RED D9 heat recovery unit Eff. 90%



Description

REC D9: heat recovery unit with aluminium counter-flow heat exchanger, with Eff. > 90%

- · execution with frame made of aluminium profiles
- double panels filled with rock wool heat and acoustic insulation th. 25 mm
- · external panels in pre-painted sheet metal, interior in galvanised steel
- EC high efficiency centrifugal fans
- temperature probes
- integrated by-pass for free-cooling / free-heating (manual, motorised or automatic operation)
- M5 (ISO ePM10 50%) and F7 (ISO ePM1 70%) filters, removable from below in the horizontal ceiling version
- · control board on the machine
- · integrated frost protection
- working temperature 0°C and 45°C

Remote controls

3V EVO:

- · on / off
- · 3-speed selection
- . by-pass (opening/closing) alert with automatic control
- · frost protect alert
- dirty filters alert (with counter)
- probe malfunction alert
- · can be installed in type 503 horizontal box
- possibility of automatic control of antifreeze heater, including 2 stages
- possibility of controlling the unit with simple digital inputs (on-off and remote speeds)

LCD (white):

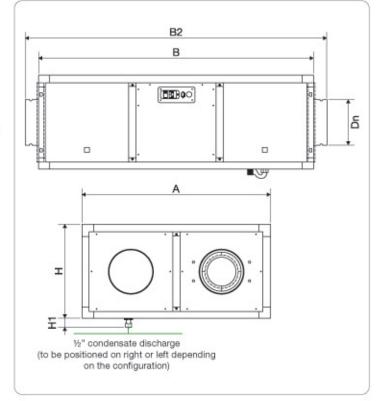
- LCD display
- integrated temperature / humidity probes
- selectable fan speed control;
 - 3 preset manual speeds (can be changed from 10% to 100%)
- automatic (depending on humidity or air quality or temperature or other external probes)
- diversify the speed of the inlet and expulsion fan
- can be installed in type 503 horizontal box
- · automatic by-pass control
- · frost protection with "pre-heating" coil management
- post-heating battery management with 0-10 Volt signal
- active alarms and alarm history
- clogged filter alarm
- hourly / weekly programming
- possibility of controlling the unit with simple on-off inputs through the control board:
- on-off contacts (speed summer-winter)
- pairing with external probes 0-10 Volt
- ModBus on RS485
- · pre-configuration for additional modules (Lan, RS485, RS232, GSM)

- 50		Erp 2018 - E	U 1253/2014		
Model	Flow rate (m³/h)	Prev. (Pa)	Yield of exchange pack 20°C dry (Eff. %)	LwA (dBA)	
800 EC	850	110	78.3	57	
1200 EC	1340	420	78.6	67	
1600 EC	1580	290	78.8	68	
2200 EC	2050	510	80.3	67	
3000 EC	2720	345	80.5	68	
4000 EC	3600	245	80.5	66	
5000 EC	4460	480	80.4	70	
8000 EC*	7300	420	81.5	71	

Dimensions

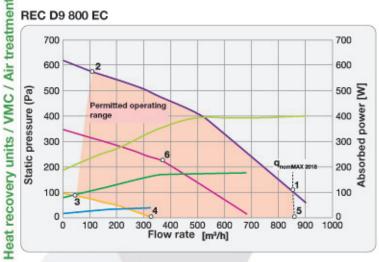
Model	А	В	н	B2	H1	Ø	Weight (Kg)	ASS (W)	Current (V)
800 EC	970	1350	410	1460	40	250	131	380	230
1200 EC	1100	1500	520	1607	40	315	188	1000	230
1600 EC	1100	1500	600	1607	40	315	207	1000	230
2200 EC	1250	1500	620	1716	40	355	242	1500	230
3000 EC	1250	1800	800	1916	40	400	304	2000	400/3F
4000 EC	1250	1800	1050	1916	40	400	381	2000	400/3F
5000 EC	1250	1800	1350	1917	40/100	450	455	3400	400/3F
8000 EC*	1800	1250	1500	-	40/100	810X510	780	5000	400/3F

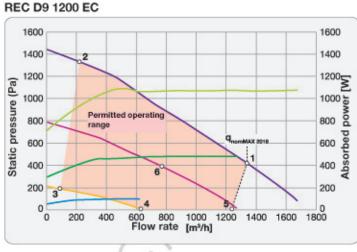
*: with integrated hot/cold coil water 50/40°C - 15°C - 60 kW water 7/12°C - 27 °C - 43 kW

