



VALVES & ACTUATORS | CONTROLS & METERS | PUMPS & PRESSURISATION



PRODUCT CATALOGUE
April 2024



Distributors & Stockists - for over 50 years!

Our established partnerships with leading manufacturers of HVAC equipment, meters and pumps means we can offer a comprehensive range of products, including limited stock of some discontinued items.



Extensive product knowledge

Our team has decades of experience within the industry, so can assist with product selection and technical queries in respect of both new and obsolete product ranges.



Next day delivery

For ex stock orders placed before 4pm we offer next-day delivery to mainland UK. We can also offer bespoke delivery options for urgent or logistically complex orders, for example those that need “booking in”.

Our trade counter has also re-opened; so you can pop in and collect if preferred.



Training room

Our dedicated training space is now ready and raring to go!

With the first few BCIA modules (BCM01-BCM04) already booked in, we will also be hosting CPD sessions as well as informal training sessions on a wide range of topics.

Please contact the office to register your interest and to be kept in the loop on future training events!



Get in touch

sales@spartans.co.uk | 01895 446788

Trade counter: open during business hours

Updates for this Issue:

Price reviews:

Ancillary
Satchwell
Schneider
Sontay

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New products:

Danfoss EV220S
Titan Products

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PLEASE NOTE: This catalogue is for guidance purposes only. We have done our best to provide useful information with regard to both products and pricing; however these are subject to Manufacturers' revisions (and of course, human error) and therefore cannot be guaranteed and are liable to change without prior notice (although we try to avoid this where possible).

Please do contact the office for detailed quotations - particularly with respect to large orders - or with any queries.

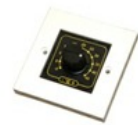
Spartan Controls' terms and conditions apply at all times. Please contact the office for a copy.

Thermostats

Stat	Part No	Range	Electrical	Features	Retail Price
Outside (Frost)	PTR030	-30/+30°C	250v 8A res.	IP65 concealed	£60.64
Capillary	CAPSTAT 030	-30/+30°C	230v 8A res.	1m capillary	£80.48
Capillary	CAPSTAT 0120	0/+120°C	250v 8A res.	1m capillary	£60.64
Capillary	LF55T (SFS-1)	-15/+15°C	230v 24(10)A	Auto reset IP43, 6m ave.	£72.77
Capillary	SFT1/W (SFS-1W)	-15/+15°C	230v 24(10)A	Auto reset IP65, 6m ave.	£102.53
Capillary	SFS-2	-15/+15°C	230v 24(10)A	Manual reset IP43, 6m ave.	£72.77
Capillary	SFS-2W	-15/+15°C	230v 24(10)A	Manual reset IP65, 6m ave.	£102.53
Space	SRS-1	+5/+30°C	240v 10(3)A	Exposed dial	£23.63
Space	SRFS	-5/+15°C	250v 10(2.5)A	Frost stat	£23.15
Space	Digistat +	+5/+30°C	240v 2(1)A	LCD display	£POA
Space	Digistat +3	+5/+30°C	240v 2(1)A	7-day programmable	£POA
Space	RF710	+5/+30°C	240v 2(1)A	Radio trans-signal	£POA
Space	RF700	+5/+30°C	240v 2(1)A	24h programmable	£POA
Space	RF701	+5/+30°C	240v 2(1)A	7-day programmable	£POA
Space	RAA11	+8/+30°C	250v 6(2.5)A	2-pos'n, tamperproof	£21
Space	RAA21	+8/+30°C	250v 6(2.5)A	2-pos'n, open scale	£27
Duct	RAK-TW5-AB200	-10/+50°C	250v 6(2.5)A	Rigid stem	£73
Strap-on	SPS-2	+30/+90°C	240v 15(3)A	Auto reset IP30	£36.38
Immersion	SIT-1	0/+90°C	250v 6(2.5)A	IP40 c/w pocket	£57.00
Accessories to Suit					
DFC-6 Clips	x6 clips to suit SFS...				£8.49


EBD8

RAK.TW1000

CAD-1DS

CAD-POT

QPA2000
Electronic Thermostats

Part no	Range	Electrical	Features	Retail Price
CAD-1DS	-5/+95°C	24v or 230v	1x 240v 10(5)A relay, din rail mounting	£120.02
CAD-2DS	-5/+95°C	24v or 230v	2x 240v 10(5)A relays, din rail mounting	£162.23
CAD-XR2 MODULE	N/A	N/A	2x 240v 10(5)A relays (use w/ CAD-2DS for 4/6/8 stages)	£73.85
Sensors to suit				
CAD-R	Space/ room		IP20 84mm(H) x 84mm (W) x 24mm (D)	£18.03
CAD-I	Immersion		IP65 150mm x 6mm probe (requires pocket)	£33.65
CAD-O	Outside		IP65 80mm (Dia) x 50mm (D) housing	£32.10
CAD-D	Duct		IP65 150mm x 6mm probe	£33.65
CAD-S	Strap-on		IP65 150mm x 50mm housing, 150mm strap	£32.45
CAD-F	Fly lead		IP65 38mm x 6mm probe, 2m cable	£21.63
CAD-BB	Black bulb		IP20 84mm (H) x 84mm (W) x 40mm (D)	£56.48
CAD-AV	Space twin element		IP20 84mm (H) x 84mm (W) x 24mm (D)	£33.65
CAD-POT	Set point adj.		C/w scales (-5/+45°C, +25/+95°C, -4/+4°C)	£71.23

Humidistats

Part No	Description	Range	Electric	Retail Price
EHR-1	Space humidistat	35-100% RH	250v 6(2.5)A IP30	£138.60
EHD-1	Duct humidistat	30-100% RH	230v 14(5)A IP54	£231.88

Occupancy/ Humidity/ Air Quality/ Wind Speed Sensors

Sensor	Part No	Range	Features	Electrical	Retail Price
Occupancy	OC-C-LVN	N/A	Ceiling-mounted	24v supply	£119.70
Humidity (space)	RHTR3-T1	10-90% RH	IP20 Humid & Temp	24v supply, 0-10v	£208.37
Humidity (duct)	RHTD3	20-95% RH	IP40 Humidity	24v supply, 0-10v	£254.68
CO ₂ (space)	QPA2000	0-2000 ppm	IP30 CO ₂ (Air Quality)	24v supply, 0-10v	£273.00
CO ₂ (duct)	QPM2100	0-2000 ppm	IP54 CO ₂ (Air Quality)	24v supply, 0-10v	£454.00
Wind speed	WSU4	0-90m/s	C/w bracket (max 2" diam.)	24v supply	£POA
Wind speed/ dir	WSS2	0-90m/s	C/w bracket (max 2" diam.)	24v supply, 0-1kohm	£POA


CO2MC-R

Further options are available on page 6 (gas detection), pages 17-18 (Belimo sensors), page 26 (Flamefast), page 41 (Sontay sensors), page 42 (Trend sensors) & page 43 (Vaisala sensors).

Temperature Sensors

Sensor	Part No	Compatibility	Features	Retail Price
Space/room	TR1	Trend 10K3A1	IP30 84mm x 84mm x 24mm	£13.89
Duct	TD	Trend 10K3A1	IP65 150mm x 6mm probe	£27.78
Immersion	TI	Trend 10K3A1	IP65 150mm x 6mm probe	£27.78
Outside	TO	Trend 10K3A1	IP65 80mm x 50mm	£20.84
Strap-on	TS	Trend 10K3A1	IP65 up to 150mm pipe	£32.41
Flylead/ cable	TF	Trend 10K3A1	38mm x 6mm, 2m cable	£19.68
Space/ room	CR	Cylon PT1000	84mm x 84mm x 24mm	£26.63
Duct	CD	Cylon PT1000	IP65 150mm x 6mm probe	£37.49
Immersion	CI	Cylon PT1000	IP65 150mm x 6mm probe	£40.52
Outside	CO	Cylon PT1000	IP65 80mm x 50mm	£34.73
Strap-on	CS	Cylon PT1000	IP65 up to 150mm pipe	£41.67
Space/ room	SR	Satchwell "T" series	84mm x 84mm x 24mm	£25.47
Immersion	SI	Satchwell "T" series	IP65 150mm x 6mm probe	£42.83
Outside	SO	Satchwell "T" series	IP65 80mm x 50mm	£59.04
Strap-on	SS	Satchwell "T" series	IP65 up to 150mm pipe	£45.15
Duct	SD	Satchwell "T" series	IP65 150mm x 6mm probe	£40.52
Immersion	TE-ITAC	Satchwell 1.8K3A1	IP65 150mm x 6mm probe	£41.67
Outside	TE-OTAC	Satchwell 1.8K3A1	IP65 80mm x 50mm	£37.04
Space/ room	TE-RTAC	Satchwell 1.8K3A1	84mm x 84mm x 24mm	£28.94
Strap-on	TE-STAC	Satchwell 1.8K3A1	IP65 up to 150mm pipe	£41.67
Immersion	TE-IH	Honeywell 20K6A1	IP65 150mm x 6mm probe	£41.67
Outside	TE-OH	Honeywell 20K6A1	IP65 80mm x 50mm	£37.04
Space/ room	TE-RH	Honeywell 20K6A1	84mm x 84mm x 24mm	£28.94
Strap-on	TE-SH	Honeywell 20K6A1	IP65 up to 150mm pipe	£41.67


