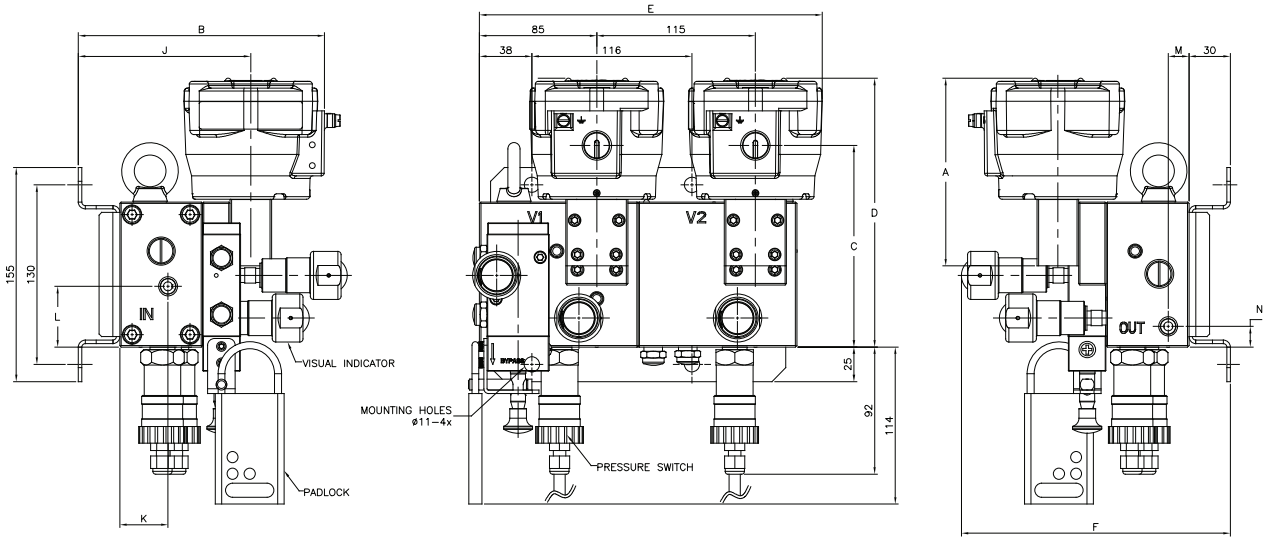
Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	F		Approx. Weight (Kg)
														Visual Indicator	Pressure Gauge	
1 (AUTO RESET)	327B102/112/202/212	01	SC	109	190	-	168	230	125	14	45	14	70	167	174	17
		02	WP/WS/EM	112	205	-	171	239								18
		03	NF/WSNF	136	180	146	195	249								20/22
		04	WSCR/WSCREM	140	200	160	199	246								21
	327B102/112	06	JE/WSJE	130	239	-	189	240								19/22
	327B302/312	03	NF/WSNF/NFIS/WSNFIS	146	180	156	205	249								20/22
		04	WSCR/WSCREM/WSCRIS	140	200	160	199	246								21
		06	JE	130	239	-	189	240								19
	327B103/203	01	SC	109	190	-	168	230								9
		02	WP/EM	112	205	-	171	239								9
		03	NF	136	180	146	195	249								12
	327B303	03	NF/NFIS	146	180	156	205	249								12
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	233								18
	327G042/052	05	VCEFAM/VCEFAP/VCEVAM/VCEVAP	109	230	-	168	233								18/19
		07	EV	99	177	133	158	230								18
		08	JBEF	118	281	134	177	244								20
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231								18
		08	JBEF	118	281	134	177	244								20
	327A610/606	01	SC	134	175	-	166	230	105	14	51	14	68	202	181	18
		02	WP/WS/EM	140	185	126	171	239								18
		03	NF/WSNF	163	160	145	194	249								19/22
		04	WSCR/WSCREM	167	180	159	198	246								21
		06	JE	147	219	-	178	240								19
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	230	125	14	45	14	70	217	224	18
		02	WP/WS/EM	112	205	-	171	239								18
		03	NF/WSNF	136	180	146	195	249								21/23
	327B132/182	06	JE/WSJE	130	239	-	189	240								20/23
	327B332/382	04	WSCR/WSCREM	140	200	160	199	246								22
	327G032	05	VCEFAM/VCEFAP/VCEVAM/VCEVAP	109	230	-	168	233								18
		07	EV	99	177	133	158	230								18
		08	JBEF	118	281	134	177	244								20
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	233								18/19
	327A620/616	01	SC	134	175	-	166	230	105	14	51	14	68	202	181	18
		03	NF/WSNF	163	160	145	194	249								20/22
		04	WSCR/WSCREM	167	180	159	198	246								21
		06	JE	147	219	-	178	240								20
	327A616	02	WP/WS/EM	140	185	126	171	239								18



