DESCRIPTION

Valves series “UDS ISO” are produced in the 5/2 and 5/3 pneumatic functions according to the interface to ISO 5599/1 standard and they are mounted onto single or manifold bases, bottom or side ported. The ex CNOMO solenoid valve, with manual override (screwdriver type C/UECSVB or button type C/UECSPB), in the solenoid actuated version is mounted with coil type USBG side 30 mm (that allows a greater yield) or type USB side 22 mm and can be supplied in compliance with ATEX directive, category 2GD.



TECHNICAL DATA

Operating pressure	Monostable 2 ÷ 10 bar (2,5 ÷ 10 bar for ISO 2) Bistable 1,5 ÷ 10 bar
Working temperature	0 ÷ +50 °C (-20 °C with dry air)
Fluid	Filtered, unlubricated, continuous lubricated or dry compressed air
Port size	Interface to ISO 5599/1
Pneumatic piloting port size	Interface to ISO 5599/1
Piloting solenoid valves	C/UECSVB - C/UECSPB - see chapter direct acting solenoid valves series ex CNOMO on page 2.15
Coils	USBG - see chapter coils on page 2.17 USBG2 - see chapter coils on page 2.17 USB - see chapter coils on page 2.17
Electric connectors	ULR1B - see chapter connectors on page 2.18 USR102/N9 - see chapter connectors on page 2.18

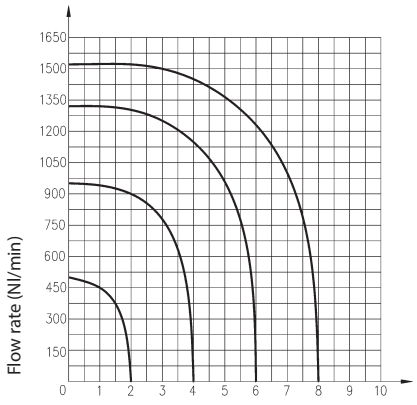
MATERIALS

Bottoms	Size 1 - 2: Techno-polymer Size 3: Aluminium alloy
Body	Size 1 -2: Techno-polymer Size 3: Aluminium alloy
Distance rings	Acetal resin
Springs	Galvanized steel
Seals	NBR rubber + steel insert
Spool	Aluminium alloy
Piston	Aluminium alloy

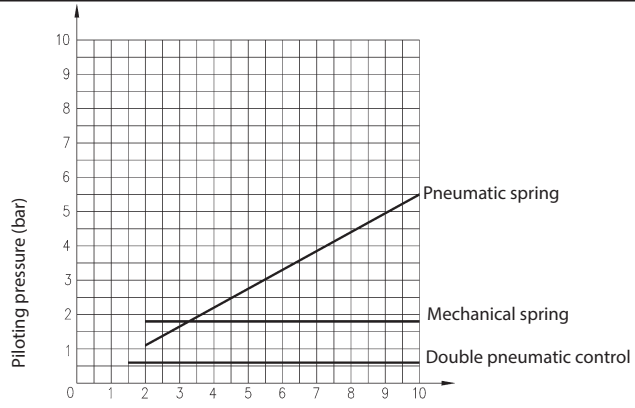
SPARE PARTS

SEALS KIT	
Size 1	**UDS/SG/105**
Size 2	**UDS/SG/212**
Size 3	**UDSI/SG/3**

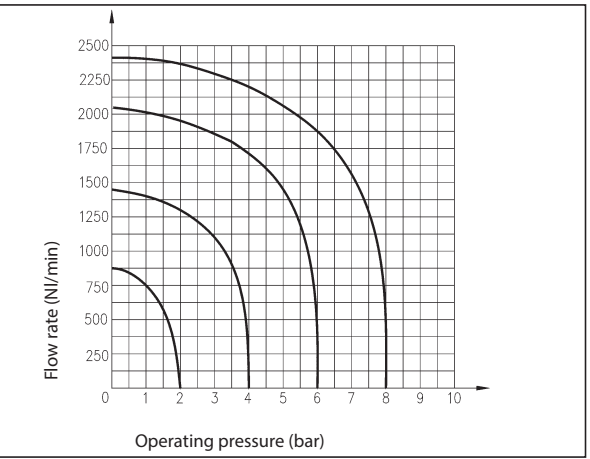
FLOW CHART SIZE 1



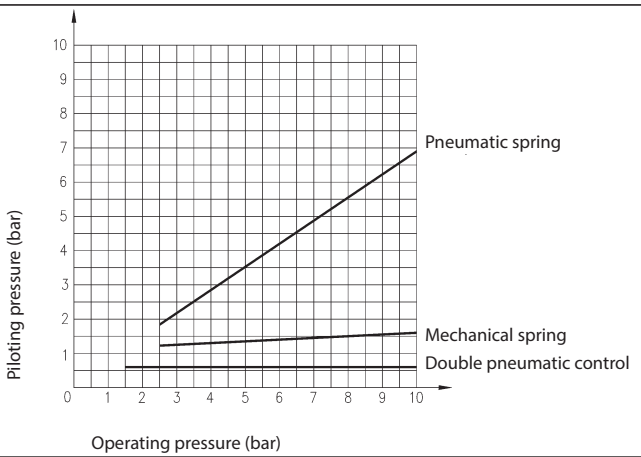
PILOTING CHART SIZE 1



FLOW CHART SIZE 2

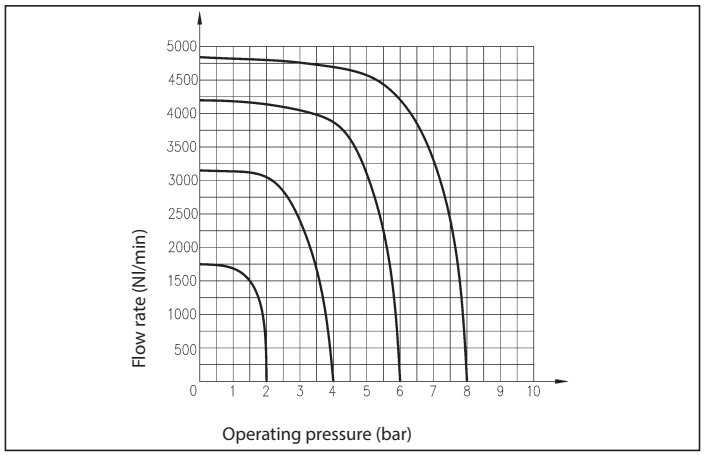


PILOTING CHART SIZE 2

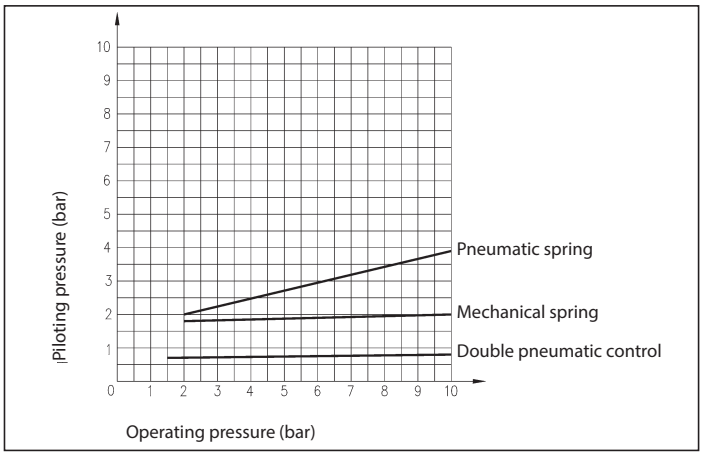


series UDS ISO

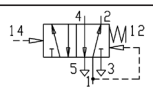
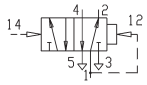
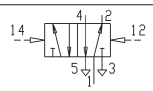
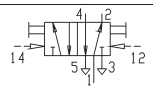
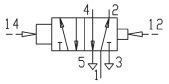
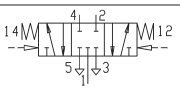
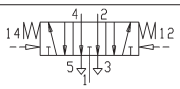
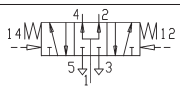
FLOW CHART SIZE 3