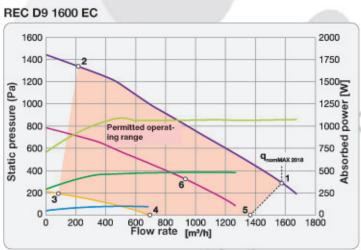


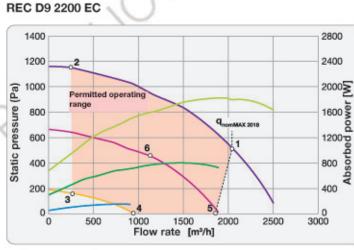
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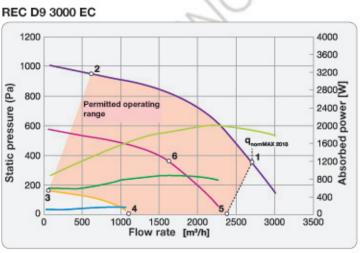


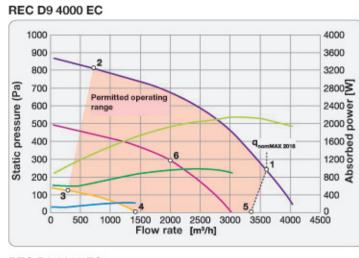


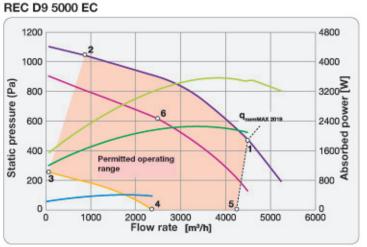


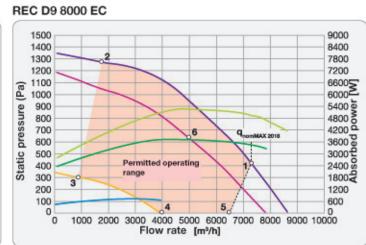




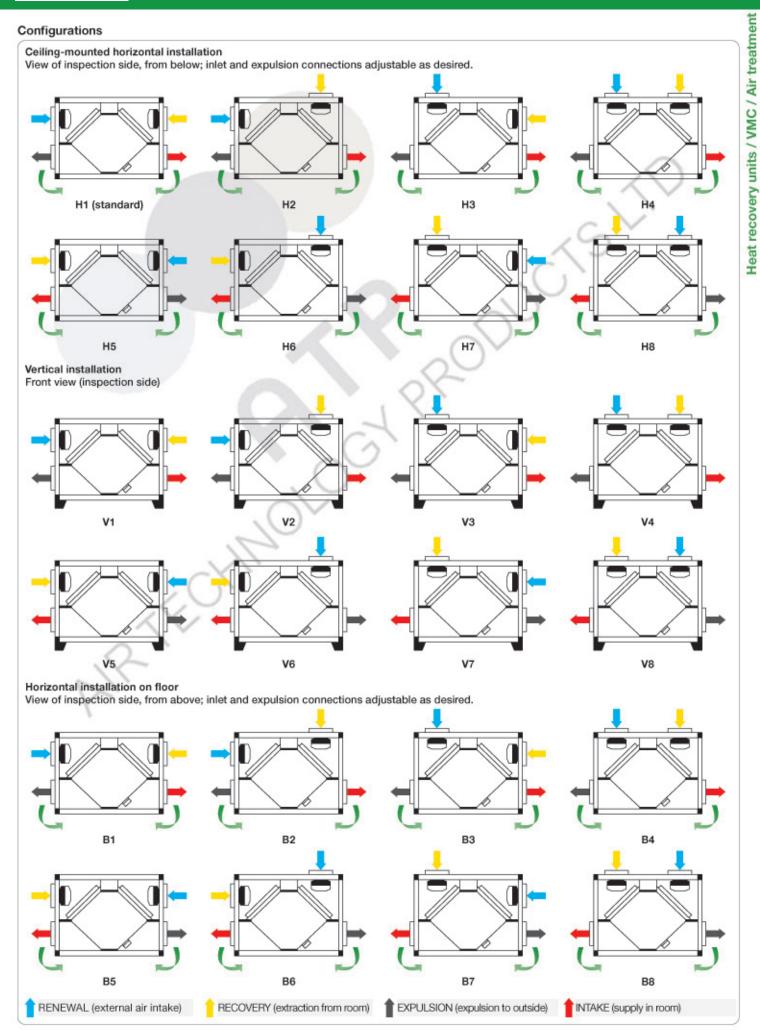








RED D9 heat recovery unit Eff. 90%





Heat recovery units / VMC / Air treatment

		Control compatibility			
Accessory	Unit pairing	4V board (S4) Potentiometer (Pt) 3 speeds (3V)	3 speeds EV0 (3E)	Electronics (SE), (EL), (EB) or (ET)	
Pressure switch 20-300 Pa	All the UVC 90	0	0	0	
can be used for example as ventilation activation safety device)	All the REC D9 EC	supplied separately	supplied separately	supplied separately	
Pressure switch filters	All the UVC 90	standard supply	0	V	
for both filters, order 2 pieces)	All the REC D9 EC	(1 mounted on renewal)	mounted, not connected	mounted, not connected	
Frost thermostat	All the UVC 90	v	x	x	
TUST UICHNUSIAL	All the REC D9 EC		^	^	
Room thermostat on-off	All the UVC 90	0	0	0	
noni diciniostat on-on	All the REC D9 EC	not managed	not managed	not managed	
Room temperature probe 0-10V	All the UVC 90	x	X	v	
noni temperature prope o- rov	All the REC D9 EC	^	î î		
Room temperature probe 0-10V with display	All the UVC 90	x	x	v	
noni temperature prode of row with display	All the REC D9 EC	^	^	•	
Duct temperature probe 0-10V	All the UVC 90	x	x	v	
reaction product of 104	All the REC D9 EC	^	^	in.	
Room humidistat on-off	All the UVC 90	v	v	v	
Total manuality of the	All the REC D9 EC		V	·	
Duct humidistat on-off	All the UVC 90	_ v x	v x	v	
The individual of the	All the REC D9 EC				
Humidity and room temperature probe 0-10V	All the UVC 90			v	
annus, and room compensate proces of the	All the REC D9 EC	•			
lumidity and room temperature probe 0-10V with display	All the UVC 90	X		v	