CONSTRUCTION REF - 2

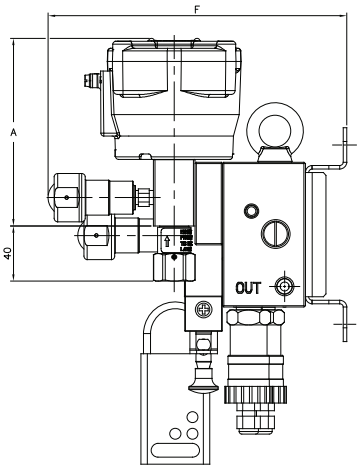
Dimensions (mm), Weight (kg)

2oo2 Configuration with Common Bypass, with Diagnostic



CONSTRUCTION REF - 1

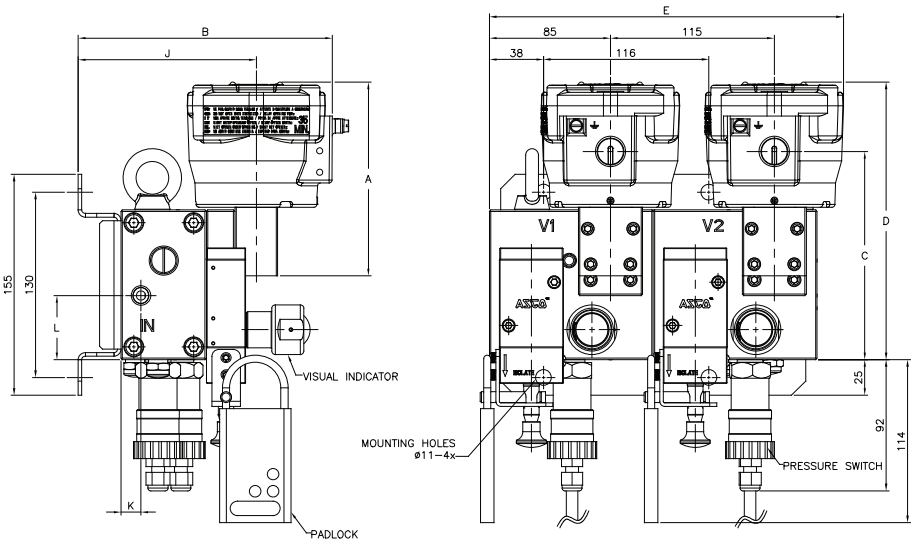
Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	F		Approx. Weight (Kg)
														Visual Indicator	Pressure Gauge	
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	230	125	35	44	15	15	195	202	18
		02	WP/WS/EM	112	205	-	171	239								19
		03	NF/WSNF	136	180	146	195	249								21/23
		04	WSCR/WSCREM	140	200	160	199	246								22
	327B102/112	06	JE/WSJE	130	239	-	189	240								20/23
	327B302/312	03	NF/WSNF/NFIS/ WSNFIS	146	180	156	205	249								21/23
		04	WSCR/WSCREM/ WSCRIS	140	200	160	199	246								22
		06	JE	130	239	-	189	240								20
	327B103/203	01	SC	109	190	-	168	230								10
		02	WP/EM	112	205	-	171	239								10
		03	NF	136	180	146	195	249								13
	327B303	03	NF/NFIS	146	180	156	205	249								13
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	233								19
	327G042/052	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233								19/20
		07	EV	99	177	133	158	230								19
		08	JBEF	118	281	134	177	244								21
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231								19
		08	JBEF	118	281	134	177	244								21
	327A610/606	01	SC	134	175	-	166	230	105	35	34	28	17	202	181	19
		02	WP/WS/EM	140	185	126	171	239								19
		03	NF/WSNF	163	160	145	194	249								20/23
		04	WSCR/WSCREM	167	180	159	198	246								22
		06	JE	147	219	-	178	240								20
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	230	125	35	44	15	15	217	224	18
		02	WP/WS/EM	112	205	-	171	239								19
		03	NF/WSNF	136	180	146	195	249								22/24
	327B132/182	06	JE/WSJE	130	239	-	189	240								20/23
	327B332/382	04	WSCR/WSCREM	140	200	160	199	246								23
	327G032	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233								19/20
		07	EV	99	177	133	158	230								19
		08	JBEF	118	281	134	177	244								21
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	233								19
	327A620/616	01	SC	134	175	-	166	230	105	35	34	28	17	202	181	19
		03	NF/WSNF	163	160	145	194	249								21/23
		04	WSCR/WSCREM	167	180	159	198	246								22
		06	JE	147	219	-	178	240								21
	327A616	02	WP/WS/EM	140	185	126	171	239								19



