

SPOOL VALVES

solenoid air operated

1/4 to 1/2 tapped body and NAMUR
for integrated pilot



ATEX

3/2-5/2
Series
551-553

FEATURES

- The valves offer environmental protection against the ingress of liquids, dusts or other foreign matter (environmentally-protected construction)

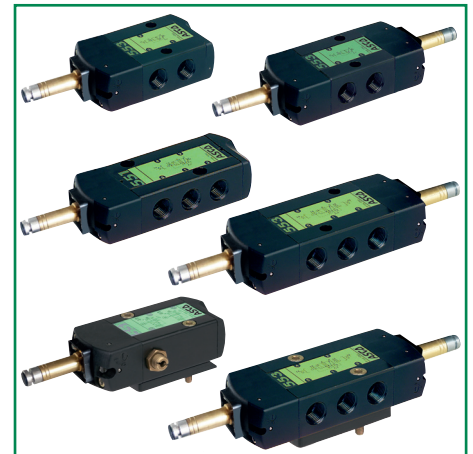
GENERAL

Fluid	Air or neutral gas, filtered, lubricated or not
Operating pressure	2 to 10 bar
Ambient temperature	0°C to +60°C
Flow (Qv at 6 bar)	series 551 860 l/min (ANR) - Kv : 12,5
	series 553 3800 l/min (ANR) - Kv : 52,5

CONSTRUCTION

SPOOL VALVES

Body, end covers	Black anodised aluminium
Internal parts	Stainless steel, POM (polyacetal), aluminium
Seals	NBR (nitrile), PUR (polyurethane)



⚠ These solenoid valves can only be installed with PV, WBLP or SG solenoids. Information on these can be found on pages 5, 6, and 7.

SPECIFICATIONS

TAPPED	function symbol	operators		pipe size	series	ATEX basic code	suffix	
		pilot	return				M	MS
3/2 NC		solenoid air	spring	1/4	551	❖551A005GD	●	●
				1/2	553	❖553A005GD	-	●
3/2 NC		solenoid air	solenoid air	1/4	551	❖551A006GD	●	●
				1/2	553	❖553A006GD	-	●
5/2		solenoid air	spring	1/4	551	❖551A017GD	●	●
				1/2	553	❖553A017GD	-	●
5/2		solenoid air	solenoid air	1/4	551	❖551A018GD	●	●
				1/2	553	❖553A018GD	-	●
5/3 W1		solenoid air	solenoid air	1/4	551	❖551A067GD	●	●
				1/2	553	❖553A067GD	-	●
5/3 W3		solenoid air	solenoid air	1/4	551	❖551A068GD	●	●
				1/2	553	❖553A068GD	-	●

NAMUR

3/2 - 5/2		solenoid air	spring	1/4	551	❖551A001GD	●	●
				1/2	553	❖553A001GD	-	●
3/2 - 5/2		solenoid air	solenoid air	1/4	551	❖551A002GD	●	●
				1/2	553	❖553A002GD	-	●
5/3 W1		solenoid air	solenoid air	1/4	551	❖551A065GD	●	●
				1/2	553	❖553A065GD	-	●
5/3 W3		solenoid air	solenoid air	1/4	551	❖551A066GD	●	●
				1/2	553	❖553A066GD	-	●

❖ Select 8 for NPT ANSI 1.20.3 or select G for ISO G (228/1) ● Available version - Not available

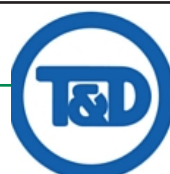
(M) With flow reducer

(MS) With manual operator

Note: Do not connect the pressure supply to the exhaust port 3. For a "distributing" function or use in NO function, consult us.

When ordering, please specify:

G 551 A 001 GDMMS	
G 553 A 018 GD	
pipe thread	suffix
basic number	



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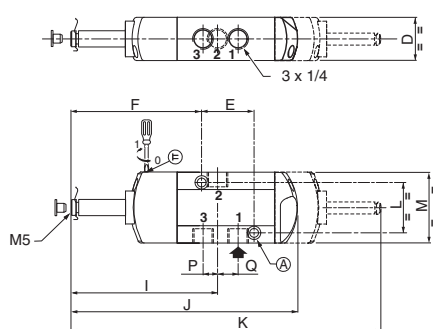
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OPTIONS