	All the REC D9 EC	^			
lumidity and duct temperature probe 0-10V	All the UVC 90	X	x	v	
	All the REC D9 EC				
Room air quality probe (CO2) 0-10V	All the UVC 90	x	x	v	
, , , , , , , , , , , , , , , , , , ,	All the REC D9 EC				
Room air quality probe (VOC) 0-10V	All the UVC 90	X	x	v	
, , , , , , , , , , , , , , , , , , , ,	All the REC D9 EC		-	1.5	
Room air quality probe (VOC) on-off	All the UVC 90	v	٧	v	
	All the REC D9 EC				
Room air quality probe (VOC) and humidity 0-10V	All the UVC 90	X	X	v	
	All the REC D9 EC				
Duct air quality probe (VOC) 0-10V	All the UVC 90	x	x	v	
	All the REC D9 EC				
Duct air quality probe (VOC) and humidity 0-10V	All the UVC 90	X	x	V	
***************************************	All the REC D9 EC				
Additional ModBus module	All the UVC 90	х	x	v	
add 1 RS458 port to use ModBus together with remote display)	All the REC D9 EC	0.0			
Constant pressure control 0-100 / 0-250 Pa	All the UVC 90	X	x	v	
inlet only; order 2 pieces for both fams)	All the REC D9 EC				
Constant pressure control 0-500 / 0-1000 Pa inlet only; order 2 pieces for both fans)	All the UVC 90	х	x x	v	
niet only; order z pieces for down tains)	All the REC D9 EC				
Constant flow control 0-950 m ² /h (80)	UVC 90 800	x		V	
inlet only; order 2 pieces for both fans)	All the REC D9 EC				
Constant flow control 0-1900 m ³ /h (120 and 160) inlet only; order 2 pieces for both fans)	UVC 90 1200-1600 REC D9 1200-1600	x	X	V	
Constant flow control inlet only; order 2 pieces for both fans)	UVC 90 from 2200 and		x		
0-3500 m³/h (2200)	above	x			
0-4650 m³/h (3000 - 3200)				v	
0-5800 m³/h (4000)]		100	
0-7400 m³/h (5000)	REC D9 from 2200 EC and above				
0-9000 m³/h (8000)	une 42010				

Accessory compatibility key: X= non compatible | O= partial compatibility (compatible with unit but not managed) | V= total compatibility

