

COMPUERTAS DE REGULACIÓN PARA CONDUCTO CIRCULAR

MADEL

SCC

Las compuertas de la serie **SCC** han sido diseñadas para su utilización en la regulación del caudal y de la presión, en instalaciones de aire acondicionado, ventilación y calefacción.

Su montaje se realiza en conducto circular.

CLASIFICACIÓN

SCC-R Compuerta circular de regulación de aire con conexión a conducto según norma EN-1506. Con juntas de goma de doble labio para mejorar la estanqueidad de la conexión.

Carcasa estanca conforme a la norma EN-1751.

100 < D(Ø) < 400 EN-1751 Carcasa Clase C

SCC-E Compuerta circular estanca de regulación de aire con conexión a conducto según norma EN-1506. Con juntas de goma de doble labio para mejorar la estanqueidad de la conexión.

Carcasa y lama estanca conforme a la norma EN-1751.

100 < D(Ø) < 125

EN-1751 Carcasa Clase C, Lama 3

150 < D(Ø) < 400

EN-1751 Carcasa Clase C, Lama 4

.../MA/ Compuerta con mando manual.

.../MO/ Compuerta con eje para motorizar.

.../SJ/ Sin juntas de goma en el cuello de conexión.

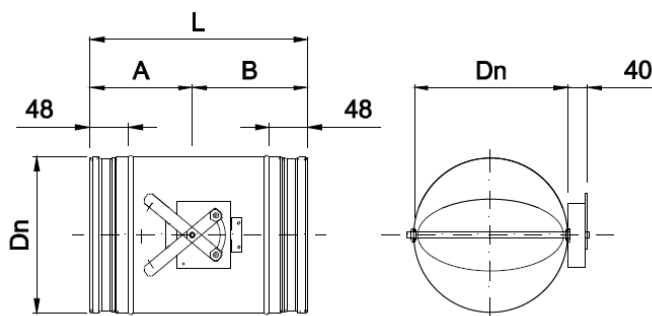
.../AIS/ Aislado termo acústicamente.

MATERIAL

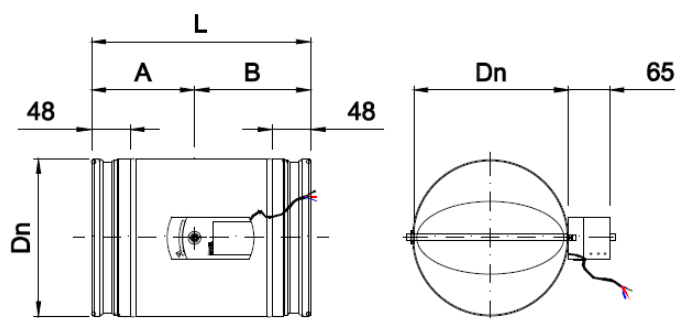
Carcasa y lama construidas en acero galvanizado y cojinetes en caucho. Juntas de EPDM



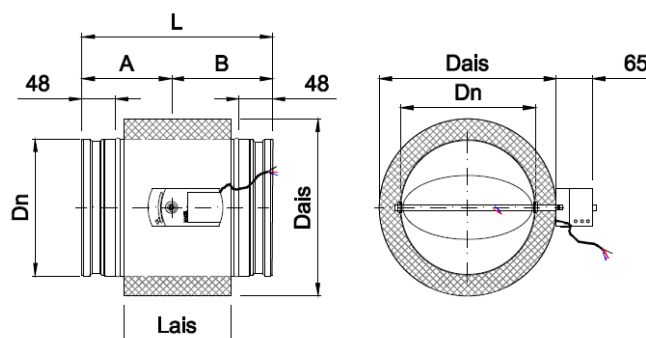
SCC-MA



SCC-MO



SCC-.../AIS/



D	Dn	Dais	L	Lais	A	B
100	98	178	265	150	105	160
125	123	203	265	150	105	160
150	148	228	265	150	105	160
160	158	238	265	150	105	160
200	198	278	295	180	130	165
250	248	328	335	220	145	190
315	313	393	345	230	155	190
355	353	433	400	285	180	220
400	398	433	420	305	190	230

SERVOMOTORES

Servomotores ON/OFF

GDB141.1E 24 VAC/VDC 5N Siemens actuador.

GDB341.1E 100... 230 VAC 5N Siemens actuador.

LM24A 24 VAC/VDC 5N Belimo actuador.

LM230A 230 VAC 5N Belimo actuador.

Servomotores ON/OFF con finales de carrera

GDB146.1E 24 VAC/VDV 5N 2FC Siemens actuador.

GDB346.1E 100...230 VAC 5N 2FC Siemens actuador.

LM24A-S 24 VAC/VDC 5N 1FC Belimo actuador (*)

LM230A-S 5N 1FC Belimo actuador (*) * Servomotores Belimo con 1 final de carrera, para 2 contactos consultar.

Servomotores ON/OFF con muelle de retorno

GMA121.1E 24 VAC/VDC 7N Siemens actuador.

GMA321.1E 230 VAC 7N Siemens actuador.

LF-24 24 VAC/VDC 4N Belimo actuador.

LF-230 230 VAC 4N Belimo actuador.

Servomotores proporcionales

GDB161.1E 24 VAC/VDC 5N Siemens actuador.

