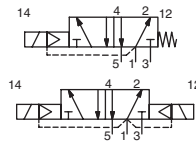




# SOLENOID VALVES

pilot operated, spool & sleeve type  
mono/bistable function, stainless steel body  
for low temperature application, 1/4-1/2 NPT tapped



5/2

Series

551-553

## FEATURES

- All the exhaust ports of the spool valve are connectable, providing better environmental protection. Particularly recommended for sensitive areas, applications oil & gas and food processing sectors
- The valves offer environmental protection against the ingress of liquids, dusts or other foreign matter (environmentally-protected construction)
- Operator is breathing, exhaust could be collected
- Spool valve for use in potentially explosive atmospheres according to ATEX 2014/34/EU, for zones 1 and 2 (Safety code: II 2GD IIC)
- Dedicated execution for extreme low ambient temperatures
- The solenoid valves satisfy all relevant EU directives

## GENERAL

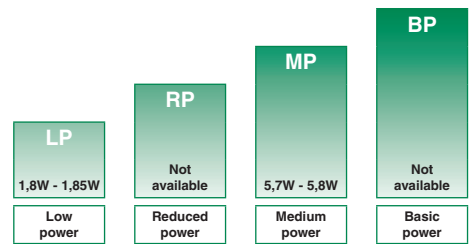
**Differential pressure** 2,5 - 10 bar [1 bar = 100 kPa]  
**Flow (Qv at 6 bar)** 700 l/min (1/4) / 2500 (1/2) (ANR)  
**Leakage (l/min)** Below -55°C at 6,3 bar ≥ 10 l/min

fluids (*)	temperature range (TS) (1)	seal materials (*)
air, inert gas, filtered ISO 8573-1: 2010 (5:1:-)	-60°C to +60°C	HNBR, NBR, FPM, FVMQ

(1) Can be limited by the operator ambient temperature range for explosion proof solenoids

## MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified  
**Body, end cover, pilot** Stainless steel, AISI 316L  
**Spool valve internal parts** Stainless steel, POM  
**Seals & disc** HNBR, NBR, FPM, FVMQ



POWER LEVELS - cold electrical holding values (watt)

## SPECIFICATIONS

pipe size (NPT)	orifice size (mm)	flow coefficient Kv (m³/h) (l/m)		operating pressure differential (bar)		power level	optional solenoids		15-DIGIT PRODUCT CODE											
				min.	max. (PS)		ATEX / IECEx	stainless steel	voltage code											
					air (*)				Ex db	115 V/50-60 Hz	230 V/50-60 Hz	24 V/DC	48 V/DC	110 V/DC						
<b>5/2 - Solenoid air pilot operated - spring return (monostable) (minimum fluid temperature -60°C) (2)</b>																				
1/4	4,84	0,55	9,17	2,5	10	MP	●	X551530716101 (3)	-	HC	HH	H1	H9	HJ						
						LP	●	X551530716001 (3)	-	HC	-	H1	H9	HJ						
1/2	9,15	1,74	29	2,5	10	MP	●	X553532409101 (3)	-	HC	HH	H1	H9	HJ						
						LP	●	X553532409001 (3)	-	HC	-	H1	H9	HJ						
<b>5/2 - Solenoid air pilot operated and return (bistable) (minimum fluid temperature -60°C) (2)</b>																				
1/4	4,84	0,55	9,17	2,5	10	MP	●	X551532405101	-	HC	HH	H1	H9	HJ						
						LP	●	X551532405001	-	HC	-	H1	H9	HJ						

● Available feature - Not available

(2) For maximum ambient temperature check operator ambient temperature range on page: 3

(3) Certified IEC 61508 Functional Safety data.

**OPERATOR TABLE**

operator							description	power level			
1	2	3	4	5	6	7		LP	RP	MP	BP
W	S	C	R	E	T		Flameproof 316L SS (EN/IEC 60079-0+1+31)* Threaded conduit/hole (M20 x 1,5)	●	-	●	-

**PRODUCT SELECTION GUIDE**

**STEP 1**

Select 15-digit product code. Refer to the specifications table and 15-digit product code table on pages: 1 and 2

**Example: X551530716101**

**STEP 2**

Select voltage. Refer to standard voltages on pages: 2 and 3

**Example: HH (230V / 50-60Hz)**

**STEP 3**

Final catalogue / ordering number.