- Other pipe threads are available on request

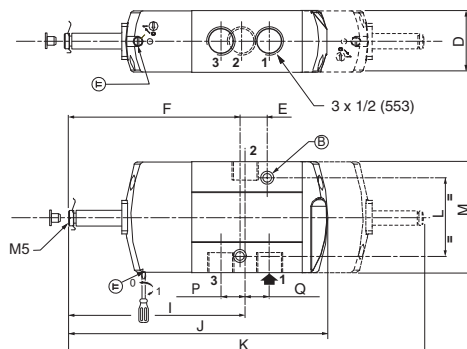
DIMENSIONS (mm), WEIGHT (kg)

551A005GD / A006GD



- ① 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)

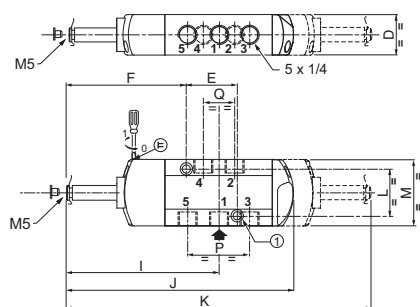
553A005GD / A006GD



- ② 6,5 mm dia. (Spotfacing: 11 mm dia., depth 6 mm)

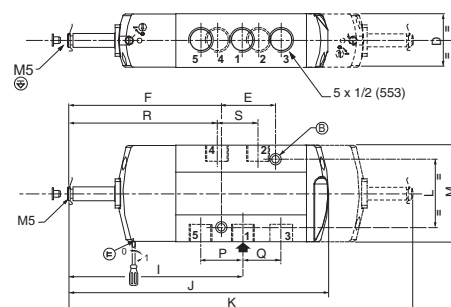
type	D	E	F	I	J	K	L	M	P	Q
551	27,5	33	83,5	93,5	145	198	32	45	9,5	12
553	40,2	16	114,2	111,6	170,2	233,3	51	72,3	12,1	19,5

551A017GD / A018GD / A067GD / A068GD



- ① 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)

553A017GD / A018GD / A067GD / A068GD



- ② 2 trous de fixation Ø 6,5; Lamage : Ø 11, profondeur 6 mm

type	D	E	F	I	J	K	L	M	P	Q	R	S
551	27,5	32	82,5	105,5	157	210	32	45	9,5	12	-	-
553	40,2	43	114,5	130,5	197,5	261	51	72,3	12,1	19,5	111	31,6

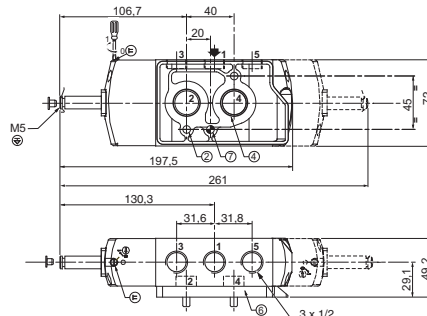
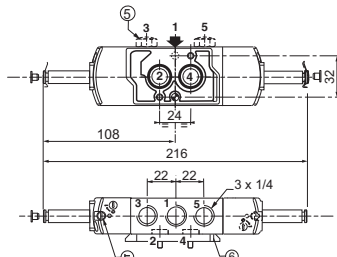
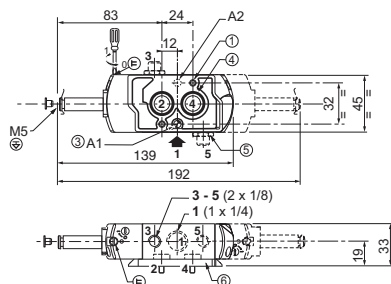
DIMENSIONS (mm), WEIGHT (kg)



551A001GD / A002GD

551A065GD / A066GD
(W1 - W3)

553A001GD / A002GD - 553A065GD / A066GD



- ① 2 mounting holes, 5,3 dia. (Spotfacing: 9 mm dia., depth 5 mm)
- ② 2 mounting holes, 6,5 dia. (Spotfacing: 11 mm dia., depth 6 mm)
- ③ One 5 mm dia. hole for dowel pin: (Series 551)
 - in position A1: 3/2 NC function plate
 - in position A2: 5/2 function plate
- ④ 2 O-ring seals (supplied)
- ⑤ Exhaust reducer (G 1/8, 3/2 NC-5/2, series 551) or exhaust protector
- ⑥ Interface plate
- ⑦ One 6,5 mm dia. hole for dowel pin (Series 553). Position for 3/2 NC or 5/2 function plate
- ⊕ Connectable pilot exhaust port



