



La imagen puede diferir del producto



5 años garantía



Resumen de tipos

Tipo

B331

DN

1 1/4" [32]

Datos técnicos

Datos de funcionamiento

Tamaño de válvula [mm]	1.25" [32]
Ruta de mam	agua fría o caliente, hasta 60% de glicol
Rango de temp. del fluido (agua)	0...250°F [-18...120°C]
Clasificación de presión corporal	400 psi
Presión de cierre Δps	200 psi
Caudal	Orificio A: según lo indicado en el cuadro Orificio B: 70% de A – AB Cv
Característica de flujo	Orificio A igual porcentaje, orificio B modificado para un flujo constante en el orificio común
Tasa de fuga	0% para A – AB, <2.0% para B – AB
Conexión a tubería	Rosca interna NPT (hembra)
Nombre del edificio/Proyecto	sin mantenimiento
Patrón de flujo	3 vías Mezcladora / Divergente
Rango de flujo controlable	75°
Cv	25

Materiales

Cuerpo de la válvula	cuerpo de latón niquelado
Eje	acero inoxidable
Sello del eje	EPDM (lubricado)
Asiento	PTFE
Disco caracterizado	Ryton PPS
Junta tórica	EPDM (lubricado)
Bola	acero inoxidable

Suitable actuators

Sin función de protección a prueba de fallas	ARB(X) ARQB(X) ARB(X) N4
Muelle	AFRB(X)

Notas de seguridad



- ADVERTENCIA: Este producto puede exponerlo al plomo que es conocido en el estado de California como causante cáncer y daños reproductivos. Para obtener más información, visite www.p65warnings.ca.gov

Características del producto

Aplicación Esta válvula se utiliza normalmente en unidades de manejadoras de aire y unidades de fancoil. Algunas otras aplicaciones comunes incluyen ventiladores unitarios, serpentines de recalentamiento de caja VAV y circuitos con derivación o bypass. Esta válvula es adecuada para su uso en un sistema hidráulico con caudal variable o constante.

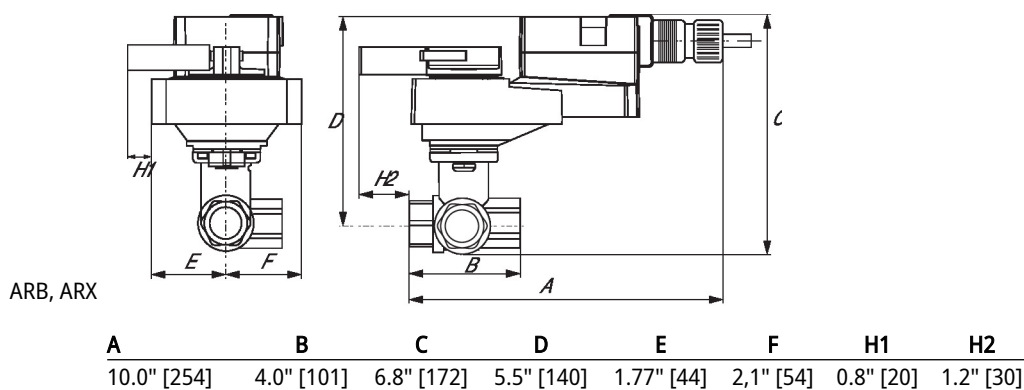
Detalles de flujo / montaje

This valve is not suitable for use as a change over valve.

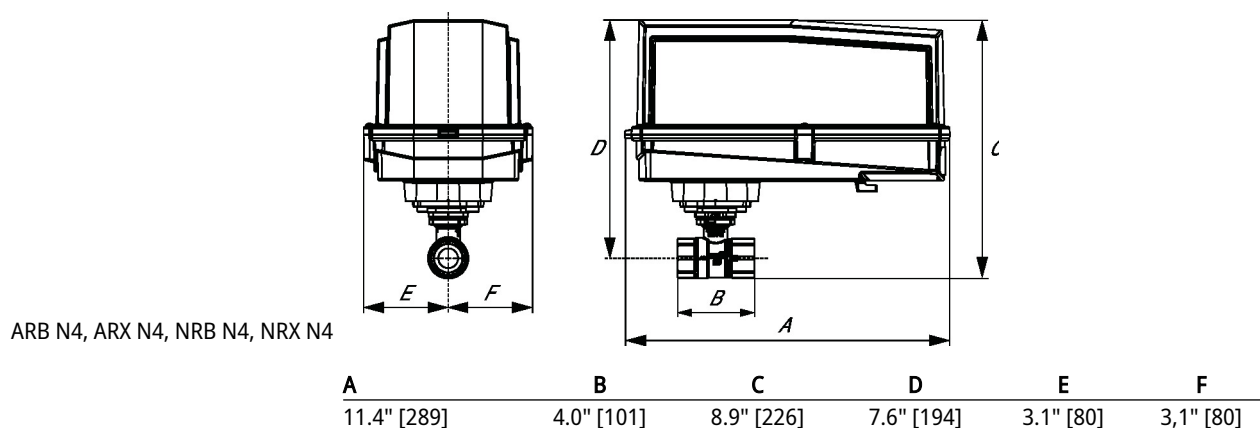

Dibujos dimensionales

Tipo	DN	Peso
B331	1 1/4" [32]	2.5 lb [1.1 kg]

