

FEATURES

- Lever type *Manual Reset* function which means that the valve has to be energized as well as manually operated before it stays in the "latched" position
- The *No Voltage Release (NVR)* function will make sure that the valve trips when de-energized
- The solenoid valves are recommended for 3/2 or 4/2 way pilot applications with high flow and wide pressure ranges
- Stainless steel or brass bodied valves with stainless steel internal parts
- The use of first class materials and thorough valve testing ensure a high reliability and a long service life
- The solenoid valve satisfy all relevant EC Directives

GENERAL

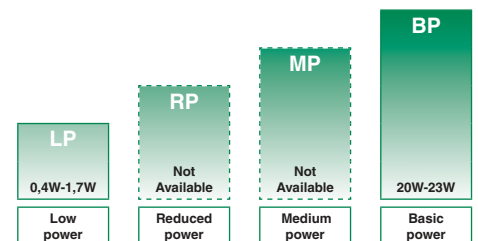
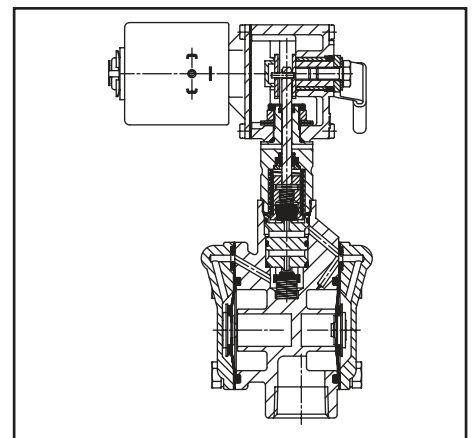
Differential pressure 0 - 17 bar [1 bar = 100kPa]
Maximum viscosity 65cST (mm²/s)
Response times 75 - 100 ms

fluids (*)	temperature range	seal material (*)
air, inert gas	- 40°C to + 60°C	NBR (nitrile)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body	Brass body
Core tube	Brass
Core and plugnut	Stainless steel
Springs	Stainless steel
Seals	NBR
Disc and poppets	NBR
Seat	Brass



POWER LEVELS - cold electrical holding values (watt)

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)		power level	prefix optional solenoids					basic catalogue number
				min.	max. (PS)		NEMA 7&9	ATEX / IECEx			IP65	
					air (*)			Ex d	Ex e mb	Ex mb		
Npt	(mm)	(m³/h)	(l/min)		~/=	~/=	EF	NF	EM	PV	SC	brass
3/2 - NC/NO - Single solenoid, manual reset (NVR)												
3/8	16,0	2,5	41,6	0,7	17,0	LP	-	-	●	-	●	B308A441F/G ⁽¹⁾
3/8	16,0	2,5	41,6	0,7	17,0	BP	-	●	-	-	●	B308C041F/G ⁽¹⁾
1/2	16,0	3,4	56,6	0,7	17,0	LP	-	-	●	-	●	B308A442F/G ⁽¹⁾
1/2	16,0	3,4	56,6	0,7	17,0	BP	-	●	-	-	●	B308C042F/G ⁽¹⁾
3/4	17,5	4,7	78,3	0,7	17,0	LP	-	-	●	-	●	B308A443F/G ⁽¹⁾
3/4	17,5	4,7	78,3	0,7	17,0	BP	-	●	-	-	●	B308C043F/G ⁽¹⁾
1	25,0	11,0	184,9	0,7	8,5	LP	-	-	●	-	●	B308A450F/G ⁽¹⁾
1	25,0	11,0	184,9	0,7	8,5	BP	-	●	-	-	●	B308A050F/G ⁽¹⁾

● Available feature ○ Available feature in DC only - Not available

⁽²⁾ Choose F for normally closed and G for normally open

PREFIX TABLE

prefix							description	power level			
1	2	3	4	5	6	7		LP	RP	MP	BP
E	M						Waterproof IP66/67 - Metal enclosure (EN/IEC 60079-7,-18 and -31)*	●	-	-	-
N	F	E	T				Threaded conduit/hole (M20 x 1,5)	●	-	-	-
S	C						Flameproof - Aluminium (EN/IEC 60079-1, 60079-31)*	-	-	-	●
W	P						Solenoid with spade plug connector (EN/IEC 60730)	●	-	-	●
W	S						Waterproof IP67 - Metal enclosure	●	-	-	●
W	S						Waterproof IP67 - 316 SS enclosure	●	-	-	●
W	S	E	M				Waterproof IP66/67 - 316 SS enclosure (EN/IEC 60079-7,-18 and -31)*	●	-	-	-
W	S	N	F				Flameproof - 316L SS (EN/IEC 60079-1, 60079-31)*	-	-	-	●
							Threaded conduit (1/2" NPT)	●	-	-	●
				H	C		Class H - Battery charging circuit	-	-	-	●
				H	T		Class H - High temperature	-	-	-	●
						X	Other special constructions	●	-	-	●