TD

TF
Accessories

Part No	Description	Features	Retail Price
POC-1	Brass pocket for immersion sensor	150mm x 8mm x 1/2" bsp	£15.05
POC-2	Steel pocket for immersion sensor	150mm x 8mm x 1/2" bsp	£35.89
RH-1	Rain hood	290mm x 270mm, velcro & rope tie seal	£44.00
RH-2	Rain hood	470mm x 310mm, velcro & rope tie seal	£53.26
RH-3	Rain hood	430mm x 390mm, velcro & rope tie seal	£53.26
RH-4	Rain hood	250mm x 230mm, velcro & rope tie seal	£47.27


RH...
Pressure transmitters

(A= air, W = water, S = steam)

Sensor	Part No	Range	Features	Electrical	Retail Price
A differential	QBM2030-1U	-/+50, -/+100, 0/100 pa	IP54, 6.2mm hose	24v supply, 0-10v	£180.00
A differential	QBM2030-5	0-200, 0-250, 0-500 pa	IP54, 6.2mm hose	24v supply, 0-10v	£180.00
A differential	QBM2030-30	0-1000, 0-1500, 0-3000 pa	IP54, 6.2mm hose	24v supply, 0-10v	£180.00
W/S/A static	520-4	0-4 bar	IP65	4-20mA output	£231.98
W/S/A static	520-6	0-6 bar	IP65	4-20mA output	£231.98
W/S/A static	520-10	0-10 bar	IP65	4-20mA output	£231.98
W/S/A static	520-4-v	0-4 bar	IP65	0-10v output	£254.13
W/S/A static	520-6-v	0-6 bar	IP65	0-10v output	£254.13
W/S/A static	520-10-v	0-10 bar	IP65	0-10v output	£254.13
W/S/A differential	692-0.2	0-200 mbar	IP65	4-20mA output	£428.76
W/S/A differential	692-0.4	0-400 mbar	IP65	4-20mA output	£428.76
W/S/A differential	692-1	0-1 bar	IP65	4-20mA output	£393.73
W/S/A differential	692-2.5	0-2.5 bar	IP65	4-20mA output	£393.73
W/S/A differential	692-4	0-4 bar	IP65	4-20mA output	£393.73
W/S/A differential	692-6	0-6 bar	IP65	4-20mA output	£393.73
W/S/A differential	692-0.2-v	0-200 mbar	IP65	0-10v output	£514.51
W/S/A differential	692-0.4-v	0-400 mbar	IP65	0-10v output	£514.51
W/S/A differential	692-1-v	0-1 bar	IP65	0-10v output	£514.51
W/S/A differential	692-2.5-v	0-2.5 bar	IP65	0-10v output	£514.51
W/S/A differential	692-4-v	0-4 bar	IP65	0-10v output	£514.51
W/S/A differential	692-6-v	0-6 bar	IP65	0-10v output	£514.51


QBM2030-5

520...

692...

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

Proportional/ Integral Action Controller

Part No	Description	Features	Retail Price
CAD-1PI	Single output, din rail mounted	24v supply, 0-10v output *NOT EXPANDABLE*	£150.36
CAD-PI	Single output, din rail mounted	24v supply, 0-10v output *EXPANDABLE: see CAD-XM1A*	£174.10
CAD-XM1A	Output expansion module	Use up to 2x with CAD-PI for total 3x 0-10v outputs	£38.25
CAD-POT	Adjustable potentiometer	Facia-mounted *to suit CAD... controllers*	£71.23


CAD-PI
BMS Modules

(suitable for din rail mounting)

Part No	Description	Retail Price
RM1-12DC	12v DC single relay, 12(3)a	£11.58
RM1-24DC	24v DC single relay, 12(3)a	£12.74
RM1-24AC	12v AC single relay, 12(3)a	£12.74
RM1-230AC	230v AC single relay, 12(3)a	£18.52
IOVR1	0-10v input, single relay, 10(3)a	£56.72
IOR2	0-10v input, raise/lower, high/low module	£38.20
IOR3	0-10v input, 3-stage relay output	£63.67
IOR4	0-10v input, 4-stage relay output	£116.92
IOR6	0-10v input, 6-stage relay output	£133.13
PCM2-30	Dual output phasecut module (30vA), 0-10v input	£116.92
PCM1/120	Phasecut module (120vA), 0-10v input	£188.70
IO-DIM4	4-input digital multiplexor	£30.45
IOD6	6-input digital multiplexor	£129.65
ALM10-24	10-way 24v alarm integrator	£38.20
ALM10-230	10-way 230v alarm integrator	£46.31
RIBXKTF	Current switch, 0.25-150A range, max. 30v AC/DC SPST	£63.95
CAD-AP	Remote alarm unit: 230v, 24v or 0-10v (c/w sounder, mute, lamp)	£118.70
BB1	Black box for CAD-AP for wall mounting	£21.83


RIBXKTF
Transformers

Part No	Electrical	Va rating	Features	Retail Price
PS-25-L	230v AC/ 24v AC	25vA	Enclosed, c/w flyleads	£54.41
SEM621	230v AC/ 24v AC	30vA	Din rail mounted	£53.26
STX50	230v AC/ 24v AC	50vA	Panel mounted	£54.41
STX100	230v AC/ 24v AC	100vA	Panel mounted	£67.15
STX160	230v AC/ 24v AC	150vA	Panel mounted	£75.24
STX200	230v AC/ 24v AC	200vA	Panel mounted	£78.72
STX250	230v AC/ 24v AC	250vA	Panel mounted	£91.46
STX400	230v AC/ 24v AC	400vA	Panel mounted	£130.81
STX500	230v AC/ 24v AC	500vA	Panel mounted	£138.92


STX250
Thyristor Controllers

Part No	Phase	Electrical	KW	Dimensions (HxWxD)	Mounting	Retail Price
EY1-3	1-phase	230v supply 0-10v signal 230v load	3.5	150 x 90 x 65 mm	Din rail	£260.07
EY1-7	1-phase	230v supply 0-10v signal 230v load	7	150 x 102 102 mm	Din rail	£240.56
EY1-12	1-phase	230v supply 0-10v signal 230v load	12.5	200 x 112 x 146 mm	Bracket	£POA
TCD1-2	1-phase	24v supply 0-10v signal 230v load	2	94 x 75 x 80 mm	Din rail	£111.13
TCD1-4	1-phase	24v supply 0-10v signal 230v load	4	94 x 75 x 80 mm	Din rail	£162.07
TCD1-7	1-phase	24v supply 0-10v signal 230v load	7	94 x 75 x 80 mm	Din rail	£201.43
EY3-10	3-phase	230v supply 0-10v signal 415v load	10	150 x 150 x 63.5 mm	Din rail	£522.60
EY3-20	3-phase	230v supply 0-10v signal 415v load	20	150 x 150 x 88 mm	Din rail	£462.79
EY3-28	3-phase	230v supply 0-10v signal 415v load	28	150 x 153 x 126 mm	Din rail	£694.53
EY3-36	3-phase	230v supply 0-10v signal 415v load	36	200 x 265 x 160 mm	Din rail	£895.03
EY3-54	3-phase	230v supply 0-10v signal 415v load	54	200 x 265 x 160 mm	Bracket	£1,151.19
EY3-86	3-phase	230v supply 0-10v signal 415v load	86	202 x 265 x 160 mm	Bracket	£1,927.99
TCD3-12	3-phase	24v supply 0-10v signal 415v load	12	110 x 170 x 102 mm	Din rail	£248.89
TCD3-18	3-phase	24v supply 0-10v signal 415v load	18	110 x 170 x 102 mm	Din rail	£291.72
TCP3-27	3-phase	24v supply 0-10v signal 415v load	27	102 x 257 x 142 mm	Panel	£599.66
TCP3-36	3-phase	24v supply 0-10v signal 415v load	36	102 x 257 x 142 mm	Panel	£628.59
TCP3-57	3-phase	24v supply 0-10v signal 415v load	57	200 x 257 x 158 mm	Panel	£752.46


EY3-20

TCP3-36

Self-powered options are available; please contact office for details.