LM24A-SR 24 VAC/VDC 5N Belimo actuador.

LM230A-SR 230 VAC 5N Belimo actuador.

Servomotores con comunicaciones

Consultar los modelos de actuadores con protocolos de comunicaciones **Modbus / KNX / LONWorks y Bacnet.**

MADEL

Siemens GDB/GLB



Siemens GMA



Belimo LM/NM



Belimo LF/NF



CONTROL DE TEMPERATURA

TF Termostato con cables, de cambio de modo frío/ calor manual, para el control de la temperatura de 1 zona con compuertas con servomotor On/Off.

RDG 400 Controlador de temperatura ambiente proporcional Siemens 0 ... 10 vcc aliment. 24VAC con display digital retroiluminado, selector confort / eco / parada, para servomotores de compuertas proporcionales.

CO2-WP Sonda / control de ambiente 24 vdc-vac.

Visualización de lectura mediante LED. Salidas 0-10Vdc. Setpoint 600-800 -1000 ppm (Sondas de CO2 proporcionales, requieren servomotor proporcional)

CO2-D Sonda para conducto 24 vdc-vac con una salida 0-10Vdc, IP54 (Sondas de CO2 proporcionales, requieren servomotor proporcional)

CO2-WR Sonda ambiente de pared 24 vdc-vac.

Visualización de lectura LED. Salida digital (relé 5A) Setpoint 800 - 1000 -1200 (sondas de CO2 con relé, requieren servomotor ON / OFF)

OS-360 Sensor de presencia por movimiento omnidireccional para techo, para el control de elementos terminales HVAC. Alimentación 24 Vac / Vdc. Salida de contacto conmutado parametrizable.

SISTEMAS DE FIJACIÓN

1) La carcasa de la compuerta está diseñada para montaje directo en conducto circular según norma EN-1506.

PRESCRIPCIÓN

Sum. y col. de compuerta de regulación de caudal estanca para conducto circular y con mando manual serie **SCC-E-MA diam. 100** con cuello de conexión según EN-1506. Con juntas de goma de doble labio en los dos extremos de conexión para facilitar la unión entre conductos.

La compuerta es estanca conforme a la Norma EN-1751 Carcasa Clase C, Lama 3. Construidas en acero galvanizado y cojinetes de nylon. Con elementos necesarios para montaje. Marca **MADÉL**.