**Example:**

**X551530716101HH**

**CABLE GLAND**

pipe size	cable		catalogue number	
	outer diameter (mm)	inner diameter (mm)	unarmoured cable	armoured cable
1/2 NPT	-	7 to 12	<b>88200011</b>	-
	10 to 16	7 to 12	-	<b>88200014</b>

**ACCESSORIES <sup>(1)</sup>**

Series	pipe size	exhaust protector (stainless steel)
551	1/4 NPT	<b>34600483</b>
553	1/2 NPT	<b>34600481</b>

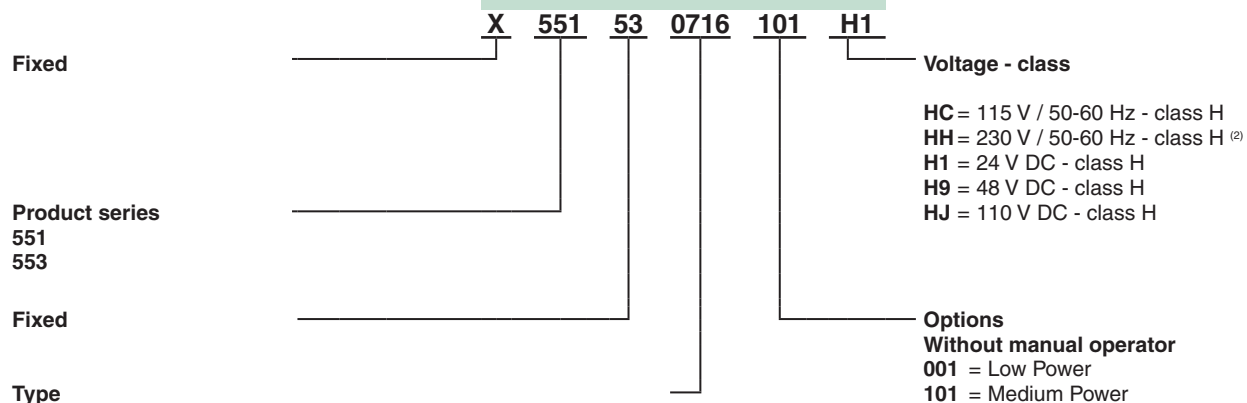
● Available feature

- Not available

\* ATEX/IECEx valves using these solenoids are approved according to EN 13463-1 (non electrical)

<sup>(1)</sup> Provided with all versions (mandatory for certified IEC 61508 products)

**15-DIGIT PRODUCT CODE**



<sup>(2)</sup> Low Power not available.

**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**

<b>Coil insulation class</b>	H <sup>(1)</sup>
<b>Electrical safety</b>	IEC 335
<b>Standard voltages</b>	DC (=) 24V - 48V; Allowable voltage variation ± 10% AC (~) 24V - 48V - 115V - 230V/50/60Hz; 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 <sup>(2)</sup>
	inrush ~	holding ~		hot/cold =				~	=	
	(VA)	(VA)	(W)	(W)				230V/50-60 Hz	24V/DC	
<b>Medium Power (MP)</b>										
WSCR	5,8	5,8	5,8	5,2/5,7	-60 to +40/60	II2G Ex db IIC Gb T6/T4, II2D Ex t IIIC Db	IP66/67, SS	400962-297	400961-442	01
<b>Low Power (LP)</b>										
WSCR	1,85	1,85	1,85	1,5/1,8	-60 to +55	II2G Ex db IIC Gb T6, II2D Ex t IIIC Db	IP66/67, SS	400962-298	400961-542	01

<sup>(1)</sup> Coils used in metal enclosures have class H insulation materials

<sup>(2)</sup> Voir encombrements page: 4

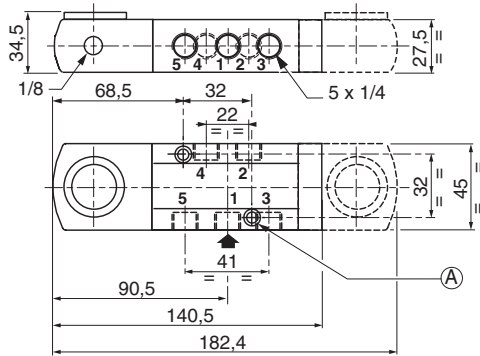
**ELECTRICAL CONNECTIONS**

prefix	connection
WSCR	1/2" NPT threaded cable entry. Enclosures are supplied without cable gland
WSCRET	M20 x 1,5 threaded cable entry. Enclosures are supplied without cable gland