		Control compatibility			
Accessory	Unit pairing	4V board (S4) Potentiometer (Pt) 3 speeds (3V)	3 speeds EV0 (3E)	Electronics (SE), (EL), (EB) or (ET)	
	UVC 90 from 350 to2200		v		
IP 55 control panel	(UVC 90 3200 standard supply)				
(Mandatory for external installations)	REC D9 EC from 500 to 2200	V		V	
	3000, 4000, 5000, 8000 standard supply				
Cover for outdoors for REC D9 800 horizontal (configuration from B1 to B8)	REC D9 800 EC (configuration from B1 to B8)				
Cover for outdoors for REC D9 800 vertical (configuration V1 or V5)	REC D9 800 EC (configuration V1 or V5)		-		
Cover for outdoors for REC D9 1200 horizontal (configuration from B1 to B8)	REC D9 1200 EC (configuration from B1 to B8)		-		
Cover for outdoors for REC D9 1200 vertical (configuration V1 or V5)	REC D9 1200 EC (configuration V1 or V5)				
Cover for outdoors for REC D9 1600 horizontal (configuration from B1 to B8)	REC D9 1600 EC (configuration from B1 to B8)		1747		
Cover for outdoors for REC D9 1600 vertical (configuration V1 or V5)	REC D9 1600 EC (configuration V1 or V5)				
Cover for outdoors for REC D9 2200 horizontal (configuration from B1 to B8)	REC D9 2200 EC (configuration from B1 to B8)				
Cover for outdoors for REC D9 2200 vertical (configuration V1 or V5)	REC D9 2200 EC (configuration V1 or V5)	1.*.			
Cover for outdoors for REC D9 3000 horizontal (configuration from B1 to BB)	REC D9 3000 EC (configuration from B1 to B8)				
Cover for outdoors for REC D9 3000 vertical (configuration V1 or V5)	REC D9 3000 EC (configuration V1 or V5)	g*s			
Cover for outdoors for REC D9 4000 horizontal (configuration from B1 to B8)	REC D9 4000 EC (configuration from B1 to B8)				
Cover for outdoors for REC D9 4000 vertical (configuration V1 or V5)	REC D9 4000 EC (configuration V1 or V5)				
Cover for outdoors for REC D9 5000 horizontal (configuration from B1 to B8)	REC D9 5000 EC (configuration from B1 to B8)				
Cover for outdoors for REC D9 5000 vertical (configuration V1 or V5)	REC D9 5000 EC (configuration V1 or V5)				
Cover for outdoors for REC D9 8000 vertical (configuration V1 or V5)	REC D9 8000 EC (configuration V1 or V5)				
Roof UVC 90 350 - 500 HB	UVC 90 350 - 500 HB		-		
Roof UVC 90 350 - 500 HP	UVC 90 350 - 500 HP		(
Roof UVC 90 800 HB	UVC 90 800 HB		201		
Roof UVC 90 800 HP	UVC 90 800 HP		7.27		
Roof UVC 90 1200 HB	UVC 90 1200 HB		(35)		
Roof UVC 90 1200 HP	UVC 90 1200 HP		327		
Roof UVC 90 1600 HB	UVC 90 1600 HB		1.5		
Roof UVC 90 1600 HP	UVC 90 1600 HP				
Roof UVC 90 2200 HB	UVC 90 2200 HB				
Roof UVC 90 2200 HP	UVC 90 2200 HP	u-1			
Roof UVC 90 3200 HP	UVC 90 3200 HP				