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SPOOL VALVES SERIES 551-553



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OPERATORS

for potentially explosive atmospheres
encapsulated, II 2G Ex mb IIC T5..T3 Gb /
II 2D Ex mb IIC T100°C..T200°C Db IP67
moulded enclosure with integrated cable



Series
PV

FEATURES

- Explosionproof operator for use in potentially explosive atmospheres, zones 1-21, according to ATEX-Directive 2014/34/EU
EC type examination certificate no.: **BAS 98 ATEX 2168 X**
IECEX Certificate of Conformity no.: **IECEX SIR 06.109X**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with the International and European Standards EN-IEC 60079-0 and EN-IEC 60079-18
- Easy electrical installation with moulded-in supply cable, 2 m long
- Ingress protection degree IP67
- The operators are designed for installation on a wide range of valves

CONSTRUCTION

Solenoid enclosure

Nameplate

Safety code

Epoxy encapsulated

Polyester

IECEX / II 2G Ex mb IIC T5..T3 Gb

IECEX / II 2D Ex mb IIC 100°C..200°C Db IP67



These solenoids may only be installed on the 551/553 series as seen on page 1.

ELECTRICAL CHARACTERISTICS

product application	voltage	cable length (m)	article number
551	24 V - 50/60 Hz-4 W	2	513329-001
	48 V - 50/60 Hz-4 W		513329-002
	115 V - 50/60 Hz-4 W		513329-003
	120 V - 50/60 Hz-4 W		513329-004
	230 V - 50/60 Hz-4 W		513329-005
	24 V - DC-3 W		513329-006
	48 V - DC-3 W		513329-007
	110 V - DC-3 W		513329-008
553	24 V - 50 Hz-4 W	2	513329-009
	48 V - 50 Hz-4 W		513329-010
	115 V - 50 Hz-4 W		513329-011
	230 V - 50 Hz-4 W		513329-012
	24 V - DC-6,9 W		513329-013
	48 V - DC-6,9 W		513329-014
551	24 V - DC-3 W	4	513329-015
	230 V - 50 Hz-4 W		513329-016

TEMPERATURE CLASSIFICATION TABLES

AC solenoids (~)

Pn (watt)	solenoid size			maximum ambient °C ⁽¹⁾			
				surface temperature			
	EM5			T6 85°C	T5 100°C	T4 135°C	T3 200°C
insulation class F (155°C) 100% E.D.							
4,0 ⁽²⁾	●			-	-	60	65
6,3 ⁽³⁾	●			-	-	-	65

DC solenoids (=)

Pn (watt)	solenoid size			maximum ambient °C ⁽¹⁾			
				surface temperature			
	EM5			T6 85°C	T5 100°C	T4 135°C	T3 200°C
insulation class F (155°C) 100% E.D.							
3,0 ⁽⁴⁾	●			-	40	60	60
6,9 ⁽⁵⁾	●			-	-	-	40

Check the wattage compatibility with the product selected.

⁽¹⁾ Allowable minimum ambient temperature: -40°C. Actual temperature range may be limited depending on valve operation limits.

⁽²⁾ AC, 551 Series, integrated pilot

⁽³⁾ CA, Series 553

⁽⁴⁾ CC, 551 Series, integrated pilot

⁽⁵⁾ CC, Series 553

CONNECTIONS

- The solenoid can be rotated through 360° to select the most favourable position for the cable.



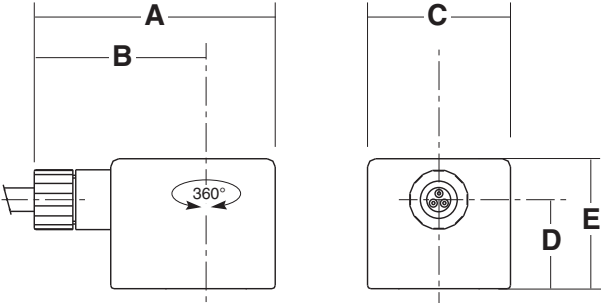
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DIMENSIONS (mm), WEIGHT