CONSTRUCTION REF - 2

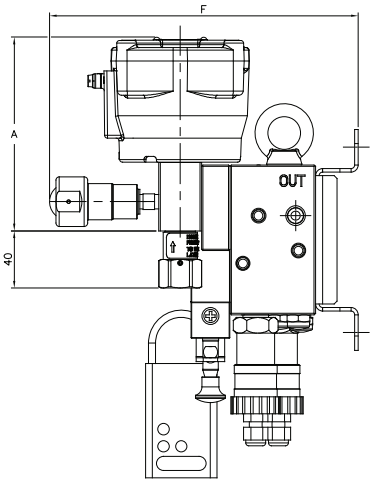
Dimensions (mm), Weight (kg)

2oo2 Configuration with Individual Isolation, with Diagnostic



CONSTRUCTION REF - 1

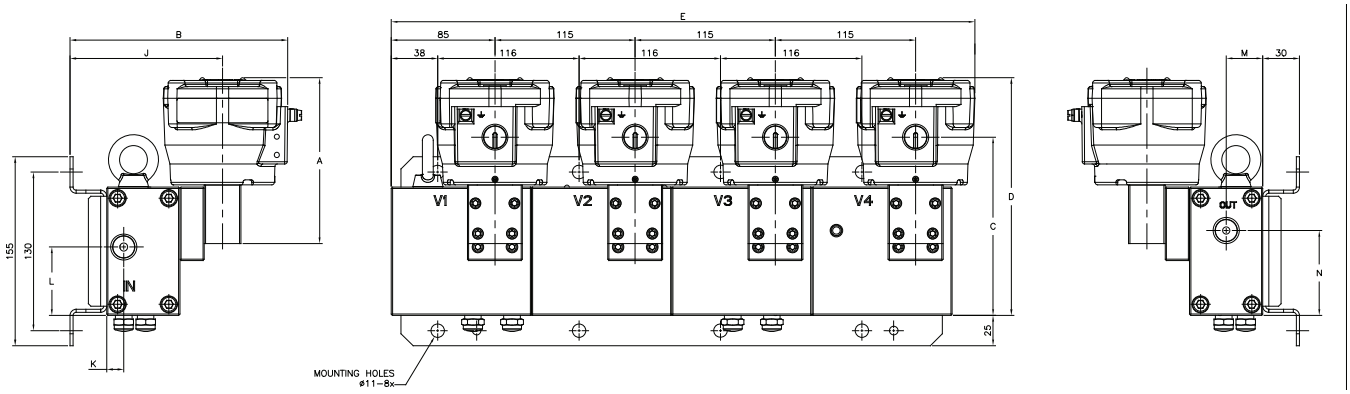
Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	F		Approx. Weight (Kg)
														Visual Indicator	Pressure Gauge	
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	230	125	14	45	14	70	167	174	19
		02	WP/WS/EM	112	205	-	171	239								20
		03	NF/WSNF	136	180	146	195	249								22/25
		04	WSCR/WSCREM	140	200	160	199	246								23
	327B102/112	06	JE/WSJE	130	239	-	189	240								21/24
	327B302/312	03	NF/WSNF/NFIS/ WSNFIS	146	180	156	205	249								22/24
		04	WSCR/WSCREM/ WSCRIS	140	200	160	199	246								23
		06	JE	130	239	-	189	240								21
	327B103/203	01	SC	109	190	-	168	230								11
		02	WP/EM	112	205	-	171	239								11
		03	NF	136	180	146	195	249								14
	327B303	03	NF/NFIS	146	180	156	205	249								14
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	233								20
	327G042/052	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233								20/21
		07	EV	99	177	133	158	230								20
		08	JBEF	118	281	134	177	244								22
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231								20
		08	JBEF	118	281	134	177	244								22
	327A610/606	01	SC	134	175	-	166	230	105	14	45	14	68	202	181	20
		02	WP/WS/EM	140	185	126	171	239								20
		03	NF/WSNF	163	160	145	194	249								21/24
		04	WSCR/WSCREM	167	180	159	198	246								23
		06	JE	147	219	-	178	240								21
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	230	125	14	45	14	70	217	224	20
		02	WP/WS/EM	112	205	-	171	239								20
		03	NF/WSNF	136	180	146	195	249								23/25
	327B132/182	06	JE/WSJE	130	239	-	189	240								21/24
	327B332/382	04	WSCR/WSCREM	140	200	160	199	246								24
	327G032	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	233								20/21
		07	EV	99	177	133	158	230								20
		08	JBEF	118	281	134	177	244								22
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	233								20
	327A620/616	01	SC	134	175	-	166	230	105	14	45	14	68	202	181	20
		03	NF/WSNF	163	160	145	194	249								21/24
		04	WSCR/WSCREM	167	180	159	198	246								23
		06	JE	147	219	-	178	240								22
	327A616	02	WP/WS/EM	140	185	126	171	239								20