Heat recovery units / VMC / Air treatment

		Control compatibility			
Accessory	Unit pairing	4V board (S4) Potentiometer (Pt) 3 speeds (3V)	3 speeds EVO (3E)	Electronics (SE), (EL), (EB) or (ET)	
Electric heating element Ø125 0,5kW 230V 1F 1 stage thermostat -30+30°C)	UVC 90 150	V managed with integrated thermostat	V managed with integrated thermostat	٧	
Electric heating element Ø125 0,5kW 230V 1F adjustment 0-10V)	UVC 90 150	x	х	٧	
Electric heating element Ø160 0,75kW 230V 1F 1 stage thermostat -30+30°C)	UVC 90 220	V managed with integrated thermostat	W managed with integrated thermostat	٧	
Electric heating element Ø160 0,75kW 230V 1F adjustment 0-10V)	UVC 90 220	X	X	V	
Electric heating element Ø160 1kW 230V 1F 1 stage thermostat -30+30°C)	UVC 90 350	V managed with integrated thermostat	V managed with integrated thermostat	V	
Electric heating element Ø160 1kW 230V 1F adjustment 0-10V)	UVC 90 350	X	X	v	
Electric heating element Ø200 1,5kW 230V 1F 1 stage thermostat -30+30°C)	UVC 90 500	V managed with integrated thermostat	wanaged with integrated thermostat	V	
Electric heating element Ø200 1,5kW 230V 1F adjustment 0-10V)	UVC 90 500	x	x	V	
Electric heating element Ø250 2kW 230V 1F 2 stages	UVC 90 800	w managed with integrated thermostat	V managed with integrated thermostat	v	
thermostat -30+30°C)	REC D9 800			٧	
electric heating element Ø250 2kW 230V 1F	UVC 90 800	х	x	v	
adjustment 0-10V)	REC D9 800				
electric heating element Ø315 3kW 400V 3F 2 stages	UVC 90 1200	w managed with integrated thermostat	managed with integrated thermostat	V	
thermostat -30+30°C)	REC D9 1200			15.	
lectric heating element Ø315 3kW 400V 3F	UVC 90 1200	x	x	V	
adjustment 0-10V)	REC D9 1200				
lectric heating element Ø315 4kW 400V 3F 2 stages	UVC 90 1600	managed with integrated thermostat	managed with integrated thermostat	V	
thermostat -30+30°C)	REC D9 1600			10	
lectric heating element Ø315 4kW 400V 3F djustment 0-10V)	UVC 90 1600	x	x	V	
rajasanent o- rovj	REC D9 1600	V			
lectric heating element 0355 6kW 400V 3F 2 stages hermostat -30+30°C)	UVC 90 2200	managed with integrated	managed with integrated thermostat	٧	
and the same of th	REC D9 2200	thermostat			
electric heating element Ø355 6kW 400V 3F	UVC 90 2200 REC D9 2200	x	X	V	
	UVC 90 3200	v	v		
lectric heating element 0400 12kW 400V 3F 2 stages hermostat -30+30°C)	REC D9 3000	managed with integrated thermostat	managed with integrated thermostat	V	
	UVC 90 3200	urormostat	X		
electric heating element Ø400 12kW 400V 3F adjustment 0-10V)	REC D9 3000	X		V	
lectric heating element Ø400 16kW 400V 3F 2 stages hermostat -30+30°C)	REC D9 4000	V managed with integrated thermostat	V managed with integrated thermostat	V	
electric heating element Ø400 16kW 400V 3F adjustment 0-10V)	REC D9 4000	X	X	V	
Electric heating element Ø450 16kW 400V 3F 2 stages thermostat -30+30°C)	REC D9 5000	V managed with integrated thermostat	managed with integrated thermostat	V	
Electric heating element Ø450 16kW 400V 3F adjustment 0-10V)	REC D9 5000	x	х	٧	



			Control compatibility		
Accessory	Unit pairing	4V board (S4) Potentiometer (Pt) 3 speeds (3V)	3 speeds EV0 (3E)	Electronics (SE), (EL), (EB) or (ET)	
Hot//cold water coil 150 m ² /h and 1kW (1/2" connections)	UVC 90 150	0 not managed	0 not managed	٧	
Hot//cold water coil 220 m³/h and 1.6kW (1/2" connections)	UVC 90 220	0 not managed	0 not managed	٧	
Hot//cold water coil 350 m ³ /h and 2.2kW (1/2" connections)	UVC 90 350	0 not managed	0 not managed	٧	
Hot//cold water coil 500 m ³ /h and 3.2kW (1/2" connections)	UVC 90 500	0 not managed	0 not managed	٧	
Hot//cold water coil 800 m ³ /h and 5.7kW	UVC 90 800	0 not managed	0 not managed	٧	
(1/2" connections)	REC D9 800			V	
Hot//cold water coil 1200 m ^o /h and 7.8kW	UVC 90 1200	0 not managed	0 not managed	٧	
(3/4" connections)	REC D9 1200				
Hot//cold water coil 1600 m ^s /h and 9.7kW	UVC 90 1600	0	0 not managed	٧	
(3/4" connections)	REC D9 1600	not managed			
Hot//cold water coil 2200 m ^a /h and 15kW	UVC 90 2200	0	0	٧	
(3/4" connections)	REC D9 2200	not managed	not managed		
Hot//cold water coil 3200 m ⁸ /h and 22kW	UVC 90 3200	0	0	v	
(1" connection)	REC D9 3000	not managed	not managed	٧	
Hot//cold water coil 4000 m ^s /h and 29kW (1"connection)	REC D 9 4000	0 not managed	0 not managed	٧	
Hot//cold water coil 5000 m ³ /h and 31kW (1" connection)	REC D 9 5000	0 not managed	0 not managed	٧	

