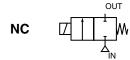


containing 2 to 12 valves 2/2 normally closed, direct operated 1/8



2/2 Series 110

#### **FEATURES**

- · Compact pilot boxes with direct operated, integrated pilot valves
- Especially designed for the remote control of pulse valves (series 353)
- · Valve seats are integrated in base plate
- Common exhaust connection for just 1 or 2 (G 3/8") silencers
- Built-in heating elements for trouble free operation at low ambient temperatures
- Degree of protection: IP 65
- Facilities for integrated quick fittings
- · The components satisfy all relevant EC directives

#### **GENERAL**

**Differential pressure (PS)** 0 to 8,5 bar [1 bar = 100kPa]

Response times 5 - 25 ms

fluid	temperature range (TS)	seal material
air	-20 to +80°C	NBR (nitrile)



Base-plate Anodised aluminium

Cover ABS (polysterene) UV stabilized

Core tube Brass

Core and plugnutStainless steelSpringStainless steelDiscNBR (nitrile)Shading coilCopperCoil insulation classF

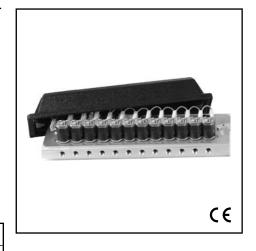
Electrical connection Spades according to DIN 46244

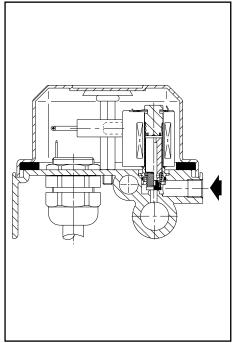
#### **ELECTRICAL CHARACTERISTICS**

Standard voltages DC (=) 24V

AC (~) 24V - 115V - 230V/50Hz

	n	ominal po	wer rating	js	ambient		
coil	inrush	inrush hold		cold	temperature	protection	
type	~	•	~ =		range (2)		
	(VA)	(VA)	(W)	(W)	(°C)		
UCM22-FI (1)	20,4	14	10	22	-40 to +85	moulded	





#### **SPECIFICATIONS**

i ved.	number	pipe	orifice	flo			ting pressure rential (bar)	catalogue number for the boxes (2)									
<u> </u>	of pilot	size	size	K			maximum (PS)		ioi tiio boxoo (L)								
	valves				· <del>-</del>	min.	air	without	1 heating	2 heating							
{		G	(mm)	(m³/h)	(l/min)		~/=	heating	element (3)	elements (3)							
E CE	2							S G110A020	S G110A021	-							
2	3							S G110A030	S G110A031	-							
	4	1/8	3,6	0,35	5,8	5,8	5,8	5,8	5,8	5,8	5,8	5,8	0	8,5	S G110A040	S G110A041	-
\$	5							S G110A050	S G110A051	-							
<u> </u>	6							S G110A060	S G110A061	-							
5	7							S G110A070	S G110A071	S G110A072							
2	8							S G110A080	S G110A081	S G110A082							
<u> </u>	9	1/8	3,6	0.35	5.8	0	8,5	S G110A090	S G110A091	S G110A092							
ns	10	"		0,00   0,00	5,0	0,5	S G110A100	S G110A101	S G110A102								
a G	11							S G110A110	S G110A111	S G110A112							
	12							S G110A120	S G110A121	S G110A122							

- (1) Intermittent duty, Relative Duty Time is 10%. Max on time is 1 min.
- (2) Minimum ambient temperature without heating elements: 0°C

Minimum ambient temperature with 1 heating element :-40°C (2 to 6 pilots) :-15°C (7 to 12 pilots)

Minimum ambient temperature with 2 heating elements : -40°C (7 to 12 pilots)

(3) Heating element(s) 220-240 VDC / VAC 50-60 Hz standard, for other voltages see ordering information. Heating element(s) rating 80 watt each.