SUFFIX TABLE

suffix					description	power level			
1	2	3	4	5		LP	RP	MP	BP
N	V				FPM (fluoroelastomer) and parts cleaned for oxygen service	●	-	-	●
V					FPM (fluoroelastomer)	●	-	-	●
	C	O			Epoxy coating on all external surfaces	●	-	-	●
	M	B			Mounting bracket	●	-	-	●

- Available feature
- Available feature in DC only
- Not available
- * ATEX/IECEx valves using these solenoids are approved according to EN 13463-1 (non electrical)

PRODUCT SELECTION GUIDE

STEP 1

Select basic catalogue number, including pipe thread identification letter. Refer to the specifications table on page 1 or 2.

Example: B308C042F

STEP 2

Select prefix (combination). Refer to the specifications table on page 1 and the prefix table on page 2, respect the indicated power level.

Example: EMET

STEP 3

Select suffix (combination) if required. Refer to the suffix table on page 2, respect the indicated power level.

Example: V

STEP 4

Select voltage. Refer to standard voltages on page 3.

Example: 230V / 50Hz

STEP 5

Final catalogue / ordering number.

Example:

EMET B308C042F V 230V / 50 Hz

OPTIONS & ACCESSORIES

catalogue number	spare parts kit no. ⁽¹⁾		mounting bracket no.
	~	=	
SC B 308C041	C318534	-	038713-000
SC B 308C042	C318534	C314548	038713-000
SC B 308C043	C314591	C314591	038713-000
SC B 308C050	C306759	C306759	038713-000
SC B 308A441	C314590	C314590	038713-000
SC B 308A442	-	-	038713-000
SC B 308A443	C314591	C314591	038713-000
SC B 308A450	C306759	C306759	038713-000

⁽¹⁾ Standard prefixes/suffixes are also applicable to kits

ORDERING EXAMPLES VALVES:

SC	B	308A006	NV	24V / DC
WS	B	308A406	CO	24V / DC
WP	B	308A006	NV	24V / DC

prefix — pipe thread — basic number — voltage — suffix

ORDERING EXAMPLES KITS:

C318534 ⁽²⁾
WS C314591
WS C306759

prefix — basic number

⁽²⁾ Basic kit number applies to SC coil construction

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 ranges above

ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Connector	Spade plug
Connector specification	ISO 4400 (cable Ø 6-10 mm)
Electrical safety	IEC 335
Standard voltages:	DC (=) 24V - 48V; Allowable voltage variation +10%, -15% AC (~) 24V - 48V - 115V - 230V/50 Hz; Other voltages are available on request

prefix option	power ratings				operator ambient temperature range (TS)	safety code	electrical enclosure protection (EN 60529)	replacement coil / kit		type ⁽²⁾
	inrush ~	holding ~		hot/cold =				~	=	
	(VA)	(VA)	(W)	(W)				(C°) ⁽¹⁾	230V/50 Hz	
Basic power (BP)										
SC	240	43	20	16/23	-40 to +75	EN 60730	IP65, moulded	400-525-217	400-625-242	01/02
WP/WS	240	43	20	16/23	-40 to +75	EN 60730	IP67, steel/SS	400-505-217	400-605-242	03/04
NF/WSNF	240	43	20	16/23	-60 to +60	II2G Ex d IIC Gb T4, II2D Ex tb IIIC Db	IP66/67, alu./SS	400-505-217	400-605-242	-
Low Power (LP)										
SC	1,2	1,2	1,2	1,3/1,3	-40 to +75	EN 60730	IP65, moulded	400-929-097	400-929-042	05/06
WP/WS	1,2	1,2	1,2	1,3/1,3	-40 to +75	EN 60730	IP67, steel/SS	400-930-097	400-930-042	07/08
EM/WSEM	1,2	1,2	1,2	1,3/1,3	-40 to +60	II2G Ex e mb IIC Gb T6, II2D Ex tb IIIC Db	IP66/67, steel/SS	400-930-097	400-930-042	07/08

