

SPARTAN CONTROLS

VALVES & ACTUATORS | CONTROLS & METERS | PUMPS & PRESSURISATION



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I. Damper Actuators

I.



Damper Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail £
LM24A	5	24	2- or 3-position	£138.00
LM24A-S	5	24	2- or 3-position c/w aux switch	£159.00
LM24A-SR	5	24	2-10v output	£183.00
LM230A	5	230	2- or 3-position	£142.00
LM230A-S	5	230	2- or 3-position c/w aux switch	£163.00
NM24A	10	24	2- or 3-position	£167.00
NM24A-S	10	24	2- or 3-position c/w aux switch	£206.00
NM24A-SR	10	24	2-10v output	£240.00
NM230A	10	230	2- or 3-position	£173.00
NM230A-S	10	230	2- or 3-position c/w aux switch	£211.00
SM24A	20	24	2- or 3-position	£194.00
SM24A-S	20	24	2- or 3-position c/w aux switch	£245.00
SM24A-SR	20	24	2-10v output	£271.00
SM230A	20	230	2- or 3-position	£199.00
SM230A-S	20	230	2- or 3-position c/w aux switch	£251.00
GM24A	40	24	2- or 3-position	£362.00
GM24A-SR	40	24	2-10v output	£431.00
GM230A	40	230	2- or 3-position	£367.00



LM24A-S



Failsafe Damper Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail £
LF24	4	24	2-pos spring return	£215.00
LF24-S	4	24	2-pos spring return c/w aux switch	£251.00
LF24-SR	4	24	2-10v output spring return	£289.00
LF230	4	230	2-pos	£234.00
LF230-S	4	230	2-pos spring return c/w aux switch	£269.00
NF24A	10	24	2-pos spring return	£275.00
NF24A-S2	10	24	2-pos spring return c/w 2x aux switch	£315.00
NF24A-SR	10	24	2-10v output spring return	£324.00
NFA	10	24-240	2-pos spring return	£325.00
NFA-S2	10	24-240	2-pos spring return c/w 2x aux switch	£376.00
SF24A	20	24	2-pos spring return	£336.00
SF24A-S2	20	24	2-pos spring return c/w 2x aux switch	£376.00
SF24A-SR	20	24	2-10v output spring return	£385.00
SFA	20	24-240	2-pos spring return	£385.00
SFA-S2	20	24-240	2-pos spring return c/w 2x aux switch	£427.00
GK24A-1	40	24	2-pos electrical failsafe	£693.00
GK24A-SR	40	24	2-10v output electrical failsafe	£766.00



SF24A-S2



Damper Accessories

Part No	Description	Compatibility	Retail £
S1A	1x SPDT auxillary switch	Belimo Damper & Rotary Actuators	£63.60
S2A	2x SPDT auxillary switch	Belimo Damper & Rotary Actuators	£84.80
P140A	140Ω feedback potentiometer	Belimo Damper & Rotary Actuators	£104.00
SGF24	0-100% positioner (panel)	Belimo Dampers ...SR (Modulating)	£97.50
SGA24	0-100% positioner (surface)	Belimo Dampers ...SR (Modulating)	£137.00
SGE24	0-100% positioner (din rail)	Belimo Dampers ...SR (Modulating)	£137.00
KH8	Crank arm 6.2mm slot	Belimo Dampers	£16.20
KG10A	Straight ball joint (10mm)	Belimo Dampers	£19.70
KG8	90° angle ball joint (8mm)	Belimo Dampers	£16.80
AV8-25	Spindle extension (250mm)	Belimo Dampers	£53.30



S2A



Electro Controls Damper Actuators

Part No	Description	Torque (Nm)	Supply	Retail £
E08-230	2/3 position damper actuator	8	230v	£POA
E08-24	2/3 position damper actuator	8	24v	£333.10
E08-24M	0-10v modulating damper actuator	8	24v	£524.77
E16-230	2/3 position damper actuator	16	230v	£422.60
E16-24	2/3 position damper actuator	16	24v	£378.01
E16-24M	0-10v modulating damper actuator	16	24v	£531.20



E08-24



Damper Actuators

Part No	Joventa Part No	Torque (Nm)	Features	Retail £
M9108-AGA-1N	DAS1	8	24v, on/off	£209.18
M9108-AGC-1N	DAS1.S	8	24v, on/off, aux. switch	£259.91
M9108-ADA-1N	DAS2	8	230v, on/off	£209.18
M9108-ADC-1N	DAS2.S	8	230v, on/off, aux. switch	£269.38
M9108-GGA-1N	DMS1.1	8	24v, 0-10v modulating	£285.28
M9116-AGA-1N	DA1	16	24v, on/off	£238.64
M9116-AGC-1N	DA1.S	16	24v, on/off, aux. switch	£298.62
M9116-ADA-1N	DA2	16	230v, on/off	£268.75
M9116-ADC-1N	DA2.S	16	230v, on/off, aux. switch	£343.44
M9116-GGA-1N	DM1.1	16	24v, 0-10v modulating	£358.35
M9132-AGA-1N	DAG1	32	24v, on/off	£450.90
M9132-AGC-1N	DAG1.S	32	24v, on/off, aux. switch	£506.80
M9132-ADA-1N	DAG2	32	230v, on/off	£463.50
M9132-ADC-1N	DAG2.S	32	230v, on/off, aux. switch	£528.46
M9132-GGA-1N	DMG1.1	32	24v, 0-10v modulating	£562.75



M9116-GGA

SIEMENS Damper Actuators

Part No	Features	Torque (Nm)	Damper Area	Retail £
GEB341.1E	230v, 3-position	20		£135.50
GEB141.1E	24v, 3-position	20		£135.50
GEB161.1E	24v, 0-10v modulating	20	3m ²	£190.00
GCA321.1E	230v, 2-position, spring return	18		£287.00
GCA121.1E	24v, 2-position, spring return	18		£260.50
GCA161.1E	24v, 0-10v, spring return	18		£290.50
GBB331.1E	230v, 3-position	25		£174.50
GBB141.1E	24v, 3-position	25	4m ²	£168.50
GBB161.1E	24v, 0-10v modulating	25		£229.00
GIB331.1E	230v, 3-position	35		£231.00
GIB141.1E	24v, 3-position	35	6m ²	£231.00
GIB161.1E	24v, 0-10v modulating	35		£294.50

Accessories to Suit:

ASC77.1E	Auxiliary switch (single) for GEB/GCA/GBB & GIB... damper actuators	£50.50
ASC77.2E	Auxiliary switch (double) for GEB/GCA/GBB & GIB... damper actuators	£69.00



GBB161.1E



II. Zone Valves & Actuators

II.



Motorised Zone Valves

Part No	Type	Description	Retail £
ZV22c	2-port zone	22mm compression, 230v KV 6.9 c/w aux microswitch	£84.35
ZV28c	2-port zone	28mm compression, 230v KV 8.6 c/w aux microswitch	£90.96
ZV1/2	2-port zone	½" bspf, 230v KV 3.0 c/w aux microswitch	£81.04
ZV3/4	2-port zone	¾" bspf, 230v KV 6.9 c/w aux microswitch	£86.00
ZV1	2-port zone	1" bspf, 230v KV 8.6 c/w aux microswitch	£92.61
ZVD22c	3-port divert	22mm compression, 230v KV 6.0	£89.30
ZVD28c	3-port divert	28mm compression, 230v KV 8.1	£97.58
ZVD1/2	3-port divert	½" bspf, 230v KV 3.0	£87.66
ZVD3/4	3-port divert	¾" bspf, 230v KV 6.0	£90.96
ZVD1	3-port divert	1" bspf, 230v KV 8.1	£97.58



ZVD1



Motorised Zone Valves

Part No	Description	Size	KVS (m³/h)	P/N 230v	Retail £	P/N 24v	Retail £
AMZ112	2-port, PN16	½"	17	082G5406	£190.00	082G5400	£186.00
AMZ112	2-port, PN16	¾"	28	082G5407	£196.00	082G5401	£192.00
AMZ112	2-port, PN16	1"	39	082G5408	£210.00	082G5402	£206.00
AMZ112	2-port, PN16	1¼"	84	082G5409	£224.00	082G5403	£221.00
AMZ112	2-port, PN16	1½"	156	082G5410	£320.00	082G5404	£316.00
AMZ112	2-port, PN16	2"	243	082G5411	£378.00	082G5405	£374.00
AMZ113	3-port, PN16	½"	4.3	082G5418	£273.00	082G5412	£273.00
AMZ113	3-port, PN16	¾"	8.3	082G5419	£299.00	082G5413	£299.00
AMZ113	3-port, PN16	1"	13	082G5420	£365.00	082G5414	£365.00
AMZ113	3-port, PN16	1¼"	21	082G5421	£520.00	082G5415	£520.00



AMZ113



Motorised 2-Port Zone Valves

Part No 230v	Part No 24v	Description	Size	KVS (m³/h)	Retail £
EV1070M015	EA1070L015	2-port, PN10, aux sw & manual override	½"	17	£278.69
EV1070M020	EA1070L020	2-port, PN10, aux sw & manual override	¾"	41	£300.51
EV1070M025	EA1070L025	2-port, PN10, aux sw & manual override	1"	70	£318.38
EV1070M032	EA1070L032	2-port, PN10, aux sw & manual override	1¼"	121	£365.60
EV1070M040	EA1070L040	2-port, PN10, aux sw & manual override	1½"	121	£503.42
EV1070M050	EA1070L050	2-port, PN10, aux sw & manual override	2"	292	£572.33



EV107

Honeywell Home Motorised Zone Valves

Part No	Description	Size	KVS (m³/h)	Features	Retail £
V4043H1056/U	2-port zone	22mm compr.	6.9	230v, spring-ret (NC), aux. sw	£180.36
V4043H1106/U	2-port zone	28mm compr.	8.6	230v, spring ret (NC), aux. sw	£249.63
V4043C1156/U	2-port zone	½" bspf	3.0	230v, spring ret (NC)	£214.74
V4043H1007/U	2-port zone	¾" bspf	3.0	230v, spring ret (NC), aux. sw	£213.30
V4043H1080/U	2-port zone	1" bspf	8.6	230v, spring ret (NC), aux. sw	£265.32
V4044C1288/U	3-port divert	22mm compr.	6.0	230v, spring return (NC)	£242.64
V4044C1569/U	3-port divert	28mm compr.	8.1	230v, spring return (NC)	£259.80
V4044C1098/U	3-port divert	¾" bspf	6.0	230v, spring return (NC)	£264.45
V4044C1494/U	3-port divert	1" bspf	8.1	230v, spring return (NC)	£258.39
V4073A1039/U	3-port mid-pos	22mm compr.	6.0	230v, spring return (NC)	£255.96
V4073A1088/U	3-port mid-pos	28mm compr.	8.1	230v, spring return (NC)	£318.00
V4073A1062/U	3-port mid-pos	1" bspf	8.1	230v, spring return (NC)	£336.84



V4044C





On/off Ball Valve

Part No	Description	Size	KVS (m ³ /h)	Suitable Actuators	Retail £
R2015-S1	2-port	½"	15	LR.../LF...	£75.90
R2020-S2	2-port	¾"	32	LR.../LF...	£84.80
R2025-S2	2-port	1"	26	LR.../LF...	£103.00
R2032-S3	2-port	1¼"	32	NR.../NRF...	£154.00
R2040-S3	2-port	1½"	31	NR.../NRF...	£188.00
R2050-S4	2-port	2"	49	SR.../SRF...	£248.00
R3015-S1	3-port	½"	15	LR.../LRF...	£133.00
R3020-S2	3-port	¾"	32	LR.../LRF...	£148.00
R3025-S2	3-port	1"	26	LR.../LRF...	£187.00
R3032-S3	3-port	1¼"	32	NR.../NRF...	£271.00
R3040-S3	3-port	1½"	31	NR.../NRF...	£332.00
R3050-S4	3-port	2"	49	SR.../SRF...	£385.00



R20xx-S



Control Ball Valve

Part No	Description	Size	KVS (m ³ /h)	Suitable Actuators	Retail £
R2015-P63-S1	2-port	½"	0.63	LR.../LF...	£81.10
R2015-1-S1	2-port	½"	1	LR.../LF...	£81.10
R2015-1P6-S1	2-port	½"	1.6	LR.../LF...	£81.10
R2015-2P5-S1	2-port	½"	2.5	LR.../LF...	£81.10
R2015-4-S1	2-port	½"	4	LR.../LF...	£81.10
R2015-6P3-S1	2-port	½"	6.3	LR.../LF...	£81.10
R2020-4-S2	2-port	¾"	4	LR.../LF...	£93.00
R2020-6P3-S2	2-port	¾"	6.3	LR.../LF...	£93.00
R2020-8P6-S2	2-port	¾"	8.6	LR.../LF...	£93.00
R2025-6P3-S2	2-port	1"	6.3	LR.../LF...	£114.00
R2025-10-S2	2-port	1"	10	LR.../LF...	£114.00
R2025-16-S2	2-port	1"	16	LR.../LF...	£114.00
R2032-16-S3	2-port	1¼"	16	NR.../NRF...	£164.00
R2040-16-S3	2-port	1½"	16	NR.../NRF...	£199.00
R2040-25-S3	2-port	1½"	25	NR.../NRF...	£199.00
R2050-25-S4	2-port	2"	25	SR.../SRF...	£260.00
R2050-40-S4	2-port	2"	40	SR.../SRF...	£260.00
R3015-P63-S1	3-port	½"	0.63	LR.../LF...	£142.00
R3015-1-S1	3-port	½"	1	LR.../LF...	£142.00
R3015-1P6-S1	3-port	½"	1.6	LR.../LF...	£142.00
R3015-2P5-S1	3-port	½"	2.5	LR.../LF...	£142.00
R3015-4-S1	3-port	½"	4	LR.../LF...	£142.00
R3020-4-S2	3-port	¾"	4	LR.../LF...	£159.00
R3020-6P3-S2	3-port	¾"	6.3	LR.../LF...	£159.00
R3025-6P3-S2	3-port	1"	6.3	LR.../LF...	£199.00
R3025-10-S2	3-port	1"	10	LR.../LF...	£199.00
R3032-16-S3	3-port	1¼"	16	NR.../NRF...	£281.00
R3040-16-S3	3-port	1½"	16	NR.../NRF...	£347.00
R3040-25-S4	3-port	1½"	25	SR.../SRF...	£394.00
R3050-25-S4	3-port	2"	25	SR.../SRF...	£402.00
R3050-40-S4	3-port	2"	40	SR.../SRF...	£562.00
R3050-58-S4	3-port	2"	58	SR.../SRF...	£647.00



R30xx-S



III. Ball Valves & Actuators



Potable Water Ball Valve



Part No	Description	Size	KVS (m ³ /h)	Suitable Actuators	Retail £
C215QPW-N	2-port WRAS	½"	16	CQ.../CQK...	£70.90
R215PW-N	2-port WRAS	½"	16	LR.../LF...	£81.80
R220PW-P	2-port WRAS	¾"	32	LR.../LF...	£91.50
R225PW-Q	2-port WRAS	1"	40	LR.../LRF...	£117.00
R232PW-Q	2-port WRAS	1¼"	63	NR.../NRF...	£184.00
R240PW-R	2-port WRAS	1½"	100	SR.../SRF...	£226.00
R250PW-S	2-port WRAS	2"	150	SR.../SRF...	£318.00



R225PW-Q



Ball Valve Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail £
LR24A	5	24	2- or 3-position	£155.00
LR24A-S	5	24	2- or 3-position c/w aux switch	£170.00
LR24A-SR	5	24	2-10v output	£202.00
LR230A	5	230	2- or 3-position	£155.00
LR230A-S	5	230	2- or 3-position c/w aux switch	£170.00
NR24A	10	24	2- or 3-position	£195.00
NR24A-S	10	24	2- or 3-position c/w aux switch	£240.00
NR24A-SR	10	24	2-10v output	£272.00
NR230A	10	230	2- or 3-position	£195.00
NR230A-S	10	230	2- or 3-position c/w aux switch	£240.00
SR24A	20	24	2- or 3-position	£222.00
SR24A-S	20	24	2- or 3-position c/w aux switch	£266.00
SR24A-SR	20	24	2-10v output	£297.00
SR230A	20	230	2- or 3-position	£222.00
SR230A-S	20	230	2- or 3-position c/w aux switch	£266.00



NR24A-SR

Failsafe	Part No	Torque (Nm)	Voltage (v)	Features	Retail £
	LF24	4	24	2-position s-return *REQ LINKAGE*	£215.00
	LF24-S	4	24	2-position s-return c/w aux *REQ LINKAGE*	£251.00
	LF24-SR	4	24	2-10v output spring return *REQ LINKAGE*	£289.00
	LF230	4	230	2-position spring return *REQ LINKAGE*	£234.00
	LF230-S	4	230	2-position s-return c/w aux *REQ LINKAGE*	£269.00
	NRF24A	10	24	2-position spring return	£346.00
	NRF24A-S2	10	24	2-position spring return c/w 2x aux switches	£382.00
	NRF24A-SR	10	24	2-10v output spring return	£368.00
	NRFA	10	24-240	2-position spring return	£370.00
	NRFA-S2	10	24-240	2-position spring return c/w 2x aux switches	£414.00
	SRF24A	20	24	2-position spring return	£402.00
	SRF24A-S2	20	24	2-position spring return c/w 2x aux switches	£454.00
	SRF24A-SR	20	24	2-10v output spring return	£432.00



SRFA-S2

Linkages to suit:

WLF	"LF..." failsafe acts/Belimo R... ball/control valves (up to 1")	£61.94
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Accessories to suit:

Part No	Description	For use with:	Retail £
S1A	1x SPDT auxillary switch	Belimo Damper & Rotary Actuators	£63.60
S2A	2x SPDT auxillary switch	Belimo Damper & Rotary Actuators	£84.80
P140A	140Ω feedback potentiometer	Belimo Damper & Rotary Actuators	£104.00

Notes:

- Above are all "spring close" (i.e. close on power fail). Please contact the office for "spring open" options.
- "LF..." actuators require "WLF" linkages to fit ball and control valves.



SIEMENS Ball Valves

Part No	Description	Size	Kvs (m ³ /h)	Retail £
VAI61.15-1	2-port ball valve, PN40	½" bspf	1.0	£58.00
VAI61.15-1.6	2-port ball valve, PN40	½" bspf	1.6	£58.00
VAI61.15-2.5	2-port ball valve, PN40	½" bspf	2.5	£58.00
VAI61.15-4	2-port ball valve, PN40	½" bspf	4.0	£58.00
VAI61.15-6.3	2-port ball valve, PN40	½" bspf	6.3	£58.00
VAI61.15-10	2-port ball valve, PN40	½" bspf	10.0	£58.00
VAI61.20-4	2-port ball valve, PN40	¾" bspf	4.0	£66.00
VAI61.20-6.3	2-port ball valve, PN40	¾" bspf	6.3	£66.00
VAI61.20-10	2-port ball valve, PN40	¾" bspf	10.0	£66.00
VAI61.25-6.3	2-port ball valve, PN40	1" bspf	6.3	£80.00
VAI61.25-10	2-port ball valve, PN40	1" bspf	10.0	£80.00
VAI61.25-16	2-port ball valve, PN40	1" bspf	16.0	£80.00
VAI61.32-10	2-port ball valve, PN40	1¼" bspf	10.0	£115.00
VAI61.32-16	2-port ball valve, PN40	1¼" bspf	16.0	£115.00
VAI61.32-25	2-port ball valve, PN40	1¼" bspf	25.0	£115.00
VAI61.40-16	2-port ball valve, PN40	1½" bspf	16.0	£135.00
VAI61.40-25	2-port ball valve, PN40	1½" bspf	25.0	£135.00
VAI61.40-40	2-port ball valve, PN40	1½" bspf	40.0	£135.00
VAI61.50-25	2-port ball valve, PN40	2" bspf	25.0	£175.00
VAI61.50-40	2-port ball valve, PN40	2" bspf	40.0	£175.00
VAI61.50-63	2-port ball valve, PN40	2" bspf	63.0	£175.00
VBI61.15-1.6	3-port ball valve, PN40	½" bspf	1.6	£96.00
VBI61.15-2.5	3-port ball valve, PN40	½" bspf	2.5	£96.00
VBI61.15-4	3-port ball valve, PN40	½" bspf	4.0	£96.00
VBI61.15-6.3	3-port ball valve, PN40	½" bspf	6.3	£96.00
VBI61.20-4	3-port ball valve, PN40	¾" bspf	4.0	£110.00
VBI61.20-6.3	3-port ball valve, PN40	¾" bspf	6.3	£110.00
VBI61.25-10	3-port ball valve, PN40	1" bspf	10.0	£139.00
VBI61.32-16	3-port ball valve, PN40	1¼" bspf	16.0	£192.00
VBI61.40-25	3-port ball valve, PN40	1½" bspf	25.0	£261.00
VBI61.50-40	3-port ball valve, PN40	2" bspf	40.00	£373.00
VBI61.50-63	3-port ball valve, PN40	2" bspf	63.00	£373.00



VAI61.32-10



VBI61.40-25

SIEMENS Ball Valve Actuators

Part No	Torque (Nm)	Features	To suit...*	Retail £
GQD131.9A	2	24v, 3-position, spring return	VAI.../VBI... (½"-1")	£190.00
GQD161.9A	2	24v, 0-10v modulating, spring return	VAI.../VBI... (½"-1")	£190.00
GDB341.9E	5	230v, 3-position	VAI.../VBI... (½"-1")	£102.00
GDB141.9E	5	24v, 3-position	VAI.../VBI... (½"-1")	£110.00
GDB161.9E	5	24v, 0-10v modulating	VAI.../VBI... (½"-1")	£133.00
GMA131.9E	7	24v, 3-position, spring return	VAI.../VBI... (½"-2")	£231.00
GMA161.9E	7	24v, 0-10v modulating, spring return	VAI.../VBI... (½"-2")	£238.00
GLB341.9E	10	230v, 3-position	VAI.../VBI... (½"-2")	£127.00
GLB141.9E	10	24v, 3-position	VAI.../VBI... (½"-2")	£124.00
GLB161.9E	10	24v, 0-10v modulating	VAI.../VBI... (½"-2")	£167.00



GLB161.9E

Note: suitability of actuators depends upon closing pressure. Please check before ordering.

IV. Rotary Valves & Actuators



Rotary Valves

IV.

Part No	Description	Size	Kvs (m ³ /h)	Actuators	Ref	Retail £
HRE3/20/6.3	3-port, PN6	¾" bspf	6.3	Belimo HT + link (p37)	065Z0418	£160.00
HRE3/25/10	3-port, PN6	1" bspf	10	Belimo HT + link (p37)	065Z0419	£173.00
HRE3/32/16	3-port, PN6	1¼" bspf	16	Belimo HT + link (p37)	065Z0420	£179.00
HRE3/40/25	3-port, PN6	1½" bspf	25	Belimo HT + link (p37)	065Z0421	£305.00
HRE3/50/40	3-port, PN6	2" bspf	40	Belimo HT + link (p37)	065Z0422	£366.00
HFE3-50	3-port, PN6	50mm (FL)	60	Belimo SM + link (p37)	065Z0432	£502.00
HFE3-65	3-port, PN6	65mm (FL)	90	Belimo SM + link (p37)	065Z0433	£522.00
HFE3-80	3-port, PN6	80mm (FL)	150	Belimo SM + link (p37)	065Z0434	£746.00
HFE3-100	3-port, PN6	100mm (FL)	225	Belimo SM + link (p37)	065Z0435	£809.00
HFE3-125	3-port, PN6	125mm (FL)	280	Belimo SM + link (p37)	065Z0436	£1,027.00
HFE3-150	3-port, PN6	150mm (FL)	400	Belimo SM + link (p37)	065Z0437	£1,363.00



HRE3/40/25



Rotary Valves

Part No	Ports	Size	Kvs (m ³ /h)	Features	Retail £
VRG131-20	3	¾" bspf	6.3	PN10, water -10/+110°C	£157.61
VRG131-25	3	1" bspf	10	PN10, water -10/+110°C	£166.06
VRG131-32	3	1¼" bspf	16	PN10, water -10/+110°C	£175.01
VRG131-40	3	1½" bspf	25	PN10, water -10/+110°C	£293.27
VRG131-50	3	2" bspf	40	PN10, water -10/+110°C	£352.36
3F50	3	50mm (FL)	66	PN6, water -10/+110°C	£656.17
3F65	3	65mm (FL)	100	PN6, water -10/+110°C	£737.11
3F80	3	80mm (FL)	150	PN6, water -10/+110°C	£1,000.25
3F100	3	100mm (FL)	225	PN6, water -10/+110°C	£1,336.54
3F125	3	125mm (FL)	310	PN6, water -10/+110°C	£1,701.51
3F150	3	150mm (FL)	420	PN6, water -10/+110°C	£2,371.72
4F40	4	40mm (FL)	44	PN6, water -10/+110°C	£788.79
4F50	4	50mm (FL)	60	PN6, water -10/+110°C	£1,016.32
4F65	4	65mm (FL)	90	PN6, water -10/+110°C	£1,126.37
4F80	4	80mm (FL)	150	PN6, water -10/+110°C	£1,371.50
4F100	4	100mm (FL)	225	PN6, water -10/+110°C	£1,886.86



VRG131



Rotary Valve Actuators

Part No	Supply	Features	Torque (Nm)	To fit	Retail £
ARA656	230v	2-point c/w aux switch	6	VRG131 (to 2")	£571.29
ARA664	24v	3-point c/w aux switch	6	VRG131 (to 2")	£339.77
ARA652	230v	3-point c/w aux switch	6	VRG131 (to 2")	£313.08
ARA659	24v	0-10v	6	VRG131 (to 2")	£422.65



ARA656



Honeywell Rotary Valves

Part No	Description	Size	KVS (m ³ /h)	Retail £
V5433A1031	3-port	¾" bspf	6.3	£115.76
V5433A1049	3-port	1" bspf	10	£101.32
V5433A1056	3-port	1¼" bspf	16	£120.99
V5433A1064	3-port	1½" bspf	25	£154.38
V5433A1072	3-port	2" bspf	40	£199.79
Actuators to suit				
M6063L1009	230v 3-position, 7Nm			£260.10
M6063L4003	230v 3-position, 7Nm c/w aux switch			£370.47
M6063A1003	24v 3-position, 7Nm			£260.10
M6063A4007	24v 3-position, 7Nm c/w aux switch			£323.13



V5433A

IV.

Satchwell™ 3-Rotary Shoe Valves

Part No	Size	CV	Suitable Actuators	Retail £
MB1402	½" bspf	1.8		£591.38
MB1452	¾" bspf	4.0		£419.09
MB1502	1" bspf	8.0		£452.00
MB1552	1¼" bspf	12.0		£610.09
MB1602	1½" bspf	20.0	Schneider MD + 9141071000 link (below)	£743.58
MB1652	2" bspf	32.0	Or Belimo HT... + MS-NRS link (page 37)	£861.08
MBX4401	½" bspf	1.8	Or	POA
MBX4451	¾" bspf	4.0	Belimo SM...A + ZMBA link (pages 4 & 27)	£387.68
MBX4501	1" bspf	8.0		£424.24
MBX4551	1¼" bspf	12.0		£456.57
MBX4601	1½" bspf	20.0		£554.03
MBX4651	2" bspf	32.0		£646.15
MBF4732	65mm (flanged)	63.0	Schneider MD + 9141070000 link (below)	£1,289.62
MBF4782	80mm (flanged)	80.0	Or	£1,531.24
MBF4857	100mm (flanged)	120.0	Belimo SM...A + ZMBFA link (pages 4 & 27)	£1,583.31
Linkages to Suit				
9141070000	To link Schneider MD actuator to Satchwell MBF valves			£208.81
9141071000	To link Schneider MD actuator to Satchwell MB/MBX valves			£223.95



MB1452



MBF4782

Schneider Electric Rotary Actuators

Part No	Torque (Nm)	Features	Application	Retail £
MD20B-230	20	230v, reversing	Dampers, Satchwell MB/MBF	£406.20
MD20B-24	20	24v, reversing	Dampers, Satchwell MB/MBF	£328.68
MD20A-24	20	24v, 0-10v	Dampers, Satchwell MB/MBF	£462.30
Linkage Kits				
LK2701	9141070000	Linkage kit for Satchwell MBF valves		£208.81
LK2702	9141071000	Linkage kit for Satchwell MB valves		£223.95



MD20B-230



SIEMENS Rotary Shoe Valves

Part No	Description	Size	Kvs (m ³ /h)	Retail £
VBF21.40	3-port rotary shoe, PN6	DN40 (flanged)	25	£171.00
VBF21.50	3-port rotary shoe, PN6	DN50 (flanged)	40	£218.00
VBF21.65	3-port rotary shoe, PN6	DN65 (flanged)	63	£279.00
VBF21.80	3-port rotary shoe, PN6	DN80 (flanged)	100	£341.00
VBF21.100	3-port rotary shoe, PN6	DN100 (flanged)	160	£569.00
VBF21.125	3-port rotary shoe, PN6	DN125 (flanged)	550	£1,075.00
VBF21.150	3-port rotary shoe, PN6	DN150 (flanged)	820	£1,428.00



VBF21.50

SIEMENS Rotary Shoe Valve Actuators

Part No	Torque	Features	To suit....	Retail £
SAL31.00T10	10Nm	230v, 3-position	VBF21...*linkage required*	£358.00
SAL81.00T10	10Nm	24v, 3-position	VBF21...*linkage required*	£358.00
SAL61.00T10	10Nm	24v, 0-10v modulating	VBF21...*linkage required*	£441.00
Linkage kits to suit:				
ASK31N	To link SAL... to VBF21... DN65-150			£61.00
ASK32N	To link SAL... To VBF21... DN40-50			£48.00
Accessories to suit:				
ASC10.51	Single auxiliary switch (max. 2x)			£60.00
ASZ7.5/1000	Potentiometer 1000 Ohm			£237.00



SAL61.00T10

SIEMENS ACVATIX Magnetic Valves

Part No	Description	Size	Kvs (m ³ /h)	Features	Retail £
MXG461.15-3/C	3-port, PN16, +1/+130°C	½" bspf	3.0	24vAC/DC, 0-10v	£876.00
MXG461.20-5/C	3-port, PN16, +1/+130°C	¾" bspf	5.0	24vAC/DC, 0-10v	£941.00
MXG461.25-8/C	3-port, PN16, +1/+130°C	1" bspf	8.0	24vAC/DC, 0-10v	£1,051.00
MXG461.32-12/C	3-port, PN16, +1/+130°C	1½" bspf	12.0	24vAC/DC, 0-10v	£1,140.00
MXG461.40-20/C	3-port, PN16, +1/+130°C	1½" bspf	20.0	24vAC/DC, 0-10v	£1,228.00
MXG461.50-30/C	3-port, PN16, +1/+130°C	2" bspf	30.0	24vAC/DC, 0-10v	£1,313.00
MXF461.65-50	3-port, PN16, +1/+130°C	DN65 (flanged)	50.0	24vAC/DC, 0-10v	£1,460.00
M3P80FY	3-port, PN16, +1/+120°C	DN80 (flanged)	80.0	24vAC, 0-10v	£2,712.00
M3P100FY	3-port, PN16, +1/+120°C	DN100 (flanged)	100.0	24vAC, 0-10v	£3,546.00
Accessories:					
SEZ91.6	0-20v to 0-10v converter (min. 3-wire)				POA



MXG461.50

NOTES:

- 1) The above magnetic valve products are sold as a complete valve & actuator unit. The elements cannot be sold separately.
- 2) Please contact the office if replacing phase-cut magnetic valve units with 0-10v. Power supply units are sold separately.




