

FEATURES

- The solenoid valves are recommended for pilot applications with high flow, wide pressure ranges and no minimum operating pressure
- Compact 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
- Special rider rings eliminate sticking and provide exceptional service life
- Coils used in metal enclosures have class H insulation materials
- Pressure can be applied at any port
- 316 stainless steel construction for highly corrosive atmospheres
- The solenoid valves satisfy all relevant EC Directives

GENERAL

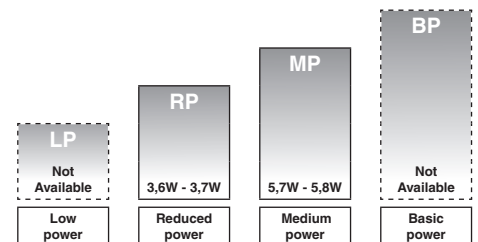
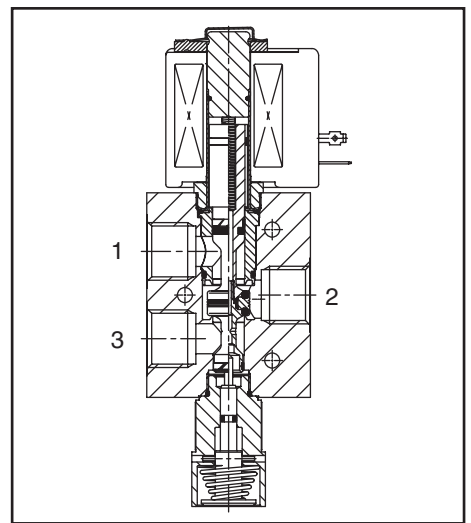
Differential pressure 0 - 10 bar [1 bar = 100 kPa]
Response time < 100 ms

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas	- 25°C to + 60°C - 10°C to + 90°C - 40°C to + 60°C	NBR (nitrile) FPM (fluoroelastomer) LT-NBR (low temp nitrile)/FVMQ (fluorosilicone)

MATERIALS IN CONTACT WITH FLUID

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

	Brass body	Stainless steel body
Body	Brass	AISI 316L SS
Stem	Stainless steel	Stainless steel
Core tube	Stainless steel	Stainless steel
Core and plugnut	Stainless steel	Stainless steel
Springs	Stainless steel	Stainless steel
Seals	NBR, FPM, LT-NBR / VMQ	NBR, FPM, LT-NBR / V



POWER LEVELS - cold electrical holding values (watt)

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)		power level	ambient temperature range (TS)	prefix optional solenoids					basic catalogue number		
				min.	max. (PS)			NEMA 7&9	ATEX/CENELEC			IP65	brass	stainless st.	
				air (*)					EExd	EExem	EExmb				EExn
❖	(mm)	(m³/h)	(l/min)	~/=		~/=	(°C)	EF	NF	EM	PV	ZN ⁽¹⁾	SC		
U - Universal, NBR sealings and poppets, manual reset															
1/4	12	1,6	27,0	0	10	RP	-25 to +60	-	●	●	-	○	●	❖ 327A657	❖ 327A658
1/2	12	1,8	30,0	0	10	RP	-25 to +60	-	●	●	-	○	●	❖ 327A617	❖ 327A618
U - Universal, FPM sealings and poppets, manual reset															
1/4	12	1,6	27,0	0	10	RP	-10 to +60	-	●	●	-	○	●	❖ 327A657V	❖ 327A658V
1/4	12	1,6	27,0	0	10	MP	-10 to +90	-	●	-	-	○	●	❖ 327A659	❖ 327A660
1/2	12	1,8	30,0	0	10	RP	-10 to +60	-	●	●	-	○	●	❖ 327A617V	❖ 327A618V
1/2	12	1,8	30,0	0	10	MP	-10 to +90	-	●	-	-	○	●	❖ 327A619	❖ 327A620
U - Universal, LT-NBR / VMQ sealings and poppets, manual reset															
1/4	12	1,6	27,0	0	10	RP	-40 to +60	-	●	●	-	○	●	❖ 327A655	❖ 327A656
1/2	12	1,8	30,0	0	10	RP	-40 to +60	-	●	●	-	○	●	❖ 327A615	❖ 327A616

❖ Select **8** for NPT ANSI 1.20.3
Select **G** for ISO G (228/1)