PILOTING CHART SIZE 3



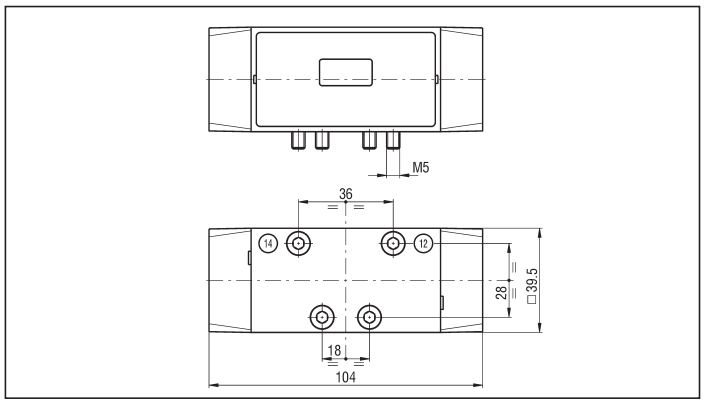
PILOT ACTUATED VALVES SIZE 1

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Pneumatic	Mechanical spring	20	30	960	230	UDS 105 KR/ZQ
		Pneumatic	Pneumatic spring	20	14	960	230	UDS 105 KR/TQ
	5/2 bistable	Pneumatic	Pneumatic	15	15	960	230	UDS 105 KR/KR
	5/2 bistable with override on body valve	Pneumatic	Pneumatic	15	15	960	250	UDS 105 KRP/KRP
	5/2 bistable	Big pneumatic	Small pneumatic	15	20	960	230	UDS 105 KR/TR
	5/3 closed centre	Pneumatic	Mechanical spring	20	25	580	275	UDS 105 SR/SR
	5/3 open centre	Pneumatic	Mechanical spring	20	25	800	275	UDS 105 AR/AR
	5/3 pressure centre	Pneumatic	Mechanical spring	20	25	1100	275	UDS 105 PR/PR

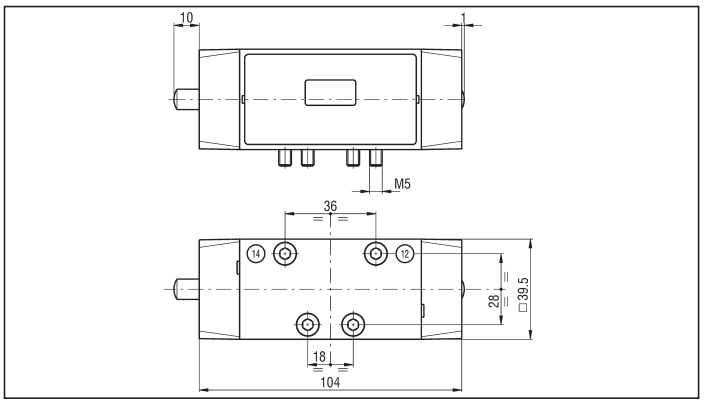
***/EX** Consistent with the ATEX directive Ⓔx II 2G Ex h IIC T5 Gb -20°C≤Ta≤50°C
II 2D Ex h IIIC T100°C Db X

ES.: **UDS 105 KR/ZR/EX**

5 PORT SIZE 1

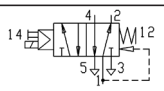
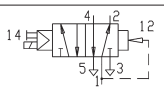
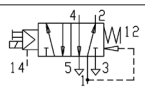
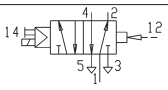
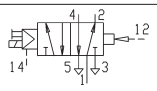
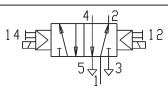
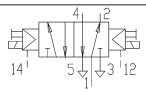
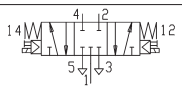
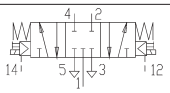
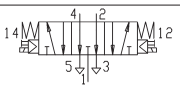
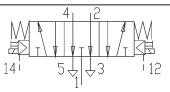
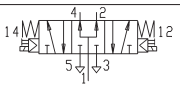
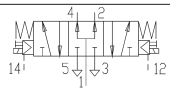


5 PORT SIZE 1 WITH MANUAL OVERRIDE ON BODY VALVE



2

SOLENOID ACTUATED VALVES SIZE 1

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	20	30	960	305	UDS 105 KUEC/ZQ
		Solenoid	Pneumatic spring	20	30	960	305	UDS 105 KUEC/TQ
		Solenoid pilot assisted	Mechanical spring	20	30	960	305	UDS 105 KUER/ZQ
	5/2 bistable	Solenoid	Small pneumatic	20	25	960	310	UDS 105 KUEC/TR
		Solenoid pilot assisted	Small pneumatic	20	25	960	310	UDS 105 KUER/TR
		Solenoid	Solenoid	15	15	960	375	UDS 105 KUEC/KUEC
		Solenoid pilot assisted	Solenoid pilot assisted	15	15	960	375	UDS 105 KUER/KUER
	5/3 closed centre	Solenoid	Mechanical spring	20	25	580	425	UDS 105 SUEC/SUEC
		Solenoid pilot assisted	Mechanical spring	20	25	580	425	UDS 105 SUER/SUER
	5/3 open centre	Solenoid	Mechanical spring	20	25	800	425	UDS 105 AUEC/AUEC
		Solenoid pilot assisted	Mechanical spring	20	25	800	425	UDS 105 AUER/AUER
	5/3 pressure centre	Solenoid	Mechanical spring	20	25	1100	425	UDS 105 PUEC/PUEC
		Solenoid pilot assisted	Mechanical spring	20	25	1100	425	UDS 105 PUER/PUER

***/EX** Consistent with the ATEX directive ⟨Ex⟩ II 2G Ex h IIC T5 Gb -20°C≤Ta≤50°C
II 2D Ex h IIIC T100°C Db X

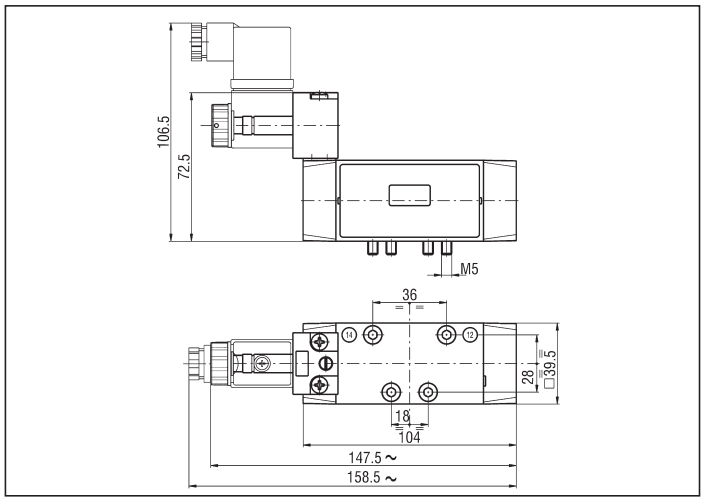
E.G..: **UDS 105 KUEC/TQ/EX**

THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS

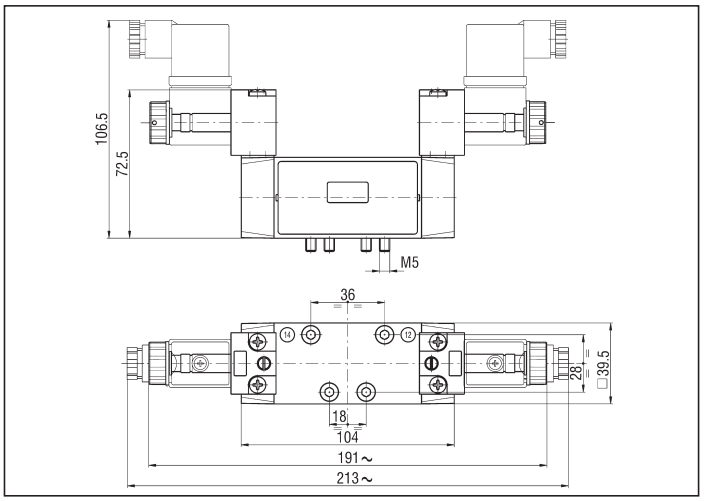
P.S.:SUBSTITUTE THE LETTER “E” WITH THE LETTER “P” IN EACH SOLENOID CONTROL TYPE TO ORDER THE SOLENOID ACTUATED VALVES TO ISO STANDARD WITH MANUAL OVERRIDE (MONOSTABLE BUTTON) ON THE PILOTING SOLENOID VALVES, E.G.: **UDS 105 KUEC/TR** BECOMES **UDS 105 KUPC/TR** - **UDS 105 KUEC/KUEC** BECOMES **UDS 105 KUPC/KUPC**