BELIMO Linear Valves

Part No	Description	Ports	Size	Kvs (m ³ /h)	Unions	Actuators	Retail £
H414B	PN16 (+5/120°C)	2	½"	2.5	2x ZH4515	LV.../NKV...	£206.60
H415B	PN16 (+5/120°C)	2	½"	4	2x ZH4515	LV.../NKV...	£206.60
H420B	PN16 (+5/120°C)	2	¾"	6.3	2x ZH4520	LV.../NKV...	£236.20
H425B	PN16 (+5/120°C)	2	1"	10	2x ZH4525	LV.../NKV...	£274.20
H432B	PN16 (+5/120°C)	2	1¼"	16	2x ZH4532	NV.../NVK...	£330.20
H440B	PN16 (+5/120°C)	2	1½"	25	2x ZH4540	NV.../NVK...	£416.40
H450B	PN16 (+5/120°C)	2	2"	40	2x ZH4550	NV.../NVK...	£544.00
H664N	PN16 (+5/120°C)	2	DN65 (FL)	58	N/A	NV.../NVK...	£824.00
H665N	PN16 (+5/120°C)	2	DN65 (FL)	63	N/A	EV...	£1,163.00
H679N	PN16 (+5/120°C)	2	DN80 (FL)	90	N/A	NV.../NVK...	£1,088.00
H6100N	PN16 (+5/120°C)	2	DN100 (FL)	145	N/A	EV...	£1,642.00
H6125S	PN16 (+5/120°C)	2	DN125 (FL)	220	N/A	EV...	£2,767.00
H6150S	PN16 (+5/120°C)	2	DN150 (FL)	320	N/A	EV	£3,447.00
Large linear valves supplied c/w actuators							
H512B	PN16 (+5/120°C)	3	½"	1	3x ZH4515	LV.../NVK...	£208.40
H515B	PN16 (+5/120°C)	3	½"	4	3x ZH4515	LV.../NVK...	£208.40
H520B	PN16 (+5/120°C)	3	¾"	6.3	3x ZH4520	LV.../NVK...	£241.30
H525B	PN16 (+5/120°C)	3	1"	10	3x ZH4525	LV.../NVK...	£280.30
H532B	PN16 (+5/120°C)	3	1¼"	16	3x ZH4532	NV.../NVK...	£335.80
H540B	PN16 (+5/120°C)	3	1½"	25	3x ZH4540	NV.../NVK...	£422.60
H550B	PN16 (+5/120°C)	3	2"	40	3x ZH4550	NV.../NVK...	£559.00
H764N	PN16 (+5/120°C)	3	DN65 (FL)	58	N/A	NV.../NVK...	£763.00
H779N	PN16 (+5/120°C)	3	DN80 (FL)	90	N/A	NV.../NVK...	£995.00
H7100N	PN16 (+5/120°C)	3	DN100 (FL)	145	N/A	EV...	£1,565.00
H7125N	PN16 (+5/120°C)	3	DN125 (FL)	220	N/A	EV...	£2,782.00
H7150N	PN16 (+5/120°C)	3	DN150 (FL)	320	N/A	EV...	£3,355.00



H6100N

VI.



H7150N

Other options are available; please contact the office for details.


BELIMO Linear Valve Actuators

Part No	Thrust (N)	Voltage (v)	Stroke (mm)	Features	Retail £
LV24A-TPC	500	24	15	2- or 3-position	£303.00
LV24A-SR-TPC	500	24	15	2-10v output	£318.00
LV230A-TPC	500	230	15	2- or 3-position	£303.00
NV24A-TPC	1000	24	20	2- or 3- position	£402.00
NV24A-SR-TPC	1000	24	20	2-10v output	£422.00
NV230A-TPC	1000	230	20	2- or 3-position	£402.00
NV24A-MP-TPC	1000	24	20	Parameterisable	£440.00
NVK24A-3-TPC	1000	24	20	3-position electrical failsafe	£651.00
NVK24A-SR-TPC	1000	24	20	2-10v output electrical failsafe	£673.00
EV24A-TPC	2500	24	40	2- or 3-position	£810.00
EV24A-SR-TPC	2500	24	40	2-10v output	£852.00
Accessories to suit:					
S2A-H	2x auxiliary switches				£126.00

Suitability of actuators is dependent upon closing pressure. Please contact the office for details.



NVK24A-SR-TPC



VI. Linear Valves & Actuators



Linear Valves

Part No	Description	Size	KVS (m ³ /h)	Actuators	Reference	Retail £
VRB2/15/4.0	2-port, PN16	½" bspf	4	AM...435/ AM...438	065Z0235	£127.00
VRB2/20/6.3	2-port, PN16	¾" bspf	6.3	AM...435/ AM...438	065Z0236	£148.00
VRB2/25/10	2-port, PN16	1" bspf	10	AM...435/ AM...438	065Z0237	£156.00
VRB2/32/16	2-port, PN16	1¼" bspf	16	AM...435/ AM...438	065Z0238	£194.00
VRB2/40/25	2-port, PN16	1½" bspf	25	AM...435/ AM...438	065Z0239	£233.00
VRB2/50/40	2-port, PN16	2" bspf	40	AM...435/ AM...438	065Z0240	£336.00
VRB3/15/0.63	3-port, PN16	½" bspf	0.63	AM...435/ AM...438	065Z0211	£127.00
VRB3/15/1.0	3-port, PN16	½" bspf	1	AM...435/ AM...438	065Z0212	£127.00
VRB3/15/1.6	3-port, PN16	½" bspf	1.6	AM...435/ AM...438	065Z0213	£127.00
VRB3/15/2.5	3-port, PN16	½" bspf	2.5	AM...435/ AM...438	065Z0214	£127.00
VRB3/15/4.0	3-port, PN16	½" bspf	4	AM...435/ AM...438	065Z0215	£127.00
VRB3/20/6.3	3-port, PN16	¾" bspf	6.3	AM...435/ AM...438	065Z0216	£148.00
VRB3/25/10	3-port, PN16	1" bspf	10	AM...435/ AM...438	065Z0217	£156.00
VRB3/32/16	3-port, PN16	1¼" bspf	16	AM...435/ AM...438	065Z0218	£194.00
VRB3/40/25	3-port, PN16	1½" bspf	25	AM...435/ AM...438	065Z0219	£233.00
VRB3/50/40	3-port, PN16	2" bspf	40	AM...435/ AM...438	065Z0220	£336.00
VF2/65/63	2-port, PN16	65mm (FL)	63	AM...435	065Z0281	£1,120.00
VF2/80/100	2-port, PN16	80mm (FL)	100	AM...435	065Z0282	£1,260.00
VF2/100/145	2-port, PN16	100mm (FL)	145	AM...55	065B3205	£1,150.00
VF2/125/220	2-port, PN16	125mm (FL)	220	AM...55/AM...85	065B3230	£1,760.00
VF2/150/320	2-port, PN16	150mm (FL)	320	AM...55/AM...85	065B3255	£2,420.00
VF3/65/63	3-port, PN16	65mm (FL)	63	AM...435	065Z0261	£1,120.00
VF3/80/100	3-port, PN16	80mm (FL)	100	AM...435	065Z0262	£1,260.00
VF3/100/145	3-port, PN16	100mm (FL)	145	AM...55	065B1685	£1,140.00
VF3/125/220	3-port, PN16	125mm (FL)	220	AM...55/AM...85	065B3125	£1,880.00
VF3/150/320	3-port, PN16	150mm (FL)	320	AM...55/AM...85	065B3150	£2,520.00



VRB2/50



VF3/100



Linear Valve Actuators

Part No	Thrust (N)	Stroke	Supply	Features	Reference	Retail £
AMV435-24	400	20mm	24v	3-position	082H0162	£246.00
AMV435-230	400	20mm	230v	3-position	082H0163	£246.00
AME435	400	20mm	24v	0-10v output	082H0161	£294.00
AMV438-24	450	15mm	24v	3-position, "Spring Up"	082H0122	£518.00
AMV438-230	450	15mm	230v	3-position, "Spring Up"	082H0123	£518.00
AME438	450	15mm	24v	0-10v output, "Spring Up"	082H0121	£635.00
AMV55-24	2000	40mm	24v	3-position	082H3020	£702.00
AMV55-230	2000	40mm	230v	3-position	082H3021	£702.00
AME55-24	2000	40mm	24v	0-10v output	082H3022	£793.00
AMV85-24	5000	40mm	24v	3-position	082G1450	£1,210.00
AMV85-230	5000	40mm	230v	3-position	082G1451	£1,210.00
AME85-24	5000	40mm	24v	0-10v output	082G1452	£1,510.00



AMV85



Honeywell Linear Valves

Part No	Description	Size	KVS	Stroke	Retail £
V5011R1000	2-port, PN16	½" bspf	0.63	20mm	£298.22
V5011R1018	2-port, PN16	½" bspf	1.0	20mm	£280.94
V5011R1026	2-port, PN16	½" bspf	1.6	20mm	£254.99
V5011R1034	2-port, PN16	½" bspf	2.5	20mm	£266.69
V5011R1042	2-port, PN16	½" bspf	4.0	20mm	£271.62
V5011R1059	2-port, PN16	¾" bspf	6.3	20mm	£275.11
V5011R1067	2-port, PN16	1" bspf	10.0	20mm	£325.82
V5011R1075	2-port, PN16	1¼" bspf	16.0	20mm	£361.55
V5011R1083	2-port, PN16	1½" bspf	25.0	20mm	£425.18
V5011R1091	2-port, PN16	2" bspf	40.0	20mm	£511.99
V5328A1104	2-port, PN16	DN65 (FL)	63.0	20mm	£1,245.58
V5328A1112	2-port, PN16	DN80 (FL)	100.0	20mm	£1,551.80
V5328A1195	2-port, PN16	DN100 (FL)	160.0	38mm	£2,164.97
V5328A1203	2-port, PN16	DN125 (FL)	250.0	38mm	£3,592.71
V5328A1211	2-port, PN16	DN150 (FL)	360.0	38mm	£4,535.24
V5013R1032	3-port, PN16	½" bspf	2.5	20mm	£256.34
V5013R1040	3-port, PN16	½" bspf	4.0	20mm	£255.51
V5013R1057	3-port, PN16	¾" bspf	6.3	20mm	£249.73
V5013R1065	3-port, PN16	1" bspf	10.0	20mm	£268.00
V5013R1073	3-port, PN16	1¼" bspf	16.0	20mm	£318.04
V5013R1081	3-port, PN16	1½" bspf	25.0	20mm	£306.14
V5013R1099	3-port, PN16	2" bspf	40.0	20mm	£395.12
V5329A1079	3-port, PN16	DN65 (FL)	63.0	20mm	£961.85
V5329A1087	3-port, PN16	DN80 (FL)	100.0	20mm	£1,233.07
V5050A1090	3-port, PN16	DN100 (FL)	160.00	38mm	£2,601.38
V5050A1108	3-port, PN16	DN125 (FL)	250.0	38mm	£3,079.22
V5050A1116	3-port, PN16	DN150 (FL)	360.00	38mm	£4,478.72



V5011R

VI.



V5328A



V5013R



V5050A

Honeywell Linear Valve Actuators

Part No	Thrust	Stroke	Supply	Features	Retail £
ML6420A3007	600N	20mm	24v	Raise/lower	£401.67
ML6420A3015	600N	20mm	230v	Raise/lower	£437.09
ML6425A3006	600N	20mm	24v	Spring return (stem extends)	£1,174.68
ML6425B3005	600N	20mm	24v	Spring return (stem retracts)	£1,292.76
ML7420A6009T	600N	20mm	24v	0-10v modulating	£452.48
ML7425A6008	600N	20mm	24v	Spring return (stem extends), 0-10v	£777.20
ML7425B6007	600N	20mm	24v	Spring return (stem retracts), 0-10v	£1,121.94
ML7421A3004	1800N	20mm	24v	0-10v modulating, high torque	£694.08
ML6421B3004	1800N	38mm	24v	Raise/ lower, manual op	£774.11
ML6421B3012	1800N	38mm	230v	Raise/ lower, manual op	£1,163.48
ML7421B3003	1800N	38mm	24v	0-10v modulating, manual op	£944.96



ML6421B



VI. Linear Valves & Actuators

ISMA CONTROLLI Linear 3-port Valves

Part No	Ports	Size	Kvs (m ³ /h)	Features	Actuators	Retail £
VMB3	3	¾" bspf	6.3	PN16, water up to 120°C	MVB/MVE*	£230.79
VMB4	3	1" bspf	10	PN16, water up to 120°C	MVB/MVE*	£253.10
VMB5	3	1¼" bspf	16	PN16, water up to 120°C	MVB/MVE*	£362.05
VMB6	3	1½" bspf	25	PN16, water up to 120°C	MVB/MVE*	£465.39
VMB8	3	2" bspf	40	PN16, water up to 120°C	MVB/MVE*	£568.31
VMB16-65	3	65mm (FL)	63	PN16, water up to 120°C	MVE510*/MVH*	£1,138.62
VMB16-80	3	80mm (FL)	100	PN16, water up to 120°C	MVE510*/MVH*	£1,281.16
VMB16-100	3	100mm (FL)	160	PN16, water up to 120°C	MVE510*/MVH*	£1,760.55
VMB16-125	3	125mm (FL)	250	PN16, water up to 120°C	MVE510*/MVH*	£2,980.52
VMB16-150	3	150mm (FL)	360	PN16, water up to 120°C	MVE510*/MVH*	£3,999.24
3FGB65	3	65mm (FL)	63	PN16, water up to 150°C	MVE510/MVH	£773.37
3FGB80	3	80mm (FL)	100	PN16, water up to 150°C	MVE510/MVH	£932.14
3FGB100	3	100mm (FL)	130	PN16, water up to 150°C	MVE510/MVH	£1,178.79
3FGB125	3	125mm (FL)	200	PN16, water up to 150°C	MVE510/MVH	£2,216.98
3FGB150	3	150mm (FL)	300	PN16, water up to 150°C	MVE510/MVH	£2,826.55



VMB6



3FGB150

ISMA CONTROLLI Bronze Linear Valves

Part No	Ports	Size	Kvs (m ³ /h)	Features	Actuator	Retail £
2TBB15T	2	½" bspf	2.5	PN16, max media temp 120°C	MVC.03/R	£280.11
2TBB20T	2	¾" bspf	4	PN16, max media temp 120°C	MVC.03/R	£287.47
2TBB25T	2	1" bspf	8	PN16, max media temp 120°C	MVC.03/R	£355.14
2TBB32T	2	1¼" bspf	12	PN16, max media temp 120°C	MVC.03/R	£453.84
2TBB40T	2	1½" bspf	21	PN16, max media temp 120°C	MVC.03/R	£490.57
2TBB50T	2	2" bspf	33	PN16, max media temp 120°C	MVC.03/R	£651.76
3TBB15T	3	½" bspf	2	PN16, max media temp 120°C	MVC.03/R	£273.98
3TBB20T	3	¾" bspf	5	PN16, max media temp 120°C	MVC.03/R	£287.16
3TBB25T	3	1" bspf	10	PN16, max media temp 120°C	MVC.03/R	£362.77
3TBB32T	3	1¼" bspf	16	PN16, max media temp 120°C	MVC.03/R	£469.78
3TBB40T	3	1½" bspf	25	PN16, max media temp 120°C	MVC.03/R	£493.27
3TBB50T	3	2" bspf	38	PN16, max media temp 120°C	MVC.03/R	£660.23



3TBB50T

ISMA CONTROLLI Linear Valve Actuators

Part No	Thrust	Supply	Features	Compatible Valves	Retail £
MVT403S	300N	24v	R/L (3 position)	VMT, VTT	£145.15
MVT503S	300N	24v	0-10v output	VMT, VTT	£323.28
MVB56	450N	24v	0-10v output	VMB, VSB (to 50mm)	£645.69
MVB46	450N	24v	R/L	VMB, VSB (to 50mm)	£498.47
MVB26	450N	230v	R/L	VMB, VSB (to 50mm)	£538.43
MVE510	1000N	24v	0-10v, 5-60mm stroke	3FGB, VMB16 (w/ AG51)	£455.22
MVE510-52	1000N	24v	0-10v output	VMB (w/ AG52)	£523.84
MVE510-65	1000N	24v	0-10v output, IP65	VMB (w/ AG52)	£479.98
MVH56	1500N	24v	0-10v	3FGB, VMB16 (w/ AG51)	£957.46
MVH56FA	700N	24v	Spring return (up)	Please contact office	£1,028.68
MVH56FC	700N	24v	Spring return (down)	Please contact office	£1,028.68
MVE515-AG5162	1500N	24v	0-10v output, c/w linkage	Please contact office	£1,005.09

Continued overleaf



Note: please contact the office for linkage kits to fit MVE/MVH actuators to valves from other manufacturers.



 ISMA CONTROLLI Linear Valve Actuators (cont.)

Part No	Thrust	Supply	Features	Compatible Valves	Retail £
MVC203	300N	230v	R/L (3-pos)	2/3TBB, Satchwell (p19)	£250.70
MVC403	300N	24v	R/L (3-pos)	2/3TBB, Satchwell (p19)	£296.89
MVC503	300N	24v	0-10v output	2/3TBB, Satchwell (p19)	£346.27
MVC503R		24v	0-10v output, spring return	2/3TBB, Satchwell (p19)	£387.99
Accessories:					
D36	Auxillary switch *to suit MVB*				£66.17
AG51	Linkage kit *to suit MVE/VMB16, MVH/VMB16*				£43.82
AG52	Linkage kit *to suit MVE/VMB*				£76.68
AG73	Linkage kit *to suit MVC/Satchwell*				£40.47



MVC503R

VI.

 Johnson Controls Linear Valves

Part No	Description	Size	KVS (m ³ /h)	Retail £
VG7802FT	3-port mixing, PN16, bronze body, brass trim	½" bspf	2.5	£289.77
VG7802GT	3-port mixing, PN16, bronze body, brass trim	½" bspf	4.0	£289.77
VG7802LT	3-port mixing, PN16, bronze body, brass trim	¾" bspf	6.3	£303.37
VG7802NT	3-port mixing, PN16, bronze body, brass trim	1" bspf	10.0	£426.12
VG7802PT	3-port mixing, PN16, bronze body, brass trim	1¼" bspf	16.0	£528.37
VG7802RT	3-port mixing, PN16, bronze body, brass trim	1½" bspf	25.0	£715.87
VG7802ST	3-port mixing, PN16, bronze body, brass trim	2" bspf	40.0	£988.55
VG88G1S1N	3-port mixing, PN16, cast iron body	DN65 (flanged)	63.0	£1,418.35
VG88H1S1N	3-port mixing, PN16, cast iron body	DN80 (flanged)	100.0	£1,686.85
VG88J1S1N	3-port mixing, PN16, cast iron body	DN100 (flanged)	160.0	£2,436.46
VG88K1S1N	3-port mixing, PN16, cast iron body	DN125 (flanged)	250.0	£3,861.52
VG88L1S1N	3-port mixing, PN16, cast iron body	DN150 (flanged)	350.0	£4,669.37



VG7802

 Johnson Controls Linear Valve Actuators

Part No	Torque	Features	To Suit...	Retail £
VA-7700-1001	500N	24v, raise/lower	VG7802...	£259.91
VA-7700-1003	500N	230v, raise/lower	VG7802...	£275.75
VA-7706-1001	500N	24v, 0-10v modulating	VG7802...	£399.33
VA1125-GGA-1	2500N	24v, 3-pos or 0-10v	VG88... (to DN150)	£1,157.47
VA1220-GGA-1	2000N	24v, 3-pos or 0-10v, retracts on power fail	VG88... (to DN150)	£1,342.06
VA1420-GGA-1	2000N	24v, 3-pos or 0-10v, extends on power fail	VG88... (to DN150)	£1,341.84
Accessories to suit:				
VA1000-M230N	230v module		VA1...GGA-1 actuators	£85.29
VA1000-S2	2x SPDT aux switches		VA1...GGA-1 actuators	£152.32



VA-7700



resideo

 Linear Valves

VI.

Part No	Description	Size	Kvs (m ³ /h)	Suitable Actuators	Retail £
DI15B0.63	2-Port, PN16	½" bspf	0.6	Honeywell ML64/74 20mm stroke (p15)	£212.25
DI15B1.0	2-Port, PN16	½" bspf	1.0	Honeywell ML64/74 20mm stroke (p15)	£212.25
DI15B1.6	2-Port, PN16	½" bspf	1.6	Honeywell ML64/74 20mm stroke (p15)	£212.25
DI15B2.5	2-Port, PN16	½" bspf	2.5	Honeywell ML64/74 20mm stroke (p15)	£212.25
DI15B4.0	2-Port, PN16	½" bspf	4	Honeywell ML64/74 20mm stroke (p15)	£212.25
DI20B6.3	2-Port, PN16	¾" bspf	6.3	Honeywell ML64/74 20mm stroke (p15)	£207.55
DI25B10	2-Port, PN16	1" bspf	10	Honeywell ML64/74 20mm stroke (p15)	£246.75
DI32B16	2-Port, PN16	1¼ bspf	16	Honeywell ML64/74 20mm stroke (p15)	£273.28
DI40B25	2-Port, PN16	1½" bspf	25	Honeywell ML64/74 20mm stroke (p15)	£321.68
DI50B40	2-Port, PN16	2" bspf	40	Honeywell ML64/74 20mm stroke (p15)	£387.43
DF65B63CI	2-Port, PN16	65mm (FL)	63	Honeywell ML64/74 20mm stroke (p15)	£1,023.18
DF80B100CI	2-Port, PN16	80mm (FL)	100	Honeywell ML64/74 20mm stroke (p15)	£1,274.88
DF100B160CI	2-Port, PN16	100mm (FL)	160	Honeywell ML64/74 38mm stroke (p15)	£1,672.38
DF125B250CI	2-Port, PN16	125mm (FL)	250	Honeywell ML64/74 38mm stroke (p15)	£2,781.08
DF150B360CI	2-Port, PN16	150mm (FL)	360	Honeywell ML64/74 38mm stroke (p15)	£3,581.15
XI15B2.5	3-Port, PN16	½" bspf	2.5	Honeywell ML64/74 20mm stroke (p15)	£188.40
XI15B4.0	3-Port, PN16	½" bspf	4	Honeywell ML64/74 20mm stroke (p15)	£188.40
XI20B6.3	3-Port, PN16	¾" bspf	6.3	Honeywell ML64/74 20mm stroke (p15)	£188.40
XI25B10	3-Port, PN16	1" bspf	10	Honeywell ML64/74 20mm stroke (p15)	£197.18
XI32B16	3-Port, PN16	1¼ bspf	16	Honeywell ML64/74 20mm stroke (p15)	£234.40
XI40B25	3-Port, PN16	1½" bspf	25	Honeywell ML64/74 20mm stroke (p15)	£270.55
XI50B40	3-Port, PN16	2" bspf	40	Honeywell ML64/74 20mm stroke (p15)	£349.43
XF32B16	3-Port, PN16	32mm (FL)	16	Honeywell ML64/74 20mm stroke (p15)	£552.30
XF40B25	3-Port, PN16	40mm (FL)	25	Honeywell ML64/74 20mm stroke (p15)	£572.75
XF50B40	3-Port, PN16	50mm (FL)	40	Honeywell ML64/74 20mm stroke (p15)	£590.40
XF65B63	3-Port, PN16	65mm (FL)	63	Honeywell ML64/74 20mm stroke (p15)	£891.48
XF80B100	3-Port, PN16	80mm (FL)	100	Honeywell ML64/74 20mm stroke (p15)	£1,143.15
XF100B160	3-Port, PN16	100mm (FL)	160	Honeywell ML64/74 38mm stroke (p15)	£1,875.85
XF125B250	3-Port, PN16	125mm (FL)	250	Honeywell ML64/74 38mm stroke (p15)	£2,612.75
XF150B360	3-Port, PN16	150mm (FL)	360	Honeywell ML64/74 38mm stroke (p15)	£3,301.25



Satchwell™

Linear Valves

Part No	Description	Size	CV	Stroke	Retail £
VZ1401	2-Port	½" bspf	0.2	5.9mm	£605.33
VZ1402	2-Port	½" bspf	0.5	5.9mm	£POA
VZ1403	2-Port	½" bspf	1	5.9mm	£605.33
VZ1404	2-Port	½" bspf	2	5.9mm	POA
VZ1451	2-Port	¾" bspf	4	5.9mm	£705.21
VZ2501	2-Port	1" bspf	8	15.9mm	£765.20
VZ2551	2-Port	1¼" bspf	12	15.9mm	£789.85
VZ2601	2-Port	1½" bspf	20	15.9mm	£903.33
VZ2651	2-Port	2" bspf	32	15.9mm	£1,050.49
VZX4404	2-Port	½" bspf	2.0	12.7mm	£475.01
VZX4451	2-Port	¾" bspf	4.0	12.7mm	£535.21
VZX4501	2-Port	1" bspf	8.0	12.7mm	£563.81
VZX4551	2-Port	1¼" bspf	12.0	12.7mm	£653.86
VZX4601	2-Port	1½" bspf	20.0	12.7mm	£687.86
VZX4651	2-Port	2" bspf	32.0	12.7mm	£803.47
VSF1576	2-Port	32mm (flanged)	16	24.5mm	£POA
VSF1626	2-Port	40mm (flanged)	25	24.5mm	£POA
VSF1676	2-Port	50mm (flanged)	40	24.5mm	£POA
VZF1852	2-Port	100mm (flanged)	125	25.4mm	£POA
VZF1902	2-Port	125mm (flanged)	200	38mm	£POA
VZF1954	2-Port	150mm (flanged)	315	38mm	£POA
MZ3402	3-Port	½" bspf	2.5	9.5mm	£552.00
MZ3452	3-Port	¾" bspf	4.0	9.5mm	£635.32
MZ3501	3-Port	1" bspf	8.0	15.9mm	£713.11
MZ3551	3-Port	1¼" bspf	12.0	15.9mm	£769.28
MZ3601	3-Port	1½" bspf	20.0	15.9mm	£1,137.28
MZ3651	3-Port	2" bspf	32.0	15.9mm	£1,508.75
MZX4402	3-Port	½" bspf	2.5	12.7mm	£434.63
MZX4452	3-Port	¾" bspf	4.0	12.7mm	£434.39
MZX4501	3-Port	1" bspf	8.0	12.7mm	£492.39
MZX4551	3-Port	1¼" bspf	12.0	12.7mm	£586.81
MZX4601	3-Port	1½" bspf	20.0	12.7mm	£643.48
MZX4651	3-Port	2" bspf	32.0	12.7mm	£777.03
Packing Kits to suit:					
626-9-204	Gland, gland assembly & grease for VZX & MZX				£321.61
626-9-203	Gland, gland assembly & grease for VZ, (Mk2) MZ (Mk3) & VSF (to 1")				£295.04
626-9-310	Gland, gland assembly & grease for VZ (Mk1) & MZ (Mk1)				£423.48
626-9-311	Gland, gland assembly & grease for VZF & MZF				£526.80

Other packing kits are available; please contact the office for details.



VZ2601

VI.



