



EXPLOSION PROOF SOLENOID VALVES ATEX

- | | |
|-----------------------------|------------|
| ▶ 21A Ex d & Ex m N.C./N.O. | page 84-85 |
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| ▶ 21L Ex m Ex d N.C. | " 88-89 |
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FEATURES

- Wide range of application high flow valves for liquids, gaseous
- Hazardous environment
- Small poppet valve for tight shutoff
- Mountable in any position
- Dedicated to CPT Market

TECHNICAL SPECIFICATION

- Body material:** Brass UNI EN 12165 CW617N
- Armature tube:** Stainless Steel AISI 300 series
- Plungers:** Stainless Steel AISI 400 series
- Spring:** Stainless Steel AISI 300 series
- Ex d Housing:** in Aluminium die cast
- Media:** mineral oils, gasoline, diesel, fuel oils, air, inert gases, water, 134 a, R 404a
- Ex m Ambient temperature:** See coils catalogue page for its compatibility
- Ex m Fluid temperature:** -10°C +80°C with FKM seals
-30°C + 80°C with H-NBR seals
- Ex d Housing Ambient temperature:** -40°C +60°C
- Ex d Fluid temperature:** -10°C +140°C with FKM seals
- Design pressure PS:** 40 bar
- Protection class:** Ex m IP65 (complete with electric plug);
Ex d IP65 (with hosing fitted by cable gland Atex Ex d)
- Electrical conformity:** IEC 335

- Switching time:** 20 - 40 msec (depending on pressure conditions)
- (Conforme to Atex Directive 94/9/CE ATEX)
- For S.V. 21A3..I
II 2G Ex d IIC T6 o T5 Gb
II 2D Ex tb IIIC T80°C o T90°C Db IP67
(Tamb: -40°C ≤ +60°C)
- For S.V. 21A..Q
II 2G Ex mb IIC Gb
II 2D Ex mb IIIC t 130°C Db
IEC Ex m II T4
A21 IP65 T130°C

21A	2	QD	V	15	
Model valve	2= G 1/4	QD= N.C. Ex m	V= FKM	15	Orefice 10 ⁻¹ mm
	3= G 3/8	KI= N.C. Ex d	F= H-NBR	20	
				25	
		ZI= N.O. Ex d		30	
				45	
				55	

B	D	A	08	012	C	S
B= 30mm Ø 13	D EN 175301-803	A= Class F	08= 8W	012= 12V	C= DC	S= Without Approval(*)
				024= 24V	D= AC	
				048= 48V		
				110= 110V		
				223= 220V-230V		

(*) Ex d protection class when assembled with Ex housing

T	N	A	4X	024	D	4
T= 36mm Ø 14,5	N 3 cables cm 300	A= Class F	4X= 7,2V	024= 24V	D= AC	4= Ex m T4
			5X= 9,13V	110= 110V		
			05= 7,7V-9,2V	224= 220V-240V	C= DC	
			10= 10.1W			

PIPE	Ø (mm)	Kv (l/min)	MAX VISCOSITY cSt (°E)	PRESSURE min	PRESSURE MAX MOPD (bar)						GAS CODE	NPT CODE	FLOW CURVE
					COIL TYPE								
					AC			DC					
					B	T		B	T				

Normally Closed Ex m

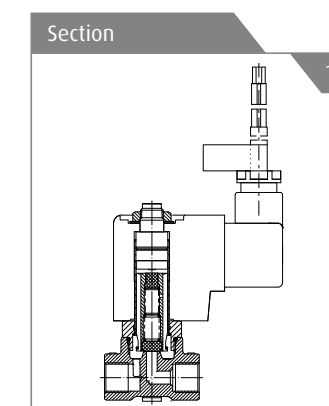
G 1/8	1,5	1,4	12(2)	0	-	16	-	16	21A3QDV15	(Part numbering example add "N" at the 4th digit 21AN1Q)	1
	2	2	37(5)		-	16	-	16	21A3QDV20		1
	2,5	3,2	53(7)		-	14	-	9	21A3QDV25		1
	3	4	53(7)		-	10	-	6	21A3QDV30		1
G 1/4	4,5	6,5	53(7)	0	-	5	-	2	21A3QDV45	(Part numbering example add "N" at the 4th digit 21AN2Q)	1
	1,5	1,4	12(2)		-	16	-	16	21A2QDV15		1
	2	2	37(5)		-	16	-	16	21A2QDV20		1
	2,5	3,2	53(7)		-	14	-	9	21A2QDV25		1
	3	4	53(7)		-	10	-	6	21A2QDV30		1
	4,5	6,5	53(7)		-	5	-	2	21A2QDV45		1
	5,5	9	53(7)		-	3	-	1	21A2QDV55		1

Normally Closed Ex d

G 1/8	1,5	1,4	12(2)	0	30	-	18	-	21A3KIV15	(Part numbering example add "N" at the 4th digit 21AN1KI)	2
	2	2	37(5)		22	-	16	-	21A3KIV20		2
	2,5	3,2	53(7)		14	-	9	-	21A3KIV25		2
	3	4	53(7)		10	-	6	-	21A3KIV30		2
G 1/4	1,5	1,4	12(2)	0	30	-	18	-	21A2KIV15	(Part numbering example add "N" at the 4th digit 21AN2KI)	2
	2	2	37(5)		22	-	16	-	21A2KIV20		2
	2,5	3,2	53(7)		14	-	9	-	21A2KIV25		2
	3	4	53(7)		10	-	6	-	21A2KIV30		2

Normally Open Ex d

G 1/8	1,5	1,4	12(2)	0	30	-	18	-	21A3ZIV15	(Part numbering example add "N" at the 4th digit 21AN1ZI)	2
	2	2	37(5)		22	-	16	-	21A3ZIV20		2
	2,5	3,2	53(7)		14	-	9	-	21A3ZIV25		2
	3	4	53(7)		10	-	6	-	21A3ZIV30		2
G 1/4	1,5	1,4	12(2)	0	30	-	18	-	21A2ZIV15	(Part numbering example add "N" at the 4th digit 21AN2ZI)	2
	2	2	37(5)		22	-	16	-	21A2ZIV20		2
	2,5	3,2	53(7)		14	-	9	-	21A2ZIV25		2
	3	4	53(7)		10	-	6	-	21A2ZIV30		2