series UDS ISO

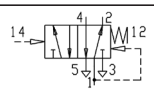
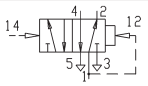
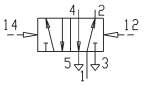
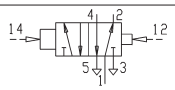
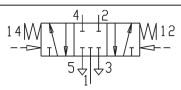
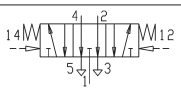
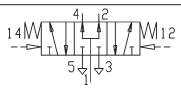
5 PORT SIZE 1 MONOSTABLE



5 PORT SIZE 1 BISTABLE AND 3 POSITIONS



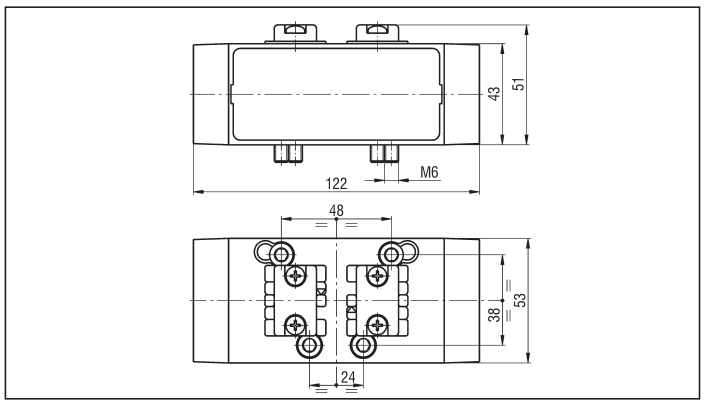
PILOT ACTUATED VALVES SIZE 2

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Pneumatic	Mechanical spring	47	50	1500	515	UDS 212 KR/ZQ
		Pneumatic	Pneumatic spring	47	50	1500	510	UDS 212 KR/TQ
	5/2 bistable	Pneumatic	Pneumatic	23	23	1500	515	UDS 212 KR/KR
		Big pneumatic	Small pneumatic	20	40	1500	515	UDS 212 KR/TR
	5/3 closed centre	Pneumatic	Mechanical spring	30	35	1000	580	UDS 212 SR/SR
	5/3 open centre	Pneumatic	Mechanical spring	30	35	1200	580	UDS 212 AR/AR
	5/3 pressure centre	Pneumatic	Mechanical spring	30	35	1300	580	UDS 212 PR/PR

***/EX** Consistent with the ATEX directive II 2G Ex h IIC T5 Gb -20°C≤Ta≤50°C
II 2D Ex h IIIC T100°C Db X

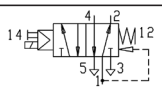
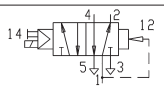
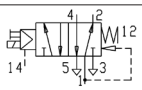
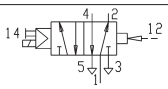
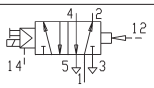
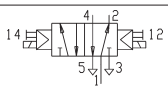
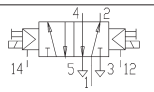
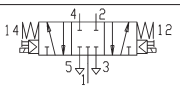
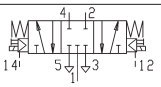
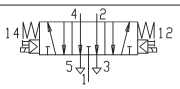
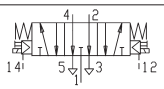
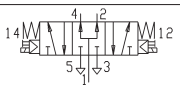
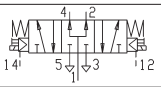
E.G.: **UDS 212 KR/ZR/EX**

5 PORT SIZE 2



2

SOLENOID ACTUATED VALVES SIZE 2

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	40	45	1500	580	UDS 212 KUEC/ZQ
		Solenoid	Pneumatic spring	47	50	1500	580	UDS 212 KUEC/TQ
		Solenoid pilot assisted	Mechanical spring	40	45	1500	580	UDS 212 KUER/ZQ
	5/2 bistable	Solenoid	Small pneumatic	40	45	1500	580	UDS 212 KUEC/TR
		Solenoid pilot assisted	Small pneumatic	40	45	1500	580	UDS 212 KUER/TR
		Solenoid	Solenoid	20	20	1500	635	UDS 212 KUEC/KUEC
		Solenoid pilot assisted	Solenoid pilot assisted	20	20	1500	635	UDS 212 KUER/KUER
	5/3 closed centre	Solenoid	Mechanical spring	30	35	1000	720	UDS 212 SUEC/SUEC
		Solenoid pilot assisted	Mechanical spring	30	35	1000	720	UDS 212 SUER/SUER
	5/3 open centre	Solenoid	Mechanical spring	30	35	1200	720	UDS 212 AUEC/AUEC
		Solenoid pilot assisted	Mechanical spring	30	35	1200	720	UDS 212 AUER/AUER
	5/3 pressure centre	Solenoid	Mechanical spring	30	35	1300	720	UDS 212 PUEC/PUEC
		Solenoid pilot assisted	Mechanical spring	30	35	1300	720	UDS 212 PUER/PUER