MADÉL

TF



RDG 400



CO2-WP
CO2-WR



CO2-D

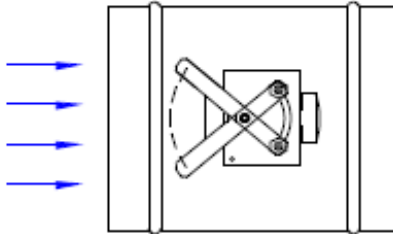


OS-360



MADEL

VELOCIDAD EN EL CUELLO, PÉRDIDA DE CARGA Y POTENCIA SONORA



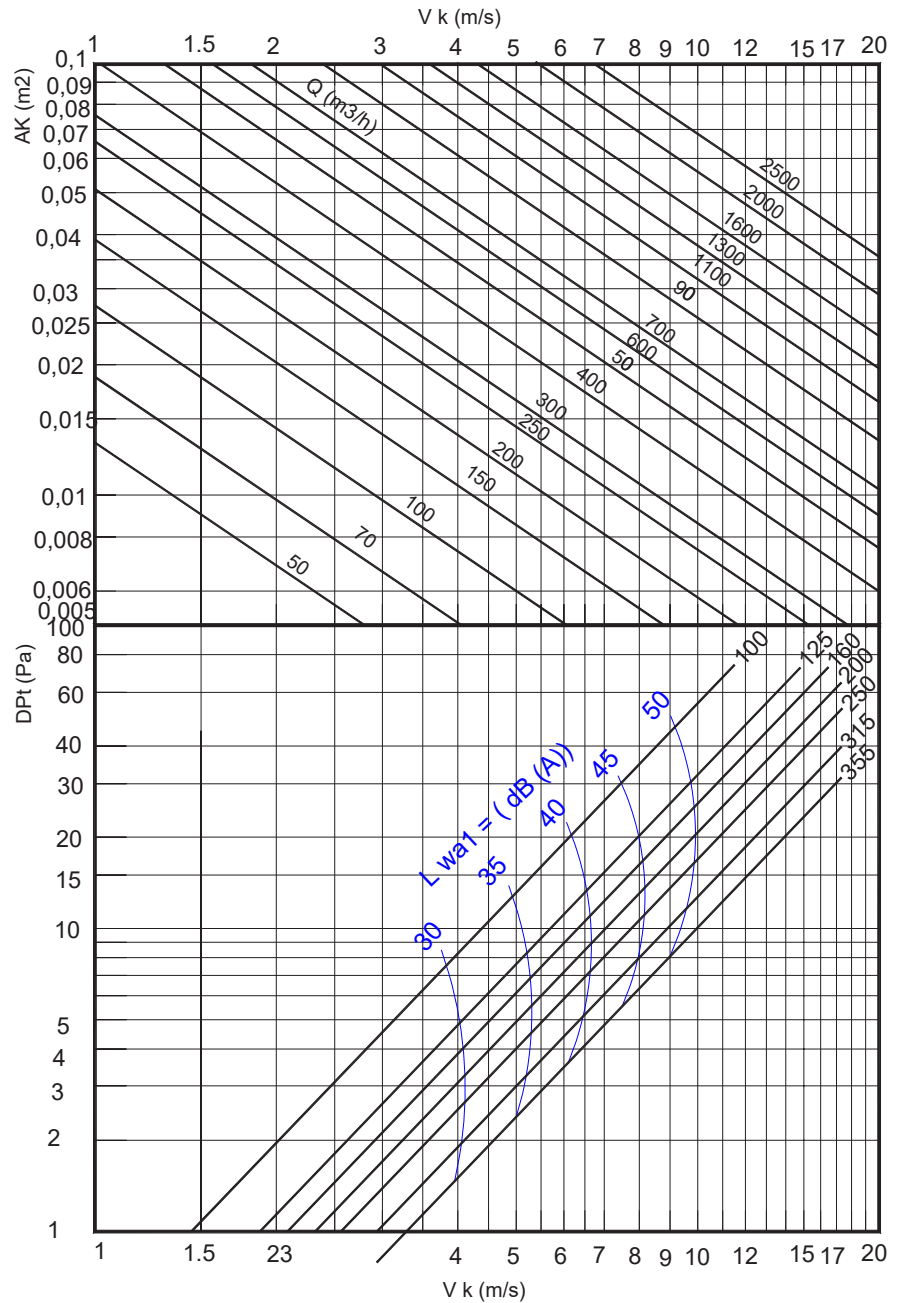
SECCIÓN EN EL CUELLO M²

D	Ak (m ²)
100	0,0078
125	0,0123
160	0,0201
200	0,0314
250	0,0491
315	0,0779
355	0,0962
400	0,1244

VALORES DE CORRECCIÓN PARA DPt: Kp

	0°	15°	30°	45°	60°
Kp	1	1,5	8	20	140

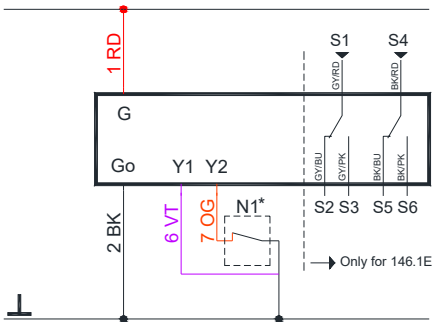
$DPt' = Kp \times DPt$



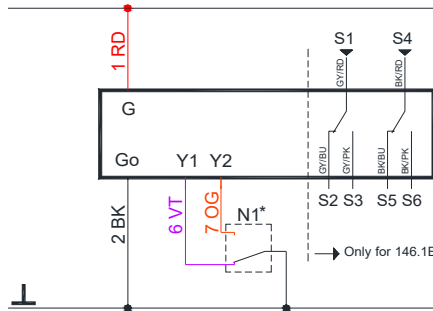
SIEMENS Wiring diagrams

ON/OFF – 3P CONTROL.

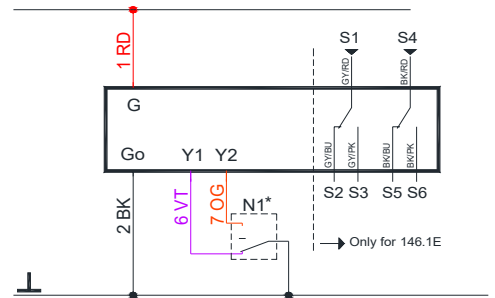
GDB 14..1E
Open-close, Single wire control
AC 24 V
DC 24 V ... 48 V



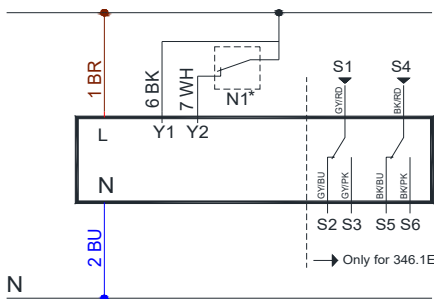
GDB 14..1E
Open-close, Two wire control
AC 24 V
DC 24 V ... 48 V



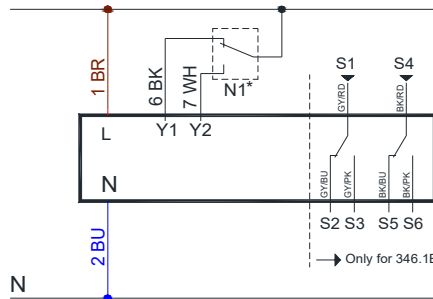
GDB 14..1E
Three-position control
AC 24 V
DC 24 V ... 48 V



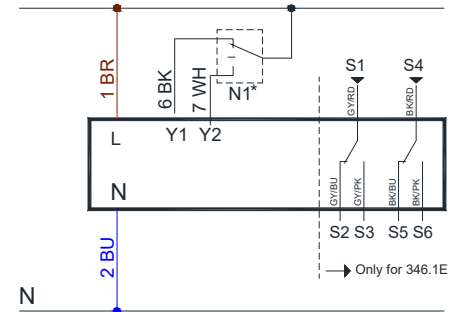
GDB 34..1E
Open-close, Single wire control
AC 100 ... 240 V