TYPE PV
 Prefix "PV" solenoids
 Epoxy coated
 EN-IEC 60079-18
 II 2G Ex mb IIC Gb - II 2D Ex mb IIIC Db IP67



size	A	B	C	D	E
EM5	60	45	29	18	26



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FEATURES

- Explosionproof operator for use in potentially explosive atmospheres, zones 1-21, according to Directive ATEX 2014/34/EU
EC type examination certificate no.: **LCIE 12 ATEX 3005 X**
IECEx Certificate of Conformity no.: **IECEx LCI 12.0002X**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with the International and European Standards EN-IEC 60079-0, EN-IEC 60079-7, EN-IEC 60079-18 and EN-IEC 60079-31
- Easy electrical installation by means of a screw terminal coil
- Peak voltage suppression standard for DC executions
- The coil winding is fitted with a thermal fuse (in AC/DC) which will trip in case of excessive temperature due to prolonged overvoltage or a blocked core and cause the valve to de-energise and fail-safe
- Enclosure provided with integral strain relief for cable with an O.D. of 7 to 8,5 mm
- Ingress protection degree IP67
- A wide range of valves can be supplied with the operator

CONSTRUCTION

Solenoid enclosure

Cable gland

Nameplate

Coil connection

Safety code

PBT

PA 66, M20 x 1,5

Polyester

Embedded screw terminals

II 2G Ex e mb IIC T4 Gb

II 2D Ex tb IIIC T 135°C Db IP67



ELECTRICAL CHARACTERISTICS

product application	voltage	article number
551 -553	24 V - 50 Hz-3,5 W	511327-001
	48 V - 50 Hz-3,5 W	511327-002
	115 V - 50 Hz-3,5 W	511327-003
	230 V - 50 Hz-3,5 W	511327-004
	24 V - DC-4 W	511327-005
	48 V - DC-4 W	511327-006
	110 V - DC-4 W	511327-007

TEMPERATURE CLASSIFICATION TABLES

AC (~) solenoids

Pn (watt)	solenoid size				maximum ambient °C ⁽¹⁾
	WBLP				surface temperature
					T4 135°C
insulation class F (155°C) 100% E.D.					
3,5 ⁽²⁾	●				65

DC (=) solenoids

Pn (watt)	solenoid size				maximum ambient °C ⁽¹⁾
	WBLP				surface temperature
					T4 135°C
insulation class F (155°C) 100% E.D.					
4	●				65

Check the wattage compatibility with the product selected.

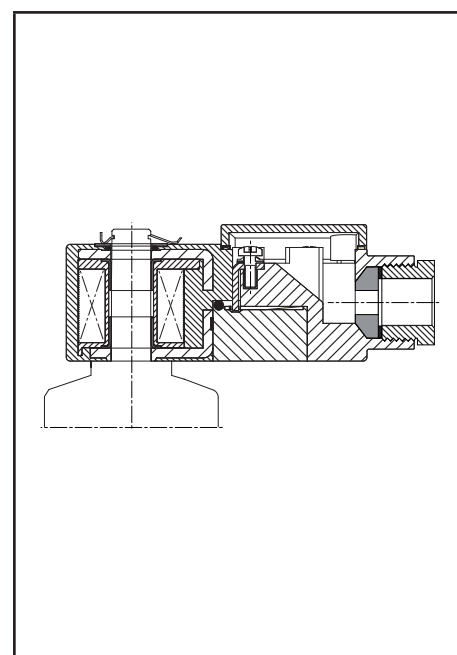
⁽¹⁾ The minimum allowable ambient temperature is -40°C for the operator. Actual temperature range can be limited depending on valve operation limits.

CONNECTIONS

- Internal and external earthing connection
- The operator can be rotated through 360° to select the most favourable position for cable entry

ORDERING INFORMATION

For your order please refer to the table above



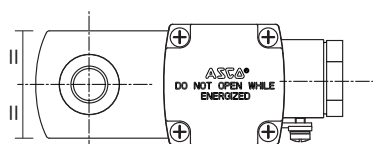
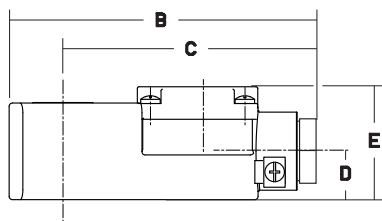
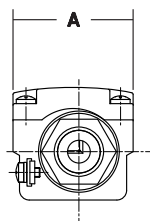
⚠ These solenoids may only be installed on the 551/553 series as seen on page 1.