- Pilot boxes with metal cover for harsh conditions and dust approved to ATEX heavy duty applications (prefix: WP)
- Integrated quick fittings for 6 or 8 mm tubes
- Special customer adapted executions

### **INSTALLATION**

- The pilot boxes can be mounted in any position without affecting operation
- Pipe connections are: G 1/8 according to ISO 228 for pilot connection

G 3/8 according to ISO 228 for common exhaust

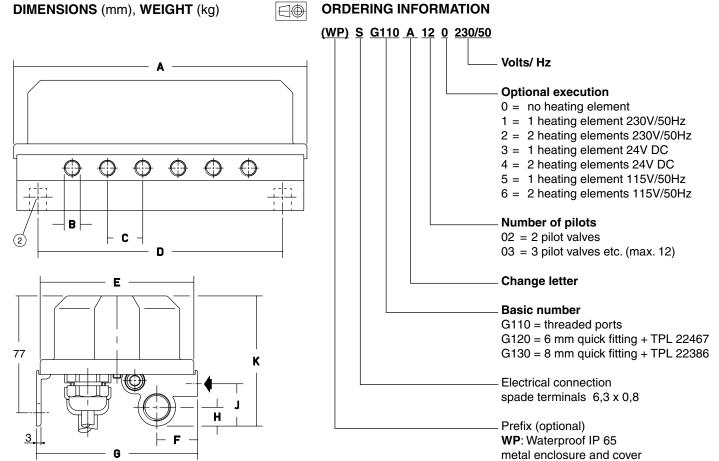
Cable entries: control cable on box with 2-6 pilot valves : cable Ø 10 - 14 mm

> control cable on box with 7 - 12 pilot valves : cable Ø 13 - 18 mm : cable Ø 5 - 10 mm

connection cable heating element

Installation/maintenance instructions are included with each pilot box Spare parts kit and replacement coils are available

### **ORDERING INFORMATION**



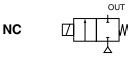
number of pilot valves	A	В	С	D	E	F	G	Н	J	К	weight (1)
2 to 6	187	G 1/8	22,5	156	98	26	103	12	27	83	1
7 to 12	322	G 1/8	22,5	266	98	26	103	12	27	83	2,2

<sup>(1)</sup> incl. coil and connector

<sup>(2)</sup> mounting: 2 holes Ø10 with pitch D



for explosive atmospheres, zone 22 II 3 D IP65 T85°C to T200°C 2 to 12 valves



2/2 Series 110

### **FEATURES**

- Pilot box intended for use in potentially explosive dusty atmospheres, according to Directive ATEX 94/9/EC
- Compliance with the Essential Health and Safety Requirements has been assured by European Standards EN 50014, EN 50281-1-1 and EN 13463-1
- Containing 2 to 12 valves, 2/2 normally closed, direct operated
- Common exhaust connection for 1 or 2 (G 3/8") silencers
- Degree of protection: IP65
- · Facilities for integrated quick fittings
- The components satisfy all relevant EC directives

#### **GENERAL**

**Differential pressure (PS)** 0 to 8,5 bar [1 bar = 100kPa]

Response times 5 - 25 ms

fluid	temperature range (TS)	seal material
air	-20 to +80°C	NBR (nitrile)



Base-plate Anodised aluminium

CoverAluminiumCore tubeBrass

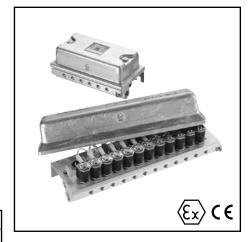
Core and plugnutStainless steelSpringStainless steelDiscNBR (nitrile)Shading coilCopperCoil insulation classF

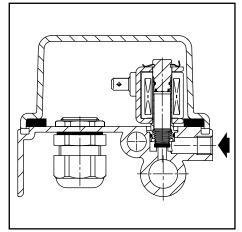
**Electrical connection** Spades according to DIN 46244



Standard voltages DC (=) 24V; AC (~) 24V - 115V - 230V/50Hz

	nominal power ratings				ambient	
coil	inrush	holding ~		cold	temperature	protection
type	~			=	range (2)	
	(VA)	(VA)	(W)	(W)	(°C)	
UCM22-FI (1)	20,4	14	10	22	-40 to +75	moulded





#### **TEMPERATURE CLASSIFICATION TABLES**

AC (~) Solenoids

1	10 ( ) 00	nonorac	<u>'</u>			
	power	lation lass	maximum ambient °0 surface temperature			
	(watt)	isol	85°C 100°C 135°C			
	10,0	F	40°C	60°C	75°C	

DC (=) Solenoids

power level	lation lass		um amb ce tempe	
(watt)	iso S	85°C	135°C	
22,0	F	40°C	60°C	75°C