***/EX** Consistent with the ATEX directive Ⓔx II 2G Ex h IIC T5 Gb -20°C≤Ta≤50°C
II 2D Ex h IIIC T100°C Db X

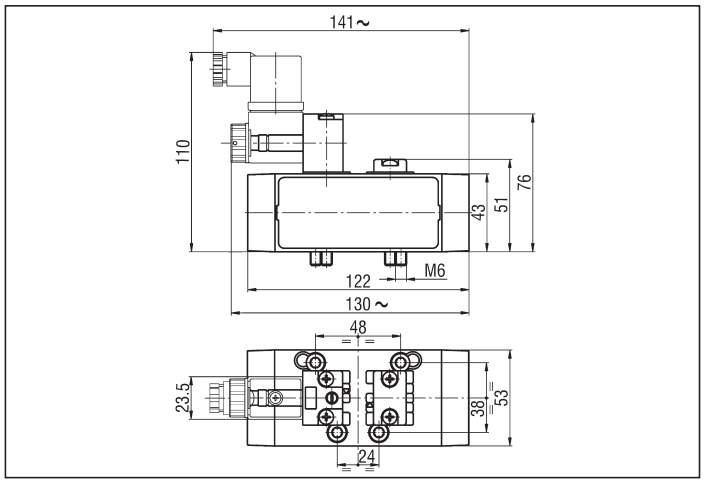
E.G.: **UDS 212 KUEC/TQ/EX**

THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS

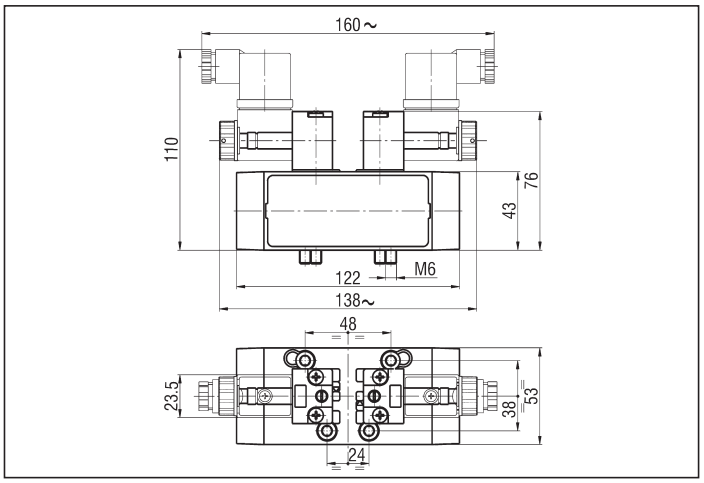
P.S.: SUBSTITUTE THE LETTER “E” WITH THE LETTER “P” IN EACH SOLENOID CONTROL TYPE TO ORDER THE SOLENOID ACTUATED VALVES TO ISO STANDARD WITH MANUAL OVERRIDE (MONOSTABLE BUTTON) ON THE PILOTING SOLENOID VALVES, E.G.: **UDS 212 KUEC/TR** BECOMES **UDS 212 KUPC/TR** - **UDS 212 KUEC/KUEC** BECOMES **UDS 212 KUPC/KUPC**

series UDS ISO

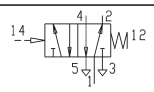
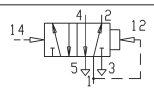
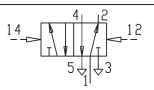
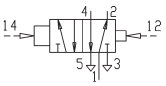
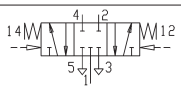
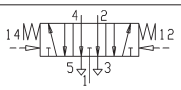
5 PORT SIZE 2 MONOSTABLE



5 PORT SIZE 2 BISTABLE AND 3 POSITIONS



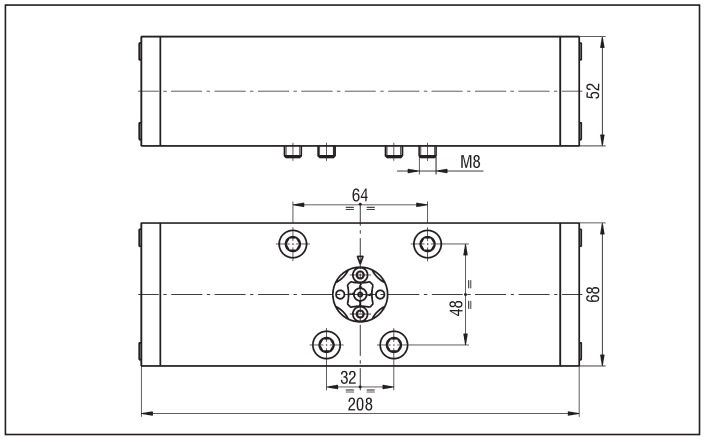
PILOT ACTUATED VALVES SIZE 3

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Pneumatic	Mechanical spring	38	42	3000	1995	UDSI 3 KR/ZR
		Pneumatic	Pneumatic spring	38	42	3000	1985	UDSI 3 KR/TQ
	5/2 bistable	Pneumatic	Pneumatic	28	28	3000	1965	UDSI 3 KR/KR
		Big pneumatic	Small pneumatic	28	35	3000	1965	UDSI 3 KR/TR
	5/3 closed centre	Pneumatic	Mechanical spring	27	32	2900	2020	UDSI 3 SR/SR
	5/3 open centre	Pneumatic	Mechanical spring	27	32	3000	2020	UDSI 3 AR/AR

***/EX** Consistent with the ATEX directive II 2G Ex h IIC T5 Gb -20°C≤Ta≤50°C
II 2D Ex h IIIC T100°C Db X

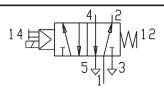
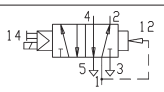
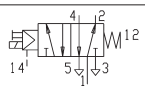
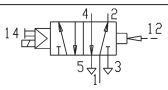
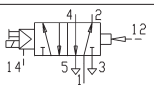
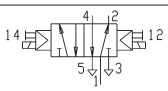
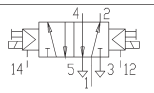
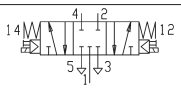
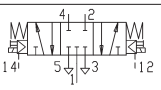
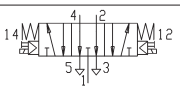
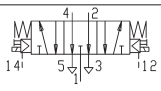
E.G.: **UDSI 3 KR/ZR/EX**

5 PORT SIZE 3



2

SOLENOID ACTUATED VALVES SIZE 3

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized			
	5/2 monostable	Solenoid	Mechanical spring	40	42	3100	2120	UDSI 3 KUEC/ZR
		Solenoid	Pneumatic spring	40	42	3100	2120	UDSI 3 KUEC/TQ
		Solenoid pilot assisted	Mechanical spring	40	42	3100	2120	UDSI 3 KUER/ZR
	5/2 bistable	Solenoid	Small pneumatic	40	45	3100	2120	UDSI 3 KUEC/TR
		Solenoid pilot assisted	Small pneumatic	40	45	3100	2120	UDSI 3 KUER/TR
		Solenoid	Solenoid	28	28	3100	2180	UDSI 3 KUEC/KUEC
		Solenoid pilot assisted	Solenoid pilot assisted	28	28	3100	2180	UDSI 3 KUER/KUER
	5/3 closed centre	Solenoid	Mechanical spring	27	32	2900	2180	UDSI 3 SUEC/SUEC
		Solenoid pilot assisted	Mechanical spring	27	32	2900	2180	UDSI 3 SUER/SUER
	5/3 open centre	Solenoid	Mechanical spring	27	32	3000	2180	UDSI 3 AUEC/AUEC
		Solenoid pilot assisted	Mechanical spring	27	32	3000	2180	UDSI 3 AUER/AUER

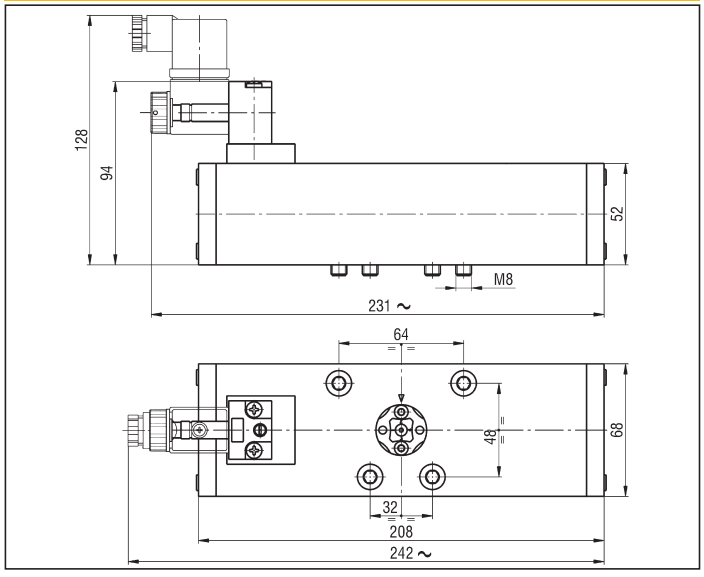
***/EX** Consistent with the ATEX directive Ⓔx II 2G Ex h IIC T5 Gb -20°C≤Ta≤50°C II 2D Ex h IIIC T100°C Db X