Flow & Level Switches
 (inc. leak detection)

Part No	Description	Electrical	Features	Retail Price
SWFS	Water flow paddle switch	250v 15(8)A	IP65, range: 1-91 m ³ /h	£87.98
SAFS	Air flow paddle switch	250v 15(8)A	IP65, range: 1-9 m/s	£86.82
MAC3	Liquid level switch	230v 10(4)A	Vertical, 5m cable	£71.78
MINIMATIC	WRAS-approved float switch	230v 10(4)A	5m cable	£159.86
SWFS-LEV1	Liquid level switch	230v 15(8)A	Horizontal, 1" bspm	£119.24
S01DB-F84	Liquid level switch	240v 5(2)A	Horizontal, high/low alarm	£743.42
AX-WLD2-24	Water leak detection module	24v	Total 200m cable per zone, *sensors req'd*	£86.00
AX-WLD2-230	Water leak detection module	230v	Total 200m cable per zone, *sensors req'd*	£108.05
PS31	Rod set (3x 1m)	N/A	*Use with AX-WLD2*	£98.70
CAD-LDC	Leak detection cable	N/A	*Use with AX-WLD2*- sold per metre	£19.68
CAD-RS	Rain sensor	N/A	*Use with AX-WLD2...*	£108.82
CAD-PS	Point sensor	N/A	*Use with AX-WLD2...*	£41.67


SAFS

CAD-RS
Air Differential Pressure Switches

Part No	Range	Electrical	Features	Retail Price
LF32-02	0.2-2 mbar	230v 5(1)A	IP54 *requires SDK1 kit*	£37.04
LF32-03	0.3-3 mbar	250v 1.5 (0.4)A	IP54 *requires SDK1 kit*	£37.04
LF32-05	0.5-5 mbar	230v 1(0.5)A	IP54 *requires SDK1 kit*	£37.04
930-85	2-10 mbar	250v 1.5(0.4)A	IP54 *requires SDK1 kit*	£37.04
LF32-02/W	0.2-2 mbar	230v 1(0.5)A	IP65 *requires SDK1 kit*	£75.24
LF32-03/W	0.3-3 mbar	250v 1.5(0.4)A	IP65 *requires SDK1 kit*	£75.24
LF32-05/W	0.5-5 mbar	230v 1(0.5)A	IP65 *requires SDK1 kit*	£75.24
930-85-W	2-10 mbar	250v 1.5(0.4)A	IP65 *requires SDK1 kit*	£75.24
AFS262	0.13-5 mbar	230v 10(2)A	IP30 metal *requires SDK2 kit*	£61.74
AFS222	0.5-30 mbar	230v 10(2)A	IP30 metal *requires SDK2 kit*	£61.74
AFS262/HT	0.13-5 mbar	230v 10(2)A	IP30 max 300°C c/w 2m copper tube & metal duct flanges	£117.97
Accessories to Suit				
SDK1	Fitting kit (2x spigots + 2m tubing) *to suit SCL...*			£6.07
SDK2	Fitting kit (2x spigots + 2m tubing) *to suit AFS...*			£7.28
30M-8/5	30m roll 8x5 mm PVC tubing			£61.86
CU1/4	¼" copper tube (sold per metre)			£6.07
SDA1	Plastic 80mm spigot *to suit 8x5 mm tubing*			£3.64
SDA2	Brass duct adaptor ¼" bsp *to suit ¼" bsp copper tube*			£13.35
TEE1	Plastic tee *to suit 5mm I.D. Tubing*			£3.64


SCL220

37001
Liquid pressure switches

Description	Part No	Range	Electrical	Features	Retail Price
Static	37001	0-6 bar	230v 16(10)A	IP30, ¼" bsp, adj. diff	£57.89
Static	F1381-1	-1/+1 bar	230v 5(2)A	½" bspm, 0.05 bar diff	£212.57
Static	F1381-4	0.1-4 bar	230v 5(2)A	½" bspm, 0.1 bar diff	£212.57
Static	F1381-11	0.3-11 bar	230v 5(2)A	½" bspm, 0.3 bar diff	£212.57
Differential	SCL-DP2	0.1-2 bar	230v 5(2)A	¼" bspm	£90.41
Differential	FD113S	0.2-4 bar	230v 5(2)A	¼" bspf	£97.02
Differential	SCL250	40-250 mbar	230v 5(2)A	⅛" bspf	£158.76
Differential	SCL1000	0.007-1 bar	230v 5(2)A	⅛" bspf	£158.76
Differential	SCL4000	0.2-4 bar	230v 5(2)A	⅛" bspf	£158.76
Differential	H1382P-250	15-250 mbar	250v 10A	⅛" bspf	£217.96
Differential	H1382P-1	0.07-1 bar	250v 10A	⅛" bspf	£217.96
Differential	H1382P-4	0.2-4 bar	250v 10A	⅛" bspf	£217.96
Fitting Kits (comprising 2x switch fitting, 2m tubing, 2x male fittings for system)					
WDPS-KIT1	¼" fitting kit *to suit SCL250/1000/4000 & H1382P*				£38.20
WDPS-KIT2	¼" fitting kit *to suit FD*				£38.20
WDPS-KIT3	¼" fitting kit *to suit SCL-DP2*				£38.20


SCL1000

WDPS...

Electrothermic Underfloor Actuators

Part No	Description	Retail Price
22CX230NA2	Normally open, 230v 2-wire	£62.68
22CX230NC2	Normally closed, 230v 2-wire	£62.68
22CX230NC4	Normally closed, 230v 4-wire	£68.90
22CX24NC2	Normally closed, 24v 2-wire	£62.68
22CX24NC4	Normally closed, 24v 4-wire	£68.90
11B06	24v, 2-wire	£79.65
O5E00	230v, 2-wire	£79.65
O1D00	230v, 4-wire	£89.74

Other options are available. Please contact the office for compatibility.



22CX...

Domestic Motorised Spring-return (NC) Valves

Part No	Type	Description	Retail Price
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

230v standard; other voltages, fittings and auxiliary switch options are available on request.



ZVD...

Knock-off Buttons and Electric Thermal Links

Part No	Description	Retail Price
KOB	Emergency knock-off button (plastic)	£39.36
MKOB	Emergency knock-off button (metal)	£60.20
KRKOB	Key-reset knock-off button	£60.20
SKOB	Shrouded knock-off button	£83.35
ETL	Electric thermal fuse link	£22.00



CAD-AP

Fireman Switches and Indication Units

Part No	Description	Dimensions (w/h/d)	Retail Price
FIRE-SW1	Fireman's switch - auto/off/extract only	180 x 180 x 100mm	£173.65
FIRE-SW2	Fireman's switch (flush mounting)- normal/off/extract	140 x 140 x 103mm	£173.65
FIRE-SW3	Fireman's switch (key operated) - normal/off/extract	87 x 87 x 40mm	£63.67
BB2	Surface mounting box *to suit FIRE-SW3*		£20.84
KEYGUARD	Keyguard *to suit FIRE-SW3*		£52.09
CAD-AP	Alarm panel (240v/ 24v/ 0-10v rising or falling for alarm)		£118.70

Bespoke fireman switches are available. Please contact the office for details.



FIRE-SW3

Duct Smoke Detection

Part No	Description	Retail Price
SL-2000N	Ionisation smoke detector	£300.98
SL-2000P	Photoelectric smoke detector	£300.98
FASTUBE PROBE	*to suit ionisation/ photoelectric*	£57.89



SL-2000P

Trace Heating/ Frost Protection Tape

Part No	Description	Retail Price
FTP15-2	Frost protection tape *requires thermostat*	POA
FT/KIT1	Termination Kit	POA
FSH/TP15	HWS maintenance 55°C (self-limiting)	POA
FX/TB	Junction box	POA

COSTER Gas Detection

Part No	Description	Features	Retail Price
RFG651	1-channel detector (Nat gas/CO/Prop LPG)	IP40, adjustable alarm threshold	£342.10
RFG361	1-channel gas detector (slimline)	IP40, adjustable alarm threshold	£253.00
RFG652	2-channel gas detector	IP40, adjustable alarm threshold	£401.50
RFG653	3-channel gas detector	IP40, adjustable alarm threshold	£401.50
ACD316	Facia panel-mounting kit *to suit RFG361*	N/A	£41.80
ACD644	Facia panel-mounting kit *to suit RFG6...series*	N/A	£69.30
ACD615	Wall-mounting kit *to suit RFG6...series*	N/A	£72.60
SRS150	Natural gas sensor *to suit RFG series*	N/A	£101.20
SRS350	CO sensor *to suit RFG series*	N/A	£101.20