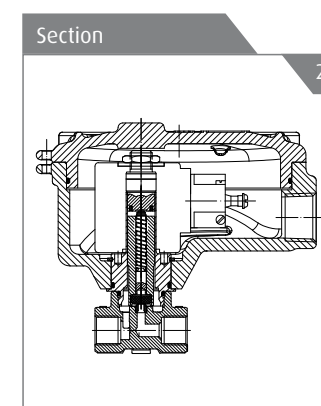


REPAIR KIT

For spare parts please consult our technical department

Coil P/N Ex mb II T 4

RTNA4X024D4
RTNA5X110D4
RTNA05224DA
RTNA10024C4



REPAIR KIT

For spare parts please consult our technical department

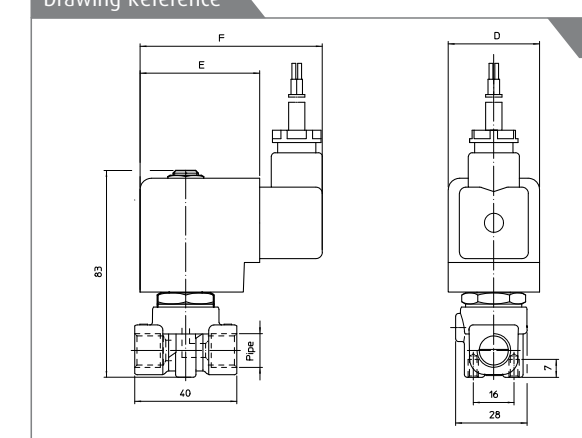
ACCESSORIES

Code P992219 Cable Gland (to be ordered separately)

INSTALLATION

- The solenoid valves can be mounted in any position
- Maintenance and instruction sheet available in each solenoid valve box
- Attention: for fuse selection please refer to the "Instruction sheet Atex products" delivered together with the valve
- Fixing holes
- Holes and threaded connections for panel fixing

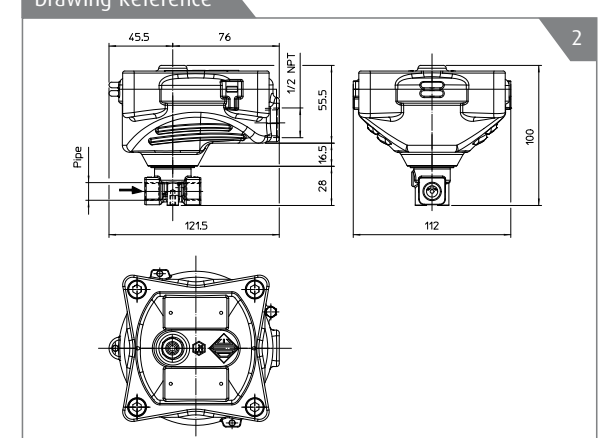
Drawing Reference



Dimensionale Table

Figure	Coil Type	D mm	E mm	F mm
1	T	36	47	71

Drawing Reference



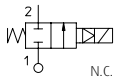


FEATURES

- ▶ Wide range of application high flow valves for liquids, gaseous
- ▶ Hazardous environment
- ▶ Small poppet valve for tight shutoff
- ▶ Mountable in any position
- ▶ Dedicated to CPT Market

TECHNICAL SPECIFICATION

- ▶ **Body material:** Stainless Steel AISI 316
- ▶ **Armature tube:** Stainless Steel AISI 316
- ▶ **Plungers:** Stainless Steel AISI 400 Series
- ▶ **Spring:** Stainless Steel AISI 300 Series
- ▶ **Ex d Housing** in Aluminium die cast
- ▶ **Media:** air, inert gases, water, mineral oils, gasoline, diesel
- ▶ **Housing ambient temperature:** -40°C +60°C
- ▶ **Fluid temperature:** -10°C +80°C with NBR seals
-10°C +80°C with FKM seals
- ▶ **Design pressure PS:** 16 bar
- ▶ **Protection class:** IP65 (with hosing fitted by cable gland Atex Ex d)
- ▶ **Electrical conformity:** IEC335
(Conforme to Atex Directive 94/9/CE ATEX)
II 2G Ex d IIC T6 o T5 Gb
II 2D Ex tb IIIC T80° o T95°C Db IP67
(Tamb: -40°C ≤ +60°C)

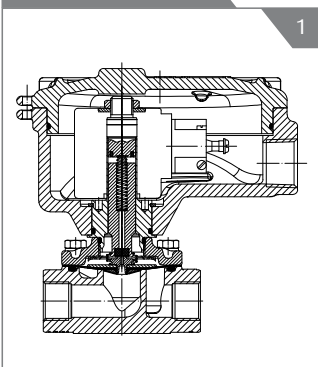


21IH	3	KI	V	150		B	D	A	08	012	C	S
Model valve	3= G 3/8 - 3/8 NPT	KI= N.C.	V= FKM			B= 30mm Ø 13	D EN 175301-803	A= Class F	08= 8W	012= 12V	C= DC	S= Without Approval(*)
	4= G 1/2 - 1/2 NPT		B= NBR	150 160 200 250	Orefice 10 ⁻¹ mm					024= 24V	D= AC	
	5= G 3/4 - 3/4 NPT									048= 48V		
	6= G 1 - 1 NPT									110= 110V		
										223= 220V-230V		

(*) Ex d protection class when assembled with Ex housing

PIPE	Ø (mm)	Kv (l/min)	MAX VISCOSITY cSt (°E)	PRESSURE min	PRESSURE MAX MOPD (bar)						GAS CODE	NPT CODE	DRAWING REFERENCE
					COIL TYPE								
					AC			DC					
					B			B					
G 3/8 3/8 NPT	15	40	12(2)	0	14			6			21IH3KIV150	21IN3KIV150-IH	1
G 1/2 1/2 NPT	16	50	12(2)		14			6			21IH4KIV160	21IN4KIV160-IH	1
G 3/4 3/4 NPT	20	60	12(2)		14			6			21IH5KIV200	21IN5KIV200-IH	1
G 1 1 NPT	25	140	12(2)		14			3			21IH6KIV250	21IH6KIV250-IH	1

Section



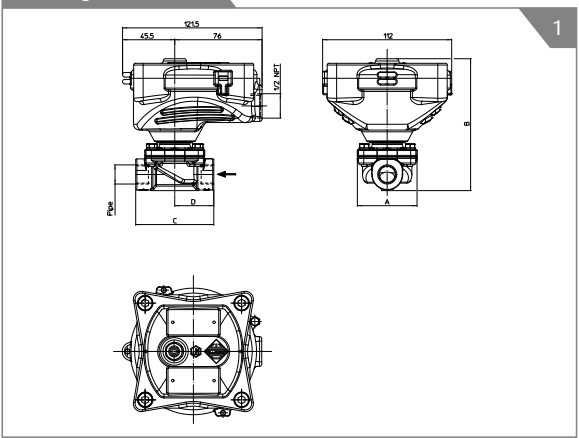
REPAIR KIT
For spare parts please consult our technical department

ACCESSORIES
Code P992219 Cable Gland (to be ordered separately)

INSTALLATION

- ▶ The solenoid valves can be mounted in any position
- ▶ Other port connections available on request
- ▶ Maintenance and instruction sheet available in each solenoid valve box
- ▶ Attention: for fuse selection please refer to the "Instruction sheet Atex products" delivered together with the valve
- ▶ Availability of repair kit and coils as spares.