● Available feature
○ Available feature in DC only

- Not available
(1) Limited to +50°C

PREFIX TABLE

prefix							description	power level			
1	2	3	4	5	6	7		LP	RP	MP	BP
S	C			D	U		Dustproof ATEX (EN 50281-1-1)*	-	●	●	-
E	F						Explosionproof - NEMA 3, 4, 6, 7, 9	-	-	-	-
E	V						Explosionproof - NEMA 3, 4, 6, 7, 9 - 316 SS	-	-	-	-
E	M						Encapsulated ATEX (EN 50019 & EN 50028)*	-	●	●	-
		E	T				Threaded conduit/hole (M20 x 1.5)	-	●	●	-
I	S		S	C			Intrinsically safe with SC coil ATEX (EN 50020)*	-	-	-	-
N	F						Flameproof - Aluminium ATEX (EN 50018)*	-	●	●	-
P	V						Encapsulated ATEX (EN 50028)*	-	-	-	-
S	C						Solenoid with spade plug connector (EN 60730)	-	●	●	-
W	P						Waterproof IP67 - Metal enclosure (EN 60730)	-	●	●	-
W	P			D	U		Dustproof ATEX (EN 50281-1-1) - Metal enclosure*	-	●	●	-
W	P			I	S		I.S. with Metal IP67 enclosure ATEX (EN 50020)*	-	-	-	-
W	P			Z	N		Non Sparking metal enclosure ATEX (EN 50021)*	-	●	●	-
W	S						Waterproof IP67 - 316 SS enclosure	-	●	●	-
W	S			D	U		Dustproof ATEX (EN 50281-1-1) - 316 SS enclosure*	-	●	●	-
W	S	E	M				316 SS "EM" enclosure ATEX (EN 50019, EN 50020)*	-	●	●	-
W	S			I	S		I.S. with 316 SS IP67 enclosure ATEX (EN 50020)*	-	-	-	-
W	S	N	F				Flameproof - 316 SS ATEX (EN 50018)*	-	●	●	-
W	S	Z	N				Non Sparking 316 SS enclosure ATEX (EN 50021)*	-	●	●	-
						T	Threaded conduit (1/2" NPT)	-	●	●	-
				H	C		Class H - Battery charging circuit	-	-	-	-
				H	T		Class H - High temperature	-	●	●	-
Z	N					X	Encapsulated Non Sparking ATEX (EN 50021)*	-	○	○	-
							Other special constructions	-	●	●	-

* ATEX solenoid valves are also approved according to EN 50281-1-1(dust) and EN 13463-1 (non electrical valves)

SUFFIX TABLE

suffix					description	power level			
1	2	3	4	5		LP	RP	MP	BP
E					EPDM (ethylene-propylene)	-	-	-	-
J					CR (chloroprene)	-	-	-	-
N					Oxygen service (CR (chloroprene))	-	-	-	-
N	V				FPM (fluoroelastomer) parts cleaned for oxygen service	-	-	-	-
V					FPM (fluoroelastomer)	-	-	-	-
	C	O			Epoxy coating on all external surfaces	-	●	●	-
	M	B			Mounting bracket	-	-	-	-
		P			Dry gas, non-lubricated air construction	-	-	-	-
		Q			Long life, quiet operation construction	-	-	-	-
			M	O	Push type manual operator	-	-	-	-
			M	S	Screw type manual operator	-	-	-	-
				M	Metering device	-	-	-	-
S	L				Certified IEC 61508 functional safety data	-	-	-	-

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

OPTIONS & ACCESSORIES

catalogue number	spare parts kit no. ⁽¹⁾	mounting bracket no.
	~/=	
SC ❖327A615	C117639	mounting holes in body
SC ❖327A616	C117639	
SC ❖327A617	C117641	
SC ❖327A617V	C117641V	
SC ❖327A618	C117641	
SC ❖327A618V	C117641V	
SC ❖327A619	C117641V	
SC ❖327A620	C117641V	
SC ❖327A655	C117639	
SC ❖327A656	C117639	
SC ❖327A657	C117641	
SC ❖327A657V	C117641V	
SC ❖327A658	C117641	
SC ❖327A658V	C117641V	
SC ❖327A659	C117641V	
SC ❖327A660	C117641V	

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

❖ Select **B** for NPT ANSI 1.20.3 or select **G** for ISO G (228/1)