GDB 34..1E
Open-close, Two wire control
AC 100 ... 240 V

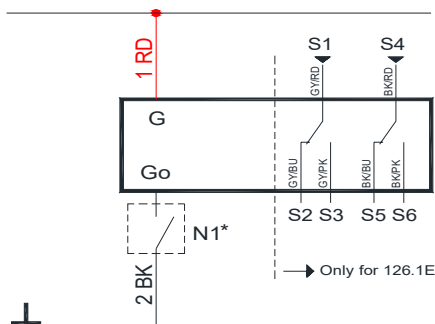


GDB 34..1E
Three-position control
AC 100 ... 240 V

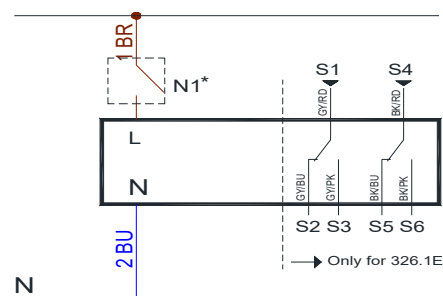


SPRING RETURN - ON/OFF – Two-position control

GMA 121.1E
Two-position control
AC 24 V
DC 24 V ... 48 V



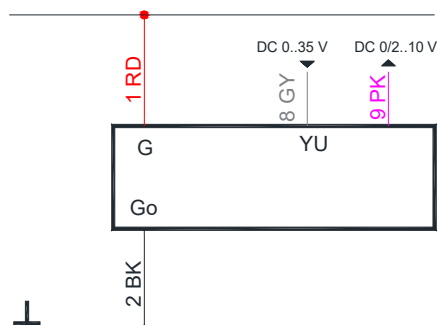
GMA 321.1E
Two-position control
AC 100 ... 240 V



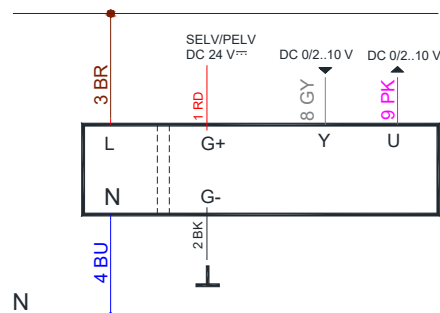
MODULATING control 0-10 V

MADEL

GDB 16..1E
Modulating control
AC 24 V
DC 24 V ... 48 V



GDB 16..1E
Modulating control
AC 100 ... 240 V



N1*. Accessory control. See wiring diagrams accessories.

Wiring	Code	N°	Color	Description
Actuators AC 24 V _k DC 24...48V	G	1	RD Red	System potential 24 AC/DC
	G0	2	BK Black	System Neutral
	Y1	6	VT Purple	Positioning AC/DC 0V.CW
	Y2	7	OG Orange	Positioning AC/DC 0V.CCW
	Y	8	GY Grey	Signal in (0-10V)
	U	9	PK Pink	Signal out (0-10V)
Actuators AC 230 V _k	L	3	BR Brown	Line 100 ..240 AC
	N	4	BU Blue	Neutral conductor
	Y1	6	BK Black	Positioning AC 230V.CW
	Y2	7	Wh White	Positioning AC 230V.CCW
	G+	1	RD Red	Potential aux.24 AC/DC
	G-	2	BK Black	Neutral aux.24 AC/DC
	Y	8	GY Grey	Signal in (0-10V)
	U	9	PK Pink	Signal out (0-10V)
Auxiliary Contacts	Q11	S1	GY/RD	Input switch A
	Q12	S2	GY/BU	Contact NC switch A
	Q14	S3	GY/PK	Contact NO switch A
	Q21	S4	BK/RD	Input switch B
	Q22	S5	BK/BU	Contact NC switch B
	Q24	S6	BK/PK	Contact NO switch B

This information is provided by way of indication.

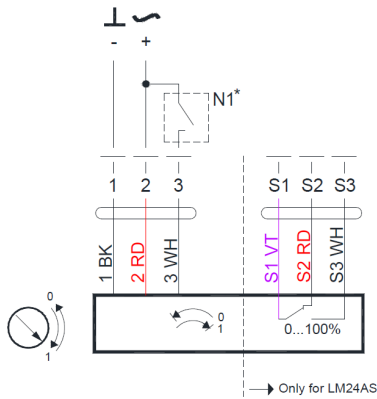
Consult the manufacturer catalogue for all updated documentation.

<https://www.buildingtechnologies.siemens.com/bt/global/en/products/HVAC-Products/Damper-actuators/Actuators-for-HVAC-applications/Pages/Actuators-for-HVAC-applications-default.aspx>

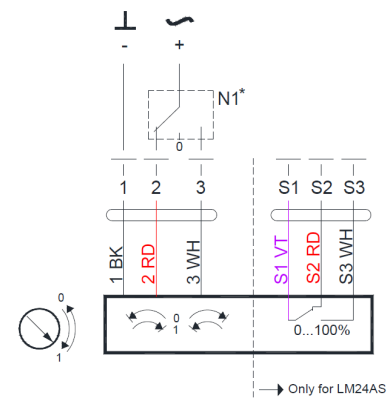
BELIMO Wiring diagrams

ON/OFF – 3P CONTROL.