DIMENSIONS (mm), WEIGHT (kg)



TYPE WBLP

Prefix "WBLP" solenoids
EN-IEC 60079-7, EN-IEC 60079-18 and EN-IEC 60079-31
II 2G Ex e mb IIC T4 Gb, II 2D Ex tb IIIC T135°C Db IP67



prefix	A	B	C	D	E	weight
WBLP	37	98	81,5	15	35,2	0,18

FEATURES

- Explosionproof operator for use in dust application with potentially explosive atmospheres, zones 2-22, according to ATEX-Directive 2014/34/EU
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with the European Standards EN 60079-0 and EN 60079-31
- The assembly consisting of the coil and connector has IP65 protection
- The operators are designed for installation on a wide range of valves

CONSTRUCTION

Coil	Epoxy encapsulated
Connector enclosure	Glass-fibre filled PA
Connector specification	
size 22 (11 mm)	EN 175301-803 industry standard form B
size 30 (18 mm)	ISO 4400 / EN 175301-803, form A
Nameplate	Polyester
Safety code	SG (solenoid valves): ⊕ II 3 D, Ex tc IIIC T115°C Dc IP65X

CONSTRUCTION

Standard version	PA (polyamide), glass-fibre reinforced
Enclosure with LED and protection	PA
Enclosure with PVC cable	PA (polyamide), glass-fibre reinforced
Seals	FPM o-ring, EPDM gasket [option for size 30: VMQ (silicone)]



⚠ These solenoids may only be installed on the 551/553 series as seen on page 1.

ELECTRICAL CHARACTERISTICS

product application	voltage	article number	product application	voltage	article number
551 (XM5)	24 V - 50/60 Hz-2,5 W	513328-001	553 (C25)	24 V - 50/60 Hz-5 W	513328-009
	48 V - 50/60 Hz-2,5 W	513328-002		48 V - 50/60 Hz-5 W	513328-010
	115 V - 50 Hz-2,5 W	513328-003		115 V - 50 Hz-5 W	513328-011
	230 V - 50/60 Hz-2,5 W	513328-004		230 V - 50 Hz-5 W	513328-012
	12 V - DC-2,5 W	513328-005		12 V - DC-5 W	513328-013
	24 V - DC-2,5 W	513328-006		24 V - DC-5 W	513328-014
	48 V - DC-2,5 W	513328-007		48 V - DC-5 W	513328-015
	110 V - DC-2,5 W	513328-008		110 V - DC-5 W	513328-016

	max. AC power (W)	max. DC power (W)
SG	17,1	11,6

TEMPERATURE CLASSIFICATION TABLES

	surface temperature	min. ambient temperature	max. ambient temperature	E.D. ⁽¹⁾
SG	115°C	-10°C	+50°C	100%

⁽¹⁾ Duty factor.

ORDERING EXAMPLES

For your order please refer to the table above.

INSTALLATION

- The package consists of the solenoid valve, the coil (installed) and the connector (not installed)
- The coil is provided with an earthing connection
- Easy connection with spade plug connector
- Installation/maintenance instructions are included with each coil
- The spare part coil is always delivered with the connector in a unique reference

DIMENSIONS (mm), WEIGHT (kg)



TYPE 01

Coil + connector size 22 (11 mm)
EN 175301-803 industry standard B
IP65

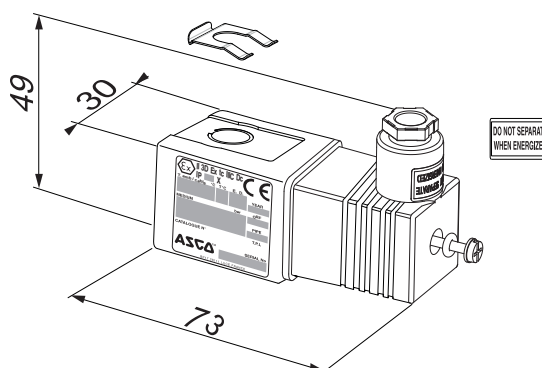
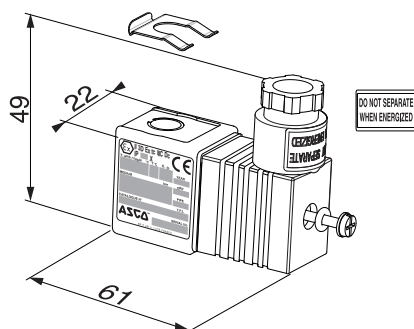
Series (XM5)



TYPE 02

Coil + connector size 30 (18 mm)
ISO 4400 / EN 175301-803, form A
IP65

Série (C25)



type	weight (kg)
XM5	0,092
C25	0,156