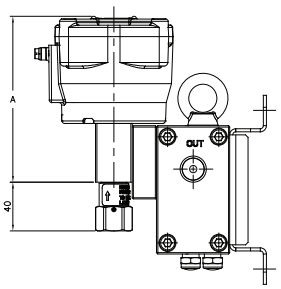
CONSTRUCTION REF - 2

Dimensions (mm), Weight (kg)

2oo3 Configuration without Online Maintenance and Diagnostic



CONSTRUCTION REF - 1



CONSTRUCTION REF - 2

Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	Approx. Weight (Kg)
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	460	125	14	56	30	70	30
		02	WP/WS/EM	112	205	-	171	469						31
		03	NF/WSNF	136	180	146	195	479						36/41
		04	WSCR/WSCREM	140	200	160	199	476						38
	327B102/112	06	JE/WSJE	130	239	-	189	470						34/40
	327B302/312	03	NF/WSNF/NFIS/ WSNFIS	146	180	156	205	479						36/41
		04	WSCR/WSCREM/ WSCRIS	140	200	160	199	476						38
		06	JE	130	239	-	189	470						34
	327B103/203	01	SC	109	190	-	168	460						14
		02	WP/EM	112	205	-	171	469						15
		03	NF	136	180	146	195	479						21
	327B303	03	NF/NFIS	146	180	156	205	479						21
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	463						32
	327G042/052	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	463						32/34
		07	EV	99	177	133	158	230						30
		08	JBEF	118	281	134	177	244						35
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231						32
		08	JBEF	118	281	134	177	244						35
	327A610/606	01	SC	134	175	-	166	460	105	18	51	30	68	31
		02	WP/WS/EM	140	185	126	171	469						31
		03	NF/WSNF	163	160	145	194	479						34/40
		04	WSCR/WSCREM	167	180	159	198	476						37
		06	JE	147	219	-	178	470						34
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	460	125	14	56	30	70	31
		02	WP/WS/EM	112	205	-	171	469						32
		03	NF/WSNF	136	180	146	195	479						37/42
	327B132/182	06	JE/WSJE	130	239	-	189	470						35/41
	327B332/382	04	WSCR/WSCREM	140	200	160	199	476						39
	327G032	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	463						32/34
		07	EV	99	177	133	158	230						31
		08	JBEF	118	281	134	177	244						36
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	463						32
	327A620/616	01	SC	134	175	-	166	460	105	18	51	30	68	32
		03	NF/WSNF	163	160	145	194	479						35/41
		04	WSCR/WSCREM	167	180	159	198	476						38
		06	JE	147	219	-	178	470						35
	327A616	02	WP/WS/EM	140	185	126	171	469						32

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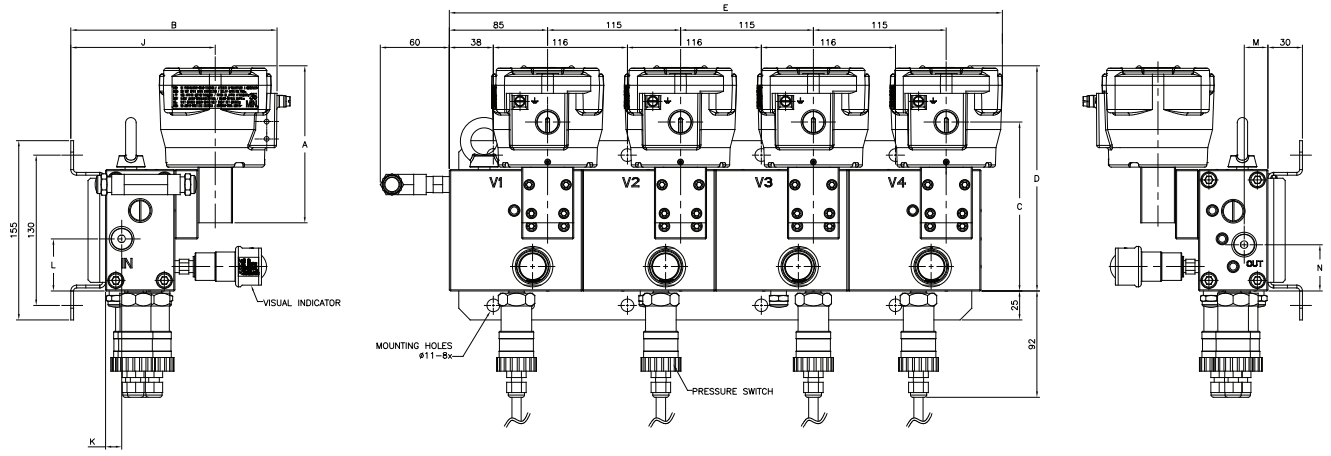
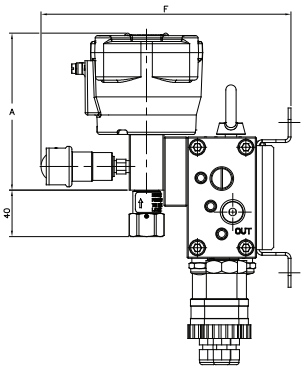
Dimensions (mm), Weight (kg)