E.G.: **UDSI 3 KUEC/TQ/EX**

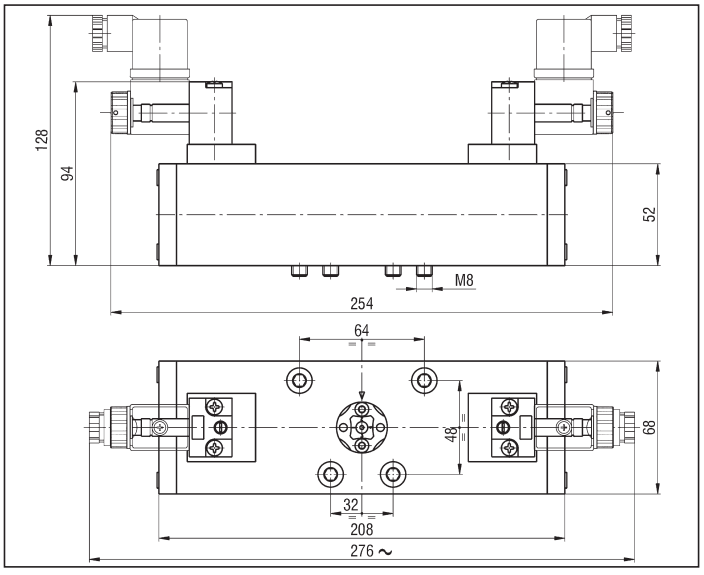
THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS

P.S.: SUBSTITUTE THE LETTER "E" WITH THE LETTER "P" IN EACH SOLENOID CONTROL TYPE TO ORDER THE SOLENOID ACTUATED VALVES TO ISO STANDARD WITH MANUAL OVERRIDE (MONOSTABLE BUTTON) ON THE PILOTING SOLENOID VALVES, E.G.: **UDSI 3 KUEC/TR** BECOMES **UDSI 3 KUPC/TR** - **UDS1 3 KUEC/KUEC** BECOMES **UDSI 3 KUPC/KUPC**

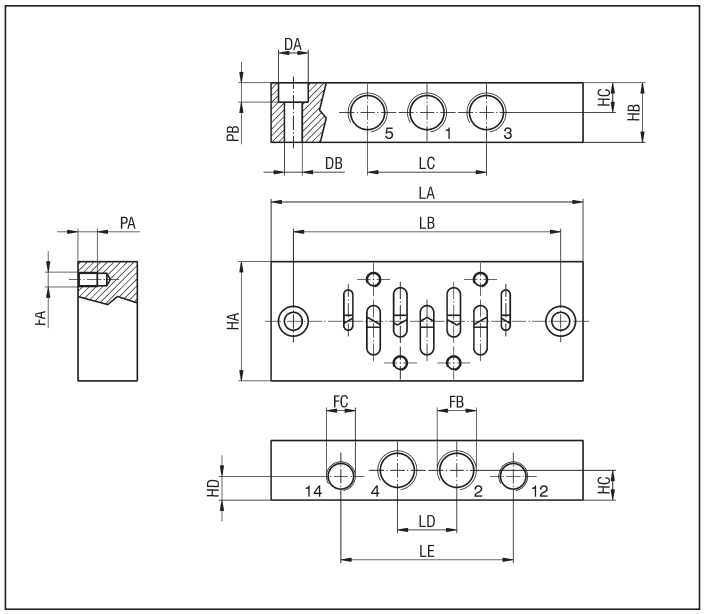
5 PORT SIZE 3 MONOSTABLE



5 PORT SIZE 3 BISTABLE AND 3 POSITIONS

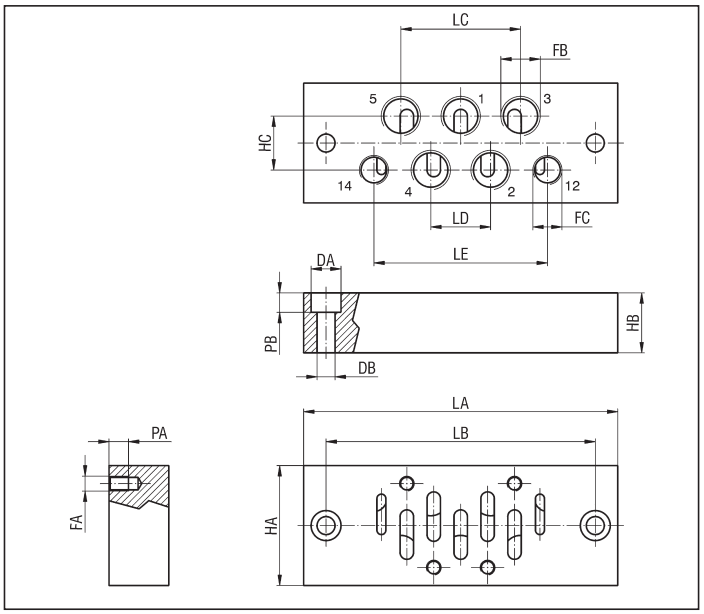


SINGLE BASE SIDE PORTED - UDP/ISO SIZE /S



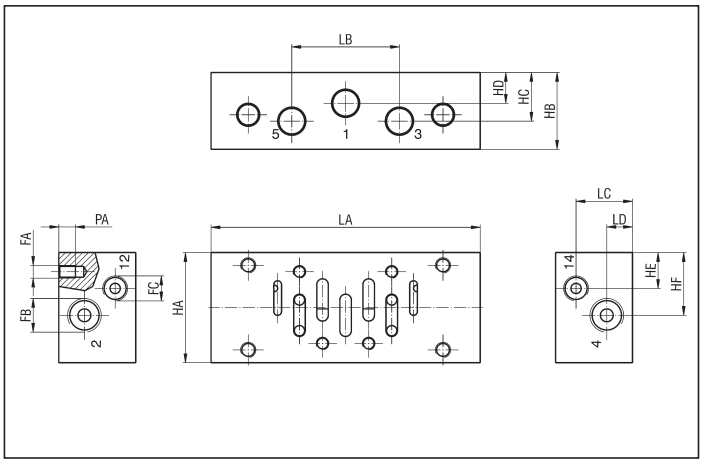
TYPE	UDP/ISO1/S8	UDP/ISO1/S4	UDP/ISO2/S4	UDP/ISO2/S3	UDP/ISO3/S2
Weight (g)	205	240	485	455	1090
SIZE	1		2		3
DA	10	10	12	12	15
DB	6	6	7	7	9
FA	M5	M5	M6	M6	M8
FB	G 1/8	G 1/4	G 1/4	G 3/8	G 1/2
FC	G 1/8	G 1/8	G 1/8	G 1/8	G 1/8
HA	40	40	55	55	70
HB	20	25	28	28	32
HC	8	14,5	13	15	16
HD	8	8	8	8	8
LA	105	105	130	130	208
LB	90	90	110	110	180
LC	36	40	48	52	64
LD	18	20	24	26	32
LE	58	58	68	70	90
PA	6,5	6,5	10	10	10
PB	6,5	6,5	8	8	11

SINGLE BASE BOTTOM PORTED - UDP/ISO SIZE /B



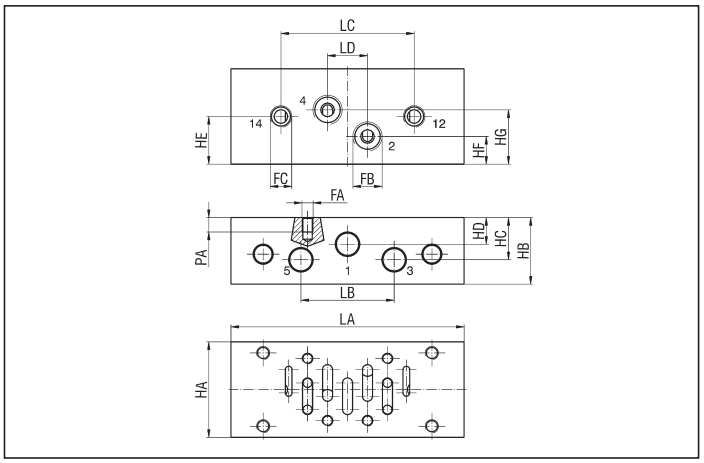
TYPE	UDP/ISO1/B8	UDP/ISO1/B4	UDP/ISO2/B4	UDP/ISO2/B3	UDP/ISO3/B2
Weight (g)	200	190	495	470	1160
SIZE	1		2		3
DA	10	10	12	12	15
DB	6	6	7	7	9
FA	M5	M5	M6	M6	M8
FB	G 1/8	G 1/4	G 1/4	G 3/8	G 1/2
FC	G 1/8	G 1/8	G 1/8	G 1/8	G 1/8
HA	40	40	55	55	70
HB	20	20	28	28	32
HC	16	18	22	23	27
LA	105	105	130	130	208
LB	90	90	110	110	180
LC	36	40	48	52	64
LD	18	20	24	26	32
LE	58	58	68	70	90
PA	8	8	10	10	10
PB	6,5	6,5	8	8	11