		Control compatibility		
Accessory	Unit pairing	4V board (S4) Potentiometer (Pt) 3 speeds (3V)	3 speeds EVO (3E)	Electronics (SE), (EL), (EB) or (ET)
2-way servovalve on-off (230V), 1/2* connections	All UVC 90 and REC D9 based on connection Ø	0 not managed	0 not managed	٧
3-way servovalve on-off (230V), 1/2" connections	All UVC 90 and REC D9 based on connection Ø	0 not managed	0 not managed	٧
2-way servovalve on-off (230V), 3/4" connections	All UVC 90 and REC D9 based on connection Ø	0 not managed	0 not managed	٧
3-way servovalve on-off (230V), 3/4" connections	All UVC 90 and REC D9 based on connection Ø	0 not managed	0 not managed	V
2-way servovalve on-off (230V), 1" connections	All UVC 90 and REC D9 based on connection Ø	0 not managed	0 not managed	٧
3-way servovalve on-off (230V), 1" connections	All UVC 90 and REC D9 based on connection Ø	0 not managed	0 not managed	٧
2-way servovalve 0-10V (24V), 1/2" connections	All UVC 90 and REC D9 based on connection Ø	X	X	٧
3-way servovalve 0-10V (24V), 1/2" connections	All UVC 90 and REC D9 based on connection Ø	X	x	٧
2-way servovalve 0-10V (24V), 3/4" connections	All UVC 90 and REC D9 based on connection Ø	X	x	٧
3-way servovalve 0-10V (24V), 3/4" connections	All UVC 90 and REC D9 based on connection Ø	x	x	٧
2-way servovalve 0-10V (24V), 1" connections	All UVC 90 and REC D9 based on connection Ø	X	X	٧
3-way servovalve 0-10V (24V), 1" connections	All UVC 90 and REC D9 based on connection Ø	X	X	٧



Heat recovery units / VMC / Air treatment

		Control compatibility			
Accessory	Unit pairing	4V board (S4) Potentiometer (Pt) 3 speeds (3V)	3 speeds EVO (3E)	Electronics (SE), (EL), (EB) or (ET)	
2-way ball servovalve 0-10V (24V), 1/2" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
3-way ball servovalve 0-10V (24V), 1/2" connections	All UVC 90 and REC D9 based on connection Ø	x	x	V	
2-way ball servovalve 0-10V (24V), 3/4" connections	All UVC 90 and REC D9 based on connection Ø	x	x	V	
3-way ball servovalve 0-10V (24V), 3/4" connections	All UVC 90 and REC D9 based on connection Ø	x	x	V	
2-way servovalve 0-10V (24V), 1" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
3-way servovalve 0-10V (24V), 1" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
2-way ball servovalve 0-10V (24V), 1 1/4" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
3-way ball servovalve 0-10V (24V), 1 1/4" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
2-way ball servovalve 0-10V (24V), 1 1/2" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
3-way ball servovalve 0-10V (24V), 1 1/2" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
2-way servovalve 0-10V (24V), 2" connections	All UVC 90 and REC D9 based on connection Ø	х	x	v	
3-way servovalve 0-10V (24V), 2" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
2-way ball servovalve 0-10V (230V), 1/2" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
3-way ball servovalve 0-10V (230V), 1/2" connections	All UVC 90 and REC D9 based on connection Ø	х	x	v	
2-way ball servovalve 0-10V (230V), 3/4" connections	All UVC 90 and REC D9 based on connection Ø	х	x	v	
3-way ball servovalve 0-10V (230V), 3/4" connections	All UVC 90 and REC D9 based on connection Ø	х	x	v	
2-way servovalve 0-10V (230V), 1" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
3-way servovalve 0-10V (230V), 1" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
2-way ball servovalve 0-10V (230V), 1 1/4" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
3-way ball servovalve 0-10V (230V), 1 1/4" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
2-way ball servovalve 0-10V (230V), 1 1/2" connections	All UVC 90 and REC D9 based on connection Ø	х	x	v	
3-way ball servovalve 0-10V (230V), 1 1/2" connections	All UVC 90 and REC D9 based on connection Ø	х	x	v	
2-way servovalve 0-10V (230V), 2" connections	All UVC 90 and REC D9 based on connection Ø	x	x	v	
3-way servovalve 0-10V (230V), 2" connections	All UVC 90 and REC D9 based on connection Ø	х	х	v	