2oo3 Configuration without Online Maintenance, with Diagnostic



CONSTRUCTION REF - 1

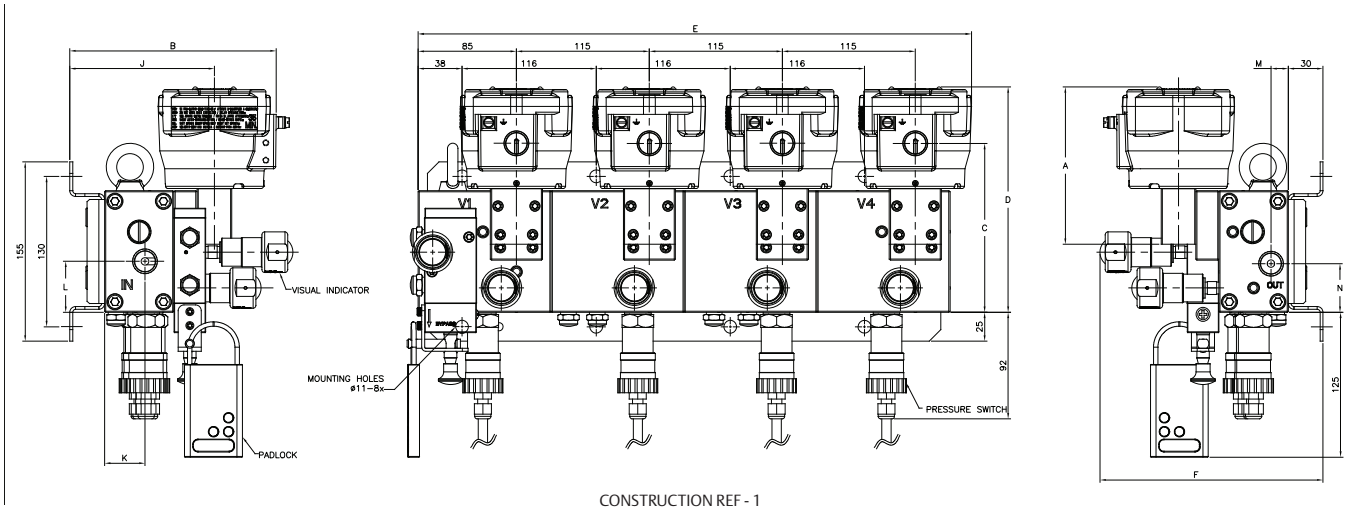
Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	F		Approx. Weight (Kg)
														Visual Indicator	Pressure Gauge	
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	460	125	14	45	21	40	167	174	33
		02	WP/WS/EM	112	205	-	171	469								34
		03	NF/WSNF	136	180	146	195	479								39/44
		04	WSCR/WSCREM	140	200	160	199	476								41
	327B102/112	06	JE/WSJE	130	239	-	189	470								37/43
	327B302/312	03	NF/WSNF/NFIS/ WSNFIS	146	180	156	205	479								39/44
		04	WSCR/WSCREM/ WSCRIS	140	200	160	199	476								41
		06	JE	130	239	-	189	470								37
	327B103/203	01	SC	109	190	-	168	460								17
		02	WP/EM	112	205	-	171	469								18
		03	NF	136	180	146	195	479								24
	327B303	03	NF/NFIS	146	180	156	205	479								24
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	463								35
	327G042/052	05	VCEFAM/ VCEFAP/ VCEVAM/ VCEVAP	109	230	-	168	463								35/37
		07	EV	99	177	133	158	230								33
		08	JBEF	118	281	134	177	244								38
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231								35
		08	JBEF	118	281	134	177	244								38
	327A610/606	01	SC	134	175	-	166	460	105	14	51	15	68	202	181	34
		02	WP/WS/EM	140	185	126	171	469								34
		03	NF/WSNF	163	160	145	194	479								37/43
		04	WSCR/WSCREM	167	180	159	198	476								40
		06	JE	147	219	-	178	470								37
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	460	125	14	45	21	40	217	224	34
		02	WP/WS/EM	112	205	-	171	469								35
		03	NF/WSNF	136	180	146	195	479								40/45
	327B132/182	06	JE/WSJE	130	239	-	189	470								38/44
	327B332/382	04	WSCR/WSCREM	140	200	160	199	476								42
	327G032	05	VCEFAM/ VCEFAP/ VCEVAM/ VCEVAP	109	230	-	168	463								35/37
		07	EV	99	177	133	158	230								34
		08	JBEF	118	281	134	177	244								39
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	463								35
	327A620/616	01	SC	134	175	-	166	460	105	14	51	15	68	202	181	35
		03	NF/WSNF	163	160	145	194	479								38/44
		04	WSCR/WSCREM	167	180	159	198	476								41
		06	JE	147	219	-	178	470								38
	327A616	02	WP/WS/EM	140	185	126	171	469								35