MANIFOLD BASE SIDE PORTED - UDP/ISO SIZE /MS/Q



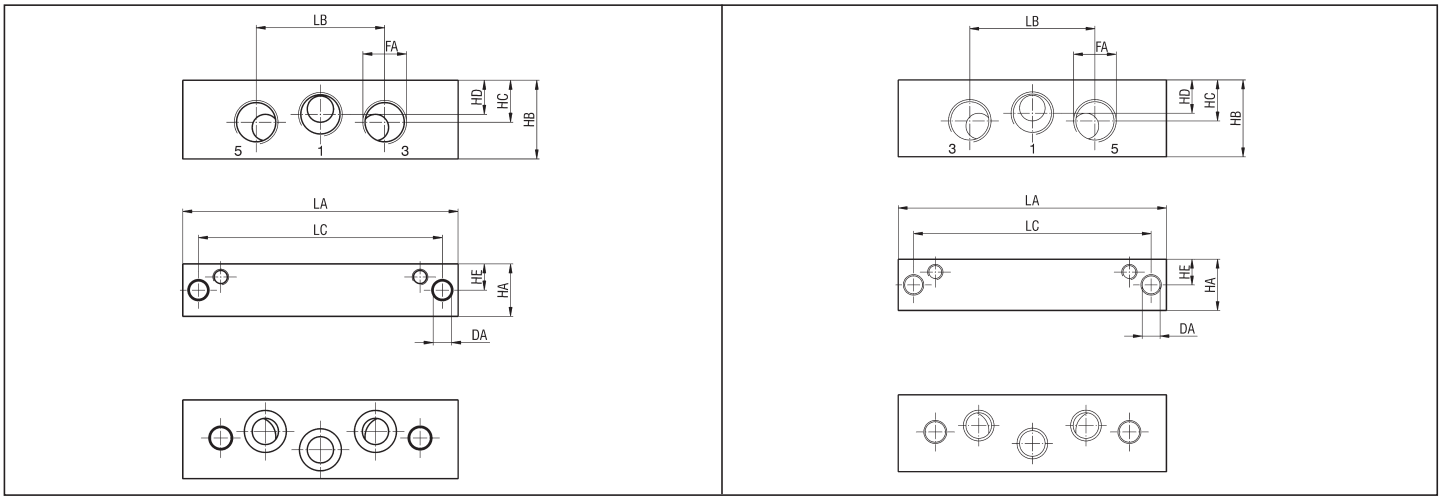
TYPE	UDP/ISO1/8MS/Q	UDP/ISO1/4MS/Q	UDP/ISO2/3MS/Q
Weight (g)	320	310	660
SIZE	1		2
FA	M5	M5	M6
FB	G 1/8	G 1/4	G 3/8
FC	G 1/8	G 1/8	G 1/8
HA	43	43	55
HB	30	30	40
HC	19	19	24
HD	12	12	17
HE	14	14	17,5
HF	24,5	24,5	30
LA	105	105	130
LB	42	42	54
LC	22	22	30
LD	10	10	12,5
PA	6,5	6,5	8

MANIFOLD BASE BOTTOM PORTED - UDP/ISO SIZE M/Q



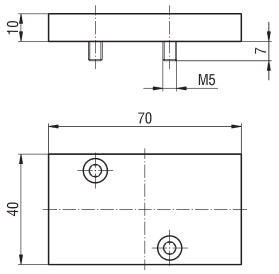
TYPE	UDP/ISO1/4M/Q	UDP/ISO2/3M/Q	UDP/ISO3/2M/Q
Weight (g)	315	665	1640
SIZE	1	2	3
FA	M5	M6	M8
FB	G 1/4	G 3/8	G 1/2
FC	G 1/8	G 1/8	G 1/8
HA	43	55	70
HB	30	40	50
HC	19	24	27
HD	12	17	27
HE	21,5	27,5	35
HF	12,5	16,5	23,5
HG	24,5	32,5	42,5
LA	105	130	208
LB	42	54	88
LC	60	74	125
LD	18	24	42
PA	6,5	8	10

INPUT PLATES (PAIR) - UDP/ISO SIZE /...M/L



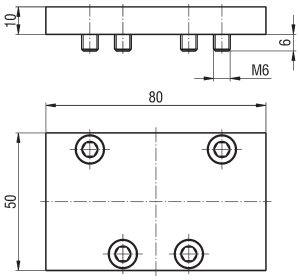
TYPE	UDP/ISO1/3M/L	UDP/ISO2/2M/L	UDP/ISO3/1M/L
Weight (g)	280	460	2355
SIZE	1	2	3
DA	7	7	9
FA	G 3/8	G 1/2	G 1
HA	20	20	50
HB	30	40	50
HC	16	22	25
HD	13	15	25
HE	10	10	25
LA	105	130	208
LB	49	59	94
LC	93	118	180

BLANKING PLATE ISO 1 - UDP/ISO1/PC



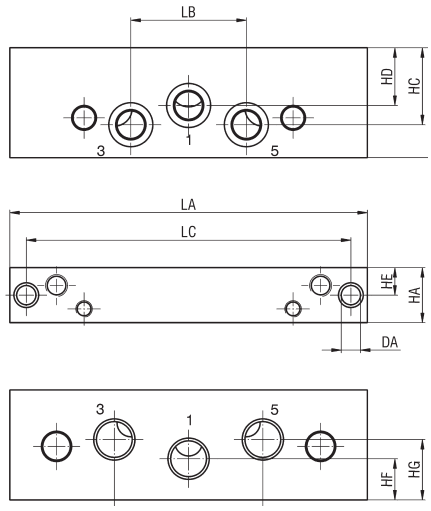
WEIGHT 80 g

BLANKING PLATE ISO 2 - UDP/ISO2/PC



WEIGHT 115 g

SIZE ADAPTER ISO 1-2 AND ISO 2-3 - UDP/ISO SIZE

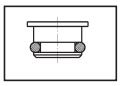


TYPE	UDP/ISO1-2	UDP/ISO2-3
Weight (g)	245	1305
SIZE	1-2	2-3
DA	7	9
HA	20	50
HB	40	50
HC	28	32
HD	21	35
HE	10	25
HF	15	25
HG	22	25
LA	130	208
LB	42	54
LC	118	180
LD	54	88