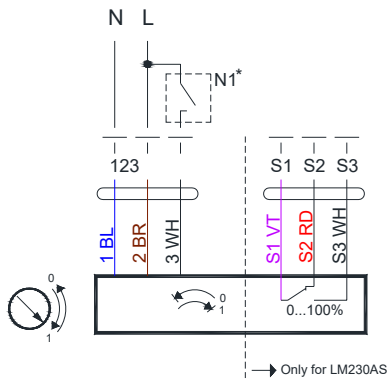
LM-24A..(S)
AC/DC 24 V, Open-close



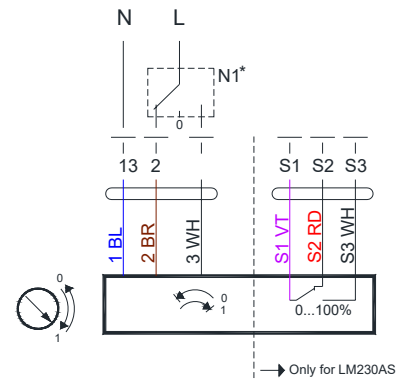
LM-24A..(S)
AC/DC 24 V, 3-point



LM-230A..(S)
AC 230 V, Open-close

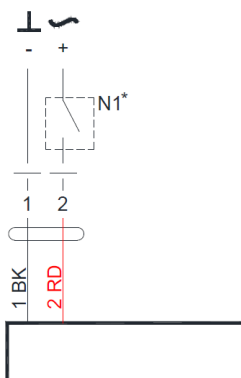


LM-230A..(S)
AC 230V, 3-point

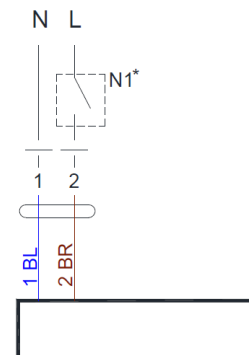


SPRING RETURN - ON/OFF – Two-position control

LF24
AC/DC 24 V, Open-close



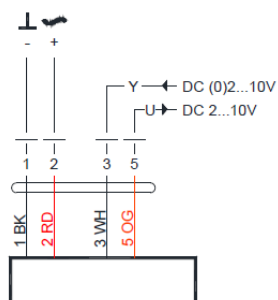
LF230
AC 230 V, Open-close



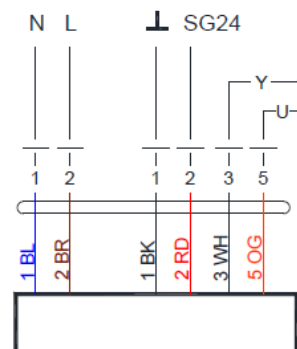
MADEL

MODULATING control 0-10 V

LM24A-SR
AC/DC 24 V, modulating



LM30A-SR
AC 230 V, Open-close



N1*. Accessory control. See wiring diagrams accessories.

Wiring	Code	N°	Color	Description
Actuators Open-close AC 24 V _k DC 24 ..48V	-	1	BK Black	System Neutral
	+	2	RD Red	System potential 24 AC/DC
		3	WH White	Positioning AC/DC 0V
Actuators modulating AC-DC 24 V AC 230V	-	1	Bk Black	System Neutral
	+	2	RD Red	System potential 24 AC/DC
		3	WH White	Signal in (0) 2-10V
		5	OG Orange	Signal out 2-10V
Actuators AC 230 V _k	L	1	BU Blue	Line 100 ..240AC
	N	2	BR Brown	Neutral conductor
	G+	1	BK Black	Neutral aux. 24 AC/DC
	G-	2	RD Red	SG..24
	Y	3	WH White	Signal in (0-10V)
	U	5	OG Orange	Signal out (0-10V)
Auxiliary contacts	S1	S1	VT Violet	Input switch A
	S2	S2	RD Red	Contact NC switch A
	S3	S3	WH White	Contact NO switch A

This information is provided by way of indication.

Consult the manufacturer catalogue for all updated documentation.