MZX4452



MV15B...+L7SV

Satchwell™

Linear Valve Actuators

Part No	Thrust	Supply	Features	Suitable Valves	Retail £
SPA-AVUX	220N	24v	(Repl. AVUX5202) floating control	VZX, MZX	£336.50
SPA-AVUE	220N	24v	(Repl. AVUE5304) 0-10v, direct acting	VEU, MEU, FEU, VZX, MZX	£376.10
SPA-AVUM	220N	230v	(Repl. AVUM5601)	VZX, MZX	£322.60
MV15B-24 & L7SV	1500N	24v	Floating control, inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£2,142.01
MV15B-230 & L7SV	1500N	230v	Floating control, inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£1,975.73
M800-L2SV	800N	24v	0-10v, inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£1,186.50
M800-S2-L2SV	800N	24v	0-10v, inc. Linkage & aux. switch	MZ, VZ, MJF, VSF, MZF, VZF	£1,380.85
M700-S2-SRSU & L7SV	700N	24v	0-10v, "spring up", inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£2,049.14
M700-S2-SRSD & L7SV	700N	24v	0-10v, "spring down", inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£POA



VI. Linear Valves & Actuators



Creating Sustainable Environments.

Linear Valves & Actuators

Part No	Description	Size	Kvs (m ³ /h)	Unions Req'd	Retail £
BUN015F330	3-port, PN16	½" bspf	1.0	3x 0361951015	£227.96
BUN015F320	3-port, PN16	½" bspf	1.6	3x 0361951015	£215.51
BUN015F310	3-port, PN16	½" bspf	2.5	3x 0361951015	£209.16
BUN015F300	3-port, PN16	½" bspf	4.0	3x 0361951015	£209.16
BUN020F300	3-port, PN16	¾" bspf	6.3	3x 0361951020	£234.20
BUN025F300	3-port, PN16	1" bspf	10.0	3x 0361951025	£270.38
BUN032F300	3-port, PN16	1¼" bspf	16.0	3x 0361951032	£337.21
BUN040F300	3-port, PN16	1½" bspf	22.0	3x 0361951040	£399.11
BUN050F200	3-port, PN16	2" bspf	28.0	3x 0361951050	£673.42
BQD065F300	3-port, PN6	DN65 (flanged)	49.0	N/A	£799.00
BQD080F300	3-port, PN6	DN80 (flanged)	78.0	N/A	£1,154.11
BQD100F300	3-port, PN6	DN100 (flanged)	124.0	N/A	£1,863.02
Unions:					
361951015	Screw fittings DN15 for VUN/BUN vales				£13.70
361951020	Screw fittings DN20 for VUN/BUN vales				£18.85
361951025	Screw fittings DN25 for VUN/BUN vales				£25.04
361951032	Screw fittings DN32 for VUN/BUN vales				£34.55
361951040	Screw fittings DN40 for VUN/BUN vales				£38.64
361951050	Screw fittings DN50 for VUN/BUN vales				£66.05
Actuators to suit:					
AVM105SF132	250N	24v, 2/3-position or 0-10v		To suit BUN...	£269.48
AVM115SF132	500N	24v, 2/3-position or 0-10v		To suit BUN...	£343.35
AVM321SF132	1000N	24v, 2/3-position or 0-10v		To suit BUN...	£594.20
AVM234SF132	2500N	24v, 2/3-position or 0-10v		To suit BQD...	£999.18
AVF234SF132	2000N	24v, 2/3-position or 0-10v, spring return		To suit BQD...	£1,339.54



BUN020



AVM321



Linear Valves & Actuators

Part No	Description	Size	KVS (m ³ /h)	Retail £
V311T/15/2.5	3-port, PN16, tight seal	½" bspf	2.5	£266.53
V311T/15/4	3-port, PN16, tight seal	½" bspf	4	£266.53
V311T/20/6.3	3-port, PN16, tight seal	¾" bspf	6.3	£297.12
V311T/25/10	3-port, PN16, tight seal	1" bspf	10	£330.62
V311T/32/16	3-port, PN16, tight seal	1¼" bspf	16	£368.77
V311T/40/25	3-port, PN16, tight seal	1½" bspf	25	£439.60
V311T/50/38	3-port, PN16, tight seal	2" bspf	38	£606.62
V311/15/1.6	3-port, PN16	15mm (flanged)	1.6	£461.68
V311/15/2.5	3-port, PN16	15mm (flanged)	2.5	£461.68
V311/15/4	3-port, PN16	15mm (flanged)	4	£461.68
V311/20/6.3	3-port, PN16	20mm (flanged)	6.3	£506.86
V311/25/10	3-port, PN16	25mm (flanged)	10	£521.42
V311/32/16	3-port, PN16	32mm (flanged)	16	£632.10
V311/40/25	3-port, PN16	40mm (flanged)	25	£846.21
V311/50/38	3-port, PN16	50mm (flanged)	38	£949.62

Continued overleaf...



V311T



V311





Linear Valves & Actuators (cont.)

Part No	Description	Size	KVS (m ³ /h)	Retail £
VG311F65C	3-port, PN16	65mm (flanged)	63	£1,049.29
VG311F80C	3-port, PN16	80mm (flanged)	100	£1,217.82
VG311F100C	3-port, PN16	100mm (flanged)	130	£2,130.32
VG311F125C	3-port, PN16	125mm (flanged)	200	£3,149.36
VG311F150C	3-port, PN16	150mm (flanged)	300	£3,857.05
V321/65/63	3-port, PN16	65mm (flanged)	63	£2,076.59
V321/80/100	3-port, PN16	80mm (flanged)	100	£2,249.75
V321/100/160	3-port, PN16	100mm (flanged)	160	£3,032.67
V321/125/250	3-port, PN16	125mm (flanged)	250	£8,134.36
V321/150/320	3-port, PN16	150mm (flanged)	320	£10,124.19
Actuators to suit:				
MV15B-230	1500N	230v, floating control	To suit V311, V321	£1,350.17
MV15B-24	1500N	24v, floating control	To suit V311, V321	£1,472.49
M800	800N	24v, 0-10v	To suit V311, V321	£543.82
M800-S2	800N	24v, 0-10v, inc. aux. switch	To suit V311, V321	£896.57
M700-S2-SRSU	700N	24v, 0-10v, "spring up"	To suit V311, V321	£1,357.54
M700-S2-SRSD	700N	24v, 0-10v, "spring down"	To suit V311, V321	£1,427.33



VI.

VG311F



MV15B



Linear 2-Port Valves

Part No	Description	Size	Kvs (m ³ /h)	Stroke	Actuators*	Retail £
VVG44.15-1.6/C	2-port, PN16, +1/+120°C	½" bspf	1.6	5.5mm	SAS...	£150.00
VVG44.15-2.5/C	2-port, PN16, +1/+120°C	½" bspf	2.5	5.5mm	SAS...	£150.00
VVG44.15-4.0/C	2-port, PN16, +1/+120°C	½" bspf	4	5.5mm	SAS...	£150.00
VVG44.20-6.3/C	2-port, PN16, +1/+120°C	¾" bspf	6.3	5.5mm	SAS...	£161.00
VVG44.25-10/C	2-port, PN16, +1/+120°C	1" bspf	10	5.5mm	SAS...	£180.00
VVG44.32-16/C	2-port, PN16, +1/+120°C	1¼" bspf	16	5.5mm	SAS...	£226.00
VVG44.40-25/C	2-port, PN16, +1/+120°C	1½" bspf	25	5.5mm	SAS...	£299.00
VVG41.13/C	2-port, PN16, -15*/150°C	½" bspf	1.6	20mm	SAX/SKD/SKB	£297.00
VVG41.14/C	2-port, PN16, -15*/150°C	½" bspf	2.5	20mm	SAX/SKD/SKB	£297.00
VVG41.15/C	2-port, PN16, -15*/150°C	½" bspf	4	20mm	SAX/SKD/SKB	£297.00
VVG41.20/C	2-port, PN16, -15*/150°C	¾" bspf	6.3	20mm	SAX/SKD/SKB	£344.00
VVG41.25/C	2-port, PN16, -15*/150°C	1" bspf	10	20mm	SAX/SKD/SKB	£388.00
VVG41.32/C	2-port, PN16, -15*/150°C	1¼" bspf	16	20mm	SAX/SKD/SKB	£440.00
VVG41.40/C	2-port, PN16, -15*/150°C	1½" bspf	25	20mm	SAX/SKD/SKB	£470.00
VVG41.50/C	2-port, PN16, -15*/150°C	2" bspf	40	20mm	SAX/SKD/SKB	£575.00
VVF32.40-25	2-port, PN10, -10*/150°C	DN40 (FL)	25	20mm	SAX/SKD/SKB	£313.00
VVF32.50-40	2-port, PN10, -10*/150°C	DN50 (FL)	40	20mm	SAX/SKD/SKB	£394.00
VVF32.65-63	2-port, PN10, -10*/150°C	DN65 (FL)	63	20mm	SAX/SKD/SKB	£530.00
VVF32.80-100	2-port, PN10, -10*/150°C	DN80 (FL)	100	20mm	SAX/SKD/SKB	£712.00
VVF32.100-160	2-port, PN10, -10*/150°C	DN100 (FL)	160	40mm	SKC...	£1,077.00
VVF32.125-250	2-port, PN10, -10*/150°C	DN125 (FL)	250	40mm	SKC...	£1,350.00
VVF32.150-400	2-port, PN10, -10*/150°C	DN150 (FL)	400	40mm	SKC...	£1,680.00



VVG44.40



VVG41



VVF32

NOTE: if below 5°C on V..G41/ V..F32, spindle heater is required. See overleaf for notes on suitable actuators.



SIEMENS

Linear 2-Port Steam Valves

Part No	Description	Size	Kvs (m ³ /h)	Stroke	Actuators*	Retail £
VVF53.15-1.25	2-port, PN25, -20/220°C	DN15 (FL)	1.25	20mm	SAX**/SKB/SKD	£348.00
VVF53.15-1.6	2-port, PN25, -20/220°C	DN15 (FL)	1.6	20mm	SAX**/SKB/SKD	£348.00
VVF53.15-2	2-port, PN25, -20/220°C	DN15 (FL)	2.0	20mm	SAX**/SKB/SKD	£348.00
VVF53.15-2.5	2-port, PN25, -20/220°C	DN15 (FL)	2.5	20mm	SAX**/SKB/SKD	£348.00
VVF53.15-3.2	2-port, PN25, -20/220°C	DN15 (FL)	3.2	20mm	SAX**/SKB/SKD	£348.00
VVF53.15-4	2-port, PN25, -20/220°C	DN15 (FL)	4.0	20mm	SAX**/SKB/SKD	£348.00
VVF53.20-6.3	2-port, PN25, -20/220°C	DN20 (FL)	6.3	20mm	SAX**/SKB/SKD	£387.00
VVF53.25-5	2-port, PN25, -20/220°C	DN25 (FL)	5.0	20mm	SAX**/SKB/SKD	£402.00
VVF53.25-6.3	2-port, PN25, -20/220°C	DN25 (FL)	6.3	20mm	SAX**/SKB/SKD	£402.00
VVF53.25-8	2-port, PN25, -20/220°C	DN25 (FL)	8.0	20mm	SAX**/SKB/SKD	£402.00
VVF53.25-10	2-port, PN25, -20/220°C	DN25 (FL)	10.0	20mm	SAX**/SKB/SKD	£402.00
VVF53.32-16	2-port, PN25, -20/220°C	DN32 (FL)	16	20mm	SAX**/SKB/SKD	£498.00
VVF53.40-12.5	2-port, PN25, -20/220°C	DN40 (FL)	12.5	20mm	SAX**/SKB/SKD	£582.00
VVF53.40-16	2-port, PN25, -20/220°C	DN40 (FL)	16.0	20mm	SAX**/SKB/SKD	£582.00
VVF53.40-20	2-port, PN25, -20/220°C	DN40 (FL)	20.0	20mm	SAX**/SKB/SKD	£582.00
VVF53.40-25	2-port, PN25, -20/220°C	DN40 (FL)	25.0	20mm	SAX**/SKB/SKD	£582.00
VVF53.50-40	2-port, PN25, -20/220°C	DN50 (FL)	40.0	20mm	SAX**/SKB/SKD	£796.00



VVF53

VI.

SIEMENS

Linear 3-Port Valves

Part No	Description	Size	Kvs (m ³ /h)	Stroke	Actuators*	Retail £
VXG44.15-0.25/C	3-port, PN16, +1/+120°C	½" bspf	0.25	5.5mm	SAS...	£140.00
VXG44.15-0.4/C	3-port, PN16, +1/+120°C	½" bspf	2.5	5.5mm	SAS...	£140.00
VXG44.15-0.63/C	3-port, PN16, +1/+120°C	½" bspf	4.0	5.5mm	SAS...	£140.00
VXG44.15-1.0/C	3-port, PN16, +1/+120°C	½" bspf	1.0	5.5mm	SAS...	£140.00
VXG44.15-1.6/C	3-port, PN16, +1/+120°C	½" bspf	1.6	5.5mm	SAS...	£140.00
VXG44.15-2.5/C	3-port, PN16, +1/+120°C	½" bspf	2.5	5.5mm	SAS...	£140.00
VXG44.15-4.0/C	3-port, PN16, +1/+120°C	½" bspf	4.0	5.5mm	SAS...	£140.00
VXG44.20-6.3/C	3-port, PN16, +1/+120°C	¾" bspf	6.3	5.5mm	SAS...	£162.00
VXG44.25-10/C	3-port, PN16, +1/+120°C	1" bspf	10.0	5.5mm	SAS...	£177.00
VXG44.32-16/C	3-port, PN16, +1/+120°C	1¼" bspf	16.0	5.5mm	SAS...	£222.00
VXG44.40-25/C	3-port, PN16, +1/+120°C	1½" bspf	25.0	5.5mm	SAS...	£291.00
VXG41.1301/C	3-port, PN16, -15*/150°C	½" bspf	1.6	20mm	SAX/SKD/SKB	£302.00
VXG41.1401/C	3-port, PN16, -15*/150°C	½" bspf	2.5	20mm	SAX/SKD/SKB	£302.00
VXG41.15/C	3-port, PN16, -15*/150°C	½" bspf	4.0	20mm	SAX/SKD/SKB	£302.00
VXG41.20/C	3-port, PN16, -15*/150°C	¾" bspf	6.3	20mm	SAX/SKD/SKB	£350.00
VXG41.25/C	3-port, PN16, -15*/150°C	1" bspf	10.0	20mm	SAX/SKD/SKB	£389.00
VXG41.32/C	3-port, PN16, -15*/150°C	1¼" bspf	16.0	20mm	SAX/SKD/SKB	£442.00
VXG41.40/C	3-port, PN16, -15*/150°C	1½" bspf	25.0	20mm	SAX/SKD/SKB	£507.00
VXG41.50/C	3-port, PN16, -15*/150°C	2" bspf	40.0	20mm	SAX/SKD/SKB	£582.00
VXF32.40-25	3-port, PN10, -10*/150°C	DN40 (FL)	25.0	20mm	SAX/SKD/SKB	£314.00
VXF32.50-40	3-port, PN10, -10*/150°C	DN50 (FL)	40.0	20mm	SAX/SKD/SKB	£394.00
VXF32.65-63	3-port, PN10, -10*/150°C	DN65 (FL)	63.0	20mm	SAX/SKD/SKB	£530.00
VXF32.80-100	3-port, PN10, -10*/150°C	DN80 (FL)	100.0	20mm	SAX/SKD/SKB	£712.00
VXF32.100-160	3-port, PN10, -10*/150°C	DN100 (FL)	160.0	40mm	SKC...	£1,077.00
VXF32.125-250	3-port, PN10, -10*/150°C	DN125 (FL)	250.0	40mm	SKC...	£1,350.00
VXF32.150-400	3-port, PN10, -10*/150°C	DN150 (FL)	400.0	40mm	SKC...	£1,681.00



VXG44.15



VXG41.40



VXF32.65

*NOTE: if below 5°C on V..G41/ V..F32, spindle heater is required. Please see overleaf for notes on suitable actuators.





Linear Valve Actuators

Part No	Thrust	Features	To suit...	Retail £
SAS31.00	400N	230v, 3-position, 120s running time	5.5mm valves	£199.00
SAS31.03	400N	230v, 3-position, 30s running time	5.5mm valves	£225.00
SAS31.50	400N	230v, 3-position, spring-return, 120s running time	5.5mm valves	£361.00
SAS31.53	400N	230v, 3-position, spring-return, 30s running time	5.5mm valves	£361.00
SAS81.00	400N	24v, 3-position, 120s running time	5.5mm valves	£199.00
SAS81.03	400N	24v, 3-position, 30s running time	5.5mm valves	£225.00
SAS81.33	400N	24v, 3-position, spring return, 30s running time	5.5mm valves	£342.00
SAS61.03	400N	24v, 0-10v, 30s running time	5.5mm valves	£235.00
SAS61.53	400N	24v, 0-10v, spring return, 30s running time	5.5mm valves	£407.00
SAX31.00	800N	230v, 3-position, 120s running time	20mm valves	£358.00
SAX31.03	800N	230v, 3-position, 30s running time	20mm valves	£385.00
SAX81.00	800N	24v, 3-position, 120s running time	20mm valves	£358.00
SAX61.03	800N	24v, 0-10v, 30s running time	20mm valves	£458.00
SKD32.50	1000N	230v, 3-position, 120s running time	20mm valves	£580.00
SKD32.51	1000N	230v, 3-position, spring return, 120s running time	20mm valves	£695.00
SKD82.50	1000N	24v, 3-position, 120s running time	20mm valves	£580.00
SKD82.51	1000N	24v, 3-position, spring return, 120s running time	20mm valves	£695.00
SKD60	1000N	24v, 0-10v, 30s running time	20mm valves	£536.00
SKD62	1000N	24v, 0-10v, spring return, 30s running time	20mm valves	£625.00
SKB32.50	2800N	230v, 3-position, 120s running time	20mm valves	£983.00
SKB32.51	2800N	230v, 3-position, spring return, 120s running time	20mm valves	£1,180.00
SKB82.50	2800N	24v, 3-position, 120s running time	20mm valves	£983.00
SKB82.51	2800N	24v, 3-position, spring return, 120s running time	20mm valves	£1,180.00
SKB60	2800N	24v, 0-10v, 30s running time	20mm valves	£1,073.00
SKB62	2800N	24v, 0-10v, spring return, 30s running time	20mm valves	£1,275.00
SKC32.60	2800N	230v, 3-position, 120s running time	40mm valves	£1,095.00
SKC32.61	2800N	230v, 3-position, spring return, 120s running time	40mm valves	£1,288.00
SKC82.60	2800N	24v, 3-position, 120s running time	40mm valves	£1,094.00
SKC82.61	2800N	24v, 3-position, spring return, 120s running time	40mm valves	£1,288.00
SKC60	2800N	24v, 0-10v, 30s running time	40mm valves	£1,192.00
SKC62	2800N	24v, 0-10v, spring return, 30s running time	40mm valves	£1,386.00
Accessories to suit:				
ASK30	Linkage kit for obsolete VXG45... valve		SAS... actuators	£62.00
ASC10.51	Auxiliary switch (single)		SA... actuators	£60.00
ASC9.3	Auxiliary switch (double)		SKD/B/C 32,82	£122.00
ASC1.6	Auxiliary switch (single)		SKD/B/C 62	£52.00
ASK50	Stroke inverter		SKD actuators	£519.00
ASK51	Stroke inverter		SKB actuators	£659.00

NOTES:

* Suitability of actuator depends upon max differential pressure; please check before ordering.

** SAX... actuators operate to a maximum of 130°C, NOT SUITABLE FOR STEAM.

VI.



SAS61.03



SKB62



VII. Fan Coil Valves & Actuators



Fan Coil Valves & Actuators

VII.

Part No	Description	Size	KVS (m ³ /h)	Reference	Retail £
VZL2/15/0.4	2-port, PN16	DN15 (flat face)	0.4	065Z2071	£42.20
VZL2/15/0.63	2-port, PN16	DN15 (flat face)	0.63	065Z2072	£42.20
VZL2/15/1	2-port, PN16	DN15 (flat face)	1	065Z2073	£42.20
VZL2/15/1.6	2-port, PN16	DN15 (flat face)	1.6	065Z2074	£42.20
VZL2/20/2.5	2-port, PN16	DN20 (flat face)	2.5	065Z2075	£52.70
VZL2/20/3.5	2-port, PN16	DN20 (flat face)	3.5	065Z2076	£52.70
VZL2/15/0.4	2-port, PN16	DN15 (compression)	0.4	065Z2041	£42.20
VZL2/15/0.63	2-port, PN16	DN15 (compression)	0.63	065Z2042	£42.20
VZL2/15/1	2-port, PN16	DN15 (compression)	1	065Z2043	£42.20
VZL2/15/1.6	2-port, PN16	DN15 (compression)	1.6	065Z2044	£42.20
VZL2/20/2.5	2-port, PN16	DN20 (compression)	2.5	065Z2045	£52.70
VZL2/20/3.5	2-port, PN16	DN20 (compression)	3.5	065Z2046	£52.70
VZL4/15/0.4	4-port, PN16	DN15 (flat face)	0.4	065Z2091	£49.20
VZL4/15/0.63	4-port, PN16	DN15 (flat face)	0.63	065Z2092	£49.20
VZL4/15/1.0	4-port, PN16	DN15 (flat face)	1	065Z2093	£49.20
VZL4/15/1.6	4-port, PN16	DN15 (flat face)	1.6	065Z2094	£49.20
VZL4/20/2.5	4-port, PN16	DN20 (flat face)	2.5	065Z2095	£59.60
VZL4/20/3.5	4-port, PN16	DN20 (flat face)	3.5	065Z2096	£59.60
VZL4/15/0.4	4-port, PN16	DN15 (compression)	0.4	065Z2061	£49.20
VZL4/15/0.63	4-port, PN16	DN15 (compression)	0.63	065Z2062	£49.20
VZL4/15/1.0	4-port, PN16	DN15 (compression)	1	065Z2063	£49.20
VZL4/15/1.6	4-port, PN16	DN15 (compression)	1.6	065Z2064	£49.20
VZL4/20/2.5	4-port, PN16	DN20 (compression)	2.5	065Z2065	£59.60
VZL4/20/3.5	4-port, PN16	DN20 (compression)	3.5	065Z2066	£59.60
Actuators to Suit					
AMV130-24	24v raise/lower,	200N	5.5mm stroke	082H8036	£76.80
AMV130-230	230v raise/lower	200N	5.5mm stroke	082H8037	£76.80
AME130-24	24v 0-10v output	200N	5.5mm stroke	082H8044	£174.00
TWA-ZL-NC-24	24v normally closed	105N	2.8mm stroke	082H3100	£63.00
TWA-ZL-NO-24	24v normally open	105N	2.8mm stroke	082H3101	£63.00
TWA-ZL-NC-230	230v normally closed	105N	2.8mm stroke	082H3102	£63.00
AMV13SU-24	24v, spring up	300N	5.5mm stroke	082H3043	£667.00
AMV13SU-230	230v, spring up	300N	5.5mm stroke	082H3042	£667.00



VZL2



VZL4



AME130



Honeywell Fan Coil Valves & Actuators

Part No	Description	Size	KVS (m ³ /h)	Retail £
V5822A1022	2-port unit	15mm compression	0.4	£83.36
V5822A1030	2-port unit	15mm compression	0.63	£83.36
V5822A1048	2-port unit	15mm compression	1.0	£77.81
V5822A1055	2-port unit	15mm compression	1.6	£77.81
V5822A1063	2-port unit	22mm compression	2.5	£102.80
V5822A1071	2-port unit	22mm compression	4.0	£97.25
Actuators to suit:				
MT8-024-NC	90N, 24v, spring return (NC)		V5822A/23C	£71.66
MT8-024-NO	90N, 24v, spring return (NO)		V5822A/23C	£70.20
M7410C1007	180N, 24v, raise/lower		V5822A/23C	£110.43
M7410E1002	180N, 24v, 0-10v		V5822A/23C	£180.09
M7410E2026	180N, 24v, 0-10v, manual operation		V5822A/23C	£205.07
M7410E4022	180N, 24v, 0-10v, manual operation, 2x aux switch		V5822A/23C	£410.15

Please see page 63 for compatible fittings.



V5822A



M7410C

VII.



4-Port Fan Coil Valves & Actuators

Part No	Description	Size	Mix KVS (m ³ /h)	Bypass KVS (m ³ /h)	Retail £
VG3410CS	4-port	G1/2" BSPP	0.63	0.40	£48.19
VG3410DS	4-port	G1/2" BSPP	1.0	0.63	£48.19
VG3410ES	4-port	G1/2" BSPP	1.6	1	£48.19
VG3410FS	4-port	G1/2" BSPP	2.5	/	£52.23
VG3410JS	4-port	G3/4" BSPP	2.5	1.6	£55.67
VG3410KS	4-port	G3/4" BSPP	4	2.5	£55.67
VG3410LS	4-port	G1" BSPP	6.3	4	£71.31
Actuators to suit:					
VA-7087-21	125N Thermic, 24v open/close (normally open)				£50.32
VA-7087-23	125N Thermic, 230v open/close (normally open)				£50.32
VA-7480-0001	120N Electric, 24v floating control				£138.91
VA-7482-2001	120N Electric, 24v 0-10v modulating control				£152.67



VG3410



VA-7482



VII. Fan Coil Valves & Actuators

resideo Fan Coil Valves & Actuators

Part No	Description	Size	Kvs (m ³ /h)	Suitable Actuators	Retail £
VDE15B0.4MCS	2-port	15mm (compression)	0.4	MSLF/MSHF/MSLM	£36.90
VDE15B0.63MCS	2-port	15mm (compression)	0.63	MSLF/MSHF/MSLM	£36.90
VDE15B1.0MCS	2-port	15mm (compression)	1.0	MSLF/MSHF/MSLM	£36.90
VDE15B1.6MCS	2-port	15mm (compression)	1.6	MSLF/MSHF/MSLM	£36.90
VDE20B2.5MCS	2-port	22mm (compression)	2.5	MSLF/MSHF/MSLM	£46.13
VDE20B4.0MCS	2-port	22mm (compression)	4.0	MSLF/MSHF/MSLM	£46.13
VYE15B0.4MCS	4-port	15mm (compression)	0.4	MSLF/MSHF/MSLM	£56.50
VYE15B0.63MCS	4-port	15mm (compression)	0.63	MSLF/MSHF/MSLM	£56.50
VYE15B1.0MCS	4-port	15mm (compression)	1.0	MSLF/MSHF/MSLM	£56.50
VYE15B1.6MCS	4-port	15mm (compression)	1.6	MSLF/MSHF/MSLM	£56.50
VYE20B2.5MCS	4-port	22mm (compression)	2.5	MSLF/MSHF/MSLM	£65.73
VYE20B4.0MCS	4-port	22mm (compression)	4	MSLF/MSHF/MSLM	£65.73
Actuators to suit:					
MSLF-B018-151	180N	24v	Floating, manual override		£91.15
MSLF-B030-151	300N	24v	Floating, manual override		£108.18
MSHF-B018-151	180N	230v	Floating, manual override		£104.55
MSHF-B030-151	300N	230v	Floating, manual override		£122.00
MSLF-B018-150	180N	24v	3-position		£80.90
MSLF-B030-150	300N	24v	3-position		£97.78
MSLM-B018-150	180N	24v	0-10v		£112.25
MSLM-B030-150	300N	24v	0-10v		£130.40
MSLM-B018-151	180N	24v	0-10v, manual override		£127.50
MSLM-B030-151	300N	24v	0-10v, manual override		£145.90



MSLM-B0.

VII.

SAUTER Fan Coil Valves & Actuators

Part No	Description	Size	Kvs (m ³ /h)	Retail £
VUL010F630	2-port	15mm (compression)	0.4	£69.67
VUL010F620	2-port	15mm (compression)	0.6	£69.67
VUL010F610	2-port	15mm (compression)	1.0	£69.67
VUL010F600	2-port	15mm (compression)	1.6	£69.67
VUL015F310	2-port	¾" (flat-face)	2.5	£87.78
BUL010F630	4-port	15mm (compression)	0.4	£88.57
BUL010F620	4-port	15mm (compression)	0.6	£91.19
BUL010F610	4-port	15mm (compression)	1.0	£91.19
BUL010F600	4-port	15mm (compression)	1.6	£96.60
BUL015F410	4-port	¾" (flat-face)	2.5	£105.89
Actuators to suit:				
AXM217SF402	24v, 0-10v (motorised) 120N			£223.28
AXS315SF102	24v, 0-10v (thermic), normally closed 125N *REQ CABLE*			£95.18
AXM217F202	24v, raise/lower (motorised) 120N			£187.06
AXT301F112	24v, raise/lower (thermic), normally closed 100N			£34.39
AXT301F110	230v, raise/lower (thermic), normally closed 100N			£34.39
Accessories to suit:				
550600103	1m power cable 0-10v	To suit AXS315SF102		£13.70



VUL015



AXM217



SIEMENS Fan Coil Valves

Part No	Description	Size	Kvs (m ³ /h)	Retail £
VVP47.10-0.63s	2-port, PN16	15mm (compression)	0.63	£37.00
VVP47.10-1s	2-port, PN16	15mm (compression)	1.0	£36.00
VVP47.10-1.6s	2-port, PN16	15mm (compression)	1.6	£36.00
VVP47.15-2.5s	2-port, PN16	22mm (compression)	2.5	£41.00
VVP47.10-0.4	2-port, PN16	½" (flat-face)	0.4	£36.00
VVP47.10-0.63	2-port, PN16	½" (flat-face)	0.63	£36.00
VVP47.10-1	2-port, PN16	½" (flat-face)	1.0	£36.00
VVP47.10-1.6	2-port, PN16	½" (flat-face)	1.6	£36.00
VVP47.15-2.5	2-port, PN16	¾" (flat-face)	2.5	£41.00
VXP47.10-0.4	3-port, PN16	½" (flat-face)	0.4	£43.00
VXP47.10-0.63	3-port, PN16	½" (flat-face)	0.63	£43.00
VXP47.10-1	3-port, PN16	½" (flat-face)	1.0	£43.00
VXP47.10-1.6	3-port, PN16	½" (flat-face)	1.6	£43.00
VXP47.15-2.5	3-port, PN16	¾" (flat-face)	2.5	£50.00
VMP47.10-0.63s	4-port, PN16	15mm (compression)	0.63	£51.00
VMP47.10-1s	4-port, PN16	15mm (compression)	1.0	£51.00
VMP47.10-1.6s	4-port, PN16	15mm (compression)	1.6	£51.00
VMP47.15-2.5s	4-port, PN16	22mm (compression)	2.5	£61.00
VMP47.10-0.4	4-port, PN16	½" (flat-face)	0.4	£49.00
VMP47.10-0.63	4-port, PN16	½" (flat-face)	0.63	£49.00
VMP47.10-1	4-port, PN16	½" (flat-face)	1.0	£49.00
VMP47.10-1.6	4-port, PN16	½" (flat-face)	1.6	£49.00
VMP47.15-2.5	4-port, PN16	¾" (flat-face)	2.5	£58.00

Please see page 63 for compatible fittings.