ACD644

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



Gas Detection

Part No	Description	Features	Retail Price
GS100M	1-channel gas detector (configurable)	IP44, range: 0-300ppm/ 20% LEL	£440.06
BX150K	1-channel gas detector (CO/ CH4/ LPG)	IP42, alarm: 300ppm/ 20% LEL	£406.56
GS300M	3-channel gas detector (configurable)	IP44, range: 0-20% LEL	£510.02
BX444MC	4-channel gas detector (configurable)	IP44, range: 0-20% LEL	£863.94
SGM595	Gas detector	IP55, alarm: 20% LEL	£204.44
CO100AR	Carbon monoxide (CO) sensor	IP55, alarm: 300ppm	£345.35
CHCO	Nat gas (CH4) & CO sensor	IP42, alarm: 0-300ppm/10% LEL	£236.50
TLD1-CO2-TT-MOD	CO ₂ space sensor, 3-colour backlight, Modbus	24v supply, 0/2-10v, 0-2000ppm	£375.38
CO2MC-R	CO ₂ space sensor for classrooms	IP30 230v, relay, 0-5000ppm	£399.63



GS300M



CHCO

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



Gas Detection

Part No	Description	Features	Retail Price
Merlin CO2	Desktop CO ₂ monitor	USB powered, LCD screen, audible alarm.	£POA
Merlin GDP2	2 zone gas detection - boiler room	Max. 6x detectors ("GDP"), LED display.	£POA
Merlin GDPX+	16 zone gas proving & detection - boiler room	Max. 16x detectors ("X"), touchscreen, Modbus connectivity.	£POA
Merlin 1000BH	Gas proving & detection - boiler room	Lockable key-switch operation, auto-reset. Works in conjunction with NG/CO/LPG sensors. Meets BB100 (fire safety in school buildings).	£POA
Merlin 1000V	Gas proving system & ventilation interlock - science labs	Lockable key switch operation, low pressure indication, LED display, BMS & fire alarm system integration.	£POA
Merlin 1000VW+	Gas proving, electric & water isolation and ventilation interlock - science labs	C/w pressure transducer; controls water, gas and electric. LED display, BMS & fire alarm system integration.	£POA
Merlin 2000S	Ventilation interlock system - commercial kitchens	Meets BS6173. Interlocks with up to 4x fans. Clear LED display for system indications. Low pressure monitoring for incoming gas supply.	£POA



2000S

Gas Detectors:

Merlin GDP	Gas detector to suit GDP2	LED indicator lights, alarm, gas options: NG/CO/LPG	£POA
Merlin Detector X	Gas detector to suit GDPX+	TFT display, alarm, Modbus, gas options: NG/CO/LPG/H	£POA
Merlin Detector iS	Gas detector to suit all Merlin control panels	TFT screen, traffic light indication, displays live gas levels, audible alarm, 0-10v output, gas options: NG/CO/LPG/CO ₂ /O ₂ /NO ₂ /H ₂	£POA
Merlin CO2-X	CO ₂ monitor - for use independently or in conjunction with Merlin gas safety system	TFT screen, traffic light indication, displays live gas levels & temperature, plus 8-hour average. Pre-alarm and alarm relay output, 0-10v output. Dual power 240v/24v. Meets BB101 (standards for ventilation of school buildings).	£POA



CO2-X

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



Inverter Drives

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

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



Inverter Drives

Rating (kW)	Description	Part No (IP21)	Retail Price	Part No (IP55)	Retail Price
1.1	ACH580-01-03A4-4 (+B056 for IP55) 400v	157-1000	£687.00	157-2000	£783.00
1.5	ACH580-01-04A1-4 (+B056 for IP55) 400v	157-1010	£783.00	157-2010	£891.00
3	ACH580-01-07A3-4 (+B056 for IP55) 400v	157-1020	£910.00	157-2020	£1,084.00
4	ACH580-01-09A5-4 (+B056 for IP55) 400v	157-1030	£1,020.00	157-2030	£1,257.00
5.5	ACH580-01-12A7-4 (+B056 for IP55) 400v	157-1040	£1,194.00	157-2040	£1,354.00
7.5	ACH580-01-018A-4 (+B056 for IP55) 400v	157-1050	£1,400.00	157-2050	£1,482.00
11	ACH580-01-026A-4 (+B056 for IP55) 400v	157-1060	£1,734.00	157-2060	£1,954.00
15	ACH580-01-033A-4 (+B056 for IP55) 400v	157-1070	£2,226.00	157-2070	£2,477.00
22	ACH580-01-046A-4 (+B056 for IP55) 400v	157-1080	£2,890.00	157-2080	£3,304.00
30	ACH580-01-062A-4 (+B056 for IP55) 400v	157-1090	£3,446.00	157-2090	£3,954.00
37	ACH580-01-073A-4 (+B056 for IP55) 400v	157-1100	£3,905.00	157-2100	£4,428.00



ACH580

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

Brass Fittings

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

Part No	Description	Retail Price
BBZ1004	15mm nut & olive (for 15mm fan coil valves etc)	£2.76
BBZ1006	22mm nut & olive (for 22mm fan coil valves etc)	£3.97
BBZ1100	½” flat face FI coupler for ½” “flat face” fan coil valves	£4.85
BBZ1103	¾” flat face FI coupler for ¾” “flat face” fan coil valves	£6.07
BBZ1050	15mm x ½” MI coupler	£4.85
BBZ1053	22mm x ¾” MI coupler	£6.07
BBZ1055	28mm x 1” MI coupler	£16.98
BBZ1056	35mm x 1¼” MI coupler	£21.83



35mm Coupler & 15mm nut

Contact Optimiser/ Compensators

Part No	Description	Retail Price
KP SYX661-AQ2000	Honeywell AQ200, NTC10 sensors (includes HWS relay)	£POA
KP SYX-CSC-V	Satchwell CSC (no time clock), NTC10 sensors	£POA
KP SYX-CSC-V-T	Satchwell CSC (with time clock), NTC10 sensors	£POA
KP SYX663	Backlit LCD screen, 230v supply, supports DC1400 T Type Sensors	£POA
KP SYX664	Backlit LCD screen, 230v supply, supports DC1100 Sensors	£POA
Accessories to Suit:		
KP SYX66X-HWS	Spare HWS interface relay	£POA
KP SYX Small Bracket	Small mounting bracket - 180 x 120 (for new installations)	£POA
KP SYX-DDC-LMB	Large mounting bracket - 240 x 180 (for retrofitting)	£POA

Spartan Controls can supply a vast range of ancillary products to many different specifications, including “clone” sensors to replace obsolete units. Please contact the office for further details.

BANICO Gas Solenoids

Part No	Connection	VA Rating	Max. Pressure	Face-to-Face	Retail Price
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
ZEVF125	125mm flanged	290	200 mbar	400mm	£2,426.76
ZEVF150	150mm flanged	290	200 mbar	480mm	£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 125mm, 150mm and 200mm flanged				£59.85



ZEV20



ZEVF80

The above valves are supplied with 230v coils as standard. 24v options are available on request.

Please also see Black Teknigas Section (page 19) for alternative gas solenoid valves.

BANICO Water Solenoid Valves

Part No	Size	KV	Min Pressure	Max Pressure	Features	Retail Price
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



23x & coil

Danfoss EV220S Water Solenoid Valves (Normally closed)

Part No	Size	KVs	Features	Retail Price
042U491432	½"	4	WRAS approved, -30/+100°C, 230v	£76.97
042U491419	½"	4	WRAS approved, -30/+100°C, 24v	£76.97
042U491732	¾"	5	WRAS approved, -30/+100°C, 230v	£85.75
042U491719	¾"	5	WRAS approved, -30/+100°C, 24v	£85.75
042U492232	1"	7	WRAS approved, -30/+100°C, 230v	£126.59
042U492219	1"	7	WRAS approved, -30/+100°C, 24v	£126.59
042U493232	1¼"	15	WRAS approved, -30/+100°C, 230v	£244.78
042U494032	1½"	18	WRAS approved, -30/+100°C, 230v	£244.78
042U495032	2"	32	WRAS approved, -30/+100°C, 230v	£367.16



EV220S

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

Sylax Butterfly Valves

Part No	Size	Type	Features	Retail Price
280-5100	50mm	Wafer (PN16)	WRAS approved	£285.58
280-5110	65mm	Wafer (PN16)	WRAS approved	£290.89
280-5120	80mm	Wafer (PN16)	WRAS approved	£329.41
280-5130	100mm	Wafer (PN16)	WRAS approved	£370.59



Sylax butterfly

Please contact the office for details of appropriate actuators, including spring-return options.