<http://www.belimo.ch/CH/EN/PDF/index.cfm>

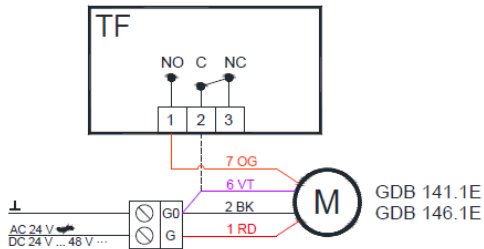
TF Wiring diagrams

MADEL

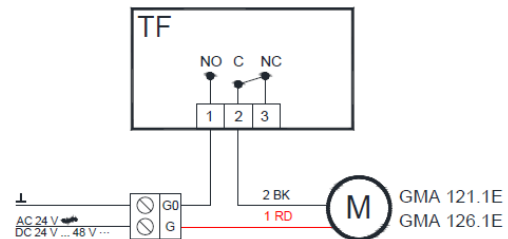
TF + SIEMENS actuators

AC/DC 24 V - ON/ OFF control

GBD 141/146.1E

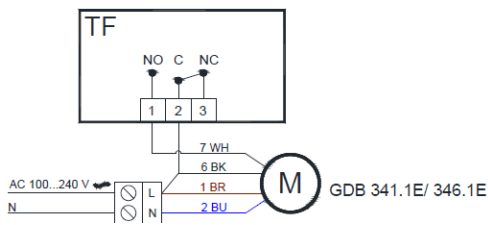


GMA 121/126.1E

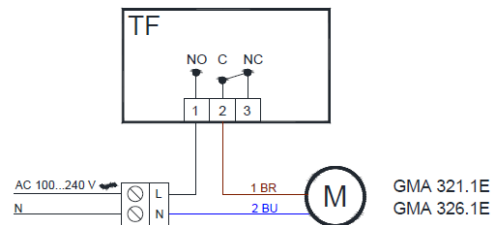


AC 230 V - ON/ OFF control

GBD 341/346.1E



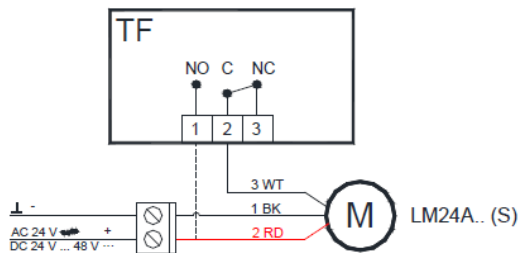
GMA 321/326.1E



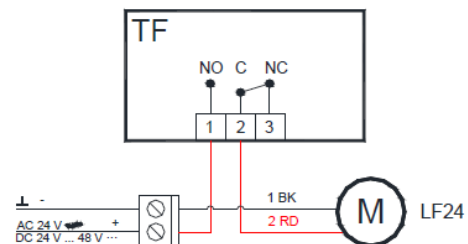
TF + BELIMO actuators

AC/DC 24 V - ON/ OFF control

LM-24A ..(S)

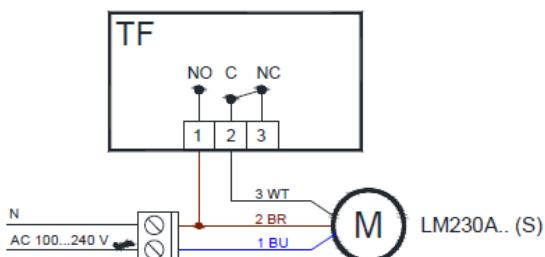


LF-24

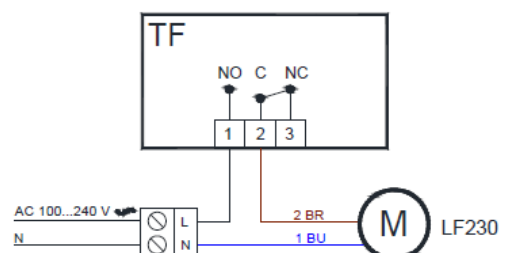


AC 230 V - ON/ OFF control

LM-230A..(S)