KIT ASSEMBLY BASES

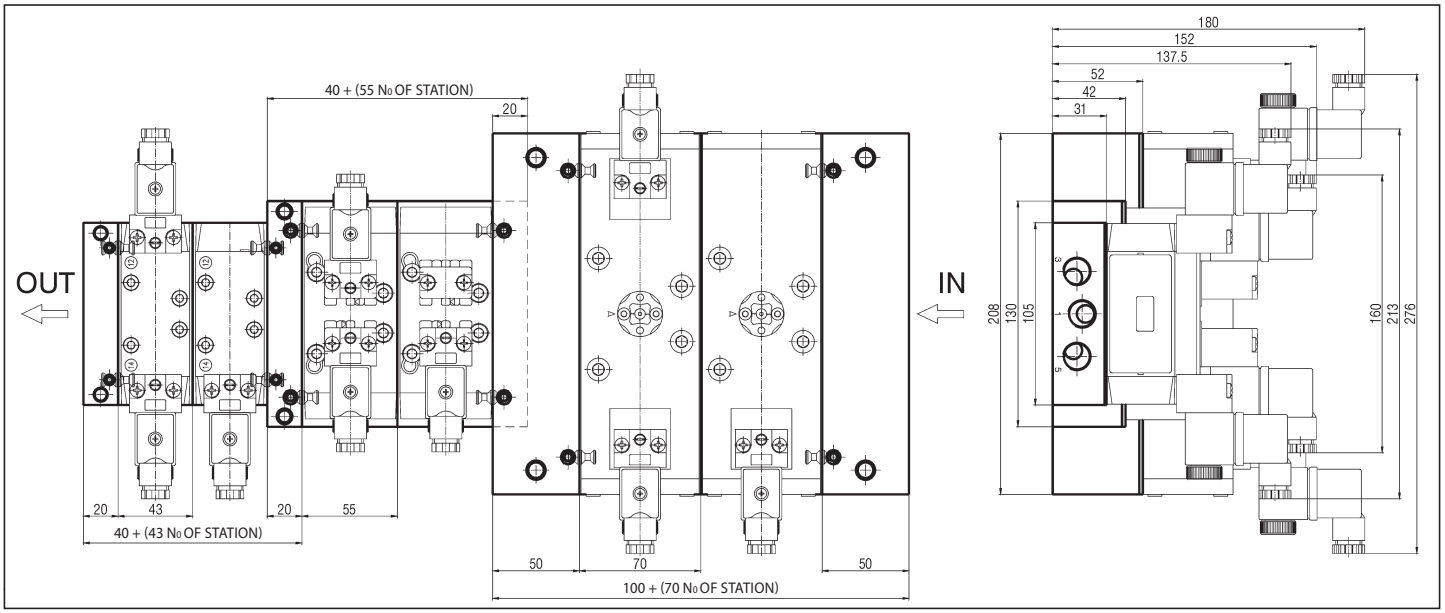
Kit assembly bases SIZE 1	KIT/UDP/ISO 1
Kit assembly bases SIZE 2	KIT/UDP/ISO 2
Kit assembly bases SIZE 3	KIT/UDP/ISO 3

DIAPHRAGM - UDP/ISO SIZE /T

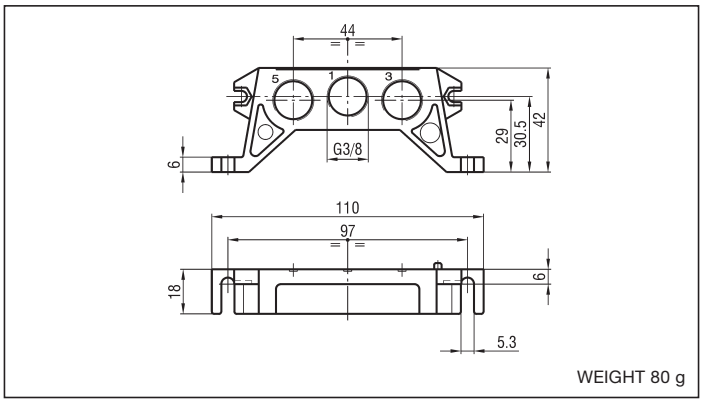


TYPE	UDP/ISO1/T	UDP/ISO2/T	UDP/ISO3/T
SIZE	1	2	3

EXAMPLE OF ASSEMBLY



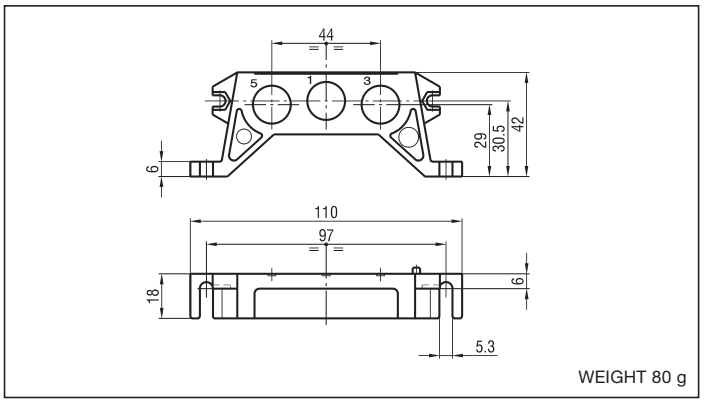
INPUT PLATE - UDP/ISO1/PE



WEIGHT 80 g

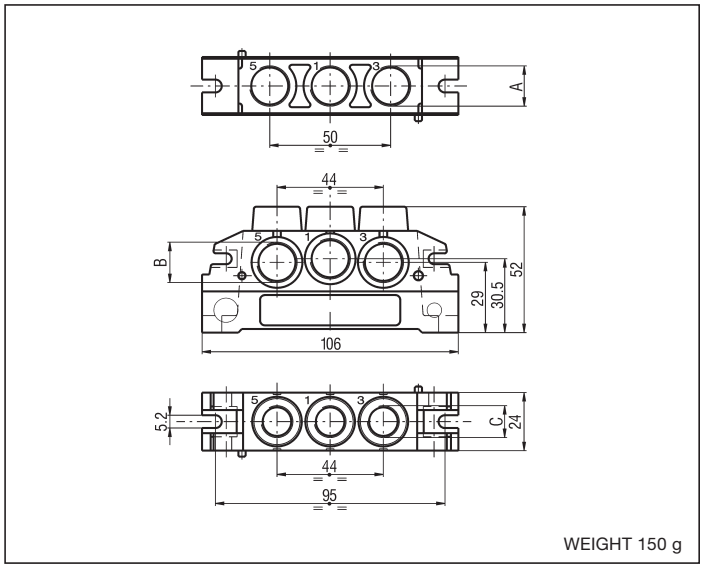
INPUT PLATE IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

BLIND TERMINAL PLATE - UDP/ISO1/PT



WEIGHT 80 g

UNIVERSAL PLATE

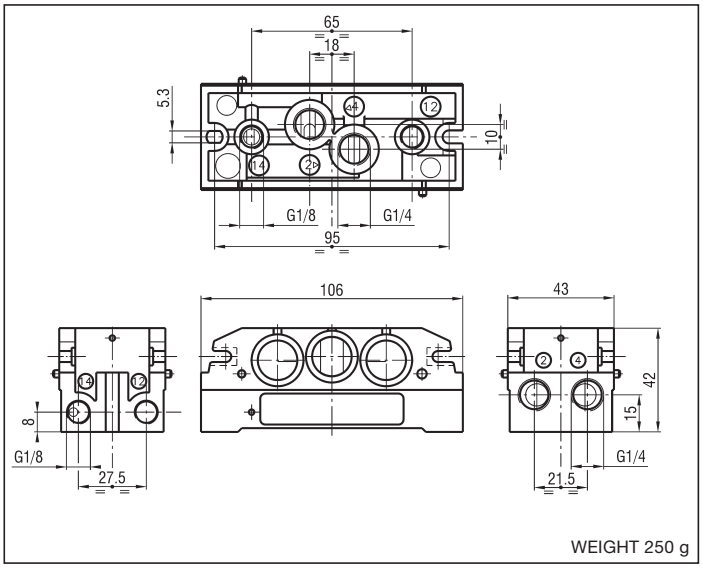


WEIGHT 150 g

DESCRIPTION	A	B	C	TYPE
Intermediate plate, bottom ported	G 3/8	-	-	UDP/ISO1PUI
Intermediate plate, side ported	-	G 3/8	-	UDP/ISO1PUL
Intermediate plate, top ported	-	-	G 1/4	UDP/ISO1PUS
Intermediate plate with blind holes	G 3/8	G 3/8	G 1/4	UDP/ISO1PU

PLATES ARE SUPPLIED COMPLETE WITH SCREWS AND SEALS

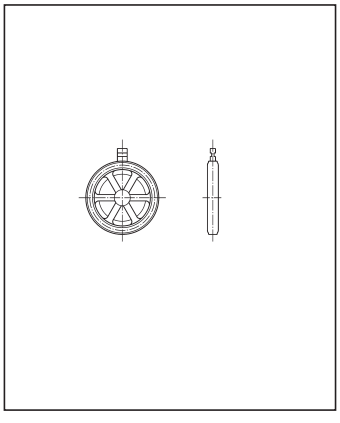
MANIFOLD BASE, SIDE AND BOTTOM PORTED - UDP/ISO1/BM