Please see Belimo section (page 13) for alternative ½"-2" WRAS-approved ball valve options

Water Meters (c/w pulse output)

Part No	Description	Size	Permanent Flow Rate (m ³ /h)	Retail Price
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

Other options are available, including Mbus output. Please contact the office for details.


GMDI

WDEK50
BELIMO Flow sensors with glycol compensation
(externally threaded, for water and water/glycol mixtures)

Part No	DN	Max Flow Measurable (m ³ /h)	Installation Length (mm)	Features	Retail Price
22PF-1UC	¾"	1.8	110	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£443.00
22PF-1UD	1"	3	130	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£457.00
22PF-1UE	1¼"	4.2	135	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£472.00
22PF-1UF	1½"	7.2	140	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£493.00
22PF-1UG	2"	12	145	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£523.00
22PF-1UH	2"	18	145	24v, 0-10v, MP-bus, BACnet, Modbus, MS/TP	£551.00


EVO..R2+MID
BELIMO Belimo Energy Valve™ - MID approved

Part No	Size (RP)	QP (m ³ /h)	Features	Retail Price
EV015R2+MID	½"	1.5	MID-approved (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,217.00
EV020R2+MID	¾"	2.5	MID-approved (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,244.00
EV025R2+MID	1"	3.5	MID-approved (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,278.00
EV032R2+MID	1¼"	6	MID-approved (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,414.00
EV040R2+MID	1½"	10	MID-approved (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,566.00
EV050R2+MID	2"	15	MID-approved (15-120°C), 24v, 2-10v, MP-Bus/Modbus/BACnet	£1,819.00

NOTE: union required (EXT-EF-xxC).

Other non-MID options are available; please see page 15 or contact the office for further options.

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

Part No	DN	QP (m ³ /h)	Features	Retail Price
22PEM-1UC	15	1.5	MID-approved, 24v or PoE, 2-10v, MP-Bus/Modbus/BACnet	£907.00
22PEM-1UD	20	2.5	MID-approved, 24v or PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,016.00
22PEM-1UE	25	3.5	MID-approved, 24v or PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,125.00
22PEM-1UF	32	6	MID-approved, 24v or PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,234.00
22PEM-1UG	40	10	MID-approved, 24v or PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,343.00
22PEM-1UH	50	15	MID-approved, 24v or PoE, 2-10v, MP-Bus/Modbus/BACnet	£1,459.00


22PEM-1U

NOTE: union required (EXT-EF-xxA).

Other non-MID options are available; please contact the office for further options.

kamstrup Heat & Cool Meters
Multical 403

Part No - Heat	Size	QP (m ³ /h)	Features	Retail Price
185-3000	½"	0.6	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£511.01
185-3010	½"	1.5	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£511.01
185-3020	¾"	1.5	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£515.23
185-3030	¾"	2.5	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£515.23
185-3040	1"	3.5	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£730.10
185-3050	1"	6	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£777.05
185-3060	1½"	10	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£1,065.77
186-3070	50mm(FL)	15	C/w M-Bus 1.5m sensors, pockets & power supply	£1,486.10

Part No - Cool	Size	QP (m ³ /h)	Features	Retail Price
185-4000	½"	0.6	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£521.08
185-4010	½"	1.5	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£521.08
185-4020	¾"	1.5	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£525.30
185-4030	¾"	2.5	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£525.30
185-4040	1"	3.5	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£730.10
185-4050	1"	6	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£777.05
185-4060	1½"	10	C/w M-Bus, 1.5m sensors, pockets, couplings, power supply	£1,065.77
185-4070	50mm(FL)	15	C/w M-Bus 1.5m sensors, pockets & power supply	£1,486.10

Other options are available; please contact the office for details and a tailored quote.



Multical 403...

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

Part No - Heat	Size	QP (m ³ /h)	Features	Retail Price
185-5000	1½"	10	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£1,257.58
185-5010	50mm	15	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£1,674.60
185-5020	65mm	25	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£1,819.05
185-5030	80mm	40	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£2,077.95
185-5040	100mm	60	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£2,735.76
185-5050	100mm	100	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£3,125.78
185-5060	125mm	100	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£3,385.79
185-5070	150mm	150	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£5,232.54
185-5080	200mm	400	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£6,249.66
185-5090	200mm	600	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£8,303.51
185-5100	250mm	400	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£8,165.12
185-5110	250mm	600	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£10,188.99



Multical 603...

Part No - Cool	Size	QP (m ³ /h)	Features	Retail Price
185-5990	1½"	10	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£1,328.15
185-6001	50mm	15	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£1,749.52
185-6010	65mm	25	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£1,895.22
185-6020	80mm	40	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£2,156.35
185-6030	100mm	60	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£2,819.84
185-6040	100mm	100	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£3,213.21
185-6050	125mm	100	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£3,475.47
185-6060	150mm	150	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£5,232.54
185-6070	200mm	400	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£6,249.66
185-6080	200mm	600	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£8,303.51
185-6085	250mm	400	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£8,165.12
185-6090	250mm	600	M-Bus output, 1.5m sensors, pockets, flat wall bracket, power supply	£10,188.99

Note: Options available for flow rate, output modules (including wireless, Bacnet, etc) and power supply. Certificates also available at additional cost. Please contact the office for details and a tailored quote.



Ultraflow 54

Clamp-on Meters - Micronics

Part No	Description	Features	Retail Price
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.



U3000


Energy Meters - Danfoss

Type	Size	QP (m ³ /h)	Features	Retail Price
Sono 40	DN15	1.5	LTHWor CHW c/w battery, pulse/ MBUS, unions & adaptor	£POA
Sono 40	DN20	2.5	LTHWor CHW c/w battery, pulse/ MBUS, unions & adaptor	£POA
Sono 40	DN25	3.5	LTHWor CHW c/w battery, pulse/ MBUS, unions & pockets	£POA
Sono 40	DN25	6	LTHWor CHW c/w battery, pulse/ MBUS, unions & pockets	£POA
Sono 40	DN40	10	LTHWor CHW c/w battery, pulse/ MBUS, unions & pockets	£POA
Sono 40	DN50 (FL)	15	LTHWor CHW c/w battery, pulse/ MBUS & pockets	£POA
Sono 40	DN65 (FL)	25	LTHWor CHW c/w battery, pulse/ MBUS & pockets	£POA
Sono 40	DN80 (FL)	40	LTHWor CHW c/w battery, pulse/ MBUS & pockets	£POA
Sono 40	DN100 (FL)	60	LTHWor CHW c/w battery, pulse/ MBUS & pockets	£POA

Type	Size	QP (m ³ /h)	Features	Retail Price
Sono 3500	DN125 (FL)	100	LTHW/CHW, Infocal calculator 230v, pulse/Mbus c/w pockets	£POA
Sono 3500	DN150 (FL)	150	LTHW/CHW, Infocal calculator 230v, pulse/Mbus c/w pockets	£POA
Sono 3500	DN200 (FL)	250	LTHW/CHW, Infocal calculator 230v, pulse/Mbus c/w pockets	£POA
Sono 3500	DN250 (FL)	400	LTHW/CHW, Infocal calculator 230v, pulse/Mbus c/w pockets	£POA
Sono 3500	DN300 (FL)	560	LTHW/CHW, Infocal calculator 230v, pulse/Mbus c/w pockets	£POA

Sono 40 - other power supply options and communication modules are available, including Modbus, BACnet and LoRa WAN. Up to three communications modules can be used in parallel. Please contact the office for further details.