Drawing Reference



Dimensionale Table

Figure	Pipe	A mm	B mm	C mm	D mm
1	G 3/8 3/8 NPT	52	114,5	68	34
	G 1/2 1/2 NPT				
	G 3/4 3/4 NPT	58	123	75	37,5
	G 1 1 NPT	65	131	90	45





FEATURES

- ▶ Wide range of applications high flow valves for liquids, gaseous
- ▶ Reliable proven design with high flow
- ▶ Small poppet valve for tight shutoff
- ▶ Mountable in any position

TECHNICAL SPECIFICATION

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- ▶ **Armature tube:** Stainless steel AISI 300 series
- ▶ **Plungers:** Stainless Steel AISI 400 series
- ▶ **Spring:** Stainless Steel AISI 300 series
- ▶ **Ex d Housing in Aluminium die cast**
- ▶ **Media:** mineral oils, gasoline, diesel, fuel oils, air, water, inert gases, 134 a, R 404a
- ▶ **Ex m Ambient temperature:** See coils catalogue page for its compatibility
- ▶ **Ex m Fluid temperature:** -10°C +80°C with FKM seals
-30°C +80°C with H-NBR seals
- ▶ **Ex d Housing Ambient temperature:** -40°C +60°C
- ▶ **Ex d Fluid temperature:** -10 +80°C with FKM seals
- ▶ **Design pressure PS:** 40 bar
- ▶ **Protection class:** Ex m IP65 (complete with electric plug);
Ex d IP65 (with hosing fitted by cable gland Atex Ex d)
- ▶ **Electrical conformity:** IEC 335

- ▶ (Conforme to Atex Directive 94/9/CE ATEX)
- For S.V. 21L..I
II 2G Ex d IIC T6 o T5 Gb
II 2D Ex tb IIIC T80°C o T90°C Db IP67
(Tamb: -40°C ≤ +60°C)

- For S.V. 21L..Q
II 2G Ex mb IIC Gb
II 2D Ex tb IIIC t130°C Db

21L	1	QD	V	25	
Model valve	2= G 1/8 3= G 1/4	QD= N.C. KI= N.C	V= FKM F= H-NBR	25 30 45 55	Orefice 10 ⁻¹ mm

B	D	A	08	012	C	S
B= 30mm Ø 13	D EN 175301-803	A= Class F	08= 8W	012= 12V 024= 24V 048= 48V 110= 110V 223= 220V-230V	C= DC D= AC	S= Without Approval(*)

(*) Ex d protection class when assembled with Ex housing

T	N	A	4X	024	D	4
T= 36mm Ø 14,5	N 3 cables cm 300	A= Class F	4X= 7,2V 5X= 9,13V 05= 7,7V-9,2V 10= 10,1W	024= 24V 110= 110V 224= 220V-240V 024= 24V	D= AC C= DC	4= Ex m T4

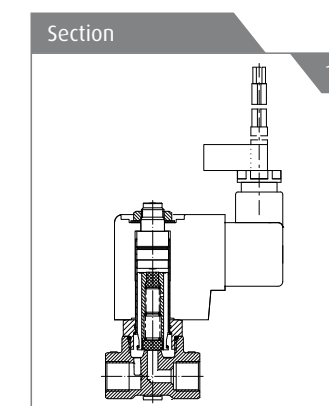
PIPE	Ø (mm)	Kv (l/min)	MAX VISCOSITY cSt (°E)	PRESSURE min	PRESSURE MAX MOPD (bar)						GAS CODE	NPT CODE	DRAWING REFERENCE
					COIL TYPE								
					AC			DC					
					B	T		B	T				

Normally Closed Ex m

G 1/8	2,5	3,2	53(7)	0	-	14	-	9	-	21L1QDV25	(Part numbering example add "N" at the 4th digit 21LN1QDV25)	1
	3	4	53(7)		-	10	-	6	-	21L1QDV30		1
	4	5	53(7)		-	6	-	1,7	-	21L1QDV40		1
G 1/4	2,5	3,2	53(7)	0	-	14	-	9	-	21L2QDV25		1
	3	4	53(7)		-	10	-	6	-	21L2QDV30		1
	4	5	53(7)		-	6	-	1,7	-	21L2QDV40		1
	5,5	9	53(7)		-	3,5	-	1	-	21L2QDV55		1

Normally Closed Ex d

G 1/4	2,5	3,2	53(7)	0	14	-	9	-	-	21L2KIV25	(Part numbering example add "N" at the 4th digit 21LN2KIV25)	2
	3	4	53(7)		10	-	6	-	-	21L2KIV30		2
	4	5	53(7)		6	-	1,7	-	-	21L2KIV40		2
	5,5	3,2	53(7)		3,5	-	1	-	-	21L2KIV55		2