LF-230



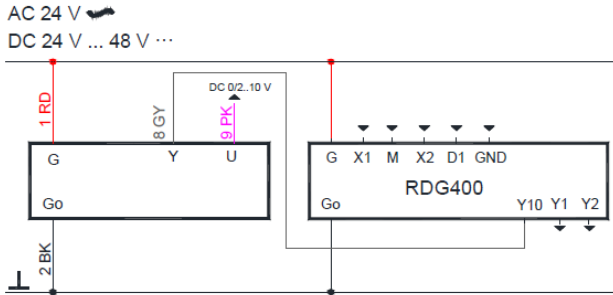
MADEL

RGD400 Wiring diagrams

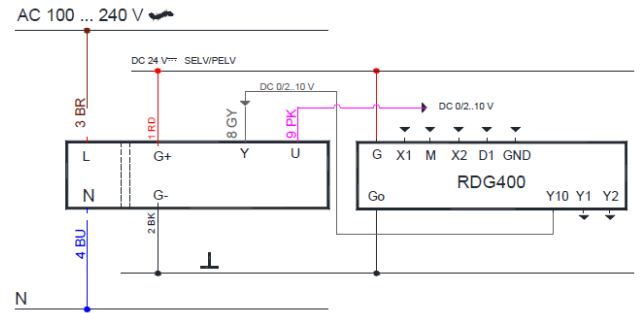
RDG 400 + SIEMENS actuators

Modulating control + manual changeover

GDB 161.1E



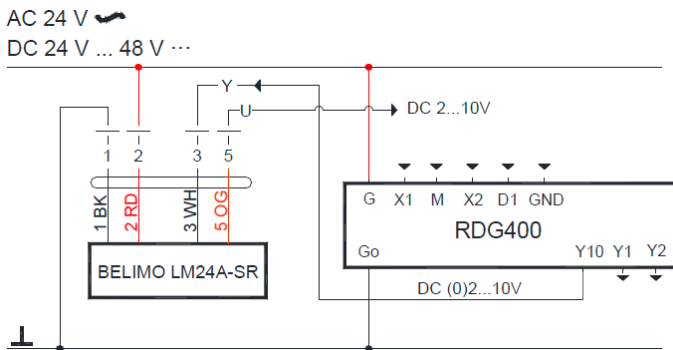
GDB 361.1E



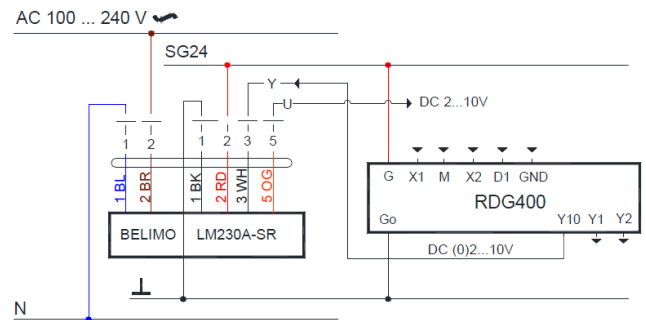
RDG 400 + BELIMO actuators

Modulating control + manual changeover

LM-24A -SR



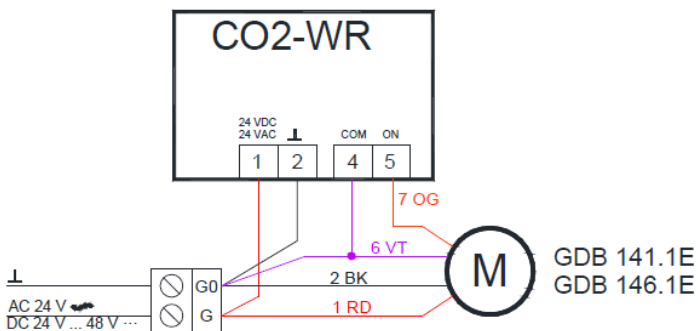
LM230A-SR



CO2-WR Wiring diagrams

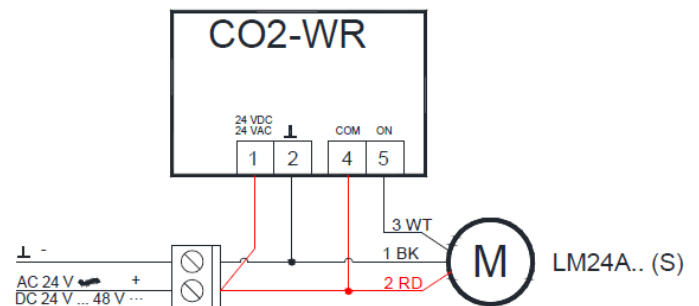
CO2-WR+ SIEMENS GDB 141.1E

On/OFF control

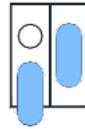


CO2-WR+ BELIMO LM24A.. (S)

On/OFF control



	J4	J5	Relay
800 ppm	disconnected	disconnected	CO2 > 900 ppm. Relay ON, CO2 < 700 ppm Relay OFF
1000 ppm	connected	disconnected	CO2 > 1100 ppm. Relay ON, CO2 < 900 ppm Relay OFF
1200 ppm (default)	disconnected	connected	CO2 > 1200 ppm. Relay ON, CO2 < 1100 ppm Relay OFF
1400 ppm	connected	connected	CO2 > 1500 ppm. Relay ON, CO2 < 1300 ppm Relay OFF