CONSTRUCTION REF - 2

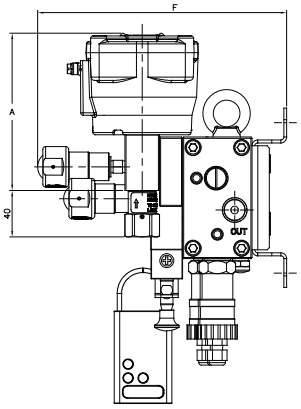
Dimensions (mm), Weight (kg)

2oo3 Configuration with Common Bypass, with Diagnostic



CONSTRUCTION REF - 1

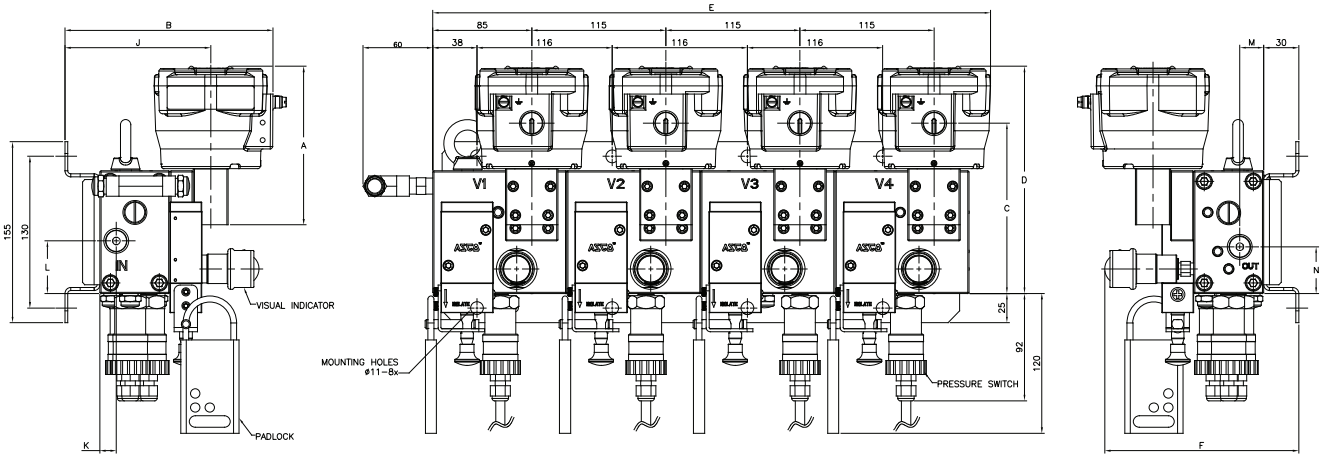
Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	F		Approx. Weight (Kg)
														Visual Indicator	Pressure Gauge	
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	460	125	35	44	14	43	195	202	34
		02	WP/WS/EM	112	205	-	171	469								35
		03	NF/WSNF	136	180	146	195	479								40/45
		04	WSCR/WSCREM	140	200	160	199	476								42
	327B102/112	06	JE/WSJE	130	239	-	189	470								38/44
	327B302/312	03	NF/WSNF/NFIS/ WSNFIS	146	180	156	205	479								40/45
		04	WSCR/WSCREM/ WSCRIS	140	200	160	199	476								42
		06	JE	130	239	-	189	470								40
	327B103/203	01	SC	109	190	-	168	460								18
		02	WP/EM	112	205	-	171	469								19
		03	NF	136	180	146	195	479								25
	327B303	03	NF/NFIS	146	180	156	205	479								25
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	463								36
	327G042/052	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	463								36/38
		07	EV	99	177	133	158	230								34
		08	JBEF	118	281	134	177	244								39
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231								36
		08	JBEF	118	281	134	177	244								39
	327A610/606	01	SC	134	175	-	166	460	105	32	34	21	42	202	181	35
		02	WP/WS/EM	140	185	126	171	469								35
		03	NF/WSNF	163	160	145	194	479								38/44
		04	WSCR/WSCREM	167	180	159	198	476								41
		06	JE	147	219	-	178	470								38
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	460	125	35	44	14	43	217	224	35
		02	WP/WS/EM	112	205	-	171	469								36
		03	NF/WSNF	136	180	146	195	479								41/46
	327B132/182	06	JE/WSJE	130	239	-	189	470								39/45
	327B332/382	04	WSCR/WSCREM	140	200	160	199	476								43
	327G032	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	463								36/38
		07	EV	99	177	133	158	230								35
		08	JBEF	118	281	134	177	244								40
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	463								36
	327A620/616	01	SC	134	175	-	166	460	105	32	34	21	42	202	181	36
		03	NF/WSNF	163	160	145	194	479								39/45
		04	WSCR/WSCREM	167	180	159	198	476								42
		06	JE	147	219	-	178	470								39
	327A616	02	WP/WS/EM	140	185	126	171	469								36