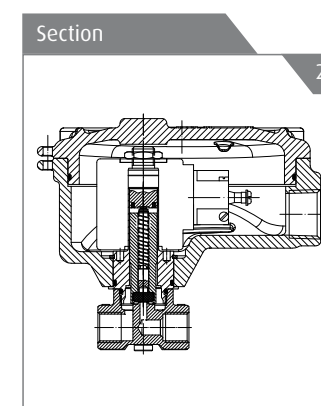


REPAIR KIT

For spare parts please
consult our technical
department

Coil P/N Ex mb II T 4

RTNA4X024D4
RTNA5X110D4
RTNA05224DA
RTNA10024C4



REPAIR KIT

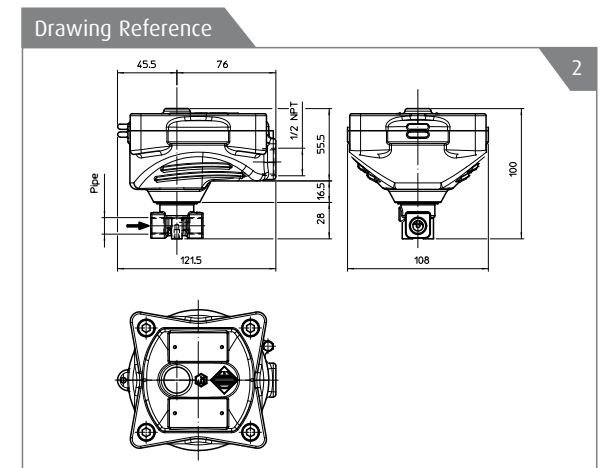
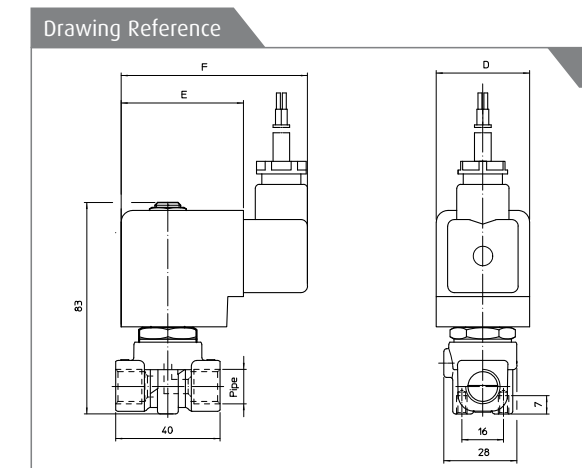
For spare parts please
consult our technical
department

ACCESSORIES

Code P992219 Cable Gland
(to be ordered separately)

INSTALLATION

- ▶ The solenoid valves can be mounted in any position
- ▶ Maintenance and instruction sheet available in each solenoid valve box
- ▶ Attention: for fuse selection please refer to the "Instruction sheet Atex products" delivered together with the valve
- ▶ Fixing holes
- ▶ Holes and threaded connections for panel fixing



Dimensionale Table

Figure	Coil Type	D mm	E mm	F mm
1	T	36	47	71



FEATURES

- ▶ Wide range of applications high flow valves for liquids, gaseous
- ▶ Reliable proven design with high flows
- ▶ Small poppet valve for tight shutoff
- ▶ Mountable in any position

TECHNICAL SPECIFICATION

- ▶ **Body material:** Brass UNI EN 12165 CW617N
- ▶ **Armature tube:** Stainless Steel AISI 300 series
- ▶ **Plungers:** Stainless Steel AISI 400 series
- ▶ **Spring:** Stainless Steel AISI 300 series
- ▶ **Ex d Housing** in Aluminium die cast
- ▶ **Media:** mineral oils, gasoline, diesel, air, inert gases, water, R 134a, R 404a
- ▶ **Ex m Ambient temperature:** See coils catalogue page for its compatibility
- ▶ **Ex m Fluid temperature:** -10°C +80°C with FKM seals
-30°C +80°C with H-NBR seals
- ▶ **Design pressure PS:** G 3/4 - 1 25 bar
25 bar for 21WA3Q ÷ 21WA4Q
20 bar for 21WA3KI ÷ 21WA4KI
21WA3ZI ÷ 21WA4ZI
- ▶ **Ex d Ambient temperature:** -40°C +60°C
- ▶ **Ex d Housing Fluid temperature:** -10°C +80°C with FKM seals

- ▶ **Protection class:** Ex m IP 65 (complete with electric plug); Ex IP 65 (with hosing fitted by cable gland Atex Ex d)
- ▶ **Electrical conformity:** IEC335
- ▶ **Switching time:** 20-40 msec (depending on pressure conditions)
- ▶ (Conforme to Atex Directive 94/9/CE ATEX)
- For S.V. 21W..I
II 2G Ex d IIC T6 o T5 Gb
II 2D Ex tb IIIC T80°C o T90°C Db IP67 (Tamb: -40°C ≤ +60°C)
- For S.V. 21W..Q
II 2G Ex mb IIC Gb
II 2D Ex tb IIIC t130°C Db



(Pressure Equipment Directive 97/23/CE) for S.V. 21WN7÷21WN9 - 21W5÷21W7



21WA	3	QD	V	130	
Model valve	3= G 1/8	QD N.C. Ex m	V= FKM	130	Orefice 10 ⁻¹ mm
	4= G 1/2 T		F= H-NBR	190	
	5= G 3/4			250	
	6= G 1			350	
				400	
				500	

21W3	3	KI	B	190	
Model valve	3= G 1/8 - 3/8 NPT	KI N.C. Ex d	B= NBR	130	Orefice 10 ⁻¹ mm
	4= G 1/2 - 1/2 NPT	ZI N.O. Ex d	E= EPDM	190	
	5= G 3/4 - 3/4 NPT		F= H-NBR	250	
	6= G 1 - 1 NPT		V= FKM	350	
	7= G 1 1/4 - 1 1/4 NPT			400	
	8= G 1 1/2 - 1 1/2 NPT			500	
	9= G 2 - 2 NPT				

B	D	A	08	012	C	S
B= 30mm Ø 13	D EN 175301-803	A= Class F	08= 8W	012= 12V 024= 24V 048= 48V 110= 110V 223= 220V-230V	C= DC D= AC	S= Without Approval(*)

(*) Ex d protection class when assembled with Ex housing

T	N	A	4X	024	D	4
T= 36mm Ø 14,5	N 3 cables cm 300	A= Class F	4X= 7,2V 5X= 9,13V 05= 7,7V-9,2V 10= 10W	024= 24V 110= 110V 224= 220V-240V 024= 24V	D= AC C= DC	4= Ex m T4

PIPE	Ø (mm)	Kv (l/min)	MAX VISCOSITY cSt (°E)	PRESSURE min	PRESSURE MAX MOPD (bar)						GAS CODE	NPT CODE	FLOW CURVE
					COIL TYPE								
					AC			DC					
					T	R		T	R				