VVP47.10



VMP47.10

SIEMENS Fan Coil Valve Actuators

Part No	Thrust	Features	Retail £
SSP31*	160N	Electric, 230v, 3-position control	£93.00
SSP81*	160N	Electric, 24v, 3-position control	£83.00
SSF161.05HF	200N	Electric, 24v, 0-10v modulating	£112.00
STP321.65L10	100N	Electro-thermic, 230v, 2-position/ PWM (normally open)	£30.00
STP121.65L10	100N	Electro-thermic, 24v, 2-position/ PWM (normally open)	£30.00
Accessories to suit:			
AL100	-	To link S...P to Staefa 2/3/4W valve	£33.00



SSP81

*Note: soon to be superseded. Please contact the office for details.



VIII. Pressure-Independent Control Valves & Actuators



Pressure-Independent Control Valves & Actuators

Part No	Description	Size	V nom (l/h)	Retail £
C215QPT-B	2-port PICCV PN25 c/w test points	½"	210	£178.00
C215QPT-D	2-port PICCV PN25 c/w test points	½"	420	£178.00
C220QPT-F	2-port PICCV PN25 c/w test points	¾"	980	£214.00
C225QPT-G	2-port PICCV PN25 c/w test points	1"	2100	£286.00
Actuators to suit:				
CQ24A	1NM, 24v, 2- or 3- position			£93.70
CQ24A-SR	1NM, 24v 0-10v			£93.70
CQ230A	1NM, 230v, 2- or 3- position			£106.00
CQK24A	1NM, 24v, 2- or 3- position, failsafe (normally closed)			£146.00
CQK24A-SR	1NM, 24v, 0-10v, failsafe (normally closed)			£146.00



C215QPT

VIII.



Electronic Pressure-Independent Control Valves & Actuators

Part No	Size	Vnom (l/s)	Description	Retail £
EP015R2+BAC	½" *	0.42	PN25, 2-10v, MP-bus/Modbus/BACnet*	£592.00
EP020R2+BAC	¾" *	0.69	PN25, 2-10v, MP-bus/Modbus/BACnet*	£620.00
EP025R2+BAC	1" *	0.97	PN25, 2-10v, MP-bus/Modbus/BACnet*	£661.00
EP032R2+BAC	1¼" *	1.67	PN25, 2-10v, MP-bus/Modbus/BACnet*	£714.00
EP040R2+BAC	1½" *	2.78	PN25, 2-10v, MP-bus/Modbus/BACnet*	£849.00
EP050R2+BAC	2" *	4.17	PN25, 2-10v, MP-bus/Modbus/BACnet*	£1,053.00
EP065F+MP	DN65 (FL)	8	PN16, 2-10v, M-bus comm.	£3,659.00
EP065F+MOD	DN65 (FL)	8	PN16, 2-10v, BACnet/Modbus comm.	£3,789.00
EP080F+MP	DN80 (FL)	11	PN16, 2-10v, M-bus comm.	£4,163.00
EP080F+MOD	DN80 (FL)	11	PN16, 2-10v, BACnet/Modbus comm.	£4,309.00
EP100F+MP	DN100 (FL)	20	PN16, 2-10v, M-bus comm.	£4,886.00
EP100F+MOD	DN100 (FL)	20	PN16, 2-10v, BACnet/Modbus comm.	£5,038.00
EP125F+MP	DN125 (FL)	31	PN16, 2-10v, M-bus comm.	£7,151.00
EP125F+MOD	DN125 (FL)	31	PN16, 2-10v, BACnet/Modbus comm.	£7,332.00
EP150F+MP	DN150 (FL)	45	PN16, 2-10v, M-bus comm.	£8,845.00
EP150F+MOD	DN150 (FL)	45	PN16, 2-10v, BACnet/Modbus comm.	£9,047.00
EP015R2+KBAC	½"	0.42	PN25, 2-10v, MP-bus/Modbus/BACnet, failsafe*	£865.00
EP020R2+KBAC	¾"	0.69	PN25, 2-10v, MP-bus/Modbus/BACnet, failsafe*	£893.00
EP025R2+KBAC	1"	0.97	PN25, 2-10v, MP-bus/Modbus/BACnet, failsafe*	£929.00
EP032R2+KBAC	1¼"	1.67	PN25, 2-10v, MP-bus/Modbus/BACnet, failsafe*	£986.00
EP040R2+KBAC	1½"	2.78	PN25, 2-10v, MP-bus/Modbus/BACnet, failsafe*	£1,137.00
EP050R2+KBAC	2"	4.17	PN25, 2-10v, MP-bus/Modbus/BACnet, failsafe*	£1,374.00
EP065F+KMP	DN65 (FL)	8	PN16, 2-10v, MP-bus, failsafe	£4,453.00
EP080F+KMP	DN80 (FL)	11	PN16, 2-10v, MP-bus, failsafe	£5,010.00
EP100F+KMP	DN100 (FL)	20	PN16, 2-10v, MP-bus, failsafe	£5,739.00
EP125F+KMP	DN125 (FL)	31	PN16, 2-10v, MP-bus, failsafe	£8,034.00
EP150F+KMP	DN150 (FL)	45	PN16, 2-10v, MP-bus, failsafe	£9,750.00
Unions for screwed valves (*1x required per valve)				
ZREV15F	DN15 - Rp ½"			£11.80
ZREV20F	DN20 - Rp ¾"			£18.00
ZREV25F	DN25 - Rp 1"			£29.70
ZREV32F	DN32 - Rp 1¼"			£42.20
ZREV40F	DN40 - Rp 1½"			£53.10
ZREV50F	DN50 - Rp 2"			£81.10



EP0xxR2



EPxxxF



Part No	Size	V nom (l/s)	Features	Retail £
EV015R2+BAC	½" *	0.42	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,200.00
EV020R2+BAC	¾" *	0.69	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,226.00
EV025R2+BAC	1" *	0.97	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,259.00
EV032R2+BAC	1¼" *	1.67	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,394.00
EV040R2+BAC	1½" *	2.78	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,543.00
EV050R2+BAC	2" *	4.17	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,792.00
EV065F+BAC	DN65	8	24v, 2-10v, MP-Bus, Modbus, BACnet	£4,461.00
EV080F+BAC	DN80	11	24v, 2-10v, MP-Bus, Modbus, BACnet	£5,066.00
EV100F+BAC	DN100	20	24v, 2-10v, MP-Bus, Modbus, BACnet	£5,879.00
EV125F+BAC	DN125	31	24v, 2-10v, MP-Bus, Modbus, BACnet	£7,632.00
EV150F+BAC	DN150	45	24v, 2-10v, MP-Bus, Modbus, BACnet	£9,355.00



EV0xxR2

VIII.

Unions for screwed valves (*1x required per valve)

ZREV15F	DN15 - Rp ½"	£11.80
ZREV20F	DN20 - Rp ¾"	£18.00
ZREV25F	DN25 - Rp 1"	£29.70
ZREV32F	DN32 - Rp 1¼"	£42.20
ZREV40F	DN40 - Rp 1½"	£53.10
ZREV50F	DN50 - Rp 2"	£81.10

Note: Other options are available; including failsafe and MID-approved meter units (see page 42). Please contact the office for further details.



Pressure-Independent Control Valves

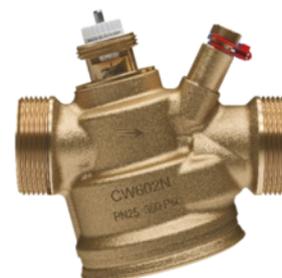
Part No	Size	Qnom (l/h)	Reference	Retail £
ABQM15LF 4.0	DN15 (internal thread)	200	003Z8300	£139.00
ABQM15 4.0	DN15 (internal thread)	650	003Z8301	£145.00
ABQM15HF 4.0	DN15 (internal thread)	1,200	003Z8302	£158.00
ABQM20 4.0	DN20 (internal thread)	1,100	003Z8303	£179.00
ABQM20HF 4.0	DN20 (internal thread)	1,900	003Z8304	£189.00
ABQM25 4.0	DN25 (internal thread)	2,200	003Z8305	£186.00
ABQM25HF 4.0	DN25 (internal thread)	3,800	003Z8306	£197.00
ABQM32 4.0	DN32 (internal thread)	3,600	003Z8307	£198.00
ABQM32HF 4.0	DN32 (internal thread)	5,000	003Z8308	£210.00
ABQM15LF 4.0	DN15 (EXT- see below for unions)	200	003Z8200	£139.00
ABQM15 4.0	DN15 (EXT- see below for unions)	650	003Z8201	£145.00
ABQM15HF 4.0	DN15 (EXT- see below for unions)	1,200	003Z8202	£158.00
ABQM20 4.0	DN20 (EXT- see below for unions)	1,100	003Z8203	£179.00
ABQM20HF 4.0	DN20 (EXT- see below for unions)	1,900	003Z8204	£189.00
ABQM25 4.0	DN25 (EXT- see below for unions)	2,200	003Z8205	£186.00
ABQM25HF 4.0	DN25 (EXT- see below for unions)	3,800	003Z8206	£197.00
ABQM32 4.0	DN32 (EXT- see below for unions)	3,600	003Z8207	£198.00
ABQM32HF 4.0	DN32 (EXT- see below for unions)	5,000	003Z8208	£210.00
ABQM40	DN40 (EXT - see below for unions)	7,500	003Z0770	£511.00
ABQM50	DN50 (EXT - see below for unions)	12,500	003Z0771	£575.00

Unions to Suit (2x needed for screwed ABQMs up to DN50)

003Z0232	1x union to convert DN15 to ½" bspf	£3.00
003Z0233	1x union to convert DN20 to ¾" bspf	£4.30
003Z0234	1x union to convert DN25 to 1" bspf	£7.20
003Z0235	1x union to convert DN32 to 1¼" bspf	£10.00
003Z0279	1x union to convert DN40 to 1½" bspf	£20.20
003Z0278	1x union to convert DN50 to 2" bspf	£23.60



ABQM INT



ABQM EXT



VIII. Pressure-Independent Control Valves & Actuators



Pressure-Independent Control Valves (cont.)

Part No	Size	Qnom (l/h)	Reference	Retail £
ABQM65	DN65 (FLANGED) PN16	20,000	003Z0773	£1,310.00
ABQM65HF	DN65 (FLANGED) PN16	25,000	003Z0793	£1,340.00
ABQM80	DN80 (FLANGED) PN16	28,000	003Z0774	£1,500.00
ABQM80HF	DN80 (FLANGED) PN16	40,000	003Z0794	£1,800.00
ABQM100	DN100 (FLANGED) PN16	38,000	003Z0775	£2,050.00
ABQM100HF	DN100 (FLANGED) PN16	59,000	003Z0795	£2,470.00
ABQM125	DN125 (FLANGED) PN16	90,000	003Z0705	£4,670.00
ABQM125HF	DN125 (FLANGED) PN16	110,000	003Z0715	£5,770.00
ABQM150	DN150 (FLANGED) PN16	145,000	003Z0706	£5,830.00
ABQM150HF	DN150 (FLANGED) PN16	190,000	003Z0716	£7,200.00
ABQM200	DN200 (FLANGED) PN16	200,000	003Z0707	£9,050.00
ABQM200HF	DN200 (FLANGED) PN16	270,000	003Z0717	£11,180.00
ABQM250	DN250 (FLANGED) PN16	300,000	003Z0708	£11,600.00
ABQM250HF	DN250 (FLANGED) PN16	370,000	003Z0718	£13,920.00



ABQM FLANGED

VIII.



Pressure-Independent Control Valve Actuators

Part No	Thrust	Supply	Features	To suit...	Reference	Retail £
AMV110NL	130N	24v	3-position	ABQM/HERO DN15-32	082H8056	£83.20
AME110NL (G2)	150N	24v	0-10v	ABQM/HERO DN15-32	082H8110	£102.00
NOVOCON-S	90N	24v	0-10v/BACnet/Modbus	ABQM/HERO DN15-32	003Z8504	£306.00
AME435QM	400N	24v	0-10v	ABQM DN40-100	082H0171	£285.00
NOVOCON-M	550N	24v	0-10v/BACnet/Modbus	ABQM DN40-100	003Z8540	£974.00
AME55QM	2000N	24v	0-10v	ABQM DN125-150	082H3078	£552.00
NOVOCON-L	2000N	24v	0-10v/BACnet/Modbus	ABQM DN125-150	003Z8560	£2,448.00
AME685-1	4000N	24v	0-10v	ABQM DN200-250	082H5013	£3,070.00
NOVOCON-XL	4000N	24v	0-10v/BACnet/Modbus	ABQM DN200-250	003Z8563	£POA



AME110NL (GEN2)

Note: other options are available, including thermic, failsafe & feedback signal versions. Please contact the office for details.



OPTIMA Compact Pressure-Independent Control Valves

Part No	Size	Stroke	Flow Rate (L/H)	Features	Actuator	Retail £
53-1370	DN15 (int)	5.0mm	65 - 370	C/w test plugs	Options below	£POA
53-1365	DN15 (int)	5.0mm	220 - 1,330	C/w test plugs	Options below	£POA
53-1368	DN20 (int)	5.0mm	220 - 1,330	C/w test plugs	Options below	£POA
53-1339	DN25 (int)	5.5mm	280 - 1,800	C/w test plugs	Options below	£POA
53-1373	DN25 (int)	5.5mm	600 - 3,609	C/w test plugs	Options below	£POA
53-1374	DN32 (int)	5.5mm	550 - 4,001	C/w test plugs	Options below	£POA
53-1375-01	DN40 (int)	15mm	1,370 - 9,500	C/w test plugs	24v 0-10v/3-pos	£POA
53-1376-01	DN50 (int)	15mm	1,400 - 11,500	C/w test plugs	24v 0-10v/3-pos	£POA
Actuators to suit DN15-32 (DN40 & DN50 actuator included with valve)						
53-1180				24v 0-10v motorised, 8 seconds run time		£POA
53-1181				24v 3 pos/ on-off motorised, 8 seconds run time		£POA
53-1182				230v 3 post/ on-off motorised, 8 seconds run time		£POA
48-5529				24v 0-10v thermic, 30 seconds run time, failsafe (normally closed)		£POA
48-5527				24v on/off thermic, 180 seconds run time, failsafe (normally closed)		£POA
48-5528				230v on/off thermic, 180 seconds run time, failsafe (normally closed)		£POA



53-1374



SIEMENS ACVATIX Pressure-Independent Control Valves

Part No (PN25)	Size (bspf)	V100 (l/h)	Features	Actuators*	Retail £
VPI46.15L0.2Q	½"	200	Int thread, c/w test points	STA...65/SSA	£81.00
VPI46.15L0.4Q		370	Int thread, c/w test points	STA...65/SSA	£81.00
VPI46.15L0.6Q		575	Int thread, c/w test points	STA...65/SSA	£81.00
VPI46.15F1.4Q		1330	Int thread, c/w test points	STA...65/SSA	£81.00
VPI46.20L0.6Q	¾"	575	Int thread, c/w test points	STA...65/SSA	£93.00
VPI46.20F1.4Q		1,330	Int thread, c/w test points	STA...65/SSA	£93.00
VPI46.20F1.8Q	1"	1,800	Int thread, c/w test points	STA...65/SSA	£93.00
VPI46.25F1.8Q		1,800	Int thread, c/w test points	STA...65/SSA	£113.50
VPI46.25F3.6Q	1½"	3,609	Int thread, c/w test points	STA...65/SSA	£113.50
VPI46.32F4Q		4,001	Int thread, c/w test points	STA...65/SSA	£188.00
VPI46.40F9.5Q	2"	9,500	Int thread, c/w test points	SAY...P03	£549.00
VPI46.50F12Q		11,500	Int thread, c/w test points	SAY...P03	£569.50
VPF44.50F15	DN50	16	Flanged PN16, c/w test points	SAX...P03/SQV...P03	£882.50
VPF44.50F25	DN50	24.6	Flanged PN16, c/w test points	SAX...P03/SQV...P03	£882.50
VPF44.65F25	DN65	24.4	Flanged PN16, c/w test points	SAX...P03/SQV...P03	£1,341.50
VPF44.65F35	DN65	37.7	Flanged PN16, c/w test points	SAX...P03/SQV...P03	£1,341.50
VPF44.80F35	DN80	35.7	Flanged PN16, c/w test points	SAX...P03/SQV...P03	£1,518.00
VPF44.80F45	DN80	49	Flanged PN16, c/w test points	SAX...P03/SQV...P03	£1,518.00
VPF44.100F70	DN100	69.6	Flanged PN16, c/w test points	SQV...P03/SAV...P00	£1,567.00
VPF44.100F90	DN100	90.9	Flanged PN16, c/w test points	SQV...P03/SAV...P00	£1,567.00
VPF44.125F110	DN125	112	Flanged PN16, c/w test points	SQV...P03/SAV...P00	£4,823.00
VPF44.125F135	DN125	132	Flanged PN16, c/w test points	SQV...P03/SAV...P00	£4,823.00
VPF44.150F150	DN150	150	Flanged PN16, c/w test points	SQV...P03/SAV...P00	£5,064.50
VPF44.150F200	DN150	208	Flanged PN16, c/w test points	SQV...P03/SAV...P00	£5,064.50
VPF43.200F210	DN200	210	Flanged PN16, c/w test points	SQV...P03/SAV...P00	£10,922.50
VPF43.200F280	DN200	280	Flanged PN16, c/w test points	SQV...P03/SAV...P00	£10,922.50



VPI46.25...Q

VIII.



VPF43.200

Note: please see p5 of product datasheet for full details of compatibility (available on request).

SIEMENS ACVATIX Pressure-Independent Control Valve Actuators

Part No	Description	Thrust	Stroke	Features	Retail £
STA321.65L10	Electrothermic	100N	4.5mm	230v, 2-position	£30.00
STA121.65L10	Electrothermic	100N	4.5mm	24v, 2-position	£30.00
STA161.65L10	Electrothermic	100N	4.5mm	24v, 0-10v modulating, 1m cable	£72.00
SSA331.00	Electric	100N	5.5mm	230v, 3-position	£74.00
SSA131.00	Electric	100N	5.5mm	24v, 3-position	£67.00
SSA161.05HF	Electric	100N	5.5mm	24v, 0-10v modulating	£102.00
SAY31P03	Electric	200N	20mm	230v, 3-position	£270.00
SAY81P03	Electric	200N	20mm	24v, 3-position	£272.00
SAY61P03	Electric	200N	20mm	24v, 0-10v modulating	£324.00
SAX31P03	Electric	500N	20mm	230v, 3-position	£308.00
SAX81P03	Electric	500N	20mm	24v, 3-position	£303.00
SAX61P03	Electric	500N	20mm	24v, 0-10v modulating	£367.00
SQV91P30	Electric	1100N	20mm	24v*, 0-10v modulating	£893.00
SQV91P40	Electric	1100N	40mm	24v*, 0-10v modulating	£893.00
SAV31P00	Electric	1100N	40mm	230v, 3-position	£552.00
SAV81P00	Electric	1100N	40mm	24v, 3-position	£550.00
SAV61P00	Electric	1100N	40mm	24v, 0-10v modulating	£590.00
Accessories to suit:					
ASC10.51	Single aux. switch			SAY...P03, SAX...P03, SAV...P00	£60.00
ASC10.42	Double aux. switch			SQV91P...	£126.00



Note: other options, including failsafe versions, are available. Please contact the office for details.

* SQV can be converted to 230v with accessory. Please contact the office for details.



SIEMENS**ACVATIX Intelligent Valve**

Control valve with integrated energy management

Part No	Ports	Size	Vmin (l/h)	V100 (l/h)	Features	Retail £
EVG4U10E015	2	DN15*	450	1,500	24v 0-10v, Modbus RTU/BACnet UDP/IP	£839.00
EVG4U10E020	2	DN20*	900	3,000	24v 0-10v, Modbus RTU/BACnet UDP/IP	£907.00
EVG4U10E025	2	DN25*	1,350	4,500	24v 0-10v, Modbus RTU/BACnet UDP/IP	£932.00
EVG4U10E032	2	DN32*	2,100	7,000	24v 0-10v, Modbus RTU/BACnet UDP/IP	£984.00
EVG4U10E040	2	DN40*	3,450	11,500	24v 0-10v, Modbus RTU/BACnet UDP/IP	£1,035.00
EVG4U10E050	2	DN50*	5,400	18,000	24v 0-10v, Modbus RTU/BACnet UDP/IP	£1,229.00
EVF4U20E065	2	DN65	9,000	30,000	24v 0-10v, Modbus RTU/BACnet UDP/IP	£2,647.00
EVF4U20E080	2	DN80	14,500	48,000	24v 0-10v, Modbus RTU/BACnet UDP/IP	£2,825.00
EVF4U20E100	2	DN100	22,500	75,000	24v 0-10v, Modbus RTU/BACnet UDP/IP	£3,359.00
EVF4U20E125	2	DN125	36,000	120,000	24v 0-10v, Modbus RTU/BACnet UDP/IP	£4,326.00
*Unions to suit:						
ALG152	2x brass union	G1"/R½"			<i>EVG4U10E015</i>	£13.00
ALG202	2x brass union	G1¼"/R¾"			<i>EVG4U10E020</i>	£15.00
ALG252	2x brass union	G1½"/R1"			<i>EVG4U10E025</i>	£18.00
ALG322	2x brass union	G2"/R1¼"			<i>EVG4U10E032</i>	£21.00
ALG402	2x brass union	G2¼"/R1½"			<i>EVG4U10E040</i>	£26.00
ALG502	2x brass union	G2¾"/R2"			<i>EVG4U10E050</i>	£40.00
ALG153	3x brass union	G1"/R½"			<i>EXG4U10E015</i>	£18.00
ALG203	3x brass union	G1¼"/R¾"			<i>EXG4U10E020</i>	£21.00
ALG253	3x brass union	G1½"/R1			<i>EXG4U10E025</i>	£23.00
ALG323	3x brass union	G2"/R1¼"			<i>EXG4U10E032</i>	£31.00
ALG403	3x brass union	G2¼"/R1½"			<i>EXG4U10E040</i>	£37.00
ALG503	3x brass union	G2¾"/R2"			<i>EXG4U10E050</i>	£60.00



BELIMO® Butterfly Valves

Part No	Size	KVS (m ³ /h)	Features	Suitable Actuators	Retail £
D640N	DN40	27	Wafer flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£149.00
D650N	DN50	30	Wafer flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£160.00
D665N	DN65	50	Wafer flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£185.00
D680N	DN80	75	Wafer flange	GR...-5/ GRK...-5 *DIRECT MOUNTING*	£216.00
D6100W	DN100	220	Wafer flange	JRCA..T *LINKAGE REQ'D*	£305.00
D6125W	DN125	310	Wafer flange	JRCA..T *LINKAGE REQ'D*	£406.00
D6150W	DN150	550	Wafer flange	JRCA..T *LINKAGE REQ'D*	£495.00
D6200W	DN200	820	Wafer flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£709.00
D6250W	DN250	1300	Wafer flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£1,155.00
D650NL	DN50	30	Lugged flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£193.00
D665NL	DN65	50	Lugged flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£219.00
D680NL	DN80	75	Lugged flange	GR...-5/ GRK...-5 *DIRECT MOUNTING*	£254.00
D6100WL	DN100	220	Lugged flange	JRCA..T *LINKAGE REQ'D*	£350.00
D6125WL	DN125	310	Lugged flange	JRCA..T *LINKAGE REQ'D*	£447.00
D6150WL	DN150	550	Lugged flange	JRCA..T *LINKAGE REQ'D*	£540.00
D6200WL	DN200	820	Lugged flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£780.00
D6250WL	DN250	1300	Lugged flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£1,268.00



IX.

BELIMO® Butterfly Valve Actuators

Part No	Torque	Voltage	Features	Retail £
SR24A-5	20Nm	24v	2- or 3- position	£292.00
SR24A-SR-5	20Nm	24v	2-10v output	£364.00
SR230A-5	20Nm	230v	2- or 3- position	£292.00
GR24A-5	40Nm	24v	2- position	£412.00
GR24A-SR-5	40Nm	24v	2-10v output	£499.00
GR230A-5	40Nm	230v	2- position	£412.00
JRCA-S2-T	90Nm	24-240vAC	2/3 pos, 2x aux switch	£793.00
JRCA-BAC-S2-T	90Nm	24-240vAC	2/3 pos, 2-10v/BACnet/Modbus, 2x aux switch	£1,006.00
PRCA-S2-T	160Nm	24-240vAC	2/3 pos, 35s running time, 2x aux switch	£1,487.00
PRCA-BAC-S2-T	160Nm	24-240vAC	2/3 pos, BACNET, 35s running time, 2x aux switch	£1,797.00
PRKCA-BAC-S2-T	160Nm	24-240vAC	2/3 pos, BACNET, failsafe, 2x aux switch	£2,845.00
Linkage Kits to Suit:				
ZPR01	To fit PR... actuators to DN200 & DN250 butterfly valves			£143.00
ZJR01	To fit JR... actuators to DN125 & DN150 W/WL valves			£112.00
ZJR03	To fit JR... actuators to DN100 W/WL valves			£112.00



JRCA-BAC...

Note: other options are available; please contact the office for details.

BELIMO® 3-way Butterfly Valves

C/w 2x lugged butterfly valves, 2x actuators, 1x "t-piece"

Part No	Size	KVS (m ³ /h)	Voltage	Output	Features	Retail £
D7100WL/BAC+ZD7100	DN100	160	24-230v	0-10v/BACnet/Modbus	2x aux switch	£3,410.00
D7125WL/BAC+ZD7125	DN125	280	24-230v	0-10v/BACnet/Modbus	2x aux switch	£3,766.00
D7150WL/BAC+ZD7150	DN150	380	24-230v	0-10v/BACnet/Modbus	2x aux switch	£4,273.00
D7200WL/BAC+ZD7200	DN200	800	24-230v	0-10v/BACnet/Modbus	4x aux switch	£6,830.00
D7250WL/BAC+ZD7250	DN250	1200	24-230v	0-10v/BACnet/Modbus	4x aux switch	£8,687.00
D7300WL/BAC+ZD7300	DN300	1700	24-230v	0-10v/BACnet/Modbus	4x aux switch	£10,572.00



IX. Butterfly Valves & Actuators



Motorised Butterfly Valves (Wafer)

Part No	Description	Size	Kvs (m ³ /h)	Code	Retail £
VFH2/WAO-32	Wafer, PN16, 230V ON/OFF	DN 32	63	003Z2360	£371.00
VFH2/WAO-40	Wafer, PN16, 230V ON/OFF	DN 40	72	003Z2363	£414.00
VFH2/WAO-50	Wafer, PN16, 230V ON/OFF	DN 50	82	003Z2366	£424.00
VFH2/WAO-65	Wafer, PN16, 230V ON/OFF	DN 65	207	003Z2369	£483.00
VFH2/WAO-80	Wafer, PN16, 230V ON/OFF	DN 80	288	003Z2372	£568.00
VFH2/WAO-100	Wafer, PN16, 230V ON/OFF	DN 100	569	003Z2375	£692.00
VFH2/WAO-125	Wafer, PN16, 230V ON/OFF	DN 125	874	003Z2378	£737.00
VFH2/WAO-150	Wafer, PN16, 230V ON/OFF	DN 150	1,348	003Z2380	£872.00
VFH2/WAO-200	Wafer, PN16, 230V ON/OFF	DN 200	2,692	003Z2382	£1,170.00
VFH2/WAO-250	Wafer, PN16, 230V ON/OFF	DN 250	5,550	003Z2384	£1,190.00
VFH2/WAO-300	Wafer, PN16, 230V ON/OFF	DN 300	7,557	003Z2386	£1,530.00
VFH2/WAO-350	Wafer, PN16, 230V ON/OFF	DN 350	10,212	003Z2388	£1,890.00
VFH2/WAO-400	Wafer, PN16, 230V ON/OFF	DN 400	14,042	003Z2390	£2,660.00
VFH2/WAO-450	Wafer, PN16, 230V ON/OFF	DN 450	18,600	003Z2392	£3,660.00
VFH2/WAO-500	Wafer, PN16, 230V ON/OFF	DN 500	23,915	003Z2394	£3,840.00
VFH2/WAO-600	Wafer, PN16, 230V ON/OFF	DN 600	36,946	003Z2396	£4,640.00



IX.



