

# UM/22000 5/2 or 5/3

## Solenoid and air pilot actuated soft spool valves



- > Sub-base mounted, ISO 5599-1 sizes 1, 2, 3 and 4
- > Steel reinforced main seals
- > 16 bar and 10 bar CNOMO solenoid pilots with locking or non-locking manual override
- > Low power coils (1,5 W)
- > Wide range of sub-bases and accessories



### Technical features

#### Medium:

Compressed air, 40 µm filtered, lubricated or non-lubricated

#### Operation:

Spool valve, solenoid pilot or air pilot actuated

#### Mounting:

On sub-bases

#### Sizes:

ISO 1, 2, 3 and 4

#### Maximum operating pressure:

Solenoid pilot actuated valves  
10 bar (145 psi)

Air pilot actuated valves and solenoid pilot actuated valves

16 bar (232 psi)

Details of minimum and maximum pilot pressure see overleaf

#### Ambient/Media temperature:

Solenoid pilot actuated valves  
-10 ... +50°C (+14 ... +122°F)

Air pilot actuated valves

-10 ... +80°C (+14 ... +176°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

#### Materials:

Body: aluminium alloy, die cast aluminium

Spool: light alloy aluminium

Seals: NBR

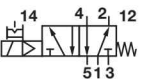
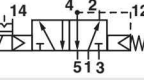
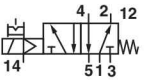
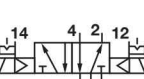
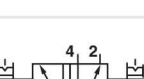
### Electrical details for solenoid operators

<b>Voltage tolerance</b>	± 10%		
<b>Rating</b>	100% continuous duty		
<b>Inlet orifice</b>	1,0 mm		
<b>Electrical connection (corresponding to chosen coil)</b>	EN 175301-803 - Form A, 30 mm		
	EN 175301-803 - Form B, 22 mm		
	Industrial Standard, 22 mm		
<b>Solenoid coil</b>	May be rotated at 90° intervals		
<b>Manual override</b>	10 bar version	Turn to lock (plastic)	# = 60
		Push only (brass)	# = 61
	16 bar version	Turn to lock (plastic)	# = 80
		Push only (brass)	# = 81
<b>Protection class</b>	IP 65 (with sealed plug)		

### Maximum suggested torque

Valve size	Thread size	Maximum suggested torque
ISO 1	M5	5.5 Nm
ISO 2	M6	7.5 Nm
ISO 3	M8	14.5 Nm
ISO 4	M8	14.5 Nm

### 5/2 Solenoid pilot actuated valves – 10 bar models

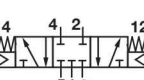

Symbol	ISO size	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Weight (kg)	Drawing No.	Model
	1	Solenoid/spring	Internal	1200	2 ... 10	—	0,45	1	UM/22152/122/6#/*1)
	2	Solenoid/spring and air	Internal	2130	2,5 ... 10	—	0,70	3	UM/22253/172/6#/*1)
	3	Solenoid/spring and air	Internal	4150	2,5 ... 10	—	1,00	3	UM/22354/172/6#/*1)
	4	Solenoid/spring and air	Internal	5660	2,5 ... 10	—	1,27	3	UM/22456/172/6#/*1)
	1	Solenoid/spring	External	1200	-0,9 ... 16	2,3 *2) ... 10	0,45	1	UM/22152/22/6#/*1)
	2	Solenoid/spring	External	2130	-0,9 ... 16	1,8 *2) ... 10	0,70	3	UM/22253/22/6#/*1)
	3	Solenoid/spring	External	4150	-0,9 ... 16	1,8 *2) ... 10	1,00	3	UM/22354/22/6#/*1)
	4	Solenoid/spring	External	5660	-0,9 ... 16	1,8 *2) ... 10	1,27	3	UM/22456/22/6#/*1)
	1	Solenoid/ solenoid	Internal	1200	2 ... 10	—	0,59	2	UM/22152/123/6#/*1)
	2	Solenoid/ solenoid	Internal	2130	2 ... 10	—	0,84	4	UM/22253/123/6#/*1)
	3	Solenoid/ solenoid	Internal	4150	2 ... 10	—	1,14	4	UM/22354/123/6#/*1)
	4	Solenoid/ solenoid	Internal	5660	2 ... 10	—	1,41	4	UM/22456/123/6#/*1)
	1	Solenoid/ solenoid	External	1200	-0,9 ... 16	2,3 *2) ... 10	0,59	2	UM/22152/23/6#/*1)
	2	Solenoid/ solenoid	External	2130	-0,9 ... 16	1,5 *2) ... 10	0,84	4	UM/22253/23/6#/*1)
	3	Solenoid/ solenoid	External	4150	-0,9 ... 16	1,5 *2) ... 10	1,14	4	UM/22354/23/6#/*1)
	4	Solenoid/ solenoid	External	5660	-0,9 ... 16	1,5 *2) ... 10	1,41	4	UM/22456/23/6#/*1)

# Insert code for manual override: 0 = turn to lock, 1 = push only

\*1) Insert voltage code below. Standard are: '13J' for 24 V d.c. or '19J' for 240 V a.c.