CONSTRUCTION REF - 2

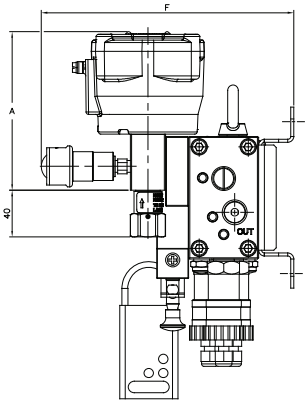
Dimensions (mm), Weight (kg)

2oo3 Configuration with Individual Isolation, with Diagnostic



CONSTRUCTION REF - 1

Construction Ref	Basic Catalog No.	Type	Enclosure	A	B	C	D	E	J	K	L	M	N	F		Approx. Weight (Kg)
														Visual Indicator	Pressure Gauge	
1 (AUTO RESET)	327B102/112/ 202/212	01	SC	109	190	-	168	460	125	14	45	21	40	167	174	36
		02	WP/WS/EM	112	205	-	171	469								37
		03	NF/WSNF	136	180	146	195	479								42/47
		04	WSCR/WSCREM	140	200	160	199	476								44
	327B102/112	06	JE/WSJE	130	239	-	189	470								40/46
	327B302/312	03	NF/WSNF/NFIS/ WSNFIS	146	180	156	205	479								42/47
		04	WSCR/WSCREM/ WSCRIS	140	200	160	199	476								44
		06	JE	130	239	-	189	470								42
	327B103/203	01	SC	109	190	-	168	460								20
		02	WP/EM	112	205	-	171	469								21
		03	NF	136	180	146	195	479								27
	327B303	03	NF/NFIS	146	180	156	205	479								27
	327H102/112	05	VCEFAM/VCEFAP	109	230	-	168	463								38
	327G042/052	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	463								38/40
		07	EV	99	177	133	158	230								36
		08	JBEF	118	281	134	177	244								41
	327H312/302	07	EV/EVMF/EVMH	102	183	134	161	231								38
		08	JBEF	118	281	134	177	244								41
	327A610/606	01	SC	134	175	-	166	460	105	14	45	15	68	202	181	37
		02	WP/WS/EM	140	185	126	171	469								37
		03	NF/WSNF	163	160	145	194	479								40/46
		04	WSCR/WSCREM	167	180	159	198	476								43
		06	JE	147	219	-	178	470								40
2 (MO/MANUAL RESET)	327B132/182/232	01	SC	109	190	-	168	460	125	14	45	21	40	217	224	37
		02	WP/WS/EM	112	205	-	171	469								38
		03	NF/WSNF	136	180	146	195	479								43/48
	327B132/182	06	JE/WSJE	130	239	-	189	470								41/47
	327B332/382	04	WSCR/WSCREM	140	200	160	199	476								45
	327G032	05	VCEFAM/VCEFAP/ VCEVAM/VCEVAP	109	230	-	168	463								38/40
		07	EV	99	177	133	158	230								37
		08	JBEF	118	281	134	177	244								42
	327H132/182	05	VCEFAM/VCEFAP	109	230	-	168	463								38
	327A620/616	01	SC	134	175	-	166	460	105	14	45	15	68	202	181	38
		03	NF/WSNF	163	160	145	194	479								41/47
		04	WSCR/WSCREM	167	180	159	198	476								44
		06	JE	147	219	-	178	470								41
	327A616	02	WP/WS/EM	140	185	126	171	469								38



