

6 - SWITCHING TIMES

The values indicated are obtained with spool S1, according to ISO 6403 standard, with mineral oil viscosity 36 cSt at 50°C.

SUPPLY	TIMES ($\pm 10\%$) [ms]	
	ENERGIZING	DE-ENERGIZING
DC	25 ÷ 75	15 ÷ 25
AC	10 ÷ 25	15 ÷ 30

7 - ELECTRICAL FEATURES

7.1 - Solenoids

These are essentially made up of two parts: tube and coil. The tube is threaded into the valve body and includes the armature that moves immersed in oil, without wear. The inner part, in contact with the oil in the return line, ensures heat dissipation.

The coil is fastened to the tube by a threaded ring, and can be rotated freely, to suit the available space.

The interchangeability of coils of different voltages is allowed within the same type of supply current, alternating or direct.

Protection from atmospheric agents IEC 60529

The IP protection degree is intended for the whole valve. It is guaranteed only with both valve and connectors of an equivalent IP grade, correctly connected and installed.

Electric connection	IP65	IP66	IP67	IP68	IP69 IP69K (*)
K1 EN 175301-803	x	x (#)			
K2 AMP JUNIOR	x		x		
K4 outgoing cables	x				
WK7 DEUTSCH DT04 male	x		x	x	x
WK8 AMP SUPER SEAL	x	x	x	x	x

(#) valid for DC valves only

(*) The protection degree IP69K is not taken into account in IEC 60529 but it is included in both ISO 20653.

SUPPLY VOLTAGE FLUCTUATION	$\pm 10\%$ Vnom
MAX SWITCH ON FREQUENCY	10.000 ins/hr
DUTY CYCLE	100%
ELECTROMAGNETIC COMPATIBILITY (EMC)	In compliance with 2014/30/EU
LOW VOLTAGE	In compliance with 2014/35/EU
CLASS OF PROTECTION Coil insulation (VDE 0580) Impregnation	class H class H

NOTE: In order to further reduce the emissions, with DC supply, use of type H connectors is recommended. These prevent voltage peaks on opening of the coil supply electrical circuit (see cat. 49 000).

7.2 - Current and absorbed power for DC solenoid valve

The table shows current and power consumption values of the DC coils.

Using connectors type "D" (see cat. 49 000) with embedded bridge rectifier it is possible to feed DC coils (starting from 48V voltage) with alternating current (50 or 60 Hz), considering a reduction of the operating limits.

Coils for direct current (values $\pm 5\%$)

	Resistance at 20°C [Ω]	Current consumption [A]	Power consumption [W]	Coil code				
				K1	K2	K4	WK7	WK8
D12	5,4	2,20	26,5	1902740	1902750	1902770	1903510	1903520
D24	20,7	1,16	27,8	1902741	1902751	1902771	1903511	1903521
D28	27,5	1,02	28,5	1902744				
D48	82	0,58	28	1902745				
D110	424	0,26	28,5	1902746				
D220	1856	0,12	26,1	1902747				