Motorised Butterfly Valves (Lugged)

Part No	Description	Size	Kvs (m ³ /h)	Code	Retail £
VFH2/LAO-50	Lugged, PN16, 230V ON/OFF	DN 50	82	003Z6366	£445.00
VFH2/LAO-65	Lugged, PN16, 230V ON/OFF	DN 65	207	003Z6369	£507.00
VFH2/LAO-80	Lugged, PN16, 230V ON/OFF	DN 80	288	003Z6372	£596.00
VFH2/LAO-100	Lugged, PN16, 230V ON/OFF	DN 100	569	003Z6375	£726.00
VFH2/LAO-125	Lugged, PN16, 230V ON/OFF	DN 125	874	003Z6378	£775.00
VFH2/LAO-150	Lugged, PN16, 230V ON/OFF	DN 150	1,348	003Z6380	£924.00
VFH2/LAO-200	Lugged, PN16, 230V ON/OFF	DN 200	2,692	003Z6382	£1,220.00
VFH2/LAO-250	Lugged, PN16, 230V ON/OFF	DN 250	5,550	003Z6384	£1,250.00
VFH2/LAO-300	Lugged, PN16, 230V ON/OFF	DN 300	7,557	003Z6386	£1,600.00
VFH2/LAO-350	Lugged, PN16, 230V ON/OFF	DN 350	10,212	003Z6388	£2,270.00
VFH2/LAO-400	Lugged, PN16, 230V ON/OFF	DN 400	14,042	003Z6390	£3,190.00
VFH2/LAO-450	Lugged, PN16, 230V ON/OFF	DN 450	18,600	003Z6392	£4,390.00
VFH2/LAO-500	Lugged, PN16, 230V ON/OFF	DN 500	23,915	003Z6394	£4,600.00
VFH2/LAO-600	Lugged, PN16, 230V ON/OFF	DN 600	36,946	003Z6396	£5,580.00



Motorised Butterfly Valves (Lugged)



Part No	Description	Size	Kvs (at 90°)	Retail £
EA1185-050	Lugged, PN16, 24-240v actuator w/ manual override	DN 50	118	£POA
EA1185-065	Lugged, PN16, 24-240v actuator w/ manual override	DN 65	258	£POA
EA1185-080	Lugged, PN16, 24-240v actuator w/ manual override	DN 80	510	£POA
EA1185-100	Lugged, PN16, 24-240v actuator w/ manual override	DN 100	926	£POA
EA1185-125	Lugged, PN16, 24-240v actuator w/ manual override	DN 125	1,500	£POA
EA1185-150	Lugged, PN16, 24-240v actuator w/ manual override	DN 150	2,170	£POA
EA1185-200	Lugged, PN16, 24-240v actuator w/ manual override	DN 200	3,842	£POA
EA1185-250	Lugged, PN16, 24-240v actuator w/ manual override	DN 250	5,014	£POA



SIEMENS**Butterfly Valves & Actuators**
Wafer, 0.5% leakage

Part No	Description	Size	Kvs (m ³ /h)	Features	Retail £
VFW41.40U	Wafer-type, PN6/10/16	DN 40	40	Leakage: 0.05% KVS	£157.00
VFW41.50U	Wafer-type, PN6/10/16	DN 50	100	Leakage: 0.05% KVS	£174.00
VFW41.65U	Wafer-type, PN6/10/16	DN 65	155	Leakage: 0.05% KVS	£188.00
VFW41.80U	Wafer-type, PN6/10/16	DN 80	260	Leakage: 0.05% KVS	£217.00
VFW41.100U	Wafer-type, PN6/10/16	DN 100	520	Leakage: 0.05% KVS	£239.00
VFW41.125U	Wafer-type, PN6/10/16	DN 125	820	Leakage: 0.05% KVS	£318.00
VFW41.150U	Wafer-type, PN6/10/16	DN 150	1600	Leakage: 0.05% KVS	£372.00
VFW41.200U	Wafer-type, PN6/10/16	DN 200	4000	Leakage: 0.05% KVS	£562.00
Actuators to suit:					
SAL31.03T10/F05	230v, 3-position	10Nm			£346.00
SAL81.03T10/F05	24v, 3-position	10Nm			£353.00
SAL61.03T10/F05	24v, 0-10v	10Nm			£428.00
Accessories to suit:					
ASK41NF04SP	Manual adjuster - lever			VFW/L DN40-65	£43.00
ASK41NF05SP	Manual adjuster - lever			VFW/L DN80-125	£53.00
ASK41NF07SP	Manual adjuster - lever			VFW/L DN150-200	£74.00
ASC10.51	Auxiliary switch				£60.00



IX.

SIEMENS**Butterfly Valves**
Tight-closing

Part No	Description	Size	Kvs (m ³ /h)	Actuators	Retail £
VFW41.40	Wafer, PN6/10/16	DN 40	40		£206.00
VFW41.50	Wafer, PN6/10/16	DN 50	100	SAL..T20/ SQL3..1E25	£220.00
VFW41.65	Wafer, PN6/10/16	DN 65	155		£252.00
VFW41.80	Wafer, PN6/10/16	DN 80	260		£263.00
VFW41.100	Wafer, PN6/10/16	DN 100	520	SAL...T40/ SQL3...1E40	£288.00
VFW41.125	Wafer, PN6/10/16	DN 125	820		£341.00
VFW41.150	Wafer, PN6/10/16	DN 150	1,600		£466.00
VFW41.200	Wafer, PN6/10/16	DN 200	4,000	SQL3...1E100	£645.00
VFW41.250	Wafer, PN6/10/16	DN 250	4,550		£860.00
VFW41.300	Wafer, PN6/10/16	DN 300	7,200		£1,277.00
VFW41.350	Wafer, PN6/10/16	DN 350	10,250	SQL3...1E400	£1,919.00
VFW41.400	Wafer, PN6/10/16	DN 400	14,100		£2,497.00
VFW41.450	Wafer, PN6/10/16	DN 450	18,500		£4,515.00
VFW41.500	Wafer, PN10/16	DN 500	24,000	SQL3...1E1200	£5,207.00
VFW41.600	Wafer, PN16	DN 600	31,000		£9,053.00
Lugged Valves					
VFL41.40	Lugged, PN10/16	DN 40	40		£239.00
VFL41.50	Lugged, PN10/16	DN 50	100	SAL..T20/ SQL3..1E25	£252.00
VFL41.65	Lugged, PN10/16	DN 65	155		£290.00
VFL41.80	Lugged, PN10/16	DN 80	260		£305.00
VFL41.100	Lugged, PN10/16	DN 100	520	SAL...T40/ SQL3...1E40	£329.00
VFL41.125	Lugged, PN10/16	DN 125	820		£391.00
VFL41.150	Lugged, PN10/16	DN 150	1,600		£532.00
VFL41.200	Lugged, PN16	DN 200	4,000	SQL3...1E100	£738.00
VFL41.250	Lugged, PN16	DN 250	4,550		£1,051.00
VFL41.300	Lugged, PN16	DN 300	7,200		£1,471.00
VFL41.350	Lugged, PN16	DN 350	10,250	SQL3...1E400	£2,205.00
VFL41.400	Lugged, PN16	DN 400	14,100		£2,872.00
VFL41.450	Lugged, PN16	DN 450	18,500		£5,195.00
VFL41.500	Lugged, PN16	DN 500	24,000	SQL3...1E1200	£5,993.00
VFL41.600	Lugged, PN16	DN 600	31,000		£10,446.00




Butterfly Valve Actuators
VFW/VFL41 tight closing

Part No	Description	Aux Switches	Run Time (s)	Torque (Nm)	To suit...	Retail £
SAL31.00T20	230v, 3-position	~	120	20	VFW/L DN 40-65	£467.00
SAL81.00T20	24v, 3-position	~	120	20		£476.00
SAL61.00T20	24v, 0-10v	~	120	20		£556.00
SQL341E25	230v, 2/3-position	2x	17	25		£608.00
SQL361E25	230v, 0-10v	2x	17	25		£773.00
SAL31.00T40	230v, 3-position	~	120	40	VFW/L DN 80-125	£476.00
SAL81.00T40	24v, 3-position	~	120	40		£476.00
SAL61.00T40	24v, 0-10v	~	120	40		£556.00
SQL341E40	230v, 2/3-position	2x	24	40		£773.00
SQL361E40	230v, 0-10v	2x	24	40		£883.00
SQL341E100	230v, 2/3-position	2x	39	100	VFW/L	£993.00
SQL361E100	230v, 0-10v	~	39	100	DN 150-200	£1,236.00
SQL341E400	230v, 2/3-position	2x	47	400	VFW/L	£1,766.00
SQL361E400	230v, 0-10v	~	47	400	DN 250-400	£2,175.00
SQL341E1200	230v, 2/3-position	2x	47	1200	VFW/L	£6,014.00
SQL361E1200	230v, 0-10v	~	47	1200	DN 450-600	£6,389.00
Valve/ Actuator Accessories to suit:						
ASK41NF04SP	Manual adjuster - lever				VFW/L DN40-65	£43.00
ASK41NF05SP	Manual adjuster - lever				VFW/L DN80-125	£53.00
ASK41NF07SP	Manual adjuster - lever				VFW/L DN150-200	£74.00
ASK41NF10SP	Manual adjuster - worm gear				VFW/L DN250-400	£274.00
ASC10.51	Single auxiliary switch (Max. 2x)				SAL...00T20/40	£60.00
ASC10.21	Double auxiliary switch				SQL...E100/400/1200	£64.00
ASZ7.5/1000	Potentiometer (0...1000ohm)				SAL31/81...00T20/40	£237.00


Sylax Butterfly Valves

Part No	Size	Type	Features	Actuators	Retail £
280-5100	50mm	Wafer (PN16)	REG 4 compliance	Please contact office	£314.90
280-5110	65mm	Wafer (PN16)	REG 4 compliance	Please contact office	£320.70
280-5120	80mm	Wafer (PN16)	REG 4 compliance	Please contact office	£363.20
280-5130	100mm	Wafer (PN16)	REG 4 compliance	Please contact office	£408.60



Note: other options are available; please contact the office for details.



BELIMO Rotary Retrofit Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail £
HT24-3	10	24	3-position	£194.00
HT24-3-S	10	24	3-position, 1x aux switch	£220.00
HT24-SR	10	24	2-10v output	£280.00
HT230-3	10	230	3-position	£194.00
HT230-3-S	10	230	3-position, 1x aux switch	£220.00
Accessories to suit:				
SNR2	1x aux switch (3-point, screw terminal only)			£37.30



Note: please see below for details of compatible valves and linkage kits.

BELIMO Linear Retrofit Actuators

Part No	Thrust (N)	Stroke (mm)	Voltage (v)	Features	Retail £
NV24A-RE	1000	20	24	2-/3-position	£513.00
NV24A-MP-RE	1000	20	24	2-10v output, adjustable parameter	£548.00
NVK24A-3-RE	1000	20	24	Failsafe, 3 position	£768.00
NVK24A-MP-RE	1000	20	24	Failsafe, 2-10v output, adjustable parameter	£814.00
NV230A-RE	1000	20	230	2-/3-position	£513.00
NVK230A-3-RE	1000	20	230	Failsafe, 3-position	£768.00
SVL24A-MP-RE	1500	50	24	2-10v output, adjustable parameter	£1,087.00
SVL230A-RE	1500	50	230	2-/3-position	£1,020.00
EV24A-RE	2500	50	24	2-/3-position	£1,090.00
EV24A-MP-RE	2500	50	24	2-10v output, adjustable parameter	£1,162.00
EV230A-RE	2500	50	230	2-/3-position	£1,090.00
RV24A-MF-RE	4500	50	24	2-10v output	£1,473.00
Accessories to suit:					
ZTH-EU	Programming/servicing tool for parameterisable actuators.			£490.00	



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Note: please contact the office for details of retrofit actuator compatibility and any required linkage kits.

BELIMO Actuator Linkage Kits

Linkage	Actuator	Valve Manuf.	Valve Range	Retail £
WLF	LF...(p4)	Belimo	Ball valves (up to 1¼") (p7)	£61.94
MS-NRE	HT...(above)	Esbe	3G...(obsolete)	£18.23
MS-NRE6	HT...(above)	Esbe	VRG...(p10)	£19.47
MS-NRED	HT...(above)	Danfoss	HRE3 (2012 onward) (p10)	£18.21
MS-NRS	HT...(above)	Satchwell	MB (p11) MBX (p11)	£28.97
MS-NRSF	HT...(above)	Satchwell	MBF (metric threaded spindles only) (p11)	£46.71
MS-NRLX	HT...(above)	Siemens	VBG31...(obs) VBF...(to 50mm)(p12) VBI31...(obs)	£77.10
MKES-D	SM...(p4)	Danfoss	HFE (p10)	£139.17
MKESA	SM...(p4)	Esbe	3G (obs) 3F (p10)	£145.91
ZMBFA	SM...(p4)	Satchwell	MBF (p11)	£126.22
ZMBA	SM...(p4)	Satchwell	MB (p11) MBX (screwed) (p11)	£136.19



XI. VAV & Underfloor & Actuators



VAV Valves & Actuators

Part No	Description	Retail £
VRD3	Dynamic air volume control	£POA
NMV-D3-MP	Compact velocity controller/actuator	£POA
AFP160	Air velocity probe (153mm)	£POA
VU0A-SR-ZME3A	0-10v actuator/ linkage (VU04)	£POA
VU04-B10	4-port ½"valve KVS1.0	£POA
VU04-B16	4-port ½"valve KVS1.6	£POA
VU04-B25	4-port ½"valve KVS2.5	£POA
LM24A-V	Damper actuator for VAV controller, 5Nm, 24v	£POA
NM24A-V	Damper actuator for VAV controller, 10Nm, 24v	£POA
Accessories to suit:		
ZTH-EU-MHS	Programming/servicing tool for parameterisable actuators	£POA



XI.



Electrothermic Underfloor Actuators

Part No	Supply	Features	Retail £
22CX230NC2	230v	2-wire, normally closed c/w aux switch	£69.43
22CX230NC4	230v	4-wire, normally closed c/w aux switch	£76.33
22CX24NC2	24v	2-wire, normally closed c/w aux switch	£69.43
22CX24NC4	24v	4-wire, normally closed c/w aux switch	£76.33
22CX230NA2	230v	2-wire, normally open c/w aux switch	£POA
22CX230NA4	230v	4-wire, normally open c/w aux switch	£POA
22CX24NA2	24v	2-wire, normally open c/w aux switch	£POA
22CX24NA4	24v	4-wire, normally open c/w aux switch	£POA



Electrothermic Underfloor Actuators

Part No	Description	Retail £
11B06	24v, 2-wire	£88.60
O5E00	230v, 2-wire	£88.60
O1D00	230v, 4-wire	£99.90





Gas Solenoids

Part No	Connection	VA Rating	Max. Pressure	Face-to-Face	Retail £
ZEV15	½" bspf	15	360 mbar	72mm	£93.45
ZEV20	¾" bspf	22	360 mbar	86mm	£126.00
ZEV25	1" bspf	22	360 mbar	100mm	£202.65
ZEV32	1¼" bspf	42	360 mbar	150mm	£223.65
ZEV40	1½" bspf	42	360 mbar	150mm	£233.10
ZEV50	2" bspf	50	360 mbar	170mm	£278.25
ZEVF65	65mm flanged	72	360 mbar	310mm	£738.15
ZEVF80	80mm flanged	72	360 mbar	310mm	£729.95
ZEVF100	100mm flanged	175	360 mbar	350mm	£1,124.55
EVF125	125mm flanged	290	200 mbar	460mm	£2,426.76
EVF150	150mm flanged	290	200 mbar	460mm	£2,584.55
ZEVF200	200mm flanged	290	200 mbar	600mm	£4,982.42

CPI switches to suit:

CPI-20/25	To suit ¾" & 1" bspf	£59.85
CPI-32/40	To suit 1¼" & 1½" bspf	£59.85
CPI-50	To suit 2" bspf	£59.85
CPI-65F/80F	To suit 65mm & 80mm flanged	£59.85
CPI-100F	To suit 100mm flanged	£59.85
CPI-125/150/200	To suit ZEVF 125mm, 150mm and 200mm flanged	£59.85
CPI-E125/150	To suit EVF 125mm and 150mm flanged	£59.85

Note: these valves are supplied with 230v coils as standard. 24v options are available on request.



XII.



Powerseat Gas Safety Shut-off Valves

For air, oil and non-corrosive gases (Inc. town, natural and LPG)

Part No	Size	Max Flow @2.5 mbar DP	Max. Pressure (Forward Mbar)	Retail £
PE6683	1½"	67	1000	£1,732.48
PE6684	2"	80	1000	£1,732.48
PE6685	2½"	150	350	£1,918.26
PE6686	3"	165	350	£1,948.02
PE6685FL4	65mm (FL)	100	350	£2,696.74
PE6686FL4	80mm (FL)	100	350	£2,799.37
PE6687FL4	100mm (FL)	220	250	£3,095.40
PE6689FL4	150mm (FL)	510	500	£5,647.46
BC66810FL4	200mm (FL)	1200	250	£14,651.32
BC66811FL4	250mm (FL)	1430	250	£18,061.28

Accessories to suit:

66RSR	Remote manual reset unit	All valves	£POA
66RS-230	Manual reset unit 230v	668 series	£POA
668S	230v head only	6683 & 6684	£1,614.96
668LS	230v head only	6685 & 6686 screwed	£1,631.74
668HS	230v head only	6685 & 6686 flanged	£1,666.54
6687S	230v head only	6687FL4	£1,952.95
6689S	230v head only	6689FL4	£3,081.36
66810S	230v head only	66810FL4	£7,240.90



XIII. Water/ Air/ Oil Solenoid Valves



Solenoid Valves for Water, Air & Oil
(Normally closed)



Part No	Size	KV	Min Pressure	Max Pressure	Features	Retail £
23D	½"	3	0.1Bar	20 Bar	WRAS approved, -10/+90°C	£88.00
23E	¾"	8.4	0.1Bar	20 Bar	WRAS approved, -10/+90°C	£115.00
23F	1"	9.6	0.1Bar	20 Bar	WRAS approved, -10/+90°C	£142.00
23G	1¼"	25.2	0.1Bar	10 Bar	WRAS approved, -10/+90°C	£215.00
23H	1½"	30	0.1Bar	10 Bar	WRAS approved, -10/+90°C	£226.00
23I	2"	37.2	0.1Bar	10 Bar	WRAS approved, -10/+90°C	£280.00
Coils to suit:						
C230	N/A	N/A	N/A	N/A	230v coil & din plug	£28.00
C24	N/A	N/A	N/A	N/A	24v coil & din plug	£28.00

230v solenoids supplied as standard. Please contact the office for details on alternatives.



XIII.



EV220S Solenoid Valves for Water, Air & Oil
(Normally closed)



Part No	Size	KVs	Pressure	Features	Retail £
042U491432	½"	4	0.2-10Bar	WRAS approved, -30/+100°C, 230v	£85.47
042U491419	½"	4	0.2-10Bar	WRAS approved, -30/+100°C, 24v	£85.47
042U491732	¾"	5	0.2-10Bar	WRAS approved, -30/+100°C, 230v	£95.20
042U491719	¾"	5	0.2-10Bar	WRAS approved, -30/+100°C, 24v	£95.20
042U492232	1"	7	0.2-10Bar	WRAS approved, -30/+100°C, 230v	£141.33
042U492219	1"	7	0.2-10Bar	WRAS approved, -30/+100°C, 24v	£141.33
042U493232	1¼"	15	0.2-10Bar	WRAS approved, -30/+100°C, 230v	£272.00
042U494032	1½"	18	0.2-10Bar	WRAS approved, -30/+100°C, 230v	£272.00
042U495032	2"	32	0.2-10Bar	WRAS approved, -30/+100°C, 230v	£408.00

Other options are available; please contact the office for details.





Water Meters (c/w pulse output)



Part No	Description	Size	Flow Rate (m ³ /h)	Retail £
285-1000	GMDI Cold water (max 50°C)	½"	2.5	£141.75
285-1010	GMDI Cold water (max 50°C)	¾"	4	£147.38
285-1020	GMDI Cold water (max 50°C)	1"	6.3	£209.93
285-1030	GMDI Cold water (max 50°C)	1¼"	10	£220.50
285-1040	GMDI Cold water (max 50°C)	1½"	16	£418.28
285-1050	GMDI Cold water (max 50°C)	2"	25	£414.23
285-1070	WDEK50 Cold water (max 50°C)	65mm	63	£470.25
285-1080	WDEK50 Cold water (max 50°C)	80mm	100	£556.65
285-1090	WDEK50 Cold water (max 50°C)	100mm	160	£632.93
285-1100	WDEK50 Cold water (max 50°C)	125mm	160	£814.73
285-1110	WDEK50 Cold water (max 50°C)	150mm	250	£1,027.13
285-1120	WDEK50 Cold water (max 50°C)	200mm	400	£1,265.85
285-2000	GMDI Hot water (max. 90°C)	½"	2.5	£153.45
285-2010	GMDI Hot water (max. 90°C)	¾"	4	£160.88
285-2020	GMDI Hot water (max. 90°C)	1"	6.3	£237.83
285-2030	GMDI Hot water (max. 90°C)	1¼"	10	£249.98
285-2040	GMDI Hot water (max. 90°C)	1½"	16	£418.28
285-2050	GMDI Hot water (max. 90°C)	2"	25	£470.48
285-2070	WDEK50 Hot water (max. 90°C)	65mm	63	£546.08
285-2080	WDEK50 Hot water (max. 90°C)	80mm	100	£618.75
285-2090	WDEK50 Hot water (max. 90°C)	100mm	160	£738.23
285-2100	WDEK50 Hot water (max. 90°C)	125mm	160	£868.73
285-2110	WDEK50 Hot water (max. 90°C)	150mm	250	£1,163.48
285-2120	WDEK50 Hot water (max. 90°C)	200mm	400	£1,549.13

Note: other options are available, including Mbus output. Please contact the office for details.



XIV.



Flow sensors with glycol compensation
(externally threaded, for water and water/glycol mixtures)

Part No	DN	Max Flow (m ³ /h)	Features	Retail £
22PF-1UC	15	1.8	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£463.00
22PF-1UD	20	3	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£478.00
22PF-1UE	25	4.2	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£493.00
22PF-1UF	32	7.2	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£516.00
22PF-1UG	40	12	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£547.00
22PF-1UH	50	18	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£577.00

Unions to suit:

ZREV15F	1x union DN15 G¾" to Rp ½"	**2x unions req'd per unit**	£11.80
ZREV20F	1x union DN20 G1" to Rp ¾"	**2x unions req'd per unit**	£18.00
ZREV25F	1x union DN25 G1¼" to Rp 1"	**2x unions req'd per unit**	£29.70
ZREV32F	1x union DN32 G1½" to Rp 1¼"	**2x unions req'd per unit**	£42.20
ZREV40F	1x union DN40 G2" to Rp 1½"	**2x unions req'd per unit**	£53.10
ZREV50F	1x union DN50 G2½" to Rp 2"	**2x unions req'd per unit**	£81.10



XV. Energy Meters



Thermal Energy Meters - MID approved (externally threaded, for water)

Part No	DN	QP (m ³ /h)	Features	Retail £
22PEM-1UC	15	1.5	MID-approved, 24v/ PoE, 2-10v, MP-Bus/Modbus/BACnet	£954.00
22PEM-1UD	20	2.5	MID-approved, 24v/ PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,068.00
22PEM-1UE	25	3.5	MID-approved, 24v/ PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,182.00
22PEM-1UF	32	6	MID-approved, 24v/ PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,297.00
22PEM-1UG	40	10	MID-approved, 24v/ PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,425.00
22PEM-1UH	50	15	MID-approved, 24v/ PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,548.00

Unions to suit:-

ZREV15F	1x union DN15 G $\frac{3}{4}$ " to Rp $\frac{1}{2}$ "	**2x unions req'd per unit**	£11.80
ZREV20F	1x union DN20 G1" to Rp $\frac{3}{4}$ "	**2x unions req'd per unit**	£18.00
ZREV25F	1x union DN25 G1 $\frac{1}{4}$ " to Rp 1"	**2x unions req'd per unit**	£29.70
ZREV32F	1x union DN32 G1 $\frac{1}{2}$ " to Rp 1 $\frac{1}{4}$ "	**2x unions req'd per unit**	£42.20
ZREV40F	1x union DN40 G2" to Rp 1 $\frac{1}{2}$ "	**2x unions req'd per unit**	£53.10
ZREV50F	1x union DN50 G2 $\frac{1}{2}$ " to Rp 2"	**2x unions req'd per unit**	£81.10



Note: please contact the office for non-MID approved versions.



Belimo Energy Valve™ - MID approved

Part No	Size (RP)	QP (m ³ /h)	Features	Retail £
EV015R2+MID	$\frac{1}{2}$ "	1.5	MID, (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,320.00
EV020R2+MID	$\frac{3}{4}$ "	2.5	MID, (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,349.00
EV025R2+MID	1"	3.5	MID, (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,386.00
EV032R2+MID	1 $\frac{1}{4}$ "	6	MID, (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,532.00
EV040R2+MID	1 $\frac{1}{2}$ "	10	MID, (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,698.00
EV050R2+MID	2"	15	MID, (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,973.00

Unions to suit:-

ZREV15F	1x union DN15 G $\frac{3}{4}$ " to Rp $\frac{1}{2}$ "	**1x union req'd per unit**	£11.80
ZREV20F	1x union DN20 G1" to Rp $\frac{3}{4}$ "	**1x union req'd per unit**	£18.00
ZREV25F	1x union DN25 G1 $\frac{1}{4}$ " to Rp 1"	**1x union req'd per unit**	£29.70
ZREV32F	1x union DN32 G1 $\frac{1}{2}$ " to Rp 1 $\frac{1}{4}$ "	**1x union req'd per unit**	£42.20
ZREV40F	1x union DN40 G2" to Rp 1 $\frac{1}{2}$ "	**1x union req'd per unit**	£53.10
ZREV50F	1x union DN50 G2 $\frac{1}{2}$ " to Rp 2"	**1x union req'd per unit**	£81.10



Note: please see page 29 or contact the office for other versions.



Sono 40 Energy Meters

Type	Size	QP (m ³ /h)	Features	Retail £
Sono 40	DN15	1.5	LTHW or CHW w/ battery, pulse/MBUS, unions, adaptor	£POA
Sono 40	DN20	2.5	LTHW or CHW w/ battery, pulse/MBUS, unions, adaptor	£POA
Sono 40	DN25	3.5	LTHW or CHW w/ battery, pulse/MBUS, unions, pockets	£POA
Sono 40	DN25	6	LTHW or CHW w/ battery, pulse/MBUS, unions, pockets	£POA
Sono 40	DN40	10	LTHW or CHW w/ battery, pulse/MBUS, unions, pockets	£POA
Sono 40	DN50 (FL)	15	LTHW or CHW c/w battery, pulse/ MBUS & pockets	£POA
Sono 40	DN65 (FL)	25	LTHW or CHW c/w battery, pulse/ MBUS & pockets	£POA
Sono 40	DN80 (FL)	40	LTHW or CHW c/w battery, pulse/ MBUS & pockets	£POA
Sono 40	DN100 (FL)	60	LTHW or CHW c/w battery, pulse/ MBUS & pockets	£POA
Sono 3500	DN125 (FL)	100	LTHW/CHW, 230v, pulse/ Mbus c/w pockets	£POA
Sono 3500	DN150 (FL)	150	LTHW/CHW, 230v, pulse/ Mbus c/w pockets	£POA
Sono 3500	DN200 (FL)	250	LTHW/CHW, 230v, pulse/ Mbus c/w pockets	£POA
Sono 3500	DN250 (FL)	400	LTHW/CHW, 230v, pulse/ Mbus c/w pockets	£POA
Sono 3500	DN300 (FL)	560	LTHW/CHW, 230v, pulse/ Mbus c/w pockets	£POA

Other PSU & comms modules available, including Modbus, BACnet and LoRa WAN. Max 3x comms modules in parallel. Please contact the office for further details.



kamstrup Multical 403 Heat Meters



Part No	Size	QP (m ³ /h)	Features	Retail £
185-3000	½"	.6	M-Bus, 1.5m sensors, pockets, unions, PSU	£521.22
185-3010	½"	1.5	M-Bus, 1.5m sensors, pockets, unions, PSU	£521.22
185-3020	¾"	1.5	M-Bus, 1.5m sensors, pockets, unions, PSU	£525.53
185-3030	¾"	2.5	M-Bus, 1.5m sensors, pockets, unions, PSU	£525.53
185-3040	1"	3.5	M-Bus, 1.5m sensors, pockets, unions, PSU	£744.70
185-3050	1"	6	M-Bus, 1.5m sensors, pockets, unions, PSU	£792.59
185-3060	1½"	10	M-Bus, 1.5m sensors, pockets, unions, PSU	£1,087.08
186-3070	50mm(FL)	15	M-Bus 1.5m sensors, pockets & PSU	£1,515.82



Other options are available, including **BACnet** & **Modbus** please contact the office for details and a tailored quote.

kamstrup Multical 403 Cooling Meters



Part No	Size	QP (m ³ /h)	Features	Retail £
185-4000	½"	.6	M-Bus, 1.5m sensors, pockets, unions, PSU	£531.49
185-4010	½"	1.5	M-Bus, 1.5m sensors, pockets, unions, PSU	£531.49
185-4020	¾"	1.5	M-Bus, 1.5m sensors, pockets, unions, PSU	£535.80
185-4030	¾"	2.5	M-Bus, 1.5m sensors, pockets, unions, PSU	£535.75
185-4040	1"	3.5	M-Bus, 1.5m sensors, pockets, unions, PSU	£744.70
185-4050	1"	6	M-Bus, 1.5m sensors, pockets, unions, PSU	£792.59
185-4060	1½"	10	M-Bus, 1.5m sensors, pockets, unions, PSU	£1,087.08
186-4070	50mm(FL)	15	M-Bus 1.5m sensors, pockets & PSU	£1,515.82



Other options are available, including **BACnet** & **Modbus** please contact the office for details and a tailored quote.

kamstrup Multical 603 Heat Meters (c/w Ultraflow body)



Part No	Size	QP (m ³ /h)	Features	Retail £
185-5000	1½"	10	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£1,286.85
185-5010	50mm	15	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£1,712.21
185-5020	65mm	25	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£1,859.55
185-5030	80mm	40	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£2,123.63
185-5040	100mm	60	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£2,794.60
185-5050	100mm	100	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£3,192.42
185-5060	125mm	100	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£3,457.63
185-5070	150mm	150	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£5,349.33
185-5080	200mm	400	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£6,386.79
185-5090	200mm	600	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£8,481.72
185-5100	250mm	400	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£8,340.56
185-5110	250mm	600	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£10,404.91
185-5120	250mm	1000	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£11,147.13
185-5130	300mm	1000	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£13,225.59



Other options are available, including **BACnet** & **Modbus** please contact the office for details and a tailored quote.