⁽¹⁾ Temperature range can be limited by sealings

⁽³⁾ Multiple coil kits are available under ATEX/IECEX, contact us

⁽²⁾ Refer to the dimensional drawings on page 4

- Not available

ADDITIONAL OPTIONS

- Other pipe threads are available on request
- Compliance with "UL", "CSA" and other local approvals available on request
- 1/2" NPT (prefix "T") and M20 x 1,5 (prefix "ET") conduits (aluminium or 316 SS) available for steel solenoid housing
- Special moulded-in solid state components for peak voltage suppression and/or rectification (four diode bridge)

INSTALLATION

- The solenoid valves have to be mounted vertically and in an upright position for best performance
- Multi language installation/maintenance instructions are included with each valve
- Threaded pipe connection identifier is B = NPT (ANSI 1.20.3)
- Other pipe threads are available on request
- Normally closed (F) and normally open construction (G) have internal pilot connections and need 0,7 bar min. operating pressure
- Ex e mb (prefix "EM") execution: solenoid enclosure has a cable gland with integral strain relief for cables with an o.d. from 7 to 12 mm and is provided with an internal and external connection facility for an earthing or bonding conductor

DIMENSIONS (mm), WEIGHT (kg)



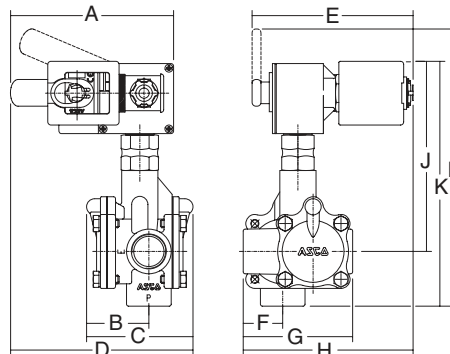
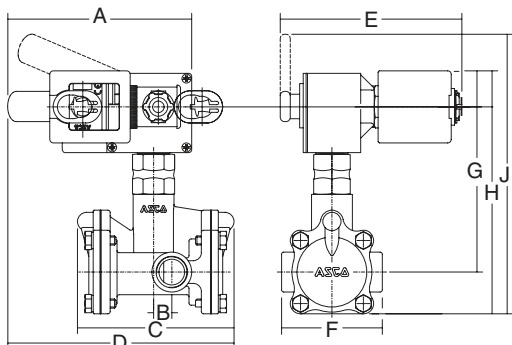
TYPE 01:
Epoxy moulded
SC: IEC 335 / ISO 4400

308C041F / C041G / C042F / C042G



TYPE 02:
Epoxy moulded
SC: IEC 335 / ISO 4400

308C043F / C043G / A050F / A050G



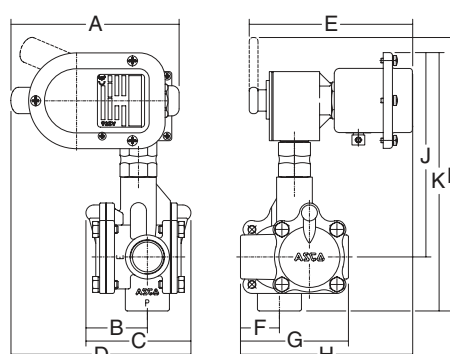
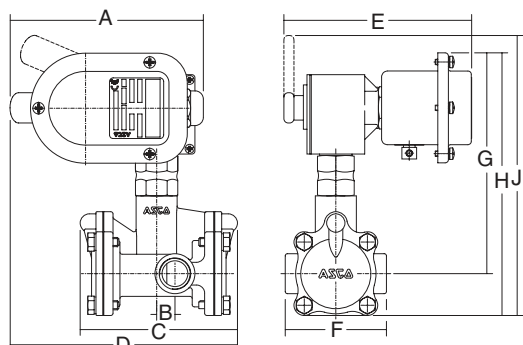
TYPE 03:
Metal, epoxy coated / AISI 316 SS
WP / WS: IEC 335