#### **SPECIFICATIONS**

	number	r pipe orifice flow			ing pressure rential (bar)	catalogue number							
	of pilot	size	size		coefficient Kv		maximum (PS)	for ATEX approved boxes (2)					
	valves			, K			air	without	1 heating	2 heating			
,		G	(mm)	(m³/h)	(l/min)		~/=	heating	element (3)	elements (3)			
Ī	2							WPSDU G110A020	WPSDU G110A021	-			
-	3				5,8		8.5	WPSDU G110A030	WPSDU G110A031	-			
	4	1/8	3.6	0.35				WPSDU G110A040	WPSDU G110A041	-			
	5	_	- /-	-,				.,-			-,-	WPSDU G110A050	WPSDU G110A051
ı	6												
ſ	7							WPSDU G110A070	WPSDU G110A071	WPSDU G110A072			
-	8							WPSDU G110A080	WPSDU G110A081	WPSDU G110A082			
-	9	1/8	3,6	0.35	5.8	0	8,5	WPSDU G110A090	WPSDU G110A091	WPSDU G110A092			
٠	10	.,0	0,0	0,00	,,,,		'	WPSDU G110A100	WPSDU G110A101	WPSDU G110A102			
-	11							WPSDU G110A110	WPSDU G110A111	WPSDU G110A112			
, [	12							WPSDU G110A120	WPSDU G110A121	WPSDU G110A122			

- (1) Intermittent duty, Relative Duty Time is 10%. Max on time is 1 min.
- (3) Heating element(s) 220-240 VDC / VAC 50-60 Hz standard, for other voltages see ordering information. Heating element(s) rating 80 watt each.
- (2) Minimum ambient temperature without heating elements: 0°C

Minimum ambient temperature with 1 heating element :-40°C (2 to 6 pilots)

: -15°C (7 to 12 pilots) Minimum ambient temperature with 2 heating elements : -40°C (7 to 12 pilots)



- Integrated quick fittings for 6 or 8 mm tubes
- · Special customer adapted executions

### **INSTALLATION**

- The pilot boxes can be mounted in any position without affecting operation
- Pipe connections are: G 1/8 according to ISO 228 for pilot connection

G 3/8 according to ISO 228 for common exhaust

Cable entries: control cable on box with 2 - 6 pilot valves : cable Ø 7 - 12 mm

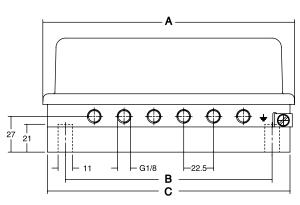
control cable on box with 7 - 12 pilot valves : cable Ø 9 - 16 mm connection cable heating element : cable Ø 5 - 10 mm

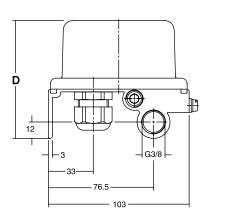
- Installation/maintenance instructions are included with each pilot box
- Spare parts kit and replacement coils are available

# **DIMENSIONS** (mm), **WEIGHT** (kg)



### **ORDERING INFORMATION**





number of pilot valves	Α	В	С	D
2 to 6	190	156	183	86
7 to 12	328	266	318	95

WP S DU G110 A 12 0 230/50	<u>)</u>
	Volts/ Hz
	Optional execution  0 = no heating element  1 = 1 heating element 230V/50Hz  2 = 2 heating elements 230V/50Hz  3 = 1 heating element 24V DC  4 = 2 heating elements 24V DC  5 = 1 heating element 115V/50Hz  6 = 2 heating elements 115V/50Hz
	<ul> <li>Number of pilots</li> <li>02 = 2 pilot valves</li> <li>03 = 3 pilot valves etc. (max. 12)</li> </ul>
	- Change letter
	- Basic number G110 = threaded ports G120 = 6 mm quick fitting + TPL 22467 G130 = 8 mm quick fitting + TPL 22386
	<ul> <li>Approval according to Directive ATEX 94/9/EC</li> </ul>
	- Electrical connection

spade terminals 6,3 x 0,8

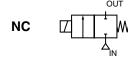
Prefix (optional)

WP: Waterproof IP 65

metal enclosure and cover



containing 4 to 6 valves 2/2 normally closed, direct operated 1/4



2/2 Series C20

#### **FEATURES**

- Compact pilot boxes with direct operated, integrated pilot valves
- Especially designed for the remote control of pulse valves (series 353)
- Pilot valves are assembled in base plate
- · Heating element for trouble free operation at low ambient temperatures
- Class of protection: IP 65
- The components satisfy all relevant EC directives

#### **GENERAL**

**Differential pressure (PS)** 0 - 7 bar [1 bar = 100kPa]

Response times 5 - 25 ms

fluid	temperature range (TS)	diaphragms
air	-20 to +80°C	NBR (nitrile)