ORDERING EXAMPLES VALVES:

SC 8	327A617	24V / DC
WSEMT G	327A618	CO 24V / DC
NFET G	327A657	230V / 50/60 Hz
WSEM G	327A658	CO 24V / DC

prefix — pipe thread — basic number — voltage — suffix

ORDERING EXAMPLES KITS:

C117641
WSEM C117641 ⁽²⁾
NF C117641
WSEM C117641 V

prefix — basic number — suffix

⁽²⁾ Basic kit number applies to SC coil construction

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 (RP) and the ATEX 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
Electrical safety	IEC 335
Standard voltages:	DC (=) 24V - 48V AC (~) 24V - 48V - 115V - 230V/50/60 Hz; Other voltages are available on request

prefix option	power ratings				operator ambient temperature range (TS) (°C)	safety code	electrical enclosure protection (EN 60529)	replacement coil / kit		type ⁽²⁾
	inrush	holding	hot/cold					~	=	
	(VA)	(VA)	(W)	(W)				230V/50/60 Hz	24V/DC	
Medium Power (MP)										
SC	5,8	5,8	5,8	5,2/5,7	-40 to +90	EN 60730	moulded IP65	400924-297	400923-442	01
WP/WS	5,8	5,8	5,8	5,2/5,7	-40 to +90	EN 60730	steel/SS IP67	400921-297	400914-442	02
(WS)NF	5,8	5,8	5,8	5,2/5,7	(-60) ⁽¹⁾ -40 to +60/75/90	II 2 G/D EEx d IIC T6/T5/T4	alu/SS IP67	400921-297	400914-442	03
EM/WSEM	5,8	5,8	5,8	5,2/5,7	-40 to +40/75/90	II 2 G/D EEx em II T5/T4/T3	steel/SS IP67	400921-297	400914-442	02
WP(WS)ZN	5,8	5,8	5,8	5,2/5,7	-40 to +40/60/90	II 3 G/D EEx nA II T6/T5/T4	steel/SS IP67	400921-297	400914-442	02
Reduced Power (RP)⁽³⁾										
SC	3,7	3,7	3,7	3,2/3,6	-40 to +55	EN 60730	moulded IP65	400924-098 ⁽³⁾	400923-042	01
WP/WS	3,7	3,7	3,7	3,2/3,6	-40 to +55	EN 60730	steel/SS IP67	400921-098 ⁽³⁾	400914-242	02
(WS)NF	3,7	3,7	3,7	3,2/3,6	(-60) ⁽¹⁾ -40 to +60	II 2 G/D EEx d IIC T6	alu/SS IP67	400921-098 ⁽³⁾	400914-242	03
EM/WSEM	3,7	3,7	3,7	3,2/3,6	-40 to +40/55	II 2 G/D EEx em II T6/T5	steel/SS IP67	400921-098 ⁽³⁾	400914-242	02
WP(WS)ZN	3,7	3,7	3,7	-	-40 to +40/55	II 3 G/D EEx nA II T6/T5	steel/SS IP67	400921-098 ⁽³⁾	-	02
WP(WS)ZN	-	-	-	3,2/3,6	-40 to +40/55	II 3 G/D EEx nA II T6/T5	steel/SS IP67	-	400914-242	02

⁽¹⁾ The certified minimum temperature of this operator
⁽²⁾ Refer to the dimensional drawings on page 4 and 5

⁽³⁾ AC (~) limited to 120V/50/60Hz
⁽⁴⁾ Multiple coil kits are available under ATEX, contact us

- Not available

ELECTRICAL CONNECTIONS

prefix	connection
SC, SCDU, ZN	spade plug connector with cable gland EN175301-803A (ISO 4400) for cables with an outer diameter from 6 to 10 mm
WP, WS, EM, WSEM, WPZN, WWSZ, WPDU, WWSDU	M20 cable gland for cables with an outer diameter from 7 to 12 mm. With an internal and external facility for an earthing or bonding conductor
NF, WSNF	1/2" NPT threaded cable entry. Enclosures are supplied without cable gland

ADDITIONAL OPTIONS

- 3/8" pipe thread execution
- 1/2" NPT (prefix "T") and M20 x 1,5 (prefix "ET") conduits (aluminium or 316 SS) available for steel solenoid housing
- Solid state components for peak voltage suppression and/or rectification