XV.



XV. Energy Meters

kamstrup Multical 603 Cooling Meters (c/w Ultraflow body)



Part No	Size	QP (m ³ /h)	Features	Retail £
185-5990	1½"	10	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£1,367.31
185-6001	50mm	15	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£1,788.63
185-6010	65mm	25	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£1,937.25
185-6020	80mm	40	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£2,203.60
185-6030	100mm	60	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£2,880.36
185-6040	100mm	100	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£3,281.60
185-6050	125mm	100	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£3,549.10
185-6060	150mm	150	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£5,349.33
185-6070	200mm	400	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£6,386.79
185-6080	200mm	600	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£8,481.72
185-6085	250mm	400	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£8,340.56
185-6090	250mm	600	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£10,404.91
185-6100	250mm	1000	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£11,147.13
185-6110	300mm	1000	M-Bus output, 1.5m sensors, pockets, wall bracket, PSU	£13,225.59



Other options are available, including  Modbus &  BACnet
Please contact the office for details and a tailored quote.



Clamp-on Meters - Micronics

XV.

Part No	Description	Features	Retail £
U1000-HM	Heat meter for pipes OD 25-225mm, 0-85°C	C/w 24v supply, 2x sensors, Modbus RTU	£POA
U3000	Water meter for 0.1m/s to 20m/s flow	C/w LED display	£POA
U4000	Water meter for 0.1m/s to 20m/s flow	C/w LED display, built-in data logger	£POA

Quotations on the above meters are tailored to individual needs. Please contact the office for more details.

SIEMENS Domestic Heat and Cooling Energy Meters

Part No	Size	QP (m ³ /h)	Features	Retail £
WSM506-BE	¾"	.6	M-bus, battery powered, return-mounted	£318.50
WSM515-BE	¾"	1.5	M-bus, battery powered, return-mounted	£318.50
WSM525-BE	1"	2.5	M-bus, battery powered, return-mounted	£318.50

Other options are available; please contact the office for details.



METRIX MID-approved Diaphragm Gas Meters

For natural gas, city gas & propane-butane gas

Part No	Description	Size	QP (m ³ /h)	Features	Retail £
UGP-G4P	Diaphragm	3/4"	6	C/w pulse output	£POA
2UG-G6P	Diaphragm	1"	10	C/w pulse output	£POA
UG-G10P	Diaphragm	1½"	16	C/w pulse output	£POA
UG-G16P	Diaphragm	1½"	25	C/w pulse output	£POA
UG-G25P	Diaphragm	2"	40	C/w pulse output	£POA

**VEMTEC Turbine Gas Meters**

For natural gas, city gas, air, nitrogen & propane-butane gas

Part No	Description	Size	QP (m ³ /h)	Features	Retail £
IGQM-10	Turbine	1"	16	C/w pulse output	£POA
IGQM-16	Turbine	1"	25	C/w pulse output	£POA
IGQM-25	Turbine	1"	40	C/w pulse output	£POA
IGQM-40	Turbine	1½"	65	C/w pulse output	£POA
IGTM-50	Turbine	50mm (FL)	100	C/w pulse output	£POA
IGTM-65	Turbine	65mm (FL)	160	C/w pulse output	£POA
IGTM-80/250	Turbine	80mm (FL)	250	C/w pulse output	£POA
IGTM-80/400	Turbine	80mm (FL)	400	C/w pulse output	£POA
IGTM-100/400	Turbine	100mm (FL)	400	C/w pulse output	£POA
IGTM-100/650	Turbine	100mm (FL)	650	C/w pulse output	£POA
IGTM-150/1000	Turbine	150mm (FL)	1000	C/w pulse output	£POA
IGTM-150/1600	Turbine	150mm (FL)	1600	C/w pulse output	£POA
IGTM-200/1600	Turbine	200mm (FL)	1600	C/w pulse output	£POA
IGTM-200/2500	Turbine	200mm (FL)	2500	C/w pulse output	£POA



XVI.



XVII. Gas Detection Equipment

COSTER Gas Detection Equipment For methane, LPG or CO

Part No	Description	Features	Retail £
RFG361	Gas detector 1x sensor, 1x relay out	IP40, adjustable alarm	£253.00
RFG651	1-channel detector, 2x relay out	230v, adjustable alarm thresholds	£342.10
RFG652	2-channel gas detector, 2x relay out	230v, adjustable alarm thresholds	£401.50
RFG653	3-channel gas detector, 2x relay out	230v, adjustable alarm thresholds	£412.00
RFG442	Gas detector max. 3 remote sensors, 4x relay out	12/24vAC Modbus, adj. thresholds	£324.00
RFG448	Gas detector max. 3 remote sensors, 4x relay out	230v Modbus, adj. thresholds	£274.00
Accessories & sensors to suit:			
SRS150	Natural gas sensor *to suit RFG series*	To suit RFG... series	£101.20
SRS350	CO sensor *to suit RFG series*	To suit RFG... series	£101.20
ACD316	Facia panel-mounting kit *to suit RFG361*	To suit RFG361	£44.00
ACD644	Facia panel-mounting kit *to suit RFG6...series*	To suit RFG6.. series	£71.00
ACD615	Wall-mounting kit *to suit RFG6...series*	To suit RFG6.. series	£75.00

Other options are available; please contact the office for details.



Gas Detection Equipment For a range of explosive & toxic gases

Part No	Description	Features	Retail £
BX150K	1-channel, panel mount, alarm	0-300ppm (CO) or 0-20% LEL (CH4/LPG)	£420.79
GS100M	1-channel, panel/wall, alarm	0-300ppm (CO) or 0-20% LEL (CH4/LPG)	£482.79
GS300MC	3-channel, panel/wall, traffic light	0-300ppm (tox), 0-20% LEL (exp'sive), 0-25% (O ₂)	£559.54
BX444MC	4-channel, panel/wall, traffic light	0-300ppm (tox), 0-20% LEL (exp'sive), 0-25% (O ₂)	£947.83
Sensors to suit:			
SGM595	Natural gas/propane sensor	To suit all detectors above.	£224.29
CO100AR	Carbon monoxide (CO) sensor	To suit all detectors above, or standalone.	£378.88
Standalone detector:			
CHCO	CH ₄ & CO sensor, traffic light	0-300ppm(CO), 0-20% LEL (CH ₄)	£244.78

Other options are available; please contact the office for details.



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FLAMEFAST CONTROLS Gas Safety Systems

Part No	Description	Sensors	Features	Retail £
BG-PO	Boilerguard	FGD/FGS (≤16)	LCD indication	£360.00
BG-PT00	Boilerguard & gas proving	FGD/FGS (≤16)	LCD ind, c/w pressure transmitter	£360.00
GG-PT00	Gasguard & gas proving	TR-CO2TL	LCD ind, c/w pressure trans, IGEM/UP/11	£360.00
SG-PT00	Serviceguard gas/water/elec isol'n	TR-CO2TL	LCD ind, c/w pressure trans, IGEM/UP/11	£360.00



FLAMEFAST CONTROLS Gas Sensors To connect to Flamefast gas safety systems & most third-party controllers

Part No	Type	Gas	Range	Features	Retail £
FGS-NG	Space	Methane	100% LEL	BACnet, 0-10v, VFC, traffic light display	£110.00
FGS-LPG	Space	Propane	100% LEL	BACnet, 0-10v, VFC, traffic light display	£110.00
FGS-H2	Space	Hydrogen	100% LEL	BACnet, 0-10v, VFC, traffic light display	£140.00
FGS-CO	Space	Carbon Monoxide	200 PPM	BACnet, 0-10v, VFC, traffic light display	£110.00
FGS-NO2	Space	Nitrogen Dioxide	5 PPM	BACnet, 0-10v, VFC, traffic light display	£140.00
DFGS-NG	Duct	Methane	100% LEL	BACnet, 0-10v, VFC, traffic light display	£170.00
DFGS-LPG	Duct	Propane	100% LEL	BACnet, 0-10v, VFC, traffic light display	£170.00
DFGS-H2	Duct	Hydrogen	100% LEL	BACnet, 0-10v, VFC, traffic light display	£200.00
DFGS-CO	Duct	Carbon Monoxide	200 PPM	BACnet, 0-10v, VFC, traffic light display	£170.00
DFGS-NO2	Duct	Nitrogen Dioxide	5 PPM	BACnet, 0-10v, VFC, traffic light display	£200.00





Gas Detectors

A cost-effective sensing solution for use with Flamefast gas safety systems or direct connection to BMS

Part No	Type	Description	Range	Notes
FGD-NG	Space	Methane	100% LEL	Obsolete; contact office for replacement
FGD-LPG	Space	Propane	100% LEL	Obsolete; contact office for replacement
FGD-H2	Space	Hydrogen	100% LEL	Obsolete; contact office for replacement
FGD-CO	Space	Carbon Monoxide	200 PPM	Obsolete; contact office for replacement
FGD-NO2	Space	Nitrogen Dioxide	5 PPM	Obsolete; contact office for replacement
FGD-CL2	Space	Chlorine	5 PPM	Obsolete; contact office for replacement
FGD-O2	Space	Oxygen	% VOL	Obsolete; contact office for replacement
DFGD-NG	Duct	Methane	100% LEL	Obsolete; contact office for replacement
DFGD-LPG	Duct	Propane	100% LEL	Obsolete; contact office for replacement
DFGD-H2	Duct	Hydrogen	100% LEL	Obsolete; contact office for replacement
DFGD-CO	Duct	Carbon Monoxide	200 PPM	Obsolete; contact office for replacement
DFGD-NO2	Duct	Nitrogen Dioxide	5 PPM	Obsolete; contact office for replacement
DFGD-CL2	Duct	Chlorine	5 PPM	Obsolete; contact office for replacement
DFGD-O2	Duct	Oxygen	% VOL	Obsolete; contact office for replacement



Note: other gases are available; please contact the office for details.



Merlin Gas Proving & Detection Units
For boiler rooms

Part No	Application	Sensors	Features	Retail £
1000BH	Gas proving/ detection	Max 2	W/ pressure transmitter, key switch	£655.00
GDP2	2 zone gas detection	Max 6	LED indication	£308.00
GDP2X	2 zone gas detection	Max 8	Digital screen	£435.00
GDPX+	4 zone gas detection	Max 16	Digital screen, remote monitor (LAN)	£875.00



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Sensors to suit (range of gases available, most common options listed below):

Detector	Natural gas/CO/LPG/CO ₂	24vAC/DC	Audible alarm, traffic light indication	£POA
Detector-X	Natural gas/CO/LPG/CO ₂	24vDC	Audible alarm, traffic light, Modbus	£POA
Detector-i	Natural gas/CO/LPG/CO ₂	24vAC/DC	Audible alarm, traffic light, 0-10v	£POA
Detector-iS	Natural gas/CO/LPG/CO ₂	24vAC/DC	Audible alarm, traffic light, 0-10v	£POA

Note: other options are available; please contact the office for details.



Merlin Gas Proving Units
For science labs

Part No	Application	Features	Retail £
1000V	Gas proving w/ fan interlock	W/ pressure transmitter, key switch	£595.00
1000V+	Gas proving w/ fan interlock & electric isolation	W/ pressure transmitter, key switch	£620.00
1000VW+	Gas proving w/ fan int'lock, elec. & water isol'n	W/ pressure transmitter, key switch	£645.00



Accessories to suit:

CO2-X	CO ₂ temp & monitor, alarm & pre-alarm output, 2x 0-10v output signal, digital display	£200.00
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XVIII. Air Quality Sensors



22RTM Room Sensors & P-22RTM Operating Units
With active CO₂ sensing



Part No	<<Measuring>>				Features	Output	Retail £
	CO ₂ (ppm)	RH (%)	Temp (°C)	Dew Point			
22RTM-18-1	0-2000	0-100	0/+50	0/+50	Traffic light LED, display app	3x 0-10v/4-20mA	£243.00
P-22RTM-1900D-1	0-2000	0-100	0/+50	0/+50	E-paper touch display & TLF LED	3x 0-10v	£POA
P-22RTM-1U00A-2	0-2000	0-100	0/+50	0/+50	Traffic light LED, display app	Modbus/BACnet	£298.00
P-22RTM-1U00D-2	0-2000	0-100	0/+50	0/+50	E-paper touch display & TLF LED	Modbus/BACnet	£423.00



Duct Sensors
With active CO₂ sensing



Part No	<<Measuring>>				Features	Output	Retail £
	VOC (%)	CO ₂ (ppm)	RH (%)	Temp (°C)			
22DC-11	/	0-2000	/	/	IP65, 180mm probe	0-10v	£304.00
22DC-13	/	0-2000	/	/	IP65, 180mm probe	4-20mA	£315.00
22DTC-11	/	0-2000	/	0/+50°C	IP65, 180mm probe	0-10v	£382.00
22DTC-13	/	0-2000	/	0/+50°C	IP65, 180mm probe	4-20mA	£391.00
22DTM-11	/	0-2000	0-100	0/+50°C	IP65, 180mm probe	0-10v	£480.00
22DTM-1106	/	0-2000	0-100	0/+50°C	IP65, 180mm probe, LCD display	0-10v	£POA
22DTM-15	/	0-2000	0-100	0/+50°C	IP65, 180mm probe	Modbus	£499.00
22DTM-16	/	0-2000	0-100	0/+50°C	IP65, 180mm probe	BACnet	£499.00
22DCV-11	0-100	0-2000	/	0/+50°C	IP65, 180mm probe	0-10v	£496.00
22DCM-11	0-100	0-2000	/	0/+50°C	IP65, 180mm probe	0-10v	£525.00



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Air Quality Room Transmitters and Smart Sensors
For ventilation or gas safety applications



Part No	<<Measuring>>					Features	Output	Retail £
	VOC (%)	VOC (µg/m ³)	CO ₂ (ppm)	RH (%)	Temp (°C)			
TR-CO2T	/	/	0-10,000	/	0/+50		0-10v or 10K3A1	£100.00
TR-CO2TL	/	/	0-10,000	/	0/+50	Traffic light LCD	0-10v or 10K3A1	£120.00
TR-CO2TH	/	/	0-10,000	0-100	0/+50		0-10v or 10K3A1	£110.00
TR-CO2THL	/	/	0-10,000	0-100	0/+50	Traffic light LCD	0-10v or 10K3A1	£130.00
TR-AQT	0-100	/	/	/	0/+50		0-10v or 10K3A1	£100.00
TR-AQTL	0-100	/	/	/	0/+50	Traffic light LCD	0-10v or 10K3A1	£120.00
TR-AQTH	0-100	/	/	0-100	0/+50		0-10v or 10K3A1	£110.00
TR-AQTHL	0-100	/	/	0-100	0/+50	Traffic light LCD	0-10v or 10K3A1	£130.00
SS-CO2TH	/	/	0-10,000	0-100	0/+50		Modbus/BACnet	£140.00
SS-CO2THL	/	/	0-10,000	0-100	0/+50	Traffic light LCD	Modbus/BACnet	£160.00
SS-AQTH	/	0-2000	/	0-100	0/+50		Modbus/BACnet	£140.00
SS-AQTHL	/	0-2000	/	0-100	0/+50	Traffic light LCD	Modbus/BACnet	£160.00
SS-CO2AQTH	/	0-2000	0-10,000	0-100	0/+50		Modbus/BACnet	£200.00
SS-CO2AQTHL	/	0-2000	0-10,000	0-100	0/+50	Traffic light LCD	Modbus/BACnet	£220.00

Transmitters

Smart Sensors





Air Quality Duct Transmitters and Smart Sensors
For ventilation or gas safety applications



Part No	<<Measuring>>					Features	Output	Retail £
	VOC (%)	VOC (µg/m³)	CO ₂ (ppm)	RH (%)	Temp (°C)			
DTR-CO2	/	/	0-10,000	/	/	IP66, 180mm probe	0-10v	£160.00
DTR-CO2TH	/	/	0-10,000	0-100	0/+50	IP66, 180mm probe	0-10v	£180.00
DTR-AQ	0-100	/	/	/	/	IP66, 180mm probe	0-10v	£160.00
DTR-AQTH	0-100	/	/	0-100	0/+50	IP66, 180mm probe	0-10v	£180.00
DSS-CO2TH	/	/	0-10,000	/	0/+50	IP66, 180mm probe	BACnet/Modbus	£220.00
DSS-AQTH	/	0-2000	/	0-100	0/+50	IP66, 180mm probe	BACnet/Modbus	£220.00
DSS-CO2AQTH	/	0-2000	0-10,000	0-100	0/+50	IP66, 180mm probe	BACnet/Modbus	£280.00



DSS-CO2TH
Smart Sensor



DTR-CO2-TH
Duct Transmitter



Smart Room Sensors

Well Building & Reset Air Compliant



Part No	<< Measuring >>								Output	Features	Retail £
	PM1 (µg/m³)	PM2.5 (µg/m³)	PM5 (µg/m³)	PM10 (µg/m³)	TVOC (AQI)	CO ₂ (ppm)	RH (%)	Temp (°C)			
PMR25-MOD-TS-CO2	0-1000	0-1000	0-1000	0-1000	0-500	0-10,000	0-100	0/+50	Modbus	Touchscreen	£372.75
PMR25-BAC-TS-CO2	0-1000	0-1000	0-1000	0-1000	0-500	0-10,000	0-100	0/+50	BACnet	Touchscreen	£375.75
QER10-MOD-LCD-RH-VOC	/	/	/	/	0-500*	0-10,000	0-100*	0/+50	Modbus	LCD display	£244.50
QER10-BAC-LCD-RH-VOC	/	/	/	/	0-500*	0-10,000	0-100*	0/+50	BACnet	LCD display	£247.50
QER10-LCD-RH-VOC	/	/	/	/	0-500*	0-10,000	0-100*	0/+50	0-10v	LCD display	£235.50
QER10-MOD-LCD	/	/	/	/	/	0-10,000	/	0/+50	Modbus	LCD display	£179.25
QER10-BAC-LCD	/	/	/	/	/	0-10,000	/	0/+50	BACnet	LCD display	£182.25
QER10-LCD	/	/	/	/	/	0-10,000	/	0/+50	0-10v	LCD display	£170.25
VER10-MOD-LCD	/	/	/	/	0-500	/	0-100	0/+50	Modbus	LCD display	£143.25
VER10-BAC-LCD	/	/	/	/	0-500	/	0-100	0/+50	BACnet	LCD display	£146.25
VER10-LCD	/	/	/	/	0-500	/	0-100	0/+50	0-10v	LCD display	£134.25

Various customisation options are available for the above sensors, including 230v power supply, PIR sensing, different interface/ comms, and LoRaWAN wireless models. Please contact the office for full details.



PMR25-xxx-TS

230v power supply now available; please contact the office for details



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SIEMENS Indoor Air Quality & CO₂ Monitors



	Part No	<< Measuring >>					Power Supply	Output	Features	Retail £	
		PM2.5 (µg/m ³)	PM10 (µg/m ³)	TVOC (ppb)	CO ₂ (ppm)	RH (%)					Temp (°C)
Space	QPA2000	/	/	/	0-2,000	/	/	24v	0-10vDC		£279.00
	QPA2060	/	/	/	0-2,000	/	0...50/-35...+35	24v	0-10vDC		£332.00
	QPA2060D	/	/	/	0-2,000	/	0...50/-35...+35	24v	0-10vDC	Value display	£347.00
	QPA2062	/	/	/	0-2,000	0-100	0...50/-35...+35	24v	0-10vDC		£400.00
	QPA2062D	/	/	/	0-2,000	0-100	0...50/-35...+35	24v	0-10vDC	Value display	£417.00
	QNA2700D.BA2	0-1000	0-1000	20-36,000	400-5,000	0-100	0/+90	USB C/24v	BACnet MSTP	LED traffic light	£894.00
	QNA2700D.BA1	0-1000	0-1000	20-36,000	400-5,000	0-100	0/+90	PoE IEEE...	BACnet IP	LED traffic light	£894.00
QNA2820D.EU	0-1000	0-1000	20-36,000	400-5,000	0-100	0/+90	USB C/24v	LoRaWAN	LED traffic light	£894.00	
Duct	QPM2100	/	/	/	0-2,000	/	/	24v	0-10vDC		£464.00
	QPM2160	/	/	/	0-2,000	/	0...50/-35...+35	24v	0-10vDC		£499.00
	QPM2162	/	/	/	0-2,000	0-100	0...50/-35...+35	24v	0-10vDC		£742.00



QPM2162



QNA2700D

Sontay® Indoor Air Quality Monitors and CO₂ Space & Duct Sensors



	Part No	<< Measuring >>							Output	Features	Retail £	
		PM2.5 (µg/m ³)	PM10 (µg/m ³)	TVOC (mg/m ³)	TVOC (ppb)	HCHO (mg/m ³)	CO ₂ (ppm)	RH (%)				Temp (°C)
Space	GS-IAQ-S	0-500	0-800	0-3.5	/	0-0.6	0-5000	0-99	-20/+60	Modbus RTU	Traffic light	£803.89
	GS-AQ-S-LCD	/	/	/	0-1000	/	/	/	0/+40	0-10v/4-20mA	LCD screen	£258.28
	GS-CO2-AQ-S	/	/	/	0-1000	/	0-2000	/	0/+40	0-10v/4-20mA		£255.87
	GS-CO2-S	/	/	/	/	/	0-2000	/	0/+40	0-10v/4-20mA		£186.76
	RF-LW-RHT-CO2-S	/	/	/	/	/	0-2000	0-100	-20/+70	LoRaWAN		£284.28
	RF-LW-CO2-T-S	/	/	/	/	/	0-2000	/	-20/+70	LoRaWAN		£245.91
	GS-CO2-S-UN	/	/	/	/	/	0-2000	/	/	0-10v/4-20mA		£129.38
Duct	GS-AQ-D	/	/	/	0-1000	/	/	/	-20/+50	0-10v/4-20mA		£203.24
	GS-CO2-AQ-D	/	/	/	0-1000	/	0-2000	/	0/+40	0-10v/4-20mA		£202.81
	GS-CO2-D	/	/	/	/	/	0-2000	/	-20/+50	0-10v/4-20mA		£280.14
	GS-CO2-D-UN	/	/	/	/	/	0-2000	/	/	0-10v/4-20mA		£177.04

Various customisation options are available for the above sensors, including different displays and humidity measuring. Please contact the office for full details.



GS-IAQ-S





Indoor Air Quality Monitors

Part No	<< Measuring >>							Power Supply	Output	Features	Retail £
	PM1 (µg/m³)	PM2.5 (µg/m³)	PM10 (µg/m³)	TVOC (ppb)	CO ₂ (ppm)	RH (%)	Temp (°C)				
RSCO2TH1	/	/	/	/	400-5000	0-100	0/+50	24v	0-10v	Blank	£POA
RSCO2TH2	/	/	/	/	400-5000	0-100	0/+50	24v	0-10v	Traffic light LED	£POA
RSCO2TH3	/	/	/	/	400-5000	0-100	0/+50	24v	0-10v	TFT Display	£POA
RSCO2TH3-MOD	/	/	/	/	400-5000	0-100	0/+50	24v	Modbus	TFT Display	£POA
RSCO2TH3-BAC	/	/	/	/	400-5000	0-100	0/+50	24v	BACnet	TFT Display	£POA
RSPM1	/	0-100/-500	/	/	/	/	/	24v	0-10v	Blank	£POA
RSVOC1	/	/	/	L/M/H	/	/	/	24v	0-10v	Blank	£POA
RSIAQ-BAC	0-1000	0-1000	0-1000	20-36,000	400-5000	0-99	0/+50	24v/230v	BACnet	Blank	£POA
RSIAQS-BAC	0-1000	0-1000	0-1000	20-36,000	400-5000	0-99	0/+50	24v/230v	BACnet	Traffic light display	£POA
RSIAQ-MOD	0-1000	0-1000	0-1000	20-36,000	400-5000	0-99	0/+50	24v/230v	Modbus	Blank	£POA
RSIAQS-MOD	0-1000	0-1000	0-1000	20-36,000	400-5000	0-99	0/+50	24v/230v	Modbus	Traffic light display	£POA

Various customisation options are available for the above sensors, including different displays, power supplies, comms and measuring options. Please contact the office for full details.



Indoor CO₂ Space & Duct Sensors

	Part No	Measuring			Power Supply	Output	Features	Retail £
		CO ₂ (ppm)	RH (%)	Temp (°C)				
Space	TP-RS-CO2RHT-V-10k3	0-2000	0-100	0/+50	24VAC	0-10v, 10k3 (temp)	Slimline enclosure	£154.56
	TP-RS-CO2RHT-V-10k3-H	0-2000	0-100	0/+50	24VAC	0-10v, 10k3 (temp)	Halo LED	£185.91
	TP-RS-CO2RHT-BMS	0-2000	0-100	0/+50	24VAC	BACnet/ Modbus	Slimline enclosure	£182.67
	TP-RS-CO2RHT-BMS-H	0-2000	0-100	0/+50	24VAC	BACnet/ Modbus	Halo LED	£205.45
	TP-RS-CO2RHT-TPZ	0-2000	0-100	0/+50	Battery	Wireless TPZ	30-60m transmission , Halo LED	£218.00
	TP-IND-CO2	L/M/H	/	/	Battery	N/A	Wireless , Halo LED	£147.35
Duct	TP-DS-CO2RHT-V-10K3	0-2000	/	/	24VAC/DC	0-10v, 10k3	IP65 Duct Mount	£211.93
	TP-DS-CO2RHT-BMS	0-2000	/	/	24VAC/DC	BACnet/ Modbus	IP65 Duct Mount	£238.05



XIX. Temperature, Humidity & Other Environmental Sensors

SPARTAN CONTROLS Thermostats

Part Number	Type	Supply	Setpoint	Features	Retail £
TS-90B3	Outside frost stat	230v	-5/+25°C	Enclosed IP65, SPDT contact	£70.70
CAPSTAT 030	Capillary	230v	-30/+30°C	1m capillary	£89.60
LF55T	Capillary	230v	-15/+15°C	6m average, IP43, auto reset	£84.80
SFT1/W	Capillary	230v	-15/+15°C	6m average, IP65, auto reset	£114.10
SFS-2	Capillary	230v	-15/+15°C	6m average, IP43, manual reset	£81.00
SFS-2W	Capillary	230v	-15/+15°C	6m average, IP65, manual reset	£114.10
CAPSTAT 0120	Capillary	230v	0/+120°C	1m capillary	£67.50
SRFS	Space frost stat	230v	-15/+15°C		£25.70
SRS-1	Space	230v	+5/+30°C	Exposed dial	£26.30
SIT-1	Immersion	230v	0/+90°C	IP40 c/w pocket	£63.40
Accessories to suit:					
DFC-6	X6 clips to suit SFS...				£9.50



LF55T



SRS-1

SPARTAN CONTROLS Electronic Thermostats

Part Number	Type	Supply	Setpoint	Features	Retail £
CAD-1DS	Din rail mounting	24v or 230v	-5/+95°C	1x 240v 10(5)A relay	£133.60
Sensors to suit:					
CAD-R	Space/ room	IP20 84mm(H) x 84mm (W) x 24mm (D)			£20.10
CAD-I	Immersion	IP65 150mm x 6mm probe (requires pocket)			£37.50
CAD-O	Outside	IP65 80mm (Dia) x 50mm (D) housing			£35.70
CAD-D	Duct	IP65 150mm x 6mm probe			£37.50
CAD-S	Strap-on	IP65 150mm x 50mm housing, 150mm strap			£36.10
CAD-F	Fly lead	IP65 38mm x 6mm probe, 2m cable			£24.00
CAD-BB	Black bulb	IP20 84mm (H) x 84mm (W) x 40mm (D)			£62.90
CAD-AV	Space twin element	IP20 84mm (H) x 84mm (W) x 24mm (D)			£37.50
CAD-POT	Set point adj.	C/w scales (-5/+45°C, +25/+95°C, -4/+4°C)			£79.30



CAD-1DS



CAD-POT

XIX.