Normally Closed Ex m

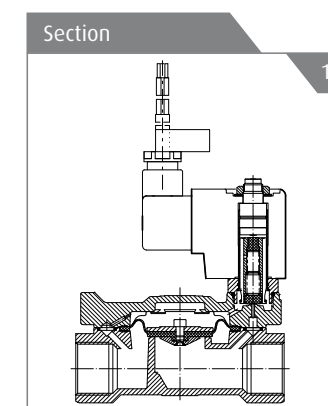
G 3/8	13	60	12(2)	0,2	16	-	16	-	21WA3QDV130		1
G 1/2	13	70	12(2)	0,2	16	-	16	-	21WA4QDV130		1
G 3/4	19	140	12(2)	0,2	16	-	16	-	21W3QDV190		1
G 1	25	190	12(2)	0,2	16	-	16	-	21W4QDV250		1
G 1 1/4	35	400	12(2)	0,2	16	-	16	-	21W5QDV350		1
G 1 1/2	40	520	12(2)	0,2	10	-	10	-	21W6QDV400		1
G 2	50	750	12(2)	0,2	10	-	10	-	21W7QDV500		1

Normally Closed Ex m

3/8"	13	60	12(2)	0,2	-	16	-	16	21WA3KIB130	21WN3KIB130	2
1/2"	13	70	12(2)	0,2	-	16	-	16	21WA4KIB130	21WN4KIB130	2
3/4"	19	140	12(2)	0,2	-	16	-	16	21W3KIB190	21WN5KIB190	2
1"	25	190	12(2)	0,2	-	16	-	16	21W4KIB250	21WN6KIB250	2
1/4"	35	400	12(2)	0,2	-	10	-	10	21W5KIB350	21WN7KIB350	2
1/2"	40	520	12(2)	0,2	-	10	-	10	21W6KIB400	21WN8KIB400	2
2"	50	750	12(2)	0,2	-	10	-	10	21W7KIB500	21WN9KIB500	2

Normally Open Ex m

3/8"	13	60	12(2)	0,2	-	16	-	16	21WA3ZIB130	21WN3ZIB130	2
1/2"	13	70	12(2)	0,2	-	16	-	16	21WA4ZIB130	21WN4ZIB130	2
3/4"	19	140	12(2)	0,2	-	16	-	16	21W3ZIB190	21WN5ZIB190	2
1"	25	190	12(2)	0,2	-	16	-	16	21W4ZIB250	21WN6ZIB250	2
1/4"	35	400	12(2)	0,2	-	10	-	10	21W5ZIB350	21WN7ZIB350	2
1/2"	40	520	12(2)	0,2	-	10	-	10	21W6ZIB400	21WN8ZIB400	2
2"	50	750	12(2)	0,2	-	10	-	10	21W7ZIB500	21WN9ZIB500	2

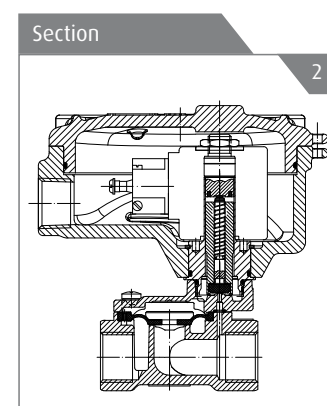


REPAIR KIT

For spare parts please consult our technical department

Coil P/N Ex mb II T 4

RTNA4X024D4
RTNA5X110D4
RTNA05224DA
RTNA10024C4



REPAIR KIT

For spare parts please consult our technical department

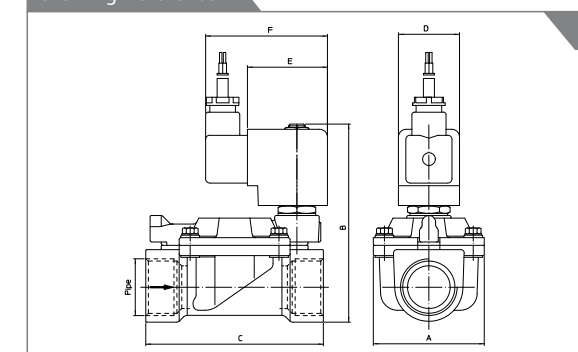
ACCESSORIES

Code P992219 Cable Gland (to be ordered separately)

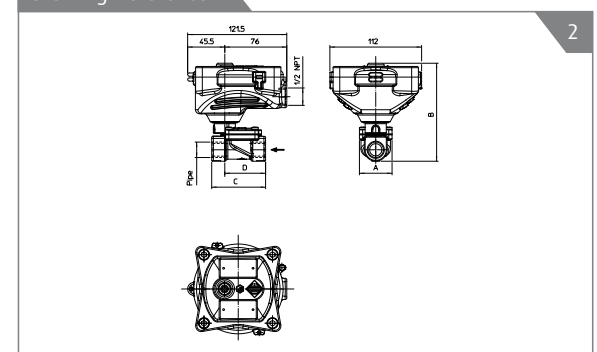
INSTALLATION

- ▶ The solenoid valves can be mounted in any position
- ▶ Maintenance and instruction sheet available in each solenoid valve box
- ▶ Attention: for fuse selection please refer to the "Instruction sheet Atex products" delivered together with the valve
- ▶ Fixing holes
- ▶ Holes and threaded connections for panel fixing

Drawing Reference



Drawing Reference



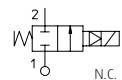
Dimensionale Table

Figure	Pipe	Coil Type	A mm	B mm	C mm	D mm	E mm	F mm
1-2	3/8	B T	40	120 103	60	47 36	- 47	71
	1/2	B T	40	120 103	66	50 36	- 47	71
	3/4	B T	65	128 111	104	89 36	- 47	71
	1	B T	65	136 118	104	89 36	- 47	71
	1 1/4	B T	98	153 131	144	125 36	- 47	71
	1 1/2	B T	98	153 131	144	125 36	- 47	71
	2	B T	118	144 147	172	150 36	- 47	71



FEATURES

- Dedicate to CPT Market
- Explosion proof rate
- Reliable construction



21X	2	QD	V	120	
Model valve	2= G 1/2 4= 1/2 NPT	QD= N.C. Ex m	V= FKM	120 190 250	Orefice 10-1mm
	3= G 3/4 5= 3/4 NPT	KI= N.C. Ex d	F= H-NBR		
	4= G 1				
	6= 1 NPT				

B	D	A	08	012	C	S
B= 30mm Ø 13	D EN 175301-803	A= Class F	08= 8W	012= 12V	C= DC	S= Without Approval(*)
				024= 24V	A= AC	
				048= 48V		
				110= 110V		
				223= 220V-230V		

(*) Ex d protection class when assembled with Ex housing

T	N	A	4X	024	D	4
T= 36mm Ø 14,5	N 3 cables cm 300	A= Class F	4X= 7,2V	024= 24V	D= AC	4= Ex m T4
			5X= 9,13V	110= 110V		
			05= 7,7V-9,2V	224= 220V-240V	C= DC	
			10= 10.1W	024= 24V		