#### CONSTRUCTION

**Base-plate** Steel (zinc plated) Cast-aluminium Cover Core tube Stainless steel Core and plugnut Stainless steel **Spring** Stainless steel Disc NBR (nitrile) Pilot body **Brass** Shading coil Copper Coil insulation class

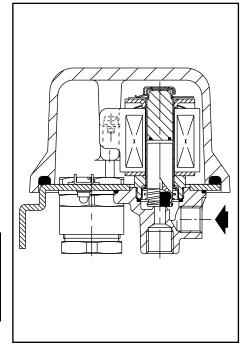
Electrical connection Coil with screw terminal

## **ELECTRICAL CHARACTERISTICS**

Standard voltages DC (=) 24V

AC (~) 24V - 115V - 230V/50Hz

	n	ominal po	wer rating	ambient		
coil type	inrush ~		ding	cold =	temperature range (2)	protection
	(VA)	(VA)	(W)	(W)	(°C)	
SMXX-FB SMXX-FI (1)	56 -	35 -	16,7 -	- 30	-15 to +85 -15 to +85	moulded moulded



# **SPECIFICATIONS**

numb	er pipe	orifice	flow coefficient			erating pressure lifferential (bar)	catalogue number for boxes (2)	
of pile	-	size		(V		maximum (PS)		ACS (2)
valve	5			•	min.	air	without	with 1 heating
	Rp	(mm)	(m³/h)	(l/min)		~/=	heating	element (3)
4							C204-220	C204-221
5	1/4	5,6	0,71	11,8	0	7	C205-220	C205-221
6							C206-220	C206-221

- (1) Intermittent duty, Relative Duty Time is 10%. Max on time 1 min.
- (2) Without heating elements: minimum ambient temperature 0°C: with one heating element: -15°C
- (3) Heating element: refer to "Ordering Information". Heating element rating: 80 watt.



- Heating element for low ambient temperatures
- Special customer adapted executions on request

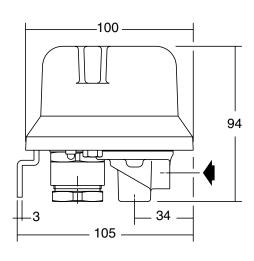
### **INSTALLATION**

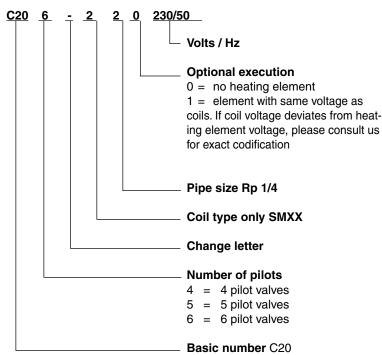
- The pilot boxes can be mounted in any position without affecting operation
- Pipe connections are: Rp 1/4 according to ISO 7/1 for pilot connection
- Cable entries: control cable on box : cable Ø 13 18 mm
  - connection cable heating element: cable Ø 6 12 mm
- Spare parts kit and replacement coils are available

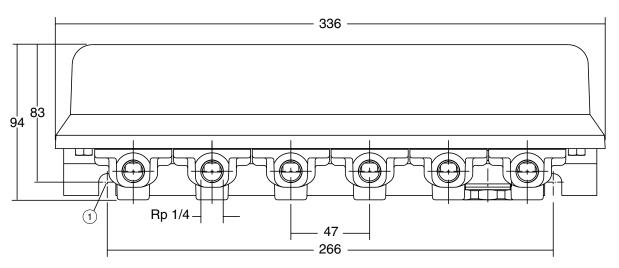
## **DIMENSIONS** (mm), **WEIGHT** (kg)



# **ORDERING INFORMATION**





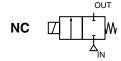


(1) Mounting: 2 holes Ø 10 with pitch D

pipe cor	weight	
C204		3,7
C205	Rp 1/4	4,1
C206		4,6



for explosive atmospheres, zone 22 II 3 D IP65 T85°C to T200°C 4 to 6 valves



#### **FEATURES**

- Pilot box intended for use in potentially explosive dusty atmospheres, according to Directive ATEX 94/9/EC
- Compliance with the Essential Health and Safety Requirements has been assured by European Standards EN 50014, EN 50281-1-1 and EN 13463-1
- Containing 4 to 6 valves, 2/2 normally closed, direct operated
- Pilot valves are assembled in base plate
- Heating element for trouble free operation at low ambient temperatures
- Class of protection: IP65
- The components satisfy all relevant EC directives