Sono.40...
SIEMENS Domestic Heat and Cooling Energy Meters

Part No	Size	QP (m ³ /h)	Features	Retail Price
WSM506-BE	¾"	0.6	M-bus, battery powered, return-mounted, 110mm mounting length	£287.00
WSM515-BE	¾"	1.5	M-bus, battery powered, return-mounted, 110mm mounting length	£287.00
WSM525-BE	1"	2.5	M-bus, battery powered, return-mounted, 110mm mounting length	£287.00

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


WSM506...
Gas Meters

Part No	Description	Size	QP (m ³ /h)	Features	Retail Price
UGP-G4P	Diaphragm	1"	4	C/w pulse output	£108.45
ZUG-G6P	Diaphragm	1"	6	C/w pulse output	£145.58
UG-G10P	Diaphragm	1½"	10	C/w pulse output	£427.05
UG-G16P	Diaphragm	1½"	16	C/w pulse output	£488.93
CPT25-16	Turbine	1"	16	C/w pulse output	£1,460.25
CPT25-25	Turbine	1"	25	C/w pulse output	£1,460.25
CPT30-25	Turbine	1¼"	25	C/w pulse output	£1,460.25
CPT40-40	Turbine	1½"	40	C/w pulse output	£1,489.95
CPT40-65	Turbine	1½"	65	C/w pulse output	£1,489.95
CPT50-40	Turbine	2"	40	C/w pulse output	£1,489.95
CPT50-65	Turbine	2"	65	C/w pulse output	£1,489.95
CPT50F-40	Turbine	50mm (FL)	40	C/w pulse output	£1,400.85
CPT50F-65	Turbine	50mm (FL)	65	C/w pulse output	£1,400.85
CPT65F-65	Turbine	65mm (FL)	65	C/w pulse output	£1,460.25
CPT65F-100	Turbine	65mm (FL)	100	C/w pulse output	£1,460.25
CPT80F-100	Turbine	80mm (FL)	100	C/w pulse output	£1,460.25
CPT80F-160	Turbine	80mm (FL)	160	C/w pulse output	£1,460.25
CPT100F-160	Turbine	100mm (FL)	160	C/w pulse output	£1,727.55
CPT100F-250	Turbine	250mm (FL)	161	C/w pulse output	£1,727.55
CPT150F-400	Turbine	150mm (FL)	400	C/w pulse output	£2,336.40
CPT150F-650	Turbine	150mm (FL)	650	C/w pulse output	£2,336.40
CPT200F-650	Turbine	200mm (FL)	650	C/w pulse output	£4,365.90
CPT200F-1000	Turbine	200mm (FL)	1000	C/w pulse output	£4,365.90

Other options are available, including MID-approved meters. Please contact the office for details or for a tailored quote


CPT...

Damper Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail Price
LM24A	5	24	2- or 3-position	£130.00
LM24A-S	5	24	2- or 3-position c/w aux switch	£147.00
LM24A-SR	5	24	2-10v output	£173.00
LM230A	5	230	2- or 3-position	£130.00
LM230A-S	5	230	2- or 3-position c/w aux switch	£147.00
NM24A	10	24	2- or 3-position	£158.00
NM24A-S	10	24	2- or 3-position c/w aux switch	£191.00
NM24A-SR	10	24	2-10v output	£226.00
NM230A	10	230	2- or 3-position	£164.00
NM230A-S	10	230	2- or 3-position c/w aux switch	£196.00
SM24A	20	24	2- or 3-position	£183.00
SM24A-S	20	24	2- or 3-position c/w aux switch	£227.00
SM24A-SR	20	24	2-10v output	£255.00
SM230A	20	230	2- or 3-position	£187.00
SM230A-S	20	230	2- or 3-position c/w aux switch	£233.00
GM24A	30	24	2- or 3-position	£316.00
GM24A-SR	30	24	2-10v output	£378.00
GM230A	30	230	2- or 3-position	£320.00

Additional auxiliary switches are available to suit; please see accessories section on page 17.



LM24A-SR



SM230A

Failsafe Damper Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail Price
LF24	4	24	2-position spring return	£202.00
LF24-S	4	24	2-position spring return c/w aux switch	£233.00
LF24-SR	4	24	2-10v output spring return	£272.00
LF230	4	230	2-position spring return	£220.00
LF230-S	4	230	2-position spring return c/w aux switch	£250.00
NF24A	10	24	2-position spring return	£257.00
NF24A-S2	10	24	2-position spring return c/w 2x aux switch	£292.00
NF24A-SR	10	24	2-10v output spring return	£304.00
NFA	10	24-240	2-position spring return	£305.00
NFA-S2	10	24-240	2-position spring return c/w 2x aux switch	£349.00
SF24A	20	24	2-position spring return	£315.00
SF24A-S2	20	24	2-position spring return c/w 2x aux switch	£349.00
SF24A-SR	20	24	2-10v output spring return	£361.00
SFA	20	24-240	2-position spring return	£362.00
SFA-S2	20	24-240	2-position spring return c/w 2x aux switch	£396.00
GK24A-1	40	24	2-position electrical failsafe	£651.00
GK24A-SR	40	24	2-10v output electrical failsafe	£719.00



SF24A-S2



GK24A-1

On/Off Ball Valves

Part No	Description	Size	KVS (m ³ /h)	Suitable Actuators	Retail Price
R2015-S1	2-port	½"	15	LR.../LRF...	£69.30
R2020-S2	2-port	¾"	32	LR.../LRF...	£77.20
R2025-S2	2-port	1"	26	LR.../LRF...	£95.10
R2032-S3	2-port	1¼"	32	NR.../NRF...	£141.00
R2040-S3	2-port	1½"	31	NR.../NRF...	£172.00
R2050-S4	2-port	2"	49	SR.../SRF...	£227.00
R3015-S1	3-port	½"	15	LR.../LRF...	£122.00
R3020-S2	3-port	¾"	32	LR.../LRF...	£136.00
R3025-S2	3-port	1"	26	LR.../LRF...	£171.00
R3032-S3	3-port	1¼"	32	NR.../NRF...	£248.00
R3040-S3	3-port	1½"	31	NR.../NRF...	£304.00
R3050-S4	3-port	2"	49	SR.../SRF...	£353.00

Continued overleaf...



R3015-S1



R2025-S2

Potable Water Ball Valves

Part No	Description	Size	KVS (m ³ /h)	Suitable Actuators	Retail Price
C215QPW-N	2-port WRAS	½"	16	CQ.../CQK...	£64.90
R215PW-N	2-port WRAS	½"	16	LR.../LRF...	£75.10
R220PW-P	2-port WRAS	¾"	32	LR.../LRF...	£83.70
R225PW-Q	2-port WRAS	1"	40	LR.../LRF...	£107.00
R232PW-Q	2-port WRAS	1¼"	63	NR.../NRF...	£169.00
R240PW-R	2-port WRAS	1½"	100	SR.../SRF...	£207.00
R250PW-S	2-port WRAS	2"	150	SR.../SRF...	£292.00

Control Ball Valves

Part No	Description	Size	KVS (m ³ /h)	Suitable Actuators	Retail Price
R2015-P63-S1	2-port	½"	0.63	LR.../LRF...	£74.40
R2015-1-S1	2-port	½"	1	LR.../LRF...	£74.40
R2015-1P6-S1	2-port	½"	1.6	LR.../LRF...	£74.40
R2015-2P5-S1	2-port	½"	2.5	LR.../LRF...	£74.40
R2015-4-S1	2-port	½"	4	LR.../LRF...	£74.40
R2015-6P3-S1	2-port	½"	6.3	LR.../LRF...	£74.40
R2020-4-S2	2-port	¾"	4	LR.../LRF...	£85.10
R2020-6P3-S2	2-port	¾"	6.3	LR.../LRF...	£85.10
R2020-8P6-S2	2-port	¾"	8.6	LR.../LRF...	£85.10
R2025-6P3-S2	2-port	1"	6.3	LR.../LRF...	£104.00
R2025-10-S2	2-port	1"	10	LR.../LRF...	£104.00
R2025-16-S2	2-port	1"	16	LR.../LRF...	£104.00
R2032-16-S3	2-port	1¼"	16	NR.../NRF...	£150.00
R2040-16-S3	2-port	1½"	16	NR.../NRF...	£182.00
R2040-25-S3	2-port	1½"	25	NR.../NRF...	£182.00
R2050-25-S4	2-port	2"	25	SR.../SRF...	£238.00
R2050-40-S4	2-port	2"	40	SR.../SRF...	£238.00
R3015-P63-S1	3-port	½"	0.63	LR.../LRF...	£130.00
R3015-1-S1	3-port	½"	1	LR.../LRF...	£130.00
R3015-1P6-S1	3-port	½"	1.6	LR.../LRF...	£130.00
R3015-2P5-S1	3-port	½"	2.5	LR.../LRF...	£130.00
R3015-4-S1	3-port	½"	4	LR.../LRF...	£130.00
R3020-4-S2	3-port	¾"	4	LR.../LRF...	£145.00
R3020-6P3-S2	3-port	¾"	6.3	LR.../LRF...	£145.00
R3025-6P3-S2	3-port	1"	6.3	LR.../LRF...	£182.00
R3025-10-S2	3-port	1"	10	LR.../LRF...	£182.00
R3032-16-S3	3-port	1¼"	16	NR.../NRF...	£257.00
R3040-16-S3	3-port	1½"	16	NR.../NRF...	£317.00
R3040-25-S4	3-port	1½"	25	SR.../SRF...	£360.00
R3050-25-S4	3-port	2"	25	SR.../SRF...	£368.00
R3050-40-S4	3-port	2"	40	SR.../SRF...	£513.00
R3050-58-S4	3-port	2"	58	SR.../SRF...	£592.00



R2025-10-S2



R2050-25-S4



R3050-58-S4

Ball Valve Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail Price
LR24A	5	24	2- or 3-position	£145.00
LR24A-S	5	24	2- or 3-position c/w aux switch	£159.00
LR24A-SR	5	24	2-10v output	£189.00
LR230A	5	230	2- or 3-position	£145.00
LR230A-S	5	230	2- or 3-position c/w aux switch	£159.00
NR24A	10	24	2- or 3-position	£182.00
NR24A-S	10	24	2- or 3-position c/w aux switch	£225.00
NR24A-SR	10	24	2-10v output	£255.00
NR230A	10	230	2- or 3-position	£182.00
NR230A-S	10	230	2- or 3-position c/w aux switch	£225.00
SR24A	20	24	2- or 3-position	£207.00
SR24A-S	20	24	2- or 3-position c/w aux switch	£250.00
SR24A-SR	20	24	2-10v output	£278.00
SR230A	20	230	2- or 3-position	£207.00
SR230A-S	20	230	2- or 3-position c/w aux switch	£250.00



NR230A



SR230A-S

Continued overleaf...