PIPE	Ø (mm)	Kv (l/min)	MAX VISCOSITY cSt (°E)	PRESSURE min	PRESSURE MAX MOPD (bar)						GAS CODE	NPT CODE	DRAWING REFERENCE
					COIL TYPE								
					AC			DC					
					B	T		B	T				

Normally Closed Ex m

1/2	12	35	12(2)	0,1	-	16	-	16			21X2QDV120	21XN4QDV120	1
3/4	19	130	12(2)		-	16	-	16			21X3QDV190	21XN5QDV190	1
1	25	160	12(2)		-	16	-	16			21X4QDV250	21XN6QDV250	1

Normally Closed Ex d

1/2	12	35	12(2)	0,1	20	-	20	-			21X2KIV120	21XN2KIV120	2
3/4	19	130	12(2)		16	-	16	-			21X3KIV190	21XN3KIV190	2
1	25	160	12(2)		16	-	16	-			21X4KIV250	21XN4KIV250	2

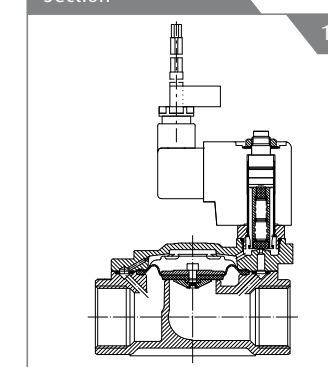
TECHNICAL SPECIFICATION

- **Body material:** Stainless Steel AISI 316
- **Armature tube:** Stainless Steel AISI 300 series
- **Plungers:** Stainless Steel AISI 400 series
- **Spring:** Stainless Steel AISI 300 series
- **Ex d Housing** in Aluminium die cast
- **Media:** mineral oils, gasoline, diesel, fuel oils, air inert gases, water, 134 a, R 404a
- **Ex m Ambient temperature:** See coils catalogue page for its compatibility
- **Ex m Fluid temperature:** -10°C +80°C with FKM seals
- **Ex d Housing Ambient temperature:** -40°C +60°C
- **Ex d Fluid temperature:** -30°C +80°C with H-NBR seals
-10°C +140°C with FKM seals
- **Design pressure PS:** 25 bar
- **Protection class:** Ex m IP65 (complete with electric plug)
Ex d IP 65 (with hosing fitted by cable gland Atex Ex d)
- **Electrical conformity:** IEC 335

- **Switching time:** 20-40 msec
(depending on pressure conditions)
- (Conforme to Atex Directive 94/9/CE ATEX)
For S.V. 21X2Q..
II 2G Ex mb IIC Gb
II 2D Ex tb IIIC t130°C Db

For S.V. 21X2KI..
II 2G Ex d IIC t6 o t5 Gb
II 2D Ex bb IIIC T80°C o T95°C Db
(Tamb: -40°C ≤ +60°C)

Section



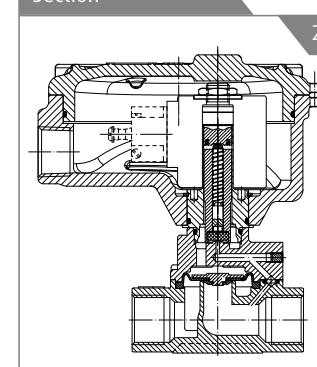
REPAIR KIT

For spare parts please consult our technical department

Coil P/N Ex mb II T 4

RTNA4X024D4
RTNA5X110D4
RTNA05224DA
RTNA10024C4

Section



REPAIR KIT

For spare parts please consult our technical department

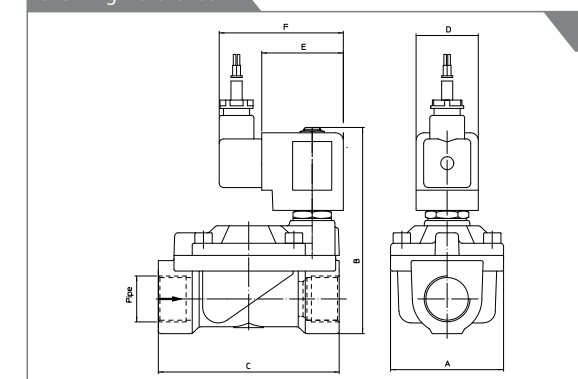
ACCESSORIES

Code P992219 Cable Gland
(to be ordered separately)

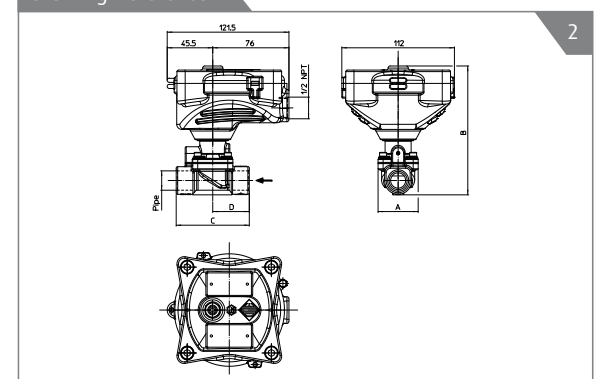
INSTALLATION

- The solenoid valves can be mounted in any position
- Maintenance and instruction sheet available in each solenoid valve box
- Attention: for fuse selection please refer to the "Instruction sheet Atex products" delivered together with the valve
- Holes and threaded connections for panel fixing

Drawing Reference

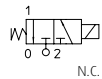


Drawing Reference



Dimensionale Table

Figure	Pipe	Coil Type	A mm	B mm	C mm	D mm	E mm	F mm
1-2	G 1/2 1/2 NPT	B T	40	120 110	73	36,5 36	- 47	71
	G 3/4 3/4 NPT	B T	65	136 120	104	88,5 36	- 47	71
	G 1 1 NPT	B T	65	136 120	104	88,5 36	- 47	71



31A	3	PD	V	15	
Model valve	2= G 1/4 3= G 3/8	PD= N.C. Ex m EI= N.C. Ex d	V= FKM F= H-NBR	15 20 25 30	Orefice 10 ⁻¹ mm

PIPE	Ø (mm)	Kv (l/min)	MAX VISCOSITY cSt (°E)	PRESSURE min	PRESSURE MAX MOPD (bar)						GAS CODE	NPT CODE	FLOW CURVE
					COIL TYPE								
					AC			DC					
					B	T		B	T				