#### **GENERAL**

Differential pressure (PS) 0 - 7 bar [1 bar = 100 kPa]

**Response times** 5 - 25 ms

fluid	temperature range (TS)	seal material
air	-20 to +80°C	NBR (nitrile)



Base-plate Steel (zinc plated) Aluminium Cover Core tube Stainless steel Core and plugnut Stainless steel **Spring** Stainless steel Disc NBR (nitrile) Pilot body **Brass Shading coil** Copper

Coil insulation class

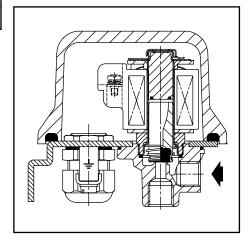
**Electrical connection** Coil with screw terminal

# **ELECTRICAL CHARACTERISTICS**

Standard voltages DC (=) 24V

> 24V - 115V - 230V/50Hz AC (~)

	n	ominal po	wer rating	ambient			
coil type	inrush ~	holding ~		cold =	temperature range (2)	protection	
-,,,,	(VA)	(VA)	(W)	(W)	(°C)		
SMXX-FB SMXX-FI (1)	56 -	35 -	16,7 -	- 30	-15 to +75 -15 to +75	moulded moulded	



### **TEMPERATURE CLASSIFICATION TABLES**

rese	AC (~) Solenoids							
without notice. All rights	power	olation class	maximum ambient °C surface temperature					
notice	(watt)	iso c	85°C	100°C	135°C			
hout	16,7	F	40°C	60°C	75°C			
<u>&gt;</u>								

DC (=) Solenoids

power	olation class	maximum ambient °C surface temperature				
(watt)	iso	85°C	100°C	135°C		
30,0	F	40°C	60°C	75°C		

#### **SPECIFICATIONS**

$\lceil$	number of pilot	pipe size	orifice	flow coefficient			erating pressure lifferential (bar)	catalogue number for ATEX approved boxes (2)	
	•	Size	size	k	v		maximum (PS)		
	valves					min.	air	without	with 1 heating
		Rp	(mm)	(m³/h)	(l/min)		~/=	heating	element (3)
	4 5 6	1/4	5,6	0,71	11,8	0	7	DU C204-220 DU C205-220 DU C206-220	DU C204-221 DU C205-221 DU C206-221

- (1) Intermittent duty, Relative Duty Time is 10%. Max on time 1 min.
- (2) Without heating elements: minimum ambient temperature 0°C: with one heating element: -15°C (3) Heating element: refer to "Ordering Information". Heating element rating: 80 watt.



- Heating element for low ambient temperatures -40°C
- Special customer adapted executions on request

#### **INSTALLATION**

32 -

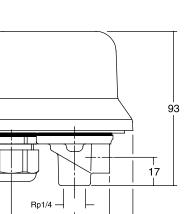
91

- 105

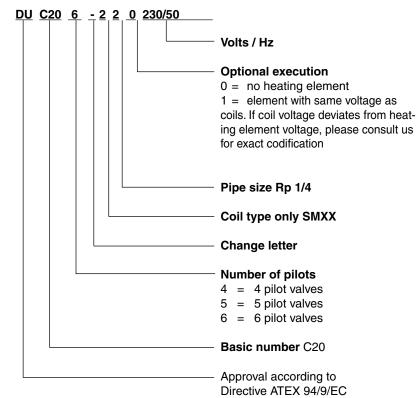
- The pilot boxes can be mounted in any position without affecting operation
- Pipe connections are: Rp 1/4 according to ISO 7/1 for pilot connection
- Cable entries: control cable on box : cable Ø 9 16 mm
  - connection cable heating element : cable Ø 7 12 mm

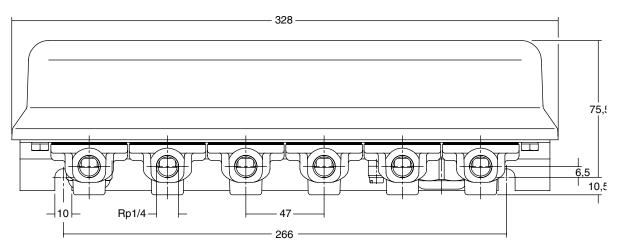
• Spare parts kit and replacement coils are available

### **DIMENSIONS** (mm), **WEIGHT** (kg)



# ORDERING INFORMATION





pipe co	pipe connections					
C204		3,7				
C205	Rp 1/4	4,1				
C206		4,6				
_						