

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 (±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 +/- 90°, 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

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

SUPPLY VOLTAGE FLUCTUATION	± 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 - DC valve - Current and power consumption

In direct current energizing, current consumption stays at fairly constant values, essentially determined by Ohm's law: $V = R \times I$

"R" coils have to be used when the valve is fed with AC power supply subsequently rectified by means of rectifier bridge, externally or incorporated in the "D" type connector (see cat. 49 000).

The table shows current and power consumption values for DC and RC coil types.

Coils for direct current (values ±5%)

	Nominal voltage [V]	Resistance at 20°C [Ω]	Current consumption [A]	Power consumption		Coil code				
				[W]	[VA]	K1	K2	K4	WK7	WK8
D12	12	5,4	2,2	26,5		1902740	1902750	1902770	1903510	1903520
D24	24	20,7	1,16	27,8		1902741	1902751	1902771	1903511	1903521
D28	28	27,5	1,02	28,5		1902744				
D48	48	82	0,58	28		1902745				
R110	110	363	0,25		27,2	1902742				
R230	230	1640	0,11		26,4	1902743				