ARB, ARX



ARB N4, ARX N4, NRB N4, NRX N4



Dibujos dimensionales
ARQB, ARQX


A	B	C	D	E	F	H1	H2
9.7" [246]	4.0" [101]	7.5" [191]	6.2" [158]	1.77" [44]	2.1" [54]	1.4" [34]	0.8" [20]

AFRB, AFRX


A	B	C	D	E	F
10.6" [269]	4.0" [101]	6.9" [175]	5.7" [146]	2.1" [54]	1.3" [33]

AFRB N4, AFRX N4


A	B	C	D	E	F
13.0" [330]	4.0" [101]	10.5" [267]	9.5" [241]	3.7" [95]	3.7" [95]

MFT/programmable, Non fail-safe, 120 V



2-year warranty

Technical data

Electrical data	Nominal voltage	AC 120 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 96...132 V
	Transformer sizing	228 VA
	Current consumption	1.9 A
	Auxiliary switch	2x SPDT, 1 mA...5 A (3 A inductive), DC 5 V...AC 250 V, 1x 3° / 1x 87°
	Switching capacity auxiliary switch	1 mA...5 A (3 A inductive), DC 5 V...AC 250 V
	Electrical Connection	Terminal blocks
	Overload Protection	thermally protected 135°C cut-out
	Internal Humidity Control	resistive heating element
Functional data	Torque motor	500 Nm
	Operating range Y	2...10 V
	Input impedance	100 kΩ
	Position feedback U	2...10 V
	Position feedback U note	Max. 0.5 mA
	Position feedback U variable	VDC variable
	Direction of motion motor	selectable with switch 0/1
	Manual override	hand wheel
	Angle of rotation	90°
	Running Time (Motor)	28 s
	Duty cycle value	75%
	Noise level, motor	45 dB(A)
	Position indication	top mounted domed indicator
Safety data	Degree of protection IEC/EN	IP66/67
	Degree of protection NEMA/UL	NEMA 4X
	Enclosure	UL Enclosure Type 4X
	Agency Listing	ISO, cCSAus
	Quality Standard	ISO 9001
	Ambient humidity	Max. 100% RH
	Ambient temperature	-22...149°F [-30...65°C]
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free
Weight	Weight	44 lb [20 kg]

Technical data

Materials	Housing material	die cast aluminium
	Gear train	high alloy steel gear sets, self locking

Product features

Application SY Series actuators are fractional horsepower devices, and utilize full-wave power supplies. Observe wire sizing and transformer sizing requirements. Proportional models CANNOT be connected to Belimo direct coupled (AF, AM, GM...etc) actuator power supplies or any type of half-wave device. You MUST use a separate, dedicated transformer or power supply to power the SY actuator. Please do not connect other automation equipment to the dedicated SY supply source. You MUST use four wires (plus a ground) to control a proportional control SY actuator (See SY Wiring Section).

Accessories

	Gateways	Description	Type
		Gateway MP to BACnet MS/TP	UK24BAC
		Gateway MP to Modbus RTU	UK24MOD
		Gateway MP to LonWorks	UK24LON
	Electrical accessories	Description	Type
		Local electric disconnect for SY4...12 series actuator, AC 120 V, MFT	HOA-120VMFT
		Service tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US
		Battery backup system for SY4...6 series actuator, AC 120 V, on/off	EXT-NSV-B03-120
		Battery backup system for SY4...6 series actuator, AC 120 V, MFT	EXT-NSV-B04-120
		Battery backup system for SY4...5 series actuator, AC 24 V, on/off	EXT-NSV-B13-24
		Battery backup system for SY4...5 series actuator, AC 24 V, MFT	EXT-NSV-B14-24
	Tools	Description	Type
		Connecting cable 10 ft [3 m], A: RJ11 6/4 ZTH EU, B: 3-pin Weidmüller and supply connection	ZK4-GEN
		Service tool, with ZIP-USB function, for programmable and communicative Belimo actuators, VAV controller and HVAC performance devices	ZTH US

Electrical installation

INSTALLATION NOTES

-  Do not change sensitivity or dip switch setting with power applied.
-  Power supply Common/Neutral and Control Signal "-" wiring to a common is prohibited. Terminals 4 and 6 need to be wired separately.
-  Isolation relays must be used in parallel connection of multiple actuators using a common control signal inputs. The relays should be DPDT.
-  Isolation relays are required in parallel applications. The reason parallel applications need isolation relays is that the motor uses two sets of windings, one for each direction. When one is energized to turn the actuator in a specific direction a voltage is generated in the other due to the magnetic field created from the first. It's called back EMF. This is not an issue with one actuator because the voltage generated in the second winding isn't connected to anything so there is no flow. On parallel applications without isolation, this EMF voltage energizes the winding it is connected to on the other actuators in the system, the actuators are trying to turn in both directions at once. The EMF voltage is always less than the supply voltage due to the resistance of the windings, so while the actuator still turns in the commanded direction, the drag from the other reduces the torque output and causes overheating.

 **Warning! Live electrical components!**

Electrical installation

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Wiring diagrams