\*2) plus (0,1 x supply pressure)

### 5/3 Solenoid pilot actuated valves – 10 bar models

Symbol	ISO size	Function	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)	Drawing No.	Model
	1	APB	Solenoid/ solenoid	Internal	660	2,5 ... 10	0,59	2	UM/22152/6123/6#/*1)
	2	APB	Solenoid/ solenoid	Internal	1520	2,8 ... 10	0,84	4	UM/22253/6123/6#/*1)
	3	APB	Solenoid/ solenoid	Internal	3750	2,8 ... 10	1,14	4	UM/22354/6123/6#/*1)
	4	APB	Solenoid/ solenoid	Internal	5490	2,8 ... 10	1,41	4	UM/22456/6123/6#/*1)
	1	COE	Solenoid/ solenoid	Internal	660	2,5 ... 10	0,59	2	UM/22162/6123/6#/*1)
	2	COE	Solenoid/ solenoid	Internal	1520	2,8 ... 10	0,84	4	UM/22263/6123/6#/*1)
	3	COE	Solenoid/ solenoid	Internal	3750	2,8 ... 10	1,14	4	UM/22364/6123/6#/*1)
	4	COE	Solenoid/ solenoid	Internal	5490	2,8 ... 10	1,41	4	UM/22466/6123/6#/*1)

# Insert code for manual override: 0 = turn to lock, 1 = push only

\*1) Insert voltage code below. Standard are: '13J' for 24 V d.c. or '19J' for 240 V a.c.

Function: APB = All Ports Blocked; COE = Centre Open Exhaust

### Voltage codes and spare coils for 10 bar models

**22 mm coil for connector interface acc. to industrial standard**

Voltage	Power Inrush/Hold	Model	Code
12 V d.c.	2 W	QM/48/12J/21	12J
24 V d.c.	2 W	QM/48/13J/21	13J
24 V 50/60 Hz	4/2,5 VA	QM/48/14J/21	14J
48 V 50/60 Hz	4/2,5 VA	QM/48/16J/21	16J
110/120 V 50/60 Hz	4/2,5 VA	QM/48/18J/21	18J
220/240 V 50/60 Hz	6/5,0 VA	QM/48/19J/21	19J

**22 mm coil for connector interface acc. EN 175 301-803, form B**

Voltage	Power Inrush/Hold	Model	Code
12 V d.c.	2 W	V10626-A12L	12L
24 V d.c.	2 W	V10626-A13L	13L
24 V 50/60 Hz	4/2,5 VA	V10626-A14L	14L
48 V 50/60 Hz	4/2,5 VA	V10626-A16L	16L
110/120 V 50/60 Hz	4/2,5 VA	V10626-A18L	18L
220/240 V 50/60 Hz	6/5,0 VA	V10626-A19L	19L

**30 mm coil for connector interface acc. EN 175 301-803, form A**

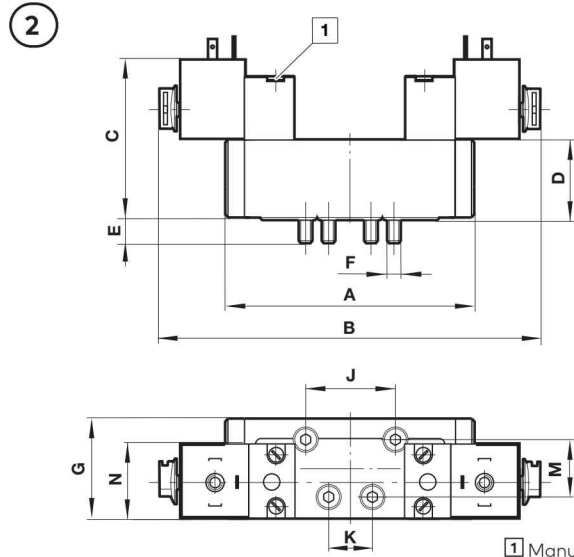
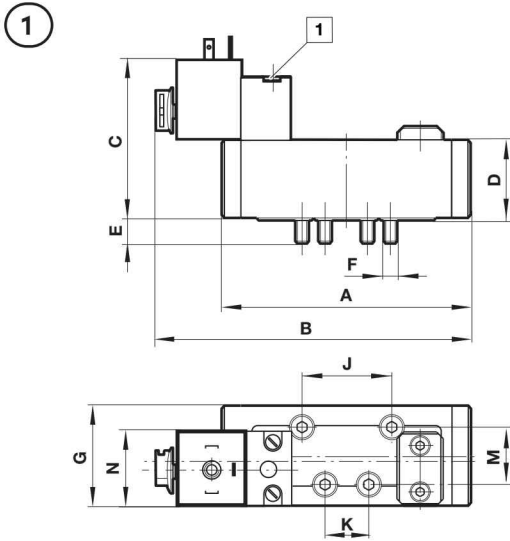
Voltage	Power Inrush/Hold	Model	Code
12 V d.c.	1,5 W	V10633-A22N	22N
24 V d.c.	1,5 W	V10633-A23N	23N
24 V 50/60 Hz	3/2 VA	V10633-A24N	24N
48 V 50/60 Hz	3/2 VA	V10633-A26N	26N
110/120 V 50/60 Hz	3/2 VA	V10633-A28N	28N
220/240 V 50/60 Hz	3/2 VA	V10633-A29N	29N