Ball & Control Valve Failsafe Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail Price
LF24	4	24	2-position s-return *& LINKAGE: SEE NOTES*	£202.00
LF24-S	4	24	2-position s-return c/w aux *& LINKAGE: SEE NOTES*	£233.00
LF24-SR	4	24	2-10v output spring return *& LINKAGE: SEE NOTES*	£272.00
LF230	4	230	2-position spring return *&LINKAGE: SEE NOTES*	£220.00
LF230-S	4	230	2-position s-return c/w aux *& LINKAGE: SEE NOTES*	£250.00
NRF24A	10	24	2-position spring return	£324.00
NRF24A-S2	10	24	2-position spring return c/w 2x aux switches	£358.00
NRF24A-SR	10	24	2-10v output spring return	£345.00
NRFA	10	24-240	2-position spring return	£346.00
NRFA-S2	10	24-240	2-position spring return c/w 2x aux switches	£388.00
SRF24A	20	24	2-position spring return	£378.00
SRF24A-S2	20	24	2-position spring return c/w 2x aux switches	£426.00
SRF24A-SR	20	24	2-10v output spring return	£405.00
SRFA	20	24-240	2-position spring return	£401.00
SRFA-S2	20	24-240	2-position spring return c/w 2x aux switches	£456.00



LRF24



SRF24A-SR

1) Above are all "spring close" (i.e. close on power fail). Please contact the office for "spring open" options.
2) "LF..." actuators require "WLF" linkages to fit ball and control valves - see page 17 for linkage price and details.

Small Pressure-Independent Characterised Control Valves

Part No	Description	Size	V nom (l/h)	Retail Price
C215QPT-B	2-port PICCV PN25 c/w test points	½"	210	£169.00
C215QPT-D	2-port PICCV PN25 c/w test points	½"	420	£169.00
C220QPT-F	2-port PICCV PN25 c/w test points	¾"	980	£202.00
C225QPT-G	2-port PICCV PN25 c/w test points	1"	2100	£272.00



C215QPT-B

Actuators to suit:

CQ24A	1NM, 24v, 2- or 3- position	£88.70
CQ24A-SR	1NM, 24v 0-10v	£88.70
CQ230A	1NM, 230v, 2- or 3- position	£100.00
CQK24A	1NM, 24v, 2- or 3- position, failsafe (normally closed)	£138.00
CQK24A-SR	1NM, 24v, 0-10v, failsafe (normally closed)	£138.00

Electronic Pressure-Independent Characterised Control Valves (c/w 24v actuator)

Part No	Description	Size	Vnom (l/s)	Retail Price
EP015R2+BAC	PN25, 2-10v, MP-bus/Modbus/BACnet*	½"	0.42	£552.00
EP020R2+BAC	PN25, 2-10v, MP-bus/Modbus/BACnet*	¾"	0.69	£579.00
EP025R2+BAC	PN25, 2-10v, MP-bus/Modbus/BACnet*	1"	0.97	£616.00
EP032R2+BAC	PN25, 2-10v, MP-bus/Modbus/BACnet*	1¼"	1.67	£665.00
EP040R2+BAC	PN25, 2-10v, MP-bus/Modbus/BACnet*	1½"	2.78	£792.00
EP050R2+BAC	PN25, 2-10v, MP-bus/Modbus/BACnet*	2"	4.17	£982.00
EP065F+MP	PN16, 2-10v output, M-bus comm.	DN65 (FL)	8	£3,224.00
EP065F+MOD	PN16, 2-10v output, BACnet/Modbus comm.	DN65 (FL)	8	£3,339.00
EP080F+MP	PN16, 2-10v output, M-bus comm.	DN80 (FL)	11	£3,669.00
EP080F+MOD	PN16, 2-10v output, BACnet/Modbus comm.	DN80 (FL)	11	£3,797.00
EP100F+MP	PN16, 2-10v output, M-bus comm.	DN100 (FL)	20	£4,306.00
EP100F+MOD	PN16, 2-10v output, BACnet/Modbus comm.	DN100 (FL)	20	£4,439.00
EP125F+MP	PN16, 2-10v output, M-bus comm.	DN125 (FL)	31	£6,302.00
EP125F+MOD	PN16, 2-10v output, BACnet/Modbus comm.	DN125 (FL)	31	£6,461.00
EP150F+MP	PN16, 2-10v output, M-bus comm.	DN150 (FL)	45	£7,794.00
EP150F+MOD	PN16, 2-10v output, BACnet/Modbus comm.	DN150 (FL)	45	£7,973.00
EP015R2+KBAC	PN25, 2-10v output, MP-bus/Modbus/BACnet, failsafe*	½"	0.42	£806.00
EP020R2+KBAC	PN25, 2-10v output, MP-bus/Modbus/BACnet, failsafe*	¾"	0.69	£832.00
EP025R2+KBAC	PN25, 2-10v output, MP-bus/Modbus/BACnet, failsafe*	1"	0.97	£867.00
EP032R2+KBAC	PN25, 2-10v output, MP-bus/Modbus/BACnet, failsafe*	1¼"	1.67	£919.00
EP040R2+KBAC	PN25, 2-10v output, MP-bus/Modbus/BACnet, failsafe*	1½"	2.78	£1,061.00
EP050R2+KBAC	PN25, 2-10v output, MP-bus/Modbus/BACnet, failsafe*	2"	4.17	£1,281.00
EP065F+KMP	PN16, 2-10v output, MP-bus, failsafe	DN65 (FL)	8	£3,925.00
EP080F+KMP	PN16, 2-10v output, MP-bus, failsafe	DN80 (FL)	11	£4,415.00
EP100F+KMP	PN16, 2-10v output, MP-bus, failsafe	DN100 (FL)	20	£5,058.00
EP125F+KMP	PN16, 2-10v output, MP-bus, failsafe	DN125 (FL)	31	£7,080.00
EP150F+KMP	PN16, 2-10v output, MP-bus, failsafe	DN150 (FL)	45	£8,592.00



CQ24A



EP040R+MP



P6100W2000E-MP

*NOTE: screwed valves will require union (EXT-EF-xxF).

Belimo Energy Valve™

Part No	Size	V nom (l/s)	Features	Retail Price
EV015R2+BAC	½"	0.42	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,107.00
EV020R2+BAC	¾"	0.69	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,131.00
EV025R2+BAC	1"	0.97	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,161.00
EV032R2+BAC	1¼"	1.67	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,286.00
EV040R2+BAC	1½"	2.78	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,423.00
EV050R2+BAC	2"	4.17	24v, 2-10v, MP-Bus, Modbus, BACnet	£1,653.00
EV065F+BAC	DN65	8	24v, 2-10v, MP-Bus, Modbus, BACnet	£3,901.00
EV080F+BAC	DN80	11	24v, 2-10v, MP-Bus, Modbus, BACnet	£4,429.00
EV100F+BAC	DN100	20	24v, 2-10v, MP-Bus, Modbus, BACnet	£5,140.00
EV125F+BAC	DN125	31	24v, 2-10v, MP-Bus, Modbus, BACnet	£6,673.00
EV150F+BAC	DN150	45	24v, 2-10v, MP-Bus, Modbus, BACnet	£8,180.00

Note: Other options are available; including failsafe and MID-approved meter units (see page 9). Please contact the office for further details.