CONSTRUCTION REF - 2

Spares Code

Solenoid Valve

Description: ASCO 327 series, 3/2 way, direct acting, normally closed, 5.7mm/12mm orifice, stainless steel 316/aluminum

X **327** **536397** **001** **H1**

Special Mounting for 141 Series
X

Valve Series
327
307

Ordering Code	
536397	327B102 Basic Catalog
536398	327B202 Basic Catalog
536399	327B302 Basic Catalog
536400	327B132 Basic Catalog
536401	327B232 Basic Catalog
536402	327B103 Basic Catalog
536403	327B203 Basic Catalog
536404	327H102 Basic Catalog
536405	327B303 Basic Catalog
536406	327B332 Basic Catalog
536407	327G032 Basic Catalog
536408	327G042 Basic Catalog
536409	327H132 Basic Catalog
545549	327B112 Basic Catalog
545550	327B212 Basic Catalog
545551	327B312 Basic Catalog
545552	327B182 Basic Catalog
545553	327B382 Basic Catalog
545554	327G052 Basic Catalog
545555	327H112 Basic Catalog
545556	327H182 Basic Catalog
548533	327H302 Basic Catalog
548534	327H312 Basic Catalog
543587	327A610 Basic Catalog (High Flow)
543588	327A606 Basic Catalog (High Flow)
543589	327A620 Basic Catalog (High Flow)
543590	327A616 Basic Catalog (High Flow)
503838	307B005[1] Basic Catalog

[1] Selection of base catalog no. 307B005 will restrict to the voltage code H1 and solenoid operator codes WSTIS/WSETIS

Voltage	
H1	24V DC
H3	12V DC
H9	48V DC
HJ	110V DC
HD	120V DC
J1	125V DC
HQ	24V/50-60HZ AC
JY	110V/50-60HZ AC
HC	115V/50-60HZ AC
HA	120V/50-60HZ AC
JV	220V/50-60HZ AC[2]
HH	230V/50-60HZ AC[2]
F1	24V DC
F3	12V DC
F9	48V DC
FJ	110V DC
FD	120V DC
E1	125V DC
FQ	24V/50-60HZ AC
EY	110V/50-60HZ AC
FC	115V/50-60HZ AC
FA	120V/50-60HZ AC
EV	220V/50-60HZ AC[2]
FH	230V/50-60HZ AC[2]

[2] Not applicable for low and reduced power options

Electrical Connection/ Enclosure Protection[3][4]	
***	Three digit code for applicable Electrical connection and other options

[3] Refer ASCO representative for applicable electrical connection/enclosure protection and code (3 digit)
[4] Refer solenoid operator chart

TR000117ENUS-02_12-20

Spares Code

3 Way Push-Pull Manual Valve with LOTO

Description: ASCO 551 series, 3/2 way, manual push button operated, normally closed, with 6 & 8mm orifice, stainless steel 316 and lock out tag out for tamper proof lock arrangement. Used for common by pass in 1oo2, 2oo2 & 2oo3 and individual isolation in 2oo2 & 2oo3

X	551	506166	001	00

Special Mounting for 141 Series
X

Valve Series
551

Drawing Code

506166	Std Flow, Isolation Valve
528799	Std Flow, Bypass Valve
543545	High Flow, Isolation Valve
543561	High Flow, Bypass Valve

Voltage Code[1]
[1] Push pull manual operation and voltage not applicable

Material & Temperature Options[2]
[2] Refer ASCO representative for applicable options and code (3 digit)

Accessories

Visual Indicators	Pressure Gauge
	

Accessories - Spares Code

Ordering Code	Item Description	Temperature Range
C325937	Pressure gauge (full stainless steel)	-40°C to +90°C
508133-005	Visual indicator (full stainless steel)	-23°C to +95°C
509123-003	Pressure switch (weatherproof & intrinsically safe wiring)	-20°C to +80°C
509123-004	Pressure switch (explosion proof wiring: flying leads)	-40°C to +90°C

ARCS - Customised Solutions

ASCO is also able to offer customized solutions to meet specific redundancy requirements, complete with options to integrate valve automation accessories like filter regulators, pilot operated valves, junction boxes for switches (feedback wiring), visual indicators, gauges and more. Available in open frame or explosion proof enclosures (Exia, Exe and Exd protection).