SPARTAN CONTROLS Environmental Sensors

Part Number	Measuring	Type	Features	Retail £
RHTR3-T1	Humidity & temp	Space	0-100% RH, 3% accuracy 24v supply, IP65, select out	£231.90
RHTD3	Humidity & temp	Duct	0-100% RH, 3% accuracy 24v supply, IP65, select out	£283.50
RHTO3	Humidity & temp	Outside	0-100% RH, 3% accuracy 24v supply, IP65, select out	£POA
WSU4	Wind speed			£781.20
WSS2	Wind speed & direction			£1,268.90



SPARTAN CONTROLS Temperature Sensors

Part Number	Type	Compatibility	Features	Retail £
TR1	Space/room	Trend 10K3A1	IP30 84mm x 84mm x 24mm	£15.40
TD	Duct	Trend 10K3A1	IP65 150mm x 6mm probe	£30.90
TI	Immersion	Trend 10K3A1	IP65 150mm x 6mm probe	£30.90
TO	Outside	Trend 10K3A1	IP65 80mm x 50mm	£23.20
TS	Strap-on	Trend 10K3A1	IP65 up to 150mm pipe	£36.10
TF	Flylead/ cable	Trend 10K3A1	38mm x 6mm, 2m cable	£21.90
CR	Space/ room	Cylon PT1000	84mm x 84mm x 24mm	£29.60
CD	Duct	Cylon PT1000	IP65 150mm x 6mm probe	£41.70
CI	Immersion	Cylon PT1000	IP65 150mm x 6mm probe	£45.20
CO	Outside	Cylon PT1000	IP65 80mm x 50mm	£38.60
CS	Strap-on	Cylon PT1000	IP65 up to 150mm pipe	£46.40
SR	Space/ room	Satchwell "T" series	84mm x 84mm x 24mm	£37.80
SI	Immersion	Satchwell "T" series	IP65 150mm x 6mm probe	£47.70
SO	Outside	Satchwell "T" series	IP65 80mm x 50mm	£65.70
SS	Strap-on	Satchwell "T" series	IP65 up to 150mm pipe	£50.30
SD	Duct	Satchwell "T" series	IP65 150mm x 6mm probe	£45.20
TE-ITAC	Immersion	Satchwell 1.8K3A1	IP65 150mm x 6mm probe	£46.40
TE-OTAC	Outside	Satchwell 1.8K3A1	IP65 80mm x 50mm	£41.30
TE-RTAC	Space/ room	Satchwell 1.8K3A1	84mm x 84mm x 24mm	£32.20
TE-STAC	Strap-on	Satchwell 1.8K3A1	IP65 up to 150mm pipe	£46.40
TE-IH	Immersion	Honeywell 20K6A1	IP65 150mm x 6mm probe	£46.40
TE-OH	Outside	Honeywell 20K6A1	IP65 80mm x 50mm	£41.30
TE-RH	Space/ room	Honeywell 20K6A1	84mm x 84mm x 24mm	£32.20
TE-SH	Strap-on	Honeywell 20K6A1	IP65 up to 150mm pipe	£46.40
Accessories to suit:				
POC-1	150mm pocket for immersion sensor		Brass	£16.80
POC-2	150mm pocket for immersion sensor		Stainless Steel	£39.90



TI



TO

BELIMO Temperature Control

Part Number	Type	Supply	Setpoint	Output	Features	Retail £
P-22RTH-1800D-1	Room stat	24v	0/+50°C	0-10v/4-20mA	Temp & RH, e-paper display	£255.00
P-22RTH-1U00D-2	Room stat	24v	0/+50°C	Modbus/BACnet	Temp & RH, e-paper display	£302.00
P-22RT-1800D-1	Room stat	24v	0/+50°C	0-10v/4-20mA	Temp, e-paper display	£222
01ATS-1050B	Frost stat	24v	-10/+15°C	SPDT	6m capillary, auto reset	£110.00
01ATS-105XC	Frost stat	24v	-10/+15°C	SPDT	6m capillary, manual reset	£120.00
20DTS-1P5	Frost stat	24v	+1/10°C	0-10v	6m capillary, auto/manual reset	£340.00
01DH-10N	Duct humidistat	24v	15/95%	SPDT	150mm probe	£231.00



P-22RT

XIX.

BELIMO Humidity & Temperature Sensors

Part Number	Measuring	Type	Range	Output	Features	Retail £
22RTH-18-1	Humidity/ temp	Room	0-100%, 0/+50°C	0-10v/m-20mA	Display app	£115.00
P-22RTH-1U00A2	Humidity/ temp	Room	0-100%, 0/+50°C	Modbus/BACnet	Display app	£179.00
22DTH-11M	Humidity/ temp	Duct	Multirange	0-10v	24v, IP65, 140mm probe	£211.00
22DTH-13M	Humidity/ temp	Duct	Multirange	4-20mA	24v, IP65, 140mm probe	£211.00
22DTH-15M	Humidity/ temp	Duct	Multirange	Modbus	24v, IP65, 140mm probe	£267.00
22DTH-16M	Humidity/ temp	Duct	Multirange	BACnet	24v, IP65, 140mm probe	£267.00
22UTH-11	Humidity/ temp	Outside	Multirange	0-10v	24v, IP65	£262.00
22UTH-13	Humidity/ temp	Outside	Multirange	4-20mA	24v, IP65	£262.00
22UTH-11X	Humidity/ temp	Outside	Multirange	0-10v	24v, IP65, radiation shield	£POA
22UTH-13X	Humidity/ temp	Outside	Multirange	4-20mA	24v, IP65, radiation shield	£POA



22DTH



XIX. Temperature, Humidity & Other Environmental Sensors



Passive & Active Temperature Sensors

Part Number	Type	Thermistor	Active Output	Features	Retail £
01RT-1L-0	Room	Trend 10k3	/	Passive, 0/+50°C	£19.10
01UT-1L	Outdoor	Trend 10k3	/	Passive, IP65, -35/+50°C	£25.50
01DT-1LH	Duct/immersion	Trend 10k3	/	Passive, IP65, -50/+150°C, 50mm probe	£37.10
01DT-1LL	Duct/immersion	Trend 10k3	/	Passive, IP65, -50/+150°C, 100mm probe	£37.10
01DT-1LN	Duct/immersion	Trend 10k3	/	Passive, IP65, -50/+150°C, 150mm probe	£39.40
01DT-1LP	Duct/immersion	Trend 10k3	/	Passive, IP65, -50/+150°C, 200mm probe	£39.40
01DT-1LR	Duct/immersion	Trend 10k3	/	Passive, IP65, -50/+150°C, 300mm probe	£41.50
01DT-1LT	Duct/immersion	Trend 10k3	/	Passive, IP65, -50/+150°C, 450mm probe	£44.50
01CT-1LH	Cable	Trend 10k3	/	Passive, IP65, -35/+100°C, 50mm probe	£13.80
01ST-1L3	Strap-on	Trend 10k3	/	Passive, IP65, -35/+100°C, 2m cable	£16.40
22RT-19-1	Room	/	0-10v/4-20mA	Display app, 0/+50°C	£POA
P-22RT-1800D-1	Room	/	0-10v/4-20mA	E-paper touch display, 0/+50°C	£222.00
22UT-12	Outdoor	/	0-5v/0-10v	Active, IP65, selectable ranges	£102.00
22UT-14	Outdoor	/	4-20mA	Active, IP65, selectable ranges	£102.00
22DT-12N	Duct/immersion	/	0-5v/0-10v	Active, IP65, selectable ranges, 150mm	£93.00
22DT-14N	Duct/immersion	/	4-20mA	Active, IP65, selectable ranges, 150mm	£93.00
22CT-12H	Cable	/	0-5v/0-10v	Active, IP65, selectable ranges, 50mm	£90.00
22CT-14H	Cable	/	4-20mA	Active, IP65, selectable ranges, 50mm	£90.00
22HT-12	Strap-on	/	0-5v/0-10v	Active, IP65, multirange, Ø20-110mm	£93.70
22HT-14	Strap-on	/	4-20mA	Active, IP65, multirange, Ø20-110mm	£93.70



01DT-1LN



22RT-19-1



22CT-12

Pockets to suit:

Brass	Stainless Steel			To Suit	Brass S Steel
A-22P-A18	A-22P-A06	Pocket	50mm	01DT-...H/22DT-...H	£15.40 £31.00
A-22P-A20	A-22P-A08	Pocket	100mm	01DT-...L/22DT-...L	£15.00 £32.10
A-22P-A22	A-22P-A10	Pocket	150mm	01DT-...N/22DT-...N	£16.70 £34.80
A-22P-A24	A-22P-A12	Pocket	200mm	01DT-...P/22DT-...P	£18.30 £37.00
A-22P-A26	A-22P-A14	Pocket	300mm	01DT-...R/22DT-...R	£20.70 £40.60
A-22P-A28	A-22P-A16	Pocket	450mm	01DT-...T/22DT-...T	£23.50 £43.80

XIX.



Temperature & Humidity Sensors & Transmitters

Part Number	Measuring	Type	Ranges	Output	Features	Retail £
TA	Temperature	Space	Multirange	0-10v/4-20mA + 10K3	Wall mount, 24v	£POA
TD	Temperature	Space	-20/+120°C	10K3A1	Wall mount, IP40	£8.00
TD-D	Temperature	Duct	-20/+120°C	10K3A1	150mm	£16.00
TD-I	Temperature	Immersion	-20/+120°C	10K3A1	150mm c/w ss pocket	£28.00
TD-C	Temperature	Clamp-on	-20/+120°C	10K3A1	1m cable	£19.00
TD-F	Temperature	Flylead	-20/+120°C	10K3A1	2m cable	£6.00
TD-O	Temperature	Outside	-20/+120°C	10K3A1		£15.00
TD-OR	Temperature	Outside	-20/+120°C	10K3A1	C/w radiation shield	£33.00
TR-TH	Humidity & temp	Space	0-100%, 0/+50°C	0-10v OR 10K3A1	Wall mount, 24v	£60.00
TR-T	Temperature	Space	0-100%, 0/+50°C	0-10v OR 10K3A1	Wall mount, 24v	£50.00
TR-THL	Humidity & temp	Space	0-100%, 0/+50°C	0-10v OR 10K3A1	Wall mount, 24v, LCD	£80.00
TR-TL	Temperature	Space	0-100%, 0/+50°C	0-10v OR 10K3A1	Wall mount, 24v, LCD	£70.00
DTR-TH	Humidity & temp	Duct	0-100%, 0/+50°C	0-10v OR 10K3A1	24v	£140.00
DBAC-TH	Humidity & temp	Duct	0-100%, 0/+50°C	BACnet, 3x 0-10v	24v	£POA

please see Flamefast CO2 sensors (p48) for BACnet options on room sensors



DBAC-TH



Room Temperature Controllers

Part No	Application	Setpoint	Supply	Comms	Output	Features
TCR10-BAC-TS	Heat & cooling	0/+50°C	24v	BACnet	4x 0-10v, 1x relay	LCD touchscreen
TCR12-BAC-TS	Heat & cooling	0/+50°C	24v	BACnet	4x 0-10v, 2x 24vAC	LCD touchscreen, 2x UI, slimline
TCR14-BAC-TS	Heat & cooling	0/+50°C	230v	BACnet	3x 0-10v, 1x 230v relay	LCD touchscreen, 1x UI, slimline
TCR10-MOD-TS	Heat & cooling	0/+50°C	24v	Modbus	4x 0-10v, 1x relay	LCD touchscreen
TCR12-MOD-TS	Heat & cooling	0/+50°C	24v	Modbus	4x 0-10v, 2x 24vAC	LCD touchscreen, 2x UI, slimline
TCR14-MOD-TS	Heat & cooling	0/+50°C	230v	Modbus	3x 0-10v, 1x 230v relay	LCD touchscreen, 1x UI, slimline



Note. Other options available, including CO₂, humidity & VOC monitoring and control, as well as various output and interface options, including LoRaWAN. Please contact the office for details, including pricing.

SIEMENS Thermostats

Part No	Type	Application	Setpoint	Supply	Features	Retail £
RAA11	Room	For heating OR cooling	+8/+30°C	24...250v	Tamperproof	£22.00
RAA21	Room	For heating OR cooling	+8/+30°C	24...250v		£28.00
RAK-TW5-AB200	Imm/strap	Frost protection - auto reset	-10/+50°C	24...250v	1600mm capillary, IP65	£78.00
RAK-TW.1000HB	Imm/strap	Limit stat - auto reset	+15/+95°C	24...250v	700mm capillary, IP65	£96.50
RAK-TW.1200B-H	Imm/strap	Limit stat - auto reset	+40/+120°C	24...250v	700mm capillary, IP43	£93.50
RAK-TB.1410B-M	Imm/strap	Limit stat - manual reset	+50/+70°C	24...250v	700mm capillary, IP43	£96.50
RAK-TB.1420S-M	Imm/strap	Limit stat - manual reset	+60/+80°C	24...250v	700mm capillary, IP43	£102.50
RAK-ST.1430S-M	Imm/strap	Limit stat - manual reset	+80/+100°C	24...250v	1600mm capillary, IP43	£94.50
QAX31.1	Room	For use w/ Desigo controllers	0/+40°C	Controller	Adjustable set point	£162.00
QAX34.3	Room	For use w/ Desigo controllers	0/+40°C	Controller	PPS2 interface & LCD	£205.00
RDG100	Room	For fan coil/ heat pump	0/+49°C	230v	LCD display	£128.00
RDG100T	Room	For fan coil/ heat pump	0/+49°C	230v	LCD & 7-day timeswitch	£144.00
RDG160T	Room	For fan coil/ heat pump	0/+49°C	24v, 0-10v	LCD & 7-day timeswitch	£POA



RAA21

SIEMENS Controllers & Sensors

Part No	Description	Supply	Features	Retail £
RLA162	Room temperature control	24v	2x 0-10v outputs, +8/+30°C	£154.00
RLE162	Immersion temperature control	24v	2x 0-10v outputs, -10/+130°C	£314.00
RLM162	Duct temperature control	24v	2x 0-10v outputs, 0/+50°C	£248.00
RVL480	Zone or boiler control	230v	*various applications*	£1,030.00
RVL481	Zone or boiler control & HWS	230v	*various applications*	£1,208.00
RVL482	Zone, boiler, HWS control	230v	*various app'ns inc boiler sequencing*	£1,376.00
RVP201.0	Residential heating controller	230v	*no communication module included*	£532.00
RVP340	1x heating circuit control	230v	*various applications*	£598.00
RVP350	1x heating circuit & DHW control	230v	*various applications*	£790.00
RVP360	2x heating circuit & DHW control	230v	*various applications*	£950.00
RWD62	Universal controller	24v	Panel-mount, 2x 0-10v outputs	£151.00
RWD82	Universal controller	24v	Panel-mount, 1x 0-10v, 1x 2-point output	£164.00
RCC30	Temp control - 4-pipe fan coil	230v	Setpoint range +8/+30°C	£93.00
RXB21.1/FC10	Temp control - 2/4-pipe fan coil	230v	R/L output, volt-free relay for fan speed	£340.00



RVP340

XIX.

Sensors & accessories to suit:

QAA24	Temperature	Room	0/+50°C	RVL/RVP controllers	£36.00
QAC22	Temperature	Outside	-35/+50°C	RVL/RVP, RLA/RLE controllers	£31.00
QAD22	Temperature	Clamp-on	-30/+130°C	RVL/RVP controllers	£41.00
QAE2120.010	Temperature	Immersion	-30/+130°C	RVL/RVP controllers	£62.00
QAH11.1	Temperature	Cable	-20/+70°C	RCC30	£26.00
QAP22	Temperature	Flylead	-25/+95°C		£20.00
QAM2120.040	Temperature	Duct	-50/+80°C		£61.00
QAF64.2-J	Frost	Duct	0/+15°C		£241.50
QFA2060	Temp/ humidity	Room	0/+50°C, 0-100%		£228.00
QFM2160	Temp/ humidity	Duct	0/+50°C,- 35/+35°C, 0-100%		£228.00
AUZ3.1	Timeswitch	24h analogue		RVP201	£60.00
SEZ91.6	Phasecut interface	0-10v output			£POA



QFM2160



XIX. Temperature, Humidity & Other Environmental Sensors



Thermostats & Frost Stats

Part No	Type	Range	Features	Retail £
ST-RSTAT1	Room thermostat	+10/+30°C	230v, SPST, exposed dial	£17.68
ST-RSTATT	Room thermostat	+5/+30°C	230v, SPST, tamperproof	£POA
ST-TY92-C1F	Room frost stat	-15/+15°C	230v, SPST	£16.89
ST-FRE-1	Capillary frost stat	-30/+10°C	230/24v, 6m capillary, auto reset	£45.85
ST-FRE-2	Capillary frost stat	-30/+10°C	230/24v, 6m capillary, manual reset	£47.86



ST-RSTAT1



Temperature & Humidity Sensors



Part No	Type	Range	Output	Features	Retail £
TT-S-A	Space	-10/+60°C	10K3A1, Trend, Cylon, Distech		£8.48
TT-D-A	Duct	-30/+100°C	10K3A1, Trend, Cylon, Distech		£15.36
TT-O-A	Outside	-30/+100°C	10K3A1, Trend, Cylon, Distech		£13.74
TT-I-A	Immersion	-30/+100°C	10K3A1, Trend, Cylon, Distech	150mm	£16.99
TT-I-A-65	Immersion	-30/+100°C	10K3A1, Trend, Cylon, Distech	65mm	£16.99
TT-I-A-250	Immersion	-30/+100°C	10K3A1, Trend, Cylon, Distech	250mm	£27.90
TT-C-A	Clamp-on	-30/+100°C	10K3A1, Trend, Cylon, Distech		£19.19
TT-555-A	Flying lead	-10/+60°C	10K3A1, Trend, Cylon, Distech		£7.30
TT-BB-A	Black bulb	-10/+60°C	10K3A1, Trend, Cylon, Distech		£25.05
RF-LW-T-S	Space	-20/+70°C	LoRaWAN		£107.90
RF-LW-T-D	Duct	-20/+70°C	LoRaWAN		£133.36
RF-LW-T-O	Outside	-20/+70°C	LoRaWAN		£122.89
RF-LW-T-I	Immersion	-20/+70°C	LoRaWAN	150mm	£126.43
RF-LW-T-C	Clamp-on	-20/+70°C	LoRaWAN		£134.73
RF-LW-T-555	Fly Lead	-20/+70°C	LoRaWAN		£129.79
RH-S	Space RH/T	0/+40°C, 0-100%	4-20mA or 0-10v	±3%	£117.71
RH-S-UN	Space RH	0-100%	4-20mA or 0-10v		£82.41
RH-D	Duct RH/T	-20/+50°C, 0-100%	4-20mA or 0-10v	±3%	£147.71
RH-D-UN	Duct RH	0-100%	4-20mA or 0-10v		£103.00
RF-LW-RH-S	Space RH/T	-20/+70°C/ 0-100%	LoRaWAN		£160.49
RF-LW-RH-D	Duct RH/T	-20/+70°C/ 0-100%	LoRaWAN		£161.48
RF-LW-RH-O	Outside RH/T	-20/+70°C/ 0-100%	LoRaWAN		£289.67



TT-S-A



RF-LW-T



TT-PO

Accessories to Suit

TT-PO-521	Stainless steel 150mm immersion pocket	TT-I-A, RF-LW-T-I	£12.54
TT-PO-521-65	Stainless steel 65mm immersion pocket	TT-I-A-65	£12.54
TT-PO-521-250	Stainless steel 250mm immersion pocket	TT-I-A-250	£24.59
RF-LW-HUB-100	100x pt LoRaWAN hub	RF-LW	£POA

Note. Other outputs (incl. Thermistor types) are available; please contact the office for details.



Light Level & Occupancy Sensors

Part No	Type	Description	Retail £
LL-P-V	Light level	External light level sensor	£73.15
LL-C-V	Light level	Ceiling mounted internal light level sensor	£81.29
OC-C-LVN	Occupancy	Ceiling-mounted PIR occupancy detector	£51.04
OC-W-LV	Occupancy	Wall-mounted PIR occupancy detector	£48.13



OC-C-LVN





FCU Controllers and Temperature & Humidity Sensors

	Part No	Type	Range	Output	Features	Retail £
Controllers	FCU-503	Controller	5/+40°C	4x DO, 3x AO, 2x RO	BACnet, 5x 10K3 input	£POA
	RDU-Touch/B	Touchscreen	/	/	Setpoint adjuster unit	£316.00
	TP-NM-D	Router	/	/	Netmaster MS/TP to IP	£452.00
Temperature Sensors	TP-RS-10K3	Space	-10/+60°C	10K3A1	Slimline enclosure	£10.35
	TPTDS/S	Duct	-10/+70°C	10K3A1	IP65, 150mm	£19.65
	TPTOS	Outside	-50/+70°C	10K3A1	IP65	£15.26
	TPTIS/NP	Immersion	-40/+110°C	10K3A1	IP65, 125mm	£19.65
	TPTIS/NP/65	Immersion	-40/+110°C	10K3A1	IP65, 65mm	£19.65
	TPTCS	Clamp-on	-40/+70°C	10K3A1	Ø 25-125mm	£26.13
	TPTVAV/S	Flying lead	-10/+70°C	10K3A1	2m lead	£10.50
	TP-RS-BB-10K3	Black bulb	-10/+60°C	10K3A1	Wall mount	£30.83
Humidity Sensors	TP-RS-RHT-MA-10K3	Space	0/50°C, 0-100%	10K3A1, dual 4-20mA	24v, Slimline encl	£97.08
	TP-RS-RHT-V-10K3	Space	0/50°C, 0-100%	10K3A1, dual 0-10v	24v, Slimline encl	£97.08
	TP-RS-RHT-BMS	Space	0/50°C, 0-100%	1x DO, Modbus/BACnet	24v, Slimline encl	£123.94
	TP-DS-RHT-MA-10K3	Duct	0/50°C, 0-100%	10K3A1, 4-20mA	24v, IP65	£134.81
	TP-DS-RHT-V-10K3	Duct	0/50°C, 0-100%	10K3A1, 0-10v	24v, IP65	£134.81
	TP-DS-RHT-BMS	Duct	0/50°C, 0-100%	1x DO, Modbus/BACnet	24v, IP65	£221.54
	TP-OS-RHT-MA-10K3	Outside	-20/+50°C, 0-100%	10K3A1, 4-20mA	24v, IP65	£147.87
	TP-OS-RHT-V-10K3	Outside	-20/+50°C, 0-100%	10K3A1, 0-10v	24v, IP65	£147.87
	TP-OS-RHT-BMS	Outside	-20/+50°C, 0-100%	1x DO, Modbus/BACnet	24v, IP65	£214.23
	Accessories to Suit:					
	TPSP65	65mm stainless steel pocket			TPTIS/NP/65	£27.17
	TPSP125	125mm stainless steel pocket			TPTIS/NP	£27.17



Note. Other outputs (incl. Thermistor types) are available; please contact the office for details.

TREND Temperature Sensors

	Part No	Type	Range	Output	Features	Retail £
Temperature	TB/TS	Space	0/+40°C	10K3A1		£27.30
	TB/TS/K	Space	0/+40°C	10K3A1	C/w adjusting knob	£67.17
	TB/TO	Outside	-30/+50°C	10K3A1	IP67	£71.34
	TB/TC	Clamp-on	-30/+100°C	10K3A1	IP67, c/w jubilee clip	£76.68
	TB/TI-S	Immersion/duct	-30/+110°C	10K3A1	IP67, standard: 150mm	£64.20
	TB/TI-L	Duct	-30/+110°C	10K3A1	IP67, long: 400mm	£86.40
	T/TFR-4	Fly lead	-10/+50°C	10K3A1	IP67, 4m lead	£29.43
Humidity	HT/S	Space	0/+40°C, 0-100%	10K3A1, 2x 0-10v	±3% RH accuracy	£POA
	LFH10-2B65	Duct	-5/+50°C, 0-100%	10K3A1, 2x 0-10v	±3% RH accuracy	£330.66
Accessories to suit:						
	WB150	Brass pocket			150mm	£29.79
	WS150	Stainless steel pocket			150mm	£63.99



XIX.

VAISALA Temperature, Humidity & Weather Transmitters

Part No	Type	Range	Output	Description	Retail £
TMW82	Room - temp	-5/+55°C	4-20mA	2-wire, IP30	£POA
TMD82	Duct - temp	-40/+60°C	4-20mA	2-wire, IP65	£POA
HMW82	Room - RH & T	-5/+55°C, 0-100%	4-20mA	2-wire, IP30	£POA
HMW83	Room - RH & T	-5/+55°C, 0-100%	0-10v	3-wire, IP30	£POA
HMS82	Outside - RH & T	-40/+60°C, 0-100%	4-20mA	2-wire, radiation shield	£POA
HMS83	Outside - RH & T	-40/+60°C, 0-100%	0-10v	3-wire, radiation shield	£POA
WXT53x	Weather transmitter; air pressure, temp, humidity, rainfall, wind speed & direction				£POA



XX. Pressure Sensors & Switches

SPARTAN CONTROLS Air Differential Pressure Switches

Part No	Range	Electrical	Features	Retail £
LF32-02	0.2-2 mbar	230v 5(1)A	IP54 *requires SDK1 kit*	£41.30
LF32-03	0.3-3 mbar	250v 1.5 (0.4)A	IP54 *requires SDK1 kit*	£41.30
LF32-05	0.5-5 mbar	230v 1(0.5)A	IP54 *requires SDK1 kit*	£41.30
930-85	2-10 mbar	250v 1.5(0.4)A	IP54 *requires SDK1 kit*	£41.30
LF32-02/W	0.2-2 mbar	230v 1(0.5)A	IP65 *requires SDK1 kit*	£83.80
LF32-03/W	0.3-3 mbar	250v 1.5(0.4)A	IP65 *requires SDK1 kit*	£83.80
LF32-05/W	0.5-5 mbar	230v 1(0.5)A	IP65 *requires SDK1 kit*	£83.80
930-85-W	2-10 mbar	250v 1.5(0.4)A	IP65 *requires SDK1 kit*	£83.80
AFS262	0.13-5 mbar	230v 10(2)A	IP30 metal *requires SDK2 kit*	£68.70
AFS222	0.5-30 mbar	230v 10(2)A	IP30 metal *requires SDK2 kit*	£68.70
AFS262/HT	0.13-5 mbar	230v 10(2)A	IP30 max 300°C c/w 2m copper tube & metal duct flanges	£131.30
Accessories to suit:-				
SDK1	Fitting kit (2x spigots + 2m tubing)		*to suit SCL...*	£6.70
SDK2	Fitting kit (2x spigots + 2m tubing)		*to suit AFS...*	£8.10
30M-8/5	30m roll 8x5 mm PVC tubing			£68.90
CU1/4	¼" copper tube (sold per metre)			£6.70
SDA1	Plastic 80mm spigot		*to suit 8x5 mm tubing*	£4.10
SDA2	Brass duct adaptor ¼"		*to suit ¼" bsp copper tube*	£14.90
TEE1	Plastic tee		*to suit 5mm I.D. tubing*	£5.40



LF32



AFS262/HT

SPARTAN CONTROLS Liquid Static & Differential Pressure Switches

Part No	Range	Electrical	Features	Retail £
37001	0-6 bar	230v 16(10)A	IP30, ¼" bsp, adj. diff	£64.50
F1381-1	-1/+1 bar	230v 5(2)A	½" bspm, 0.05 bar diff	£POA
F1381-4	0.1-4 bar	230v 5(2)A	½" bspm, 0.1 bar diff	£POA
F1381-11	0.3-11 bar	230v 5(2)A	½" bspm, 0.3 bar diff	£POA
SCL-DP2	0.1-2 bar	230v 5(2)A	¼" bspm	£100.60
FD113S	0.2-4 bar	230v 5(2)A	¼" bspf	£107.90
SCL250	40-250 mbar	230v 5(2)A	⅛" bspf	£176.70
SCL1000	0.007-1 bar	230v 5(2)A	⅛" bspf	£176.70
SCL4000	0.2-4 bar	230v 5(2)A	⅛" bspf	£176.70
H1382P-250	15-250 mbar	250v 10A	⅛" bspf	£242.60
H1382P-1	0.07-1 bar	250v 10A	⅛" bspf	£242.60
H1382P-4	0.2-4 bar	250v 10A	⅛" bspf	£242.60
Fitting Kits (comprising 2x switch fitting, 2m tubing, 2x male fittings for system)				
WDPS-KIT1	¼" fitting kit *to suit SCL250/1000/4000 & H1382P*			£42.50
WDPS-KIT2	¼" fitting kit *to suit FD*			£42.50
WDPS-KIT3	¼" fitting kit *to suit SCL-DP2*			£42.50

Static

Differential



37001



SCL1000

XX.