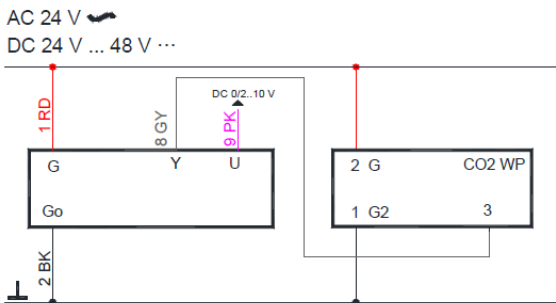


J4 J5

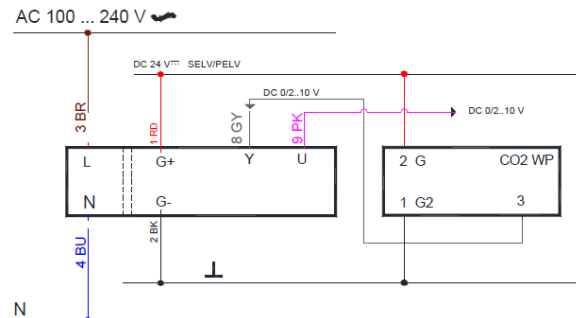
CO2-WP Wiring diagrams

CO2-WP+ SIEMENS actuators

AC/DC 24 V – Modulating control
GDB 161.1E

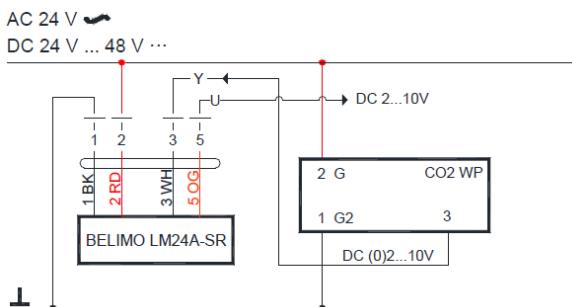


AC 230 V – Modulating control
GDB 361.1E

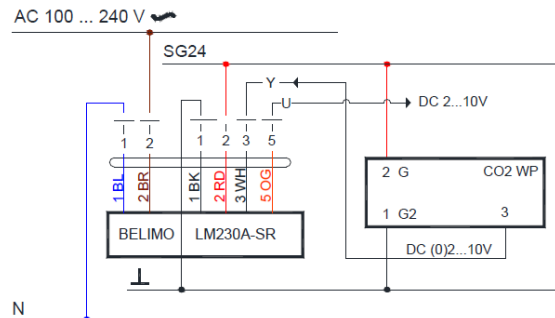


CO2-WP+ BELIMO actuators

AC/DC 24 V – Modulating control
LM24A-SR



AC 230 V – Modulating control
LM230A - SR



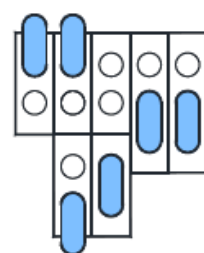
CO2-WP Wiring Setting

	J1	J2
0-10 VDC (default)	disconnected	disconnected
2-10 VDC	connected	disconnected

	J4	J5
350 ppm	disconnected	disconnected
500 ppm	connected	disconnected
800 ppm	disconnected	connected
1200 ppm	connected	connected

	J3
PID out put (default)	disconnected
Linear output	connected

J3 J1 J2 S1 S2



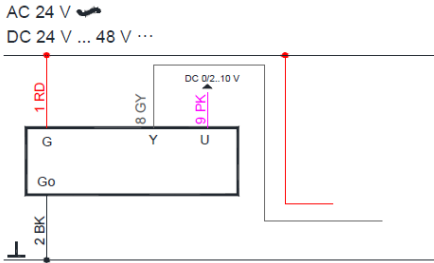
J4 J5

CO2-D Wiring diagrams

MADDEL

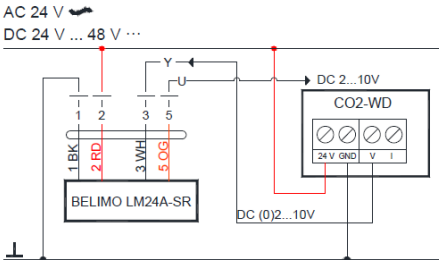
CO2-WD + SIEMENS actuators

AC/DC 24 V – Modulating control
GDB 161.1E

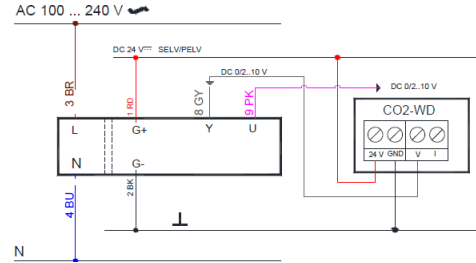


CO2-WD + BELIMO actuators

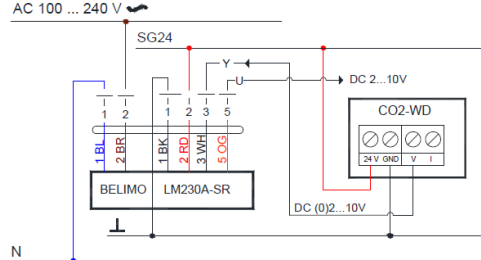
AC/DC 24 V – Modulating control
LM24A-SR



AC 230 V - Modulating control
GDB 361.1E

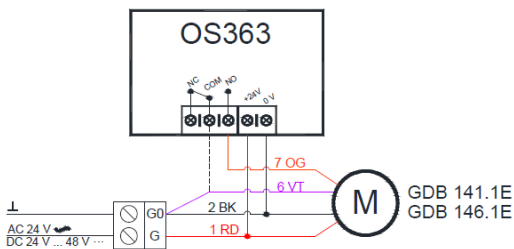


AC 230 V - Modulating control
LM230A - SR

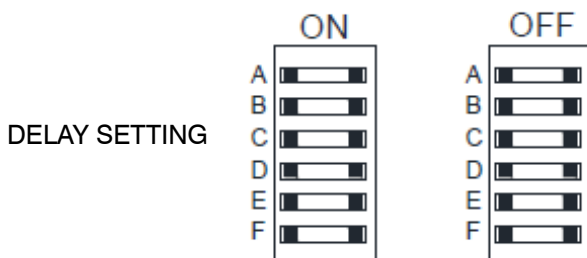
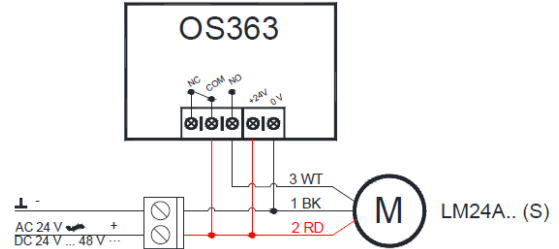


OS-360 Wiring Setting

OS360+ SIEMENS GDB 141.1E
On/OFF control



OS360+ BELIMO LM24A.. (S)
On/OFF control



	A	B	C	D	E	F
ON	0 sec	10 sec	30 sec	1 min	5 min	10 min
OFF	10 sec	1 min	5 min	10 min	20 min	30 min