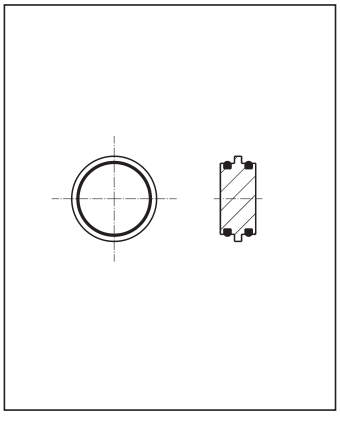
WEIGHT 250 g

MANIFOLD BASE IS SUPPLIED COMPLETE WITH SCREWS, SEALS AND PLUGS (USE A FLUID SEAL)

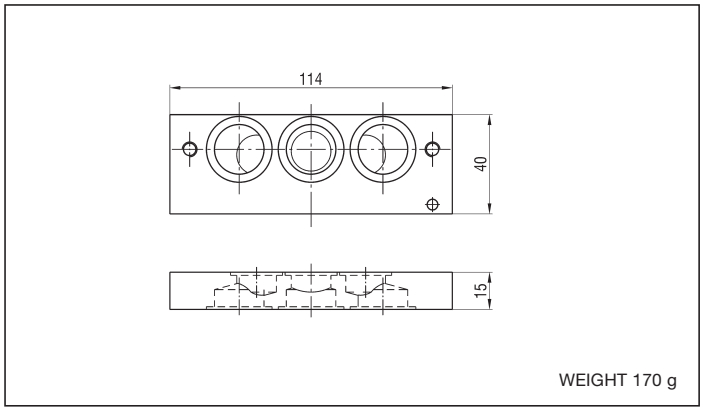
DIAPHRAGM - UDP/ISO1D



DIAPHRAGM - UDP/ISO2D



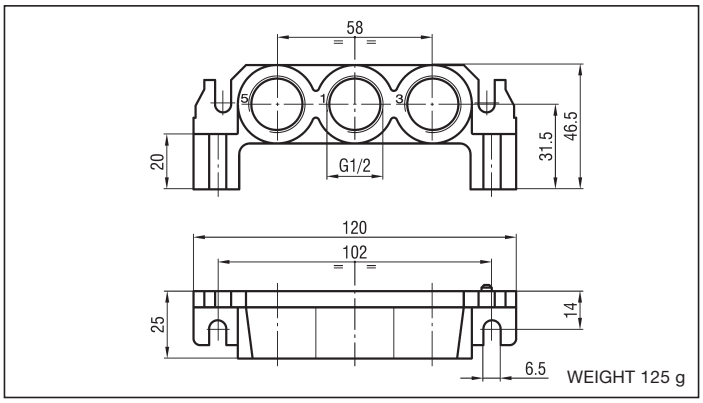
SIZE ADAPTER ISO 1-2 - UDP/ISODT1-2



WEIGHT 170 g

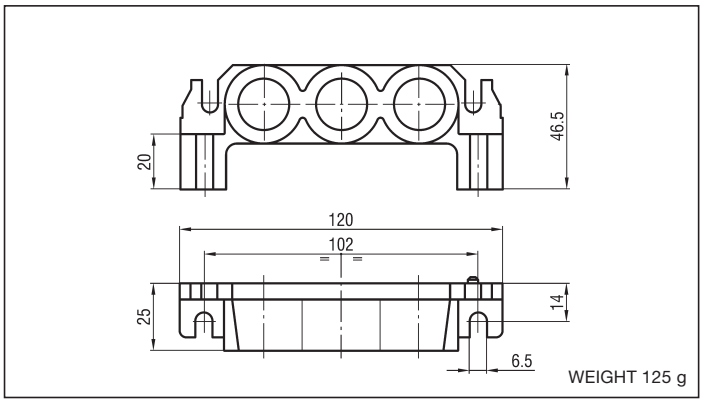
SIZE ADAPTER IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

INPUT PLATE - UDP/ISO2/PE

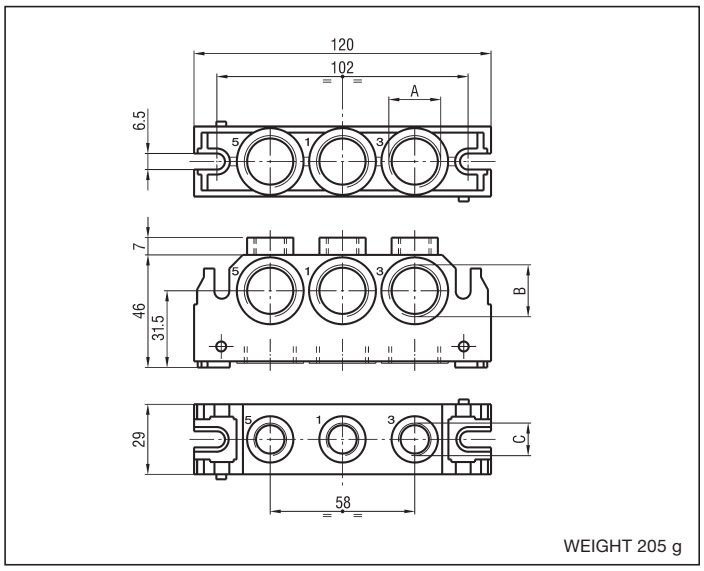


INPUT PLATE IS SUPPLIED COMPLETE WITH SCREWS AND SEALS

BLIND TERMINAL PLATE - UDP/ISO2/PT



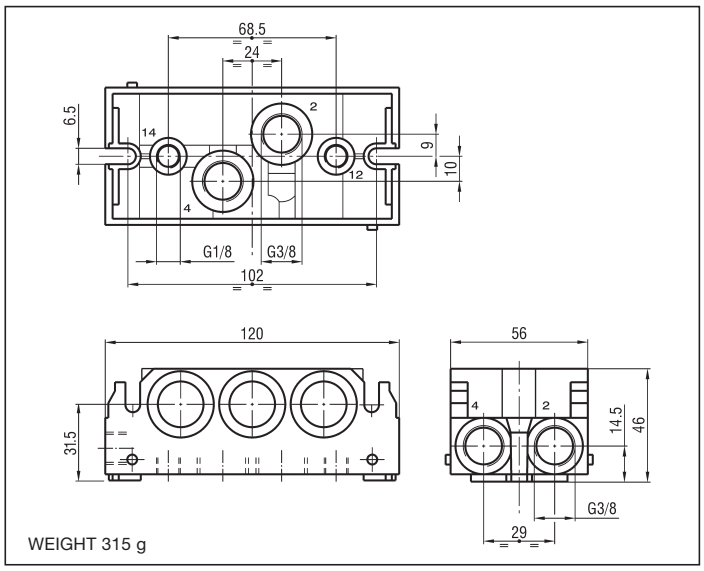
UNIVERSAL PLATE



DESCRIPTION	A	B	C	TYPE
Intermediate plate, bottom ported	G 1/2	-	-	UDP/ISO2PUI
Intermediate plate, side ported	-	G 1/2	-	UDP/ISO2PUL
Intermediate plate, top ported	-	-	G 1/4	UDP/ISO2PUS
Intermediate plate with blind holes	G 1/2	G 1/2	G1/4	UDP/ISO2PU

PLATES ARE SUPPLIED COMPLETE WITH SCREWS AND SEALS

MANIFOLD BASE, SIDE AND BOTTOM PORTED - UDP/ISO2/BM



MANIFOLD BASE IS SUPPLIED COMPLETE WITH SCREWS, SEALS AND PLUGS (WITH THE HEAD OF THE SCREW PLAIN WITH THE BASE AND USE A FLUID SEAL)

EXAMPLE OF ASSEMBLY