Normally Closed Ex m (*) 3rd way exhaust= Ø 3mm													
G 1/8	1,5(*)	1,2	12(2)	0	-	15	-	15			31A3PDV15	(Part numbering example add "N" at the 4th digit 31AN1PD; 31AN2PD)	1
	2(*)	2	37(5)		-	10	-	10			31A3PDV20		1
	2,5(*)	3	53(7)		-	6	-	6			31A3PDV25		1
	3(*)	3,5	53(7)		-	5	-	5			31A3PDV30		1
G 1/4	1,5(*)	1,2	12(2)	0	-	15	-	15			31A2PDV15	(Part numbering example add "N" at the 4th digit 31AN1PD; 31AN2PD)	1
	2(*)	2	37(5)		-	10	-	10			31A2PDV20		1
	2,5(*)	3	53(7)		-	6	-	6			31A2PDV25		1
	3(*)	3,5	53(7)		-	5	-	5			31A2PDV30		1

Normally Closed Ex d (*) 3rd way exhaust= Ø 3mm													
G 1/8	1(*)	0,45	12(2)	0	20	-	20	-			31A3EIV10	(Part numbering example add "N" at the 4th digit 31AN1EI; 31AN2EI)	2
	1,5(*)	1,4	12(2)		15	-	15	-			31A3EIV15		2
	2(*)	2	37(5)		10	-	10	-			31A3EIV20		2
	2,5(*)	3,2	53(7)		6	-	6	-			31A3EIV25		2
	3(*)	4	53(7)		5	-	5	-			31A3EIV35		2
G 1/4	1(*)	0,45	12(2)	0	20	-	20	-			31A2EIV10	(Part numbering example add "N" at the 4th digit 31AN1EI; 31AN2EI)	2
	1,5(*)	1,4	12(2)		15	-	15	-			31A2EIV15		2
	2(*)	2	37(5)		10	-	10	-			31A2EIV20		2
	2,5(*)	3,2	53(7)		6	-	6	-			31A2EIV25		2
	3(*)	4	53(7)		5	-	5	-			31A2EIV35		2

31A2 Ex m, Ex d N.C.

FEATURES

- Wide range of applications high flow valves for liquids, gaseous
- Reliable proven design with high flows
- Small poppet valve for tight shutoff
- Mountable in any position

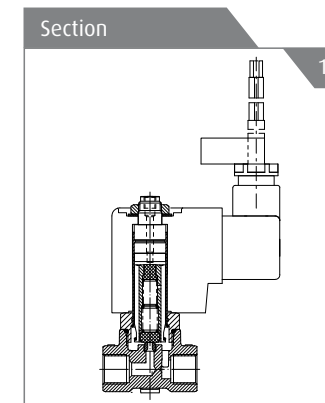
TECHNICAL SPECIFICATION

- Body material:** Brass UNI EN 12165 CW617N
- Armature tube:** Stainless Steel AISI 300 series
- Plungers:** Stainless Steel AISI 400 series
- Spring:** Stainless Steel AISI 300 series
- Ex d Housing in Aluminium die cast
- Media:** mineral oils, gasoline, diesel, fuel oils, air inert gases, water, 134 a, R 404a
- Ambient temperature:** See coils catalogue page for its compatibility
- Ex m Fluid temperature:** -10°C +80°C with FKM seals
-30°C +80°C with H-NBR seals
- Ex d Housing Ambient temperature:** -40°C +60°C
- Design pressure PS:** 40 bar
- Protection class:** Ex m IP 65 (complete with electric plug);
Ex d IP 65 (with hosing fitted by cable gland Atex Ex d)
- Electrical conformity:** IEC 335

Solenoid Valve 3/2 Way Direct Acting Explosion Proof

- Switching time:** 20-40 msec (depending on pressure conditions)
- (Conforme to Atex Directive 94/9/CE ATEX)
For S.V. 31A3EL..
II 2G Ex d IIC T6 o T5 Gb
II 2D Ex tb IIIC T80°C o T90°C Db IP67
(Tamb: -40°C ≤ +60°C)

For S.V. 31A3P..
II 2G Ex mb II T4
II 2D Ex tD
IEC Ex m II T4
A21 IP65 T130°C

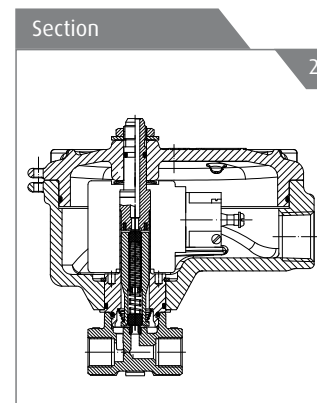


REPAIR KIT

For spare parts please consult our technical department

Coil P/N Ex mb II T 4

RTNA4X024D4
RTNA5X110D4
RTNA05224DA
RTNA10024C4



REPAIR KIT

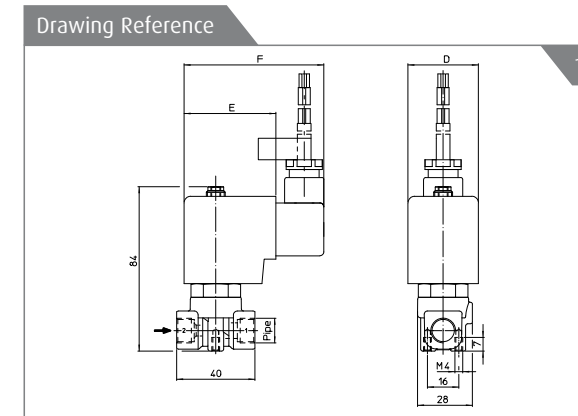
For spare parts please consult our technical department

ACCESSORIES

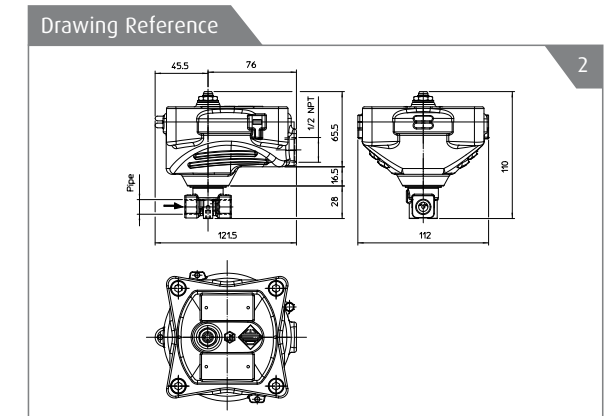
Code P992219 Cable Gland (to be ordered separately)