### Connector plugs - ordered separately

Industrial standard 22 mm 2-pole + PE	22 mm, EN 175301-803 (DIN 43650 B) Form B 2-pole + PE	30 mm, EN 175301-803 (DIN 43650 B) Form A 2-pole + PE
		
0657868	0680003	0570275

**Drawings**

 Dimensions in mm  
 Projection/First angle

**5/2 Single solenoid valves ISO size 1**
**5/2 and 5/3 Double solenoid valves ISO size 1**


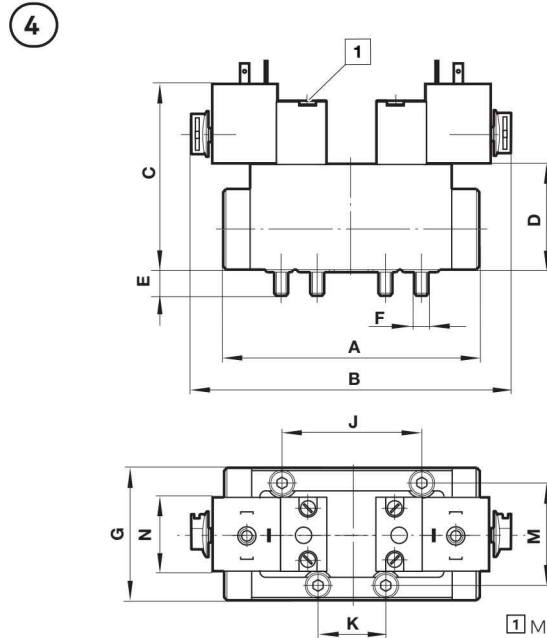
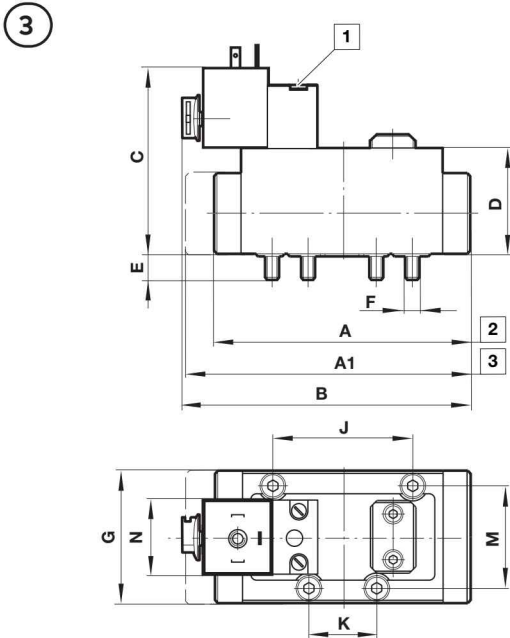
1 Manual override

ISO size	A	B	C	D	E	F	G	J	K	M	N*
1	107	135	70	32	9	M5	42,5	36	18	28	22 or 30

ISO size	A	B	C	D	E	F	G	J	K	M	N*
1	107	168	70	32	9	M5	42,5	36	18	28	22 or 30

\* Illustrated with 30 mm coil

\* Illustrated with 30 mm coil

**5/2 Single solenoid valves ISO size 2, 3 and 4**
**5/2 and 5/3 Double solenoid valves ISO size 2, 3 and 4**


1 Manual override

ISO size	A	A1	B	C	D	E	F	G	J	K	M	N*
2	106	124	125	83	45	9	M6	55	48	24	38	22 or 30
3	138	160	139	83	45	14	M8	68	64	32	48	22 or 30
4	177	187	152	83	45	14	M8	75	80	40	58	22 or 30

ISO size	A	B	C	D	E	F	G	J	K	M	N*
2	106	125	83	45	9	M6	55	48	24	38	22 or 30
3	138	140	83	45	14	M8	68	64	32	48	22 or 30
4	177	140	83	45	14	M8	75	80	40	58	22 or 30

\* Illustrated with 30 mm coil

\* Illustrated with 30 mm coil

1 Manual override

2 Model .../172

3 Model .../22, .../122