308C041F / C041G / C042F / C042G



TYPE 04:
Metal, epoxy coated / AISI 316 SS
WP / WS: IEC 335

308C043F / C043G / A050F / A050G



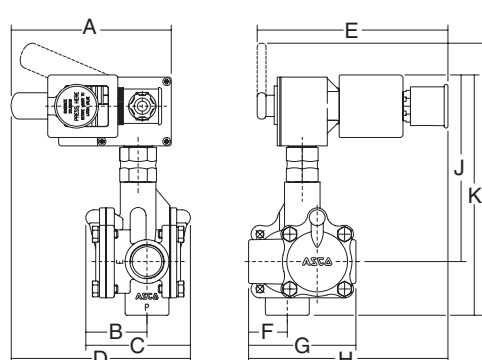
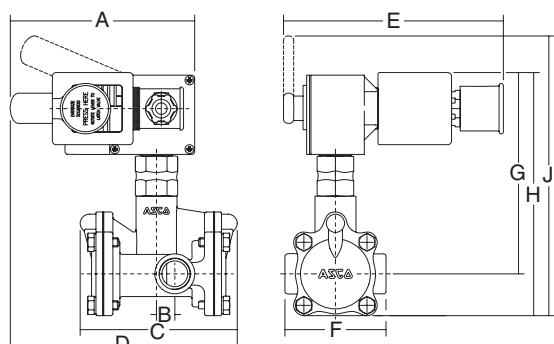
TYPE 05:
Epoxy moulded
SC: IEC 335 / ISO 4400

308A441F / A441G / A442F / A442G



TYPE 06:
Epoxy moulded
SC: IEC 335 / ISO 4400

308A443F / A443G / A450F / A450G



DIMENSIONS (mm), WEIGHT (kg)



TYPE 07:

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

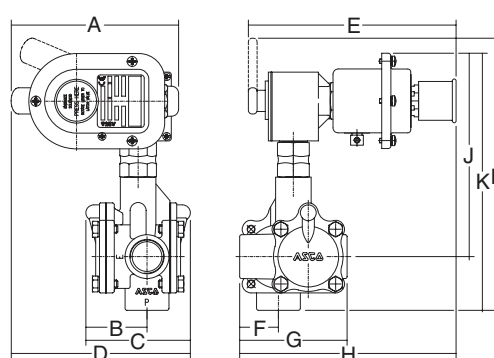
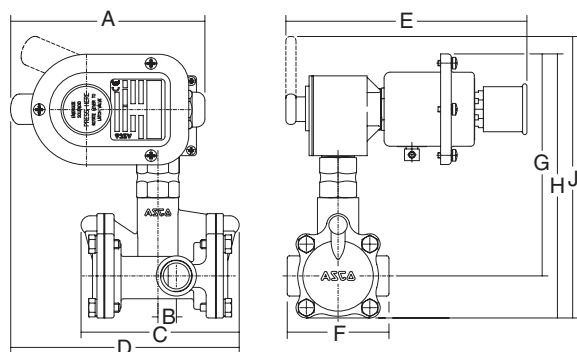
308A441F / A441G / A442F / A442G



TYPE 08:

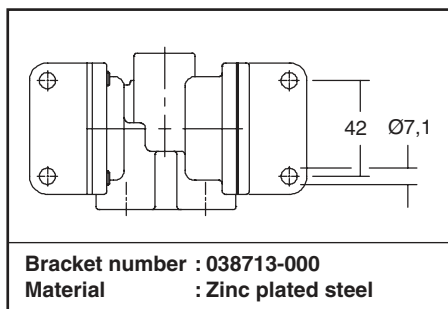
Metal, epoxy coated / AISI 316 SS
WP / WS: IEC 335
EM / WSEM: EN/IEC 60079-7+18+31

308A443F / A443G / A450F / A450G



type	prefix option	power level	A	B	C	D	E	F	G	H	J	K	L	weight
01	SC	BP	128	13	109	157	127	70	140	169	194	-	-	3,20 kg
02	SC	BP	128	49	84	143	127	31	86	133	149	192	218	3,20 kg
03	WP, WS	BP	134	13	109	157	130	70	153	182	194	-	-	3,20 kg
04	WP, WS	BP	134	49	84	143	130	31	86	137	163	206	218	3,40 kg
05	SC	LP	128	13	109	157	153	70	140	169	194	-	-	3,40 kg
06	SC	LP	128	49	84	143	153	31	86	159	149	192	218	3,40 kg
07	WP, WS, EM, WSEM	LP	134	13	109	157	166	70	153	182	194	-	-	3,40 kg
08	WP, WS, EM, WSEM	LP	134	49	84	143	166	31	86	173	163	206	218	3,40 kg

MOUNTING BRACKETS



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