BELIMO Air Differential Pressure Sensors

Part No	Range	Output	Features	Retail £
22ADP-18Q	Multirange (to 250Pa)	0-10v/4-20mA	IP65, 24vAC/DC	£173.00
22ADP-184	Multirange (to 2500 Pa)	0-10v/4-20mA	IP65, 24vAC/DC	£173.00
22ADP-186	Multirange (to 7000 Pa)	0-10v/4-20mA	IP65, 24vAC/DC	£173.00
22ADP-15Q	Multirange (to 250Pa)	Modbus/ 0-10v	IP65, 24vAC/DC	£199.00
22ADP-154	Multirange (to 2500 Pa)	Modbus/ 0-10v	IP65, 24vAC/DC	£199.00
22ADP-156	Multirange (to 7000 Pa)	Modbus/ 0-10v	IP65, 24vAC/DC	£199.00
22ADP-164	Multirange (to 2500 Pa)	BACnet/ 0-10v	IP65, 24vAC/DC	£199.00



22ADP





Liquid Static & Differential Pressure Switches

	Part No	Range	Output	Features	Retail £
Static	22WP-114	0-4 bar	0-10v	IP65, 24vAC/DC	£157.00
	22WP-115	0-6 bar	0-10v	IP65, 24vAC/DC	£157.00
	22WP-116	0-10 bar	0-10v	IP65, 24vAC/DC	£157.00
	22WP-117	0-16 bar	0-10v	IP65, 24vAC/DC	£157.00
	22WP-134	0-4 bar	4-20mA	IP65, 24vDC	£150.00
	22WP-135	0-6 bar	4-20mA	IP65, 24vDC	£150.00
	22WP-136	0-10 bar	4-20mA	IP65, 24vDC	£150.00
Differential	22WDP-111	0-1 bar	0-10v	IP65, 24vAC/DC	£475.00
	22WDP-112	0-2.5 bar	0-10v	IP65, 24vAC/DC	£475.00
	22WDP-114	0-4 bar	0-10v	IP65, 24vAC/DC	£475.00
	22WDP-115	0-6 bar	0-10v	IP65, 24vAC/DC	£475.00
	22WDP-131	0-1 bar	4-20mA	IP65, 24vDC	£475.00
	22WDP-132	0-2.5 bar	4-20mA	IP65, 24vDC	£475.00
	22WDP-134	0-4 bar	4-20mA	IP65, 24vDC	£475.00
22WDP-135	0-6 bar	4-20mA	IP65, 24vDC	£475.00	



22WP...



22WDP...



Liquid Static & Differential Pressure Transmitters & Switches

	Part No	Type	Range	Output	Features	Retail £
Static	TR-P02	Transmitter	Max 2 Bar (% scaleable)	0-10v or 4-20mA	IP65, 24v supply	£140.00
	TR-P10	Transmitter	Max 10 Bar (% scaleable)	0-10v or 4-20mA	IP65, 24v supply	£140.00
	TR-P40	Transmitter	Max 40 Bar (% scaleable)	0-10v or 4-20mA	IP65, 24v supply	£140.00
	LPS-06	Switch	-0.7-6 Bar (1-4 Bar switch diff)	SPDT	C/w bracket	£25.00
Differential	TR-PD02	Transmitter	Max 2 Bar (0.2-1 Bar diff)	0-10v or 4-20mA	IP65, 24v supply	£220.00
	TR-PD10	Transmitter	Max 10 Bar (1-6 Bar diff)	0-10v or 4-20mA	IP65, 24v supply	£220.00
	TR-PD40	Transmitter	=Max 40 Bar (4-16 Bar diff)	0-10v or 4-20mA	IP65, 24v supply	£220.00
	LDPS-01	Switch	0.2-1 Bar (<0.2 Bar switch diff)	SPDT	C/w bracket	£40.00
Accessories to suit:						
	LDPS-KIT	Fitting kit for LDPS-01				£25.00



TR-PD...



LDPS-01

Note. LCD transmitter versions available; please contact the office for details.

XX.



Air Differential Pressure Transmitters

Part No	Range	Output	Features	Retail £
QBM2030-1U	Multirange (to 100Pa)	0-10v	IP54, 24v supply	£190.00
QBM2030-5	Multirange (to 500Pa)	0-10v	IP54, 24v supply	£190.00
QBM2030-30	Multirange (to 3000 Pa)	0-10v	IP54, 24v supply	£190.00
QBM2130-1U	Multirange (to 100Pa)	4-20mA	IP54, 24v supply	£155.00
QBM2130-5	Multirange (to 500Pa)	4-20mA	IP54, 24v supply	£155.00
QBM2130-30	Multirange (to 3000 Pa)	4-20mA	IP54, 24v supply	£155.00



QBM2130



XX. Pressure Sensors & Switches



Air Differential Pressure: Monitors, Switches & Transmitters

Part No	Type	Range	Output	Features	Retail £
PA-FLTR	Monitor	Multirange (max 6220Pa)	4-20mA/0-10v	IP54 Halo LED	£552.86
PA-DPS-88	DP Switch	20-300 Pa (10Pa diff)	Switch	IP54 c/w kit	£22.28
PA-DPS-83	DP Switch	50-500 Pa (20Pa diff)	Switch	IP54 c/w kit	£22.28
PA-DPS-85	DP Switch	200-1000 Pa (100Pa diff)	Switch	IP54 c/w kit	£22.28
PA-DPT-01	DP Transmitter	Multirange (max 500Pa)	4-20mA/0-10v	IP65 c/w kit	£109.22
PA-DPT-02	DP Transmitter	Multirange (max 2500Pa)	4-20mA/0-10v	IP65 c/w kit	£109.22



PA-FLTR



PA-DPT-01



Liquid Static & Differential Pressure Sensors

Part No	Range	Output	Features	Retail £
PL-520-4	0-4 bar	4-20mA	IP65, 24v supply	£170.66
PL-520-6	0-6 bar	4-20mA	IP65, 24v supply	£170.66
PL-520-10	0-10 bar	4-20mA	IP65, 24v supply	£158.76
PL-520-4-V	0-4 bar	0-10v	IP65, 24v supply	£187.06
PL-520-6-V	0-6 bar	0-10v	IP65, 24v supply	£187.06
PL-520-10-V	0-10 bar	0-10v	IP65, 24v supply	£187.06
PL-692-0.4	0-400 mbar	4-20mA	IP65, 24v supply	£341.27
PL-692-1	0-1 bar	4-20mA	IP65, 24v supply	£313.20
PL-692-2.5	0-2.5 bar	4-20mA	IP65, 24v supply	£313.20
PL-692-4	0-4 bar	4-20mA	IP65, 24v supply	£313.20
PL-692-6	0-6 bar	4-20mA	IP65, 24v supply	£313.20
PL-692-0.4-v	0-400 mbar	0-10v	IP65, 24v supply	£408.77
PL-692-1-v	0-1 bar	0-10v	IP65, 24v supply	£408.77
PL-692-2.5-v	0-2.5 bar	0-10v	IP65, 24v supply	£408.77
PL-692-4-v	0-4 bar	0-10v	IP65, 24v supply	£408.77
PL-692-6-v	0-6 bar	0-10v	IP65, 24v supply	£408.77

Static

Differential



PL-520



PL-692



Air Differential Pressure Transmitters

Part No	Range	Output	Features	Retail £
TPDPT8/125	Multirange (up to 125 Pa)	4-20mA/0-10v	24v AC/DC supply	£124.98
TPDPT8/500	Multirange (up to 500 Pa)	4-20mA/0-10v	24v AC/DC supply	£124.98
TPDPT8/2500	Multirange (up to 2500 Pa)	4-20mA/0-10v	24v AC/DC supply	£124.98
TPDPT8/125-COM	Multirange (up to 125 Pa)	Modbus/BACnet	24v AC/DC supply	£176.61
TPDPT8/500-COM	Multirange (up to 500 Pa)	Modbus/BACnet	24v AC/DC supply	£176.61



TPDPT8

XX.



Differential Pressure Transmitters & Switches

Part No	Type	Range	Output	Features	Retail £
DPTE252	Air DP Transmitter	0...250 Pa	4-20mA	IP54, 24v AC/DC supply	£422.37
DPTE502	Air DP Transmitter	0...500 Pa	4-20mA	IP54, 24v AC/DC supply	£373.75
DPTE50S	Air DP Transmitter	-50/+50 Pa	0-10v/ 4-20mA	IP54, 24v AC/DC supply	£354.08
DPTE500S	Air DP Transmitter	-500/+500 Pa	0-10v/ 4-20mA	IP54, 24v AC/DC supply	£384.86
DPS200	Air DP Switch	20...200 Pa	Switch	IP54, c/w fitting kit	£68.09
DPS400	Air DP Switch	40...400 Pa	Switch	IP54, c/w fitting kit	£68.09
DPSL200	Liquid/Gas DP Switch	40...200 mbar	Switch	IP54, max. pressure 10 Bar	£405.08
DPSL1000	Liquid/Gas DP Switch	150...1000 mbar	Switch	IP54, max. pressure 10 Bar	£405.08



DPTE500S



DPSL200





Inverter Drives

Rating (kW)	Description	Part No (IP21)	Retail £	Part No (IP55)	Retail £
1.1	ACH580-01-03A4-4 (+B056 for IP55) 400v	157-1000	£708.00	157-2000	£807.00
1.5	ACH580-01-04A1-4 (+B056 for IP55) 400v	157-1010	£807.00	157-2010	£918.00
3	ACH580-01-07A3-4 (+B056 for IP55) 400v	157-1020	£938.00	157-2020	£1,117.00
4	ACH580-01-09A5-4 (+B056 for IP55) 400v	157-1030	£1,051.00	157-2030	£1,295.00
5.5	ACH580-01-12A7-4 (+B056 for IP55) 400v	157-1040	£1,230.00	157-2040	£1,395.00
7.5	ACH580-01-018A-4 (+B056 for IP55) 400v	157-1050	£1,442.00	157-2050	£1,527.00
11	ACH580-01-026A-4 (+B056 for IP55) 400v	157-1060	£1,787.00	157-2060	£2,013.00
15	ACH580-01-033A-4 (+B056 for IP55) 400v	157-1070	£2,293.00	157-2070	£2,552.00
22	ACH580-01-046A-4 (+B056 for IP55) 400v	157-1080	£2,977.00	157-2080	£3,404.00
30	ACH580-01-062A-4 (+B056 for IP55) 400v	157-1090	£3,550.00	157-2090	£4,073.00
37	ACH580-01-073A-4 (+B056 for IP55) 400v	157-1100	£4,023.00	157-2100	£4,561.00

Other options are available; please contact the office for further details.



Inverter Drives

Rating (kW)	Description	Part No (IP20)	Retail £	Part No (IP55)	Retail £
1.1	FC-102 with H3 filter, Modbus/BACnet	131B5468	£POA	131N9572	£POA
1.5	FC-102 with H3 filter, Modbus/BACnet	131B5469	£POA	131U0963	£POA
2.2	FC-102 with H3 filter, Modbus/BACnet	131B5470	£POA	131U0964	£POA
3	FC-102 with H3 filter, Modbus/BACnet	131B5471	£POA	131U0965	£POA
4	FC-102 with H3 filter, Modbus/BACnet	131B5472	£POA	131U0966	£POA
5.5	FC-102 with H3 filter, Modbus/BACnet	131B5473	£POA	131L9238	£POA
7.5	FC-102 with H3 filter, Modbus/BACnet	131B5474	£POA	131L9239	£POA
11	FC-102 with H3 filter, Modbus/BACnet	131F8307	£POA	131L9240	£POA
15	FC-102 with H3 filter, Modbus/BACnet	131F8308	£POA	131L9241	£POA
18.5	FC-102 with H3 filter, Modbus/BACnet	131G0433	£POA	131L9242	£POA
22	FC-102 with H3 filter, Modbus/BACnet	131F9921	£POA	131L9243	£POA

Other options are available; please contact the office for further details.



Inverter Drives

Part No	Rating (kW)	IP	Description	Retail £
G120P-1.1/32A+BOP-2	1.1	IP20	Sinamics G120P VSD with Bop-2 panel	£871.00
G120P-1.5/32A+BOP-2	1.5	IP20	Sinamics G120P VSD with Bop-2 panel	£973.00
G120P-2.2/32A+BOP-2	2.2	IP20	Sinamics G120P VSD with Bop-2 panel	£1,044.00
G120P-3/32A+BOP-2	3	IP20	Sinamics G120P VSD with Bop-2 panel	£1,241.00
G120P-4/32A+BOP-2	4	IP20	Sinamics G120P VSD with Bop-2 panel	£1,399.00
G120P-11/32A+BOP-2	11	IP20	Sinamics G120P VSD with Bop-2 panel	£2,293.00
G120P-15/32A+BOP-2	15	IP20	Sinamics G120P VSD with Bop-2 panel	£2,876.00
G120P-18.5/32A+BOP-2	18.5	IP20	Sinamics G120P VSD with Bop-2 panel	£3,419.00
G120P-22/32A+BOP-2	22	IP20	Sinamics G120P VSD with Bop-2 panel	£4,033.00
G120P-30/32A+BOP-2	30	IP20	Sinamics G120P VSD with Bop-2 panel	£4,763.00
G120P-37/32A+BOP-2	37	IP20	Sinamics G120P VSD with Bop-2 panel	£5,780.00
G120P-1.1/35A+BOP-2	1.1	IP55	Sinamics G120P VSD with Bop-2 panel	£948.00
G120P-1.5/35A+BOP-2	1.5	IP55	Sinamics G120P VSD with Bop-2 panel	£1,137.00
G120P-2.2/35A+BOP-2	2.2	IP55	Sinamics G120P VSD with Bop-2 panel	£1,234.00
G120P-3/35A+BOP-2	3	IP55	Sinamics G120P VSD with Bop-2 panel	£1,452.00
G120P-4/35A+BOP-2	4	IP55	Sinamics G120P VSD with Bop-2 panel	£1,604.00
G120P-11/35A+BOP-2	11	IP55	Sinamics G120P VSD with Bop-2 panel	£2,526.00
G120P-15/35A+BOP-2	15	IP55	Sinamics G120P VSD with Bop-2 panel	£3,141.00
G120P-18.5/35A+BOP-2	18.5	IP55	Sinamics G120P VSD with Bop-2 panel	£3,774.00
G120P-22/35A+BOP-2	22	IP55	Sinamics G120P VSD with Bop-2 panel	£4,310.00
G120P-30/35A+BOP-2	30	IP55	Sinamics G120P VSD with Bop-2 panel	£5,344.00
G120P-37/35A+BOP-2	37	IP55	Sinamics G120P VSD with Bop-2 panel	£6,373.00

Other options are available; please contact the office for further details.



XXI.



XXII. Ancillary Products

Proportional/ Integral Action Controller

Part No	Description	Features	Retail £
CAD-1PI	Single output, din rail mounted	24v supply, 0-10v output *NOT EXPANDABLE*	£167.40
CAD-PI	Single output, din rail mounted	24v supply, 0-10v output *EXPANDABLE: see CAD-XM1A*	£193.70
CAD-XM1A	Output expansion module	Use up to 2x with CAD-PI for total 3x 0-10v outputs	£42.50
CAD-POT	Adjustable potentiometer	Facia-mounted *to suit CAD... controllers*	£79.30



CAD-PI

BMS Modules

(suitable for din rail mounting)

Part No	Description	Retail £
RM1-24DC	24v DC single relay, 12(3)a	£14.20
RM1-24AC	12v AC single relay, 12(3)a	£14.20
RM1-230AC	230v AC single relay, 12(3)a	£20.60
IOVR1	0-10v input, single relay, 10(3)a	£63.10
IOR2	0-10v input, raise/lower, high/low module	£42.50
IOR3	0-10v input, 3-stage relay output	£70.90
IOR4	0-10v input, 4-stage relay output	£130.10
IOR6	0-10v input, 6-stage relay output	£148.20
PCM2-30	Dual output phasecut module (30vA), 0-10v input	£130.10
PCM1/120	Phasecut module (120vA), 0-10v input	£210.00
IO-DIM4	4-input digital multiplexor	£40.23
IOD6	6-input digital multiplexor	£144.30
ALM10-24	10-way 24v alarm integrator	£42.50
ALM10-230	10-way 230v alarm integrator	£51.60
RIBXKTF	Current switch, 0.25-150A range, max. 30v AC/DC SPST	£71.20
CAD-AP	Remote alarm unit: 230v, 24v or 0-10v (c/w sounder, mute, lamp)	£132.10
BB1	Black box for CAD-AP for wall mounting	£24.30



IOR...



IO-DIM4

Transformers

Part No	Electrical	Va rating	Features	Retail £
PS-25-L	230v AC/ 24v AC	25vA	Enclosed, c/w flyleads	£60.60
SEM621	230v AC/ 24v AC	30vA	Din rail mounted	£57.00
STX50	230v AC/ 24v AC	50vA	Panel mounted	£60.60
STX100	230v AC/ 24v AC	100vA	Panel mounted	£78.10
STX160	230v AC/ 24v AC	150vA	Panel mounted	£105.80
STX250	230v AC/ 24v AC	250vA	Panel mounted	£117.20



SEM621

Thyristor Controllers

Part No	Type	Electrical	KW	Mounting	Retail £
EY1-3	1-phase	230v supply 0-10v signal 230v load	3.5	Din rail	£384.13
EY1-7	1-phase	230v supply 0-10v signal 230v load	7	Din rail	£503.00
EY3-10	3-phase	230v supply 0-10v signal 415v load	10	Din rail	£771.88
EY3-20	3-phase	230v supply 0-10v signal 415v load	20	Din rail	£683.55
EY3-28	3-phase	230v supply 0-10v signal 415v load	28	Din rail	£1,025.82
EY3-36	3-phase	230v supply 0-10v signal 415v load	36	Din rail	£1,321.96
EY3-54	3-phase	230v supply 0-10v signal 415v load	54	Bracket	£1,700.31
EY3-86	3-phase	230v supply 0-10v signal 415v load	86	Bracket	£2,847.65



EY3-20

XXII.

Knock-off Buttons and Electric Thermal Links

Part No	Description	Retail £
KOB	Emergency knock-off button (plastic)	£43.80
MKOB	Emergency knock-off button (metal)	£67.00
KRKOB	Key-reset knock-off button	£67.00
SKOB	Shrouded knock-off button	£92.80
ETL	Electric thermal fuse link	£24.50



KRKOB



Fireman Switches and Indication Units

Part No	Description	Dimensions (w/h/d)	Retail £
FIRE-SW1	Fireman's switch - auto/off/extract only	180 x 180 x 100mm	£193.30
FIRE-SW2	Fireman's switch (flush mounting)- normal/off/extract	140 x 140 x 103mm	£193.30
FIRE-SW3	Fireman's switch (key operated) - normal/off/extract	87 x 87 x 40mm	£70.90
Accessories to suit:			
BB2	Surface mounting box *to suit FIRE-SW3*		£23.20
KEYGUARD	Keyguard *to suit FIRE-SW3*		£58.00
CAD-AP	Alarm panel (240v/ 24v/ 0-10v rising or falling for alarm)		£132.10



FIRE-SW3

Note: bespoke fireman switches are available. Please contact the office for details.

Duct Smoke Detection

Part No	Description	Retail £
SL-2000P	Photoelectric smoke detector	£POA
FASTUBE PROBE	*to suit ionisation/ photoelectric*	£POA



SL-2000P

Leak Detection

Part No	Description	Electrical	Features	Retail £
AX-WLD2-24	Leak detection module	24v	Total 200m cable per zone, *sensors req'd*	£95.80
AX-WLD2-230	Leak detection module	230v	Total 200m cable per zone, *sensors req'd*	£120.20
Accessories to suit:				
PS31	Rod set (3x 1m)	N/A	*Use with AX-WLD2*	£109.80
CAD-LDC	Leak detection cable	N/A	*Use with AX-WLD2*- sold per metre	£21.90
CAD-RS	Rain sensor	N/A	*Use with AX-WLD2...*	£121.10
CAD-PS	Point sensor	N/A	*Use with AX-WLD2...*	£46.40



AX-WLD

Flow & Level Switches

Part No	Description	Electrical	Features	Retail £
SAFS	Air flow paddle switch	250v 15(8)A	IP65, range: 1-9 m/s	£96.60
SWFS	Water flow paddle switch	250v 15(8)A	IP65, range: 1-91 m ³ /h	£98.00
MAC-3	Liquid level switch	230v 10(4)A	Vertical, 5m cable	£79.90
MINIMATIC	Liquid level switch	230v 10(4)A	5m cable, WRAS approved	£178.00
SWFS-LEV1	Liquid level switch	230v 15(8)A	Horizontal, 1" bspm	£132.70
S01DB-F84	Liquid level switch	240v 5(2)A	Horizontal, high/low alarm	£827.40



MAC-3

Rain Hoods

Part No	Description	Features	Retail £
RH-1	Rain hood	290mm x 270mm, velcrose & rope tie seal	£48.70
RH-2	Rain hood	470mm x 310mm, velcrose & rope tie seal	£59.30
RH-3	Rain hood	430mm x 390mm, velcrose & rope tie seal	£59.30
RH-4	Rain hood	250mm x 230mm, velcrose & rope tie seal	£52.60



XXII.

Brass Fittings

Uses include: adapting 15/22mm fan coil valves to copper pipe, converting "bsp" valves to copper pipe, etc.

Part No	Description	Retail £
BBZ1004	15mm nut & olive (for 15mm fan coil valves etc)	£3.00
BBZ1006	22mm nut & olive (for 22mm fan coil valves etc)	£4.40
BBZ1100	½" flat face FI coupler for ½" "flat face" fan coil valves	£5.40
BBZ1103	¾" flat face FI coupler for ¾" "flat face" fan coil valves	£6.70
BBZ1050	15mm x ½" MI coupler	£5.40
BBZ1053	22mm x ¾" MI coupler	£6.70
BBZ1055	28mm x 1" MI coupler	£18.90
BBZ1056	35mm x 1¼" MI coupler	£24.30



BBZ1004

RH-1



XXIII. Water Boosting & Pressurisation Units

Spartan Cold Water Booster Sets

- For industrial and commercial applications
- Single, twin or multiple pump sets
- Flow rates up to 40 l/s
- Pressures up to 15 Bar
- 1450 RPM model available

Please contact the office for a tailored quote.



Single pump, inverter-controlled



Twin pump, inverter-controlled



Three pump, inverter-controlled

Additional options:-

- Inverter-controlled pumps
- Pressure-regulating valves for switch-controlled models
- Built-in dry run protection
- Suction break-tank low-level switch
- Anti-vibration mountings
- Flexible pipe connections

Aquarius Water Booster System

- Digital accuracy, intelligent proactive electronic control
- Low energy consumption
- Ultra-compact, low noise
- Suits a wide range of pressure and flow rates
- Innovative leak-proof design
- Structurally reinforced, frost-proof tank
- Stainless steel pump
- Quick and simple installation
- Supplied with separate expansion vessel



Connections

Supply: ¾" bspm
Discharge: 1" bspf
Overflow: 1½"

Electrical: 220-240vAC

Dimensions: 595mm x 845mm x 585mm (WxHxD)

Please contact the office for a tailored quote.

Spartan Aquamaster Wall-Mounted Pressurisation Sets

The Spartan Aquamaster sets are compact, sealed, wall-mounted units ideal for low volume systems. They can be connected quickly and easily on site in even the most confined spaces, and can be supplied with duplicate pumps for standby operation.

Standard options include:-

Aquamaster Standard (230-1020) -

Supplied with break tank, valve and single fully rated pump, volt-free contacts for high/low pressure, pressure and mains power switches and pressure gauge.

Aquamaster Micro Single (230-1030) -

Supplied as above, but with microprocessor control.

Aquamaster Micro Twin (230-1010) -

Supplied with twin pumps and microprocessor control.

Specification:

Fill pressure: 0.5 - 4.0 Bar
Electrical: 240v, 1-phase
Full load current (FLC): 1A
Weight: 8Kg
Dimensions (HxWxD):
320mm x 355mm x 205mm



Outside view (Micro)



Inside view (Micro)



Spartan “Spa-Base” Open Pressurisation Unit

The Spartan “Spa-Base” unit is an open pressurisation unit supplied complete with break tank and valve, single pump, a fused-spur power switch and a system pressure gauge.

A high/low pressure kit to suit the unit is also available.

Please see table on page for prices. Please note that prices do not include the cost of the expansion vessel, which must be sized and purchased separately. Please see table below for details.

Other non-standard options include 3-phase supply and higher-head pumps for cold fill pressures above 3.0 Bar. Please contact the office for a tailored quote.

Specification:

Fill pressure: 0.5 - 3.0 Bar

Electrical: 240v, 1-phase

Full low current (FLC): 2.6A

Connections:

Water supply: ½” bsp
System: ½” bsp

Weight: 25Kg

Dimensions (LxHxD):
710mm x 425mm x 450mm



Spartan “Spa-Base” Unit

“RD” Series Expansion Vessels

For use on heating, chilled & potable water systems 0-99°C

Part No	Pressure Rating	Volume	Connection	Height	Diameter	Retail £
RD5	10 Bar	5 litres	¾”	316 mm	160 mm	£54.00
RD8	10 Bar	8 litres	¾”	321 mm	200 mm	£56.00
RD18	10 Bar	18 litres	¾”	379 mm	274 mm	£73.00
RD24V	10 Bar	24 litres	1”	450 mm	300 mm	£89.00
RD24H	10 Bar	24 litres	1”	480 mm	270 mm	£89.00
RD60	10 Bar	60 litres	1”	860 mm	380 mm	£183.00
RD80	10 Bar	80 litres	1”	800 mm	450 mm	£270.00
RD100	10 Bar	100 litres	1”	960 mm	450 mm	£317.00
RD200	10 Bar	200 litres	1½”	1280 mm	550 mm	£514.00
RD300	10 Bar	300 litres	1½”	1430 mm	630 mm	£762.00
RD500	10 Bar	500 litres	1½”	1610 mm	750 mm	£950.00
RD750	10 Bar	750 litres	1½”	2267 mm	750 mm	£1,567.00
RD24H16	16 Bar	24 litres	1”	480 mm	270 mm	£POA
RD24V16	16 Bar	24 litres	1”	450 mm	300 mm	£POA
RD100V16	16 Bar	100 litres	1”	960 mm	450 mm	£POA
RD200V16	16 Bar	200 litres	1½”	1280 mm	550 mm	£POA
RD300V16	16 Bar	300 litres	1½”	1430 mm	630 mm	£POA
RD500V16	16 Bar	500 litres	1½”	1610 mm	750 mm	£POA
RD750V16	16 Bar	750 litres	1½”	2267 mm	750 mm	£POA
RD1000V16	16 Bar	1000 litres	1½”	2080 mm	850 mm	£POA



“RD” 10 Bar



“RD” 16 Bar

XXIII.

XXIV.



XXV. Pump Accessories

Pressurisation Unit Replacement Pumps

Part No	Description	Retail £
Hydra PKM80-1	230v, 5 Bar	£213.00
Lowara PABLRM15	230v, 4 Bar	£586.00
Lowara PSAM70/A	230v, 4 Bar	£POA
EP77 Aquamaster Pump	230v	£113.00



PABLRM15

Safety Valves, Gauges and Accessories

Part No	Description	Range	Retail £
AAV1	3/8" automatic air vent	110°C	£24.26
SV15	1/2" pressure safety valve	3 Bar	£30.66
SV22	3/4" pressure safety valve	3 Bar	£50.72
SV25	1" pressure safety valve	3 Bar	£62.37
SPG-1	1 1/2" dial pressure gauge	0-6 Bar	£24.36
SPTG-1	Temperature/ pressure gauge	0-120°C/ 0-6 Bar	£47.36
STG-1	Horizontal temperature gauge	0-120°C	£25.73
SSVG-1	1/2" safety valve & gauge	3 Bar/ 0-6 Bar gauge	£23.52
SPT1	Strap-on thermometer	0-120°C	£22.37
37001	1/4" MI pressure switch	0-6 Bar	£61.40



SPTG-1

Liquid Level Switches

Part No	Description	Electric	Features	Retail £
MAC-3	Vertical 5m cable	240v 10(4)A	Suspended by own cable	£79.90
SWFS-LEV1	Horizontal	230v 15(8)A	1" bsp horizontal	£132.70
MINIMATIC	Horizontal	230v 10(4)A	WRAS approved, 5m cable	£178.00



MAC3

Pressure Reducing Valves

Part No	Size	Max Pressure	Max Temp	Retail £
D06F-1B	1"	25 Bar in, 1.5-6 Bar out (adjustable)	40°C	£POA
D06F-11/4B	1 1/4"	26 Bar in, 1.5-6 Bar out (adjustable)	40°C	£POA
D06F-11/2B	1 1/2"	27 Bar in, 1.5-6 Bar out (adjustable)	40°C	£POA
D06F-2B	2"	28 Bar in, 1.5-6 Bar out (adjustable)	40°C	£POA

Accessories to Suit:

M07M-10	Back-entry pressure gauge, 0-10 Bar, 63mm dial	£POA
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D06F...B

Flexible Connections PN16 (Untied)

Part No	Size	Max Pressure	Temp Range	Retail £
FLEX32	32 mm	16 Bar	-20/+100°C	£64.00
FLEX40	40 mm	16 Bar	-20/+100°C	£82.00
FLEX50	50 mm	16 Bar	-20/+100°C	£89.00
FLEX65	65 mm	16 Bar	-20/+100°C	£115.14
FLEX80	80 mm	16 Bar	-20/+100°C	£127.00
FLEX100	100 mm	16 Bar	-20/+100°C	£158.00



FLEX50

XXV.

Note: tied flexible connections are available, as well as PN6 versions. Please contact the office for details.





DAB EVOPLUS circulator pumps

...for commercial heating and air conditioning systems

single or twin head



Ebara CD/CDX/CDXL centrifugal pumps

...for a range of domestic and commercial applications

single or dual impeller
single or three-phase



Grundfos MAGNA circulator pumps

...for heating and cooling applications in commercial buildings

cast iron or stainless steel
single or twin head
optional CIM modules (MAGNA 3)



Lowara ECOCIRC XLplus circulator pumps

...for hot and cold media including geothermal and solar systems

cast iron or bronze
single or twin head
Modbus and BACnet options



Wilo Yonos MAXO circulator pumps

...the compact standard pump for commercial buildings

single or double pump





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