INSTALLATION

- The solenoid valves can be mounted in any position
- Maintenance and instruction sheet available in each solenoid valve box
- Attention: for fuse selection please refer to the "Instruction sheet Atex products" delivered together with the valve
- Holes and threaded connections for panel fixing



Dimensionale Table				
Figure	Coil Type	D mm	E mm	F mm
1	T	36	47	71





FEATURES

- Ideal for piloting
- High flow rate
- Atex approval



31L	1	PD	V	20	
Model valve	1= G 1/8 2= G 1/4	PD= N.C. Ex m EI= N.C. Ex d	V= FKM F= H-NBR	20 30	Orefice 10 ⁻¹ mm

B	D	A	08	012	C	S
B= 30mm Ø 13	D EN 175301-803	A= Class F	08= 8W	012= 12V 024= 24V 048= 48V 110= 110V 223= 220V-230V	C= DC D= AC	S= Without Approval(*)

(*) Ex d protection class when assembled with Ex housing

T	N	A	4X	024	D	4
T= 36mm Ø 14,5	N 3 cables cm 300	A= Class F	4X= 7,2V 5X= 9,13V 05= 7,7V-9,2V 10= 10,1W	024= 24V 110= 110V 224= 220V-240V 024= 24V	D= AC C= DC	4= Ex m T4

PIPE	Ø (mm)	Kv (l/min)	MAX VISCOSITY cSt (°E)	PRESSURE min	PRESSURE MAX MOPD (bar)						GAS CODE	NPT CODE	DRAWING REFERENCE
					COIL TYPE								
					AC			DC					
					B	T		B	T				

Normally Closed Ex m (*) 3rd way exhaust= Ø 3mm

G 1/8	2(*)	2	37(7)	0	-	10	-	10	(Part numbering example add "N" at the 4th digit 31L1PDV20)	31LN1PDV20	1
G 1/8	2(*)	4	53(7)		-	5	-	5		31LN1PDV30	1
G 1/4	2(*)	2	37(7)		-	10	-	10		31LN2PDV20	1
G 1/4	3(*)	4	53(7)		-	5	-	5		31LN2PDV30	1

Normally Closed Ex d (*) 3rd way exhaust= Ø 3mm

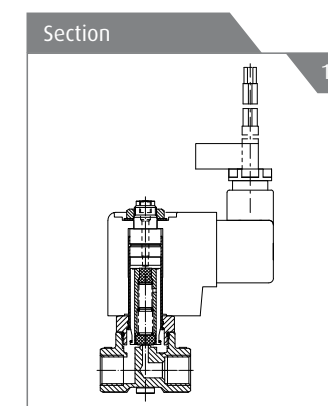
G 1/8	2(*)	2	37(7)	0	10	-	10	-	31L1EIV20	31LN1EIV20	2
G 1/8	2(*)	4	53(7)		5	-	5	-	31L1EIV30	31LN1EIV30	2
G 1/4	2(*)	2	37(7)		10	-	10	-	31L2EIV20	31LN2EIV20	2
G 1/4	3(*)	4	53(7)		5	-	5	-	31L2EIV30	31LN2EIV30	2

TECHNICAL SPECIFICATION

- **Body material:** Stainless Steel AISI 316
- **Armature tube:** Stainless Steel AISI 300 series
- **Plungers:** Stainless Steel AISI 400 series
- **Spring:** Stainless Steel AISI 300 series
- **Ex d Housing in Aluminium die cast**
- **Media:** mineral oils, gasoline, diesel, fuel oils, air, water, inert gases, 134 a, R 404a
- **Ex m Ambient temperature:** See coils catalogue page for its compatibility
- **Ex m Fluid temperature:** -10°C +80°C with FKM seals
- **Ex d Housing Ambient temperature:** -40°C +60°C
- **Ex d Fluid temperature:** -10°C + 80°C with FKM seals
-30°C +80°C H-NBR
- **Design pressure PS:** 40 bar for Ex d
25 bar for Ex m
- **Protection class:** Ex m IP 65 (complete with electric plug);
Ex d IP 65 (with hosing fitted by cable gland Atex Ex d)
- **Electrical conformity:** IEC 335

- (Conforme to Atex Directive 94/9/CE ATEX)
- For S.V. 31L..I
II 2G Ex d IIC T6 o T5 Gb
II 2D Ex tb IIIC T80°C o T90°C Db IP67
(Tamb: -40°C ≤ +60°C)

For S.V. 31L..P
II 2G Ex mb II T4
II 2D Ex tD
IEC Ex m II T4
A21 IP65 T130°C

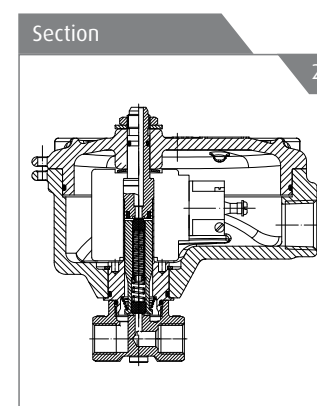


REPAIR KIT

For spare parts please
consult our technical
department

Coil P/N Ex mb II T 4

RTNA4X024D4
RTNA5X110D4
RTNA05224DA
RTNA10024C4



REPAIR KIT

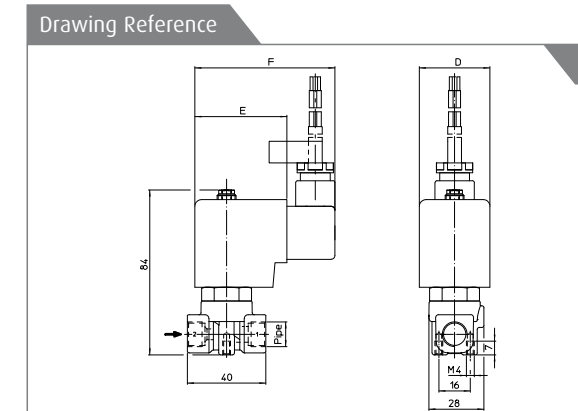
For spare parts please
consult our technical
department

ACCESSORIES

Code P992219 Cable Gland
(to be ordered separately)

INSTALLATION

- The solenoid valves can be mounted in any position
- Maintenance and instruction sheet available in each solenoid valve box
- Attention: for fuse selection please refer to the "Instruction sheet Atex products" delivered together with the valve
- Fixing holes
- Holes and threaded connections for panel fixing



Dimensionale Table

Figure	Coil Type	D mm	E mm	F mm
1	B	30	42	54