INSTALLATION

- Multi language installation/maintenance instructions are included with each valve
- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is 8 = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request

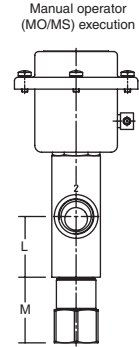
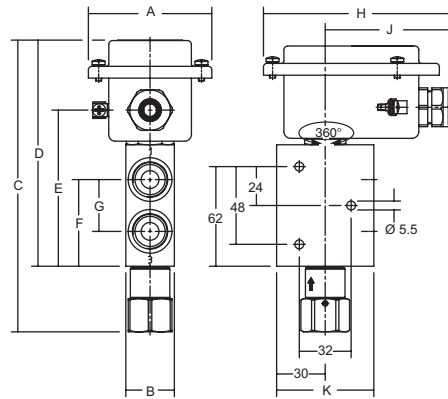
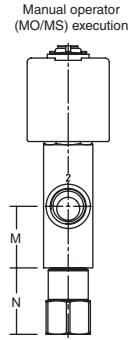
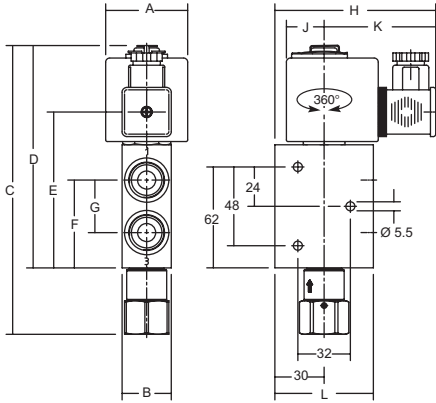
DIMENSIONS (mm), WEIGHT (kg)



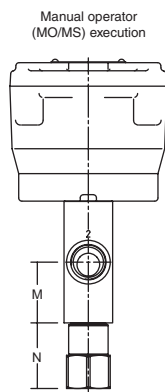
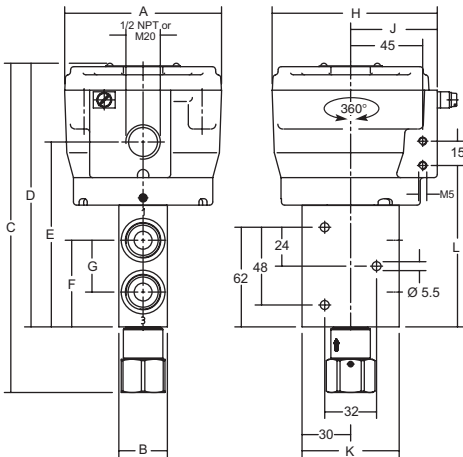
TYPE 01: Prefixes SC: IP65, ZN: II 3 G/D, IP65, EEx nA II, SCDU: II 3 D, IP65, T100°C to 135°C
 Reduced and medium power
 Epoxy moulded
 IEC 335 / ISO 4400



TYPE 02: Prefixes WP/WS: IP67, EM/WSEM: II 2 G/D, IP67, EEx em II, WPDU/WSDU: II 3 D, IP67, T85°C to 200°C, WPZN/WSZN: II 3 G/D, IP67, EEx nA II
 Reduced power
 Steel, epoxy coated (EM, WP, WPDU, WPZN)
 AISI 316 SS (WS, WSDU, WSEM, and WSZN)
 IEC 335 / EN 50019, EN 50028 and 50281-1-1



TYPE 03: Prefixes NF/WSNF: II 2 G/D, IP65, EEx d IIC
 Reduced and medium power
 Aluminium, epoxy coated (NF)
 AISI 316 SS (WSNF)
 EN 50018 and EN 50281-1-1



type	prefix/option	power level	A	B	C	D	E	F	G	H	J	K	L	M	N	weight
01	SC, ZN, SCDU	BP	50	30	176	135	95	54	32	100	23	70	60	38	40	1,6 kg
02	WP, WS, (WS)EM, WPDU, WSDU, WPZN, WSZN	BP	75	30	180	140	95	54	32	120	80	60	38	40	-	1,6 kg
03	NF	BP	100	30	203	165	115	54	32	105	55	60	100	38	40	2,4 kg
	WSNF	BP	100	30	203	165	115	54	32	105	55	60	100	38	40	3,8 kg