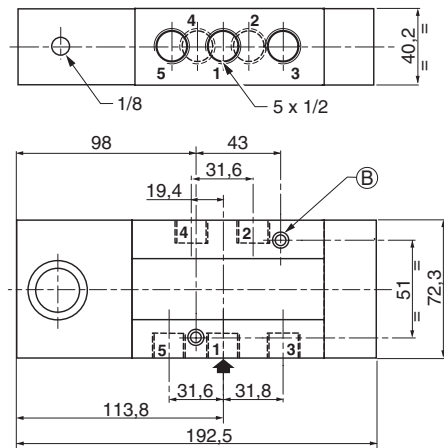
### DIMENSIONS (mm), WEIGHT (kg)



#### 551 Series



#### 553 Series



2 mounting holes

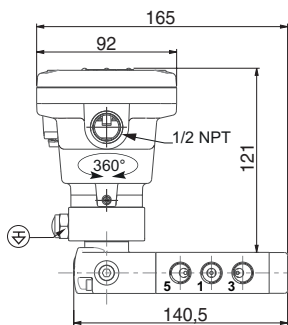
- (A) 5,3 mm dia.; Spotfacing: 9 mm dia., depth 5 mm
- (B) 6,5 mm dia.; Spotfacing: 11 mm dia., depth 6 mm



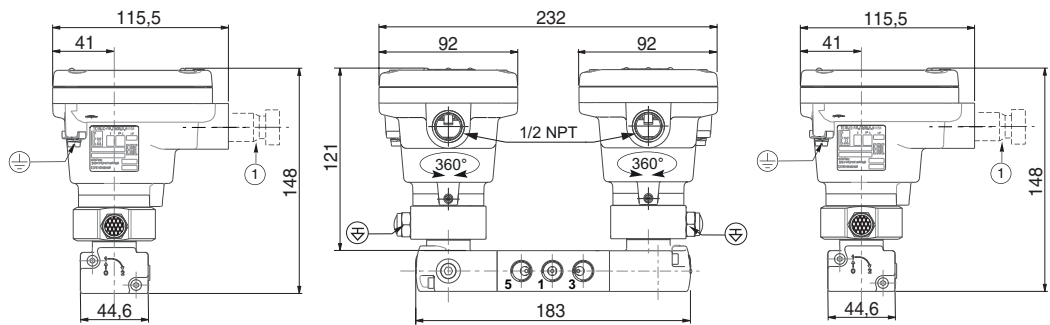
#### TYPE 01:

AISI 316L SS  
WSCR: EN/IEC 60079-0, 60079-1, 60079-31

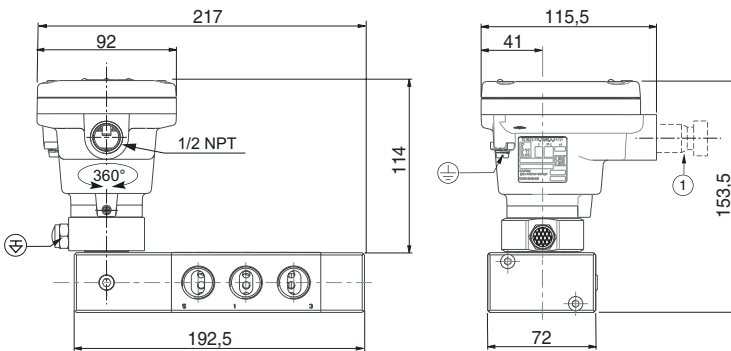
#### 551 Series, monostable



#### 551 Series, bistable



#### 553 Series, monostable



- (1) Ex d certified cable gland (on request)
- (2) Connectable pilot exhaust port (1/4 NPT)

type	prefix/option	power level	weight <sup>(1)</sup>			
			monostable		bistable	
			551	553	551	553
01	WSCR	MP LP	3,4	5,8	6	-

<sup>(1)</sup> Incl. coil(s).