EVO..R2+BAC

Linear Valves (bsp supplied with connectors)

Part No	Description	Size	KVS (m³/h)	Connectors	Suitable Actuators	Retail Price
H414B	2-port PN16 (+5/120°C)	½"	2.5	2x ZH4515	LV.../NKV...	£190.80
H415B	2-port PN16 (+5/120°C)	½"	4	2x ZH4515	LV.../NKV...	£190.80
H420B	2-port PN16 (+5/120°C)	¾"	6.3	2x ZH4520	LV.../NKV...	£217.20
H425B	2-port PN16 (+5/120°C)	1"	10	2x ZH4525	LV.../NKV...	£253.80
H432B	2-port PN16 (+5/120°C)	1¼"	16	2x ZH4532	NV.../NVK...	£303.40
H440B	2-port PN16 (+5/120°C)	1½"	25	2x ZH4540	NV.../NVK...	£383.00
H450B	2-port PN16 (+5/120°C)	2"	40	2x ZH4550	NV.../NVK...	£500.80
H664N	2-port PN16 (+5/120°C)	DN65 (FL)	58	N/A	NV.../NVK...	£761.00
H665N	2-port PN16 (+5/120°C)	DN65 (FL)	63	N/A	EV...	£1,073.00
H679N	2-port PN16 (+5/120°C)	DN80 (FL)	90	N/A	NV.../NVK...	£1,005.00
H6100N	2-port PN16 (+5/120°C)	DN100 (FL)	145	N/A	EV...	£1,516.00
H6125S	2-port PN16 (+5/150°C)	DN125 (FL)	220	N/A	EV...	£2,555.00
H6150S	2-port PN16 (+5/150°C)	DN150 (FL)	320	N/A	EV	£3,183.00
H512B	3-port PN16 (+5/120°C)	½"	1	3x ZH4515	LV.../NVK...	£191.70
H515B	3-port PN16 (+5/120°C)	½"	4	3x ZH4515	LV.../NVK...	£191.70
H520B	3-port PN16 (+5/120°C)	¾"	6.3	3x ZH4520	LV.../NVK...	£222.30
H525B	3-port PN16 (+5/120°C)	1"	10	3x ZH4525	LV.../NVK...	£257.70
H532B	3-port PN16 (+5/120°C)	1¼"	16	3x ZH4532	NV.../NVK...	£310.10
H540B	3-port PN16 (+5/120°C)	1½"	25	3x ZH4540	NV.../NVK...	£389.00
H550B	3-port PN16 (+5/120°C)	2"	40	3x ZH4550	NV.../NVK...	£515.70
H764N	3-port PN16 (+5/120°C)	DN65 (FL)	58	N/A	NV.../NVK...	£704.00
H779N	3-port PN16 (+5/120°C)	DN80 (FL)	90	N/A	NV.../NVK...	£919.00
H7100N	3-port PN16 (+5/120°C)	DN100 (FL)	145	N/A	EV...	£1,445.00
H7125N	3-port PN16 (+5/120°C)	DN125 (FL)	220	N/A	EV...	£2,568.00
H7150N	3-port PN16 (+5/120°C)	DN150 (FL)	320	N/A	EV...	£3,098.00

Note: large globe valve units (DN200 & DN250) are listed on page 16.



H415B



H664N



H532B

Linear Valve Actuators

Part No	Thrust (N)	Voltage (v)	Stroke (mm)	Features	Retail Price
LV24A-TPC	500	24	15	2- or 3-position	£280.00
LV24A-SR-TPC	500	24	15	2-10v output	£294.00
LV230A-TPC	500	230	15	2- or 3-position	£280.00
NV24A-TPC	1000	24	20	2- or 3- position	£372.00
NV24A-SR-TPC	1000	24	20	2-10v output	£390.00
NV230A-TPC	1000	230	20	2- or 3-position	£372.00
NV24A-MP-TPC	1000	24	20	Parameterisable	£408.00
NVK24A-3-TPC	1000	24	20	3-position electrical failsafe	£602.00
NVK24A-SR-TPC	1000	24	20	2-10v output electrical failsafe	£623.00
EV24A-TPC	2500	24	40	2- or 3-position	£749.00
EV24A-SR-TPC	2500	24	40	2-10v output	£788.00

Note: Suitability of actuators is dependent upon closing pressure. Only the most common actuators are listed above. Other options, including higher thrust and retrofit actuators for non-Belimo globe valves, are available on request. Please contact the office for details.



EV24A-SR-TPC

Large Linear Valves c/w Actuators

Part No (valve)	Part No (actuator)	Description	Size	KVS (m ³ /h)	Retail Price
H6200W630/S7	GV12-24-SR-T	2-port PN16 2-10v 24v	DN200 (FL)	630	£14,946.00
H6250W1000/S7	GV12-24-SR-T	2-port PN16 2-10v 24v	DN250 (FL)	1000	£19,618.00
H7200W630-S7	GV12-24-SR-T	3-port PN16 2-10v 24v	DN200 (FL)	630	£17,394.00
H7250W1000-S7	GV12-24-SR-T	3-port PN16 2-10v 24v	DN250 (FL)	1000	£23,242.00

Please note that the above valves and actuators are supplied as a complete unit.

Alternate units with a 230v, 3-point control actuator are available. Please contact the office for details.



Butterfly Valves

Part No	Size	KVS (m ³ /h)	Features	Suitable Actuators	Retail Price
D640N	DN40	70	Wafer flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£139.00
D650N	DN50	90	Wafer flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£149.00
D650NL	DN50	90	Lugged flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£179.00
D665N	DN65	180	Wafer flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£172.00
D665NL	DN65	180	Lugged flange	SR...-5/ SRF...-5 *DIRECT MOUNTING*	£204.00
D680N	DN80	300	Wafer flange	GR...-5/ GRK...-5 *DIRECT MOUNTING*	£202.00
D680NL	DN80	300	Lugged flange	GR...-5/ GRK...-5 *DIRECT MOUNTING*	£236.00
D6100N	DN100	580	Wafer flange	DR...-5/ DRK...-5 *DIRECT MOUNTING*	£264.00
D6100NL	DN100	580	Lugged flange	DR...-5/ DRK...-5 *DIRECT MOUNTING*	£303.00
D6125N	DN125	820	Wafer flange	DR...-7/ DRK...-7 *DIRECT MOUNTING*	£299.00
D6125NL	DN125	820	Lugged flange	DR...-7/ DRK...-7 *DIRECT MOUNTING*	£348.00
D6150N	DN150	1600	Wafer flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£328.00
D6150NL	DN150	1600	Lugged flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£375.00
D6200W	DN200	2900	Wafer flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£661.00
D6200WL	DN200	2900	Lugged flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£727.00
D6250W	DN250	4400	Wafer flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£1,075.00
D6250WL	DN250	4400	Lugged flange	PRCA.../ PRKCA... *LINKAGE REQ'D*	£1,181.00



D665N



D6150NL

Butterfly Valve Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail Price
SR24A-5	20	24	2- or 3- position	£273.00
SR24A-SR-5	20	24	2-10v output	£340.00
SR230A-5	20	230	2- or 3- position	£273.00
GR24A-5	40	24	2- position	£384.00
GR24A-SR-5	40	24	2-10v output	£465.00
GR230A-5	40	230	2- position	£384.00
DR24A-5	<90	24	2- position	£699.00
DR24A-7	<90	24	2- position	£709.00
DR24A-SR-7	<90	24	2-10v output	£830.00
DR230A-7	<90	230	2- position	£709.00
PRCA-S2-T	160	24-240vAC	2/3 position, 35s running time, 2x aux switch	£1,384.00
PRCA-BAC-S2-T	160	24-240vAC	2/3 position, BACNET, 35s running time, 2x aux switch	£1,673.00
PRKCA-BAC-S2-T	160	24-240vAC	2/3 position, electrical failsafe, BACNET, 2x aux switch	£2,649.00

Linkage Kits to Suit

ZPR01	To fit PR... actuators to DN 125 - DN 300 butterfly valves	£127.00
ZPR03	To fit PR... actuators to DN 100 butterfly valves	£127.00

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



PRCA-BAC-S2-T

Rotary Retrofit Actuators

Part No	Torque (Nm)	Voltage (v)	Features	Retail Price
HT24-3	10	24	3-position	£181.00
HT24-3-S	10	24	3-position, 1x aux switch	£206.00
HT24-SR	10	24	2-10v output	£261.00
HT230-3	10	230	3-position	£181.00
HT230-3-S	10	230	3-position, 1x aux switch	£206.00

Please see page 17 for details of compatible valves and required linkage kits.



HT24-3

Linear Retrofit Actuators

Part No	Thrust (N)	Stroke (mm)	Voltage (v)	Features	Retail Price
NV24A-RE	1000	20	24	2-/3-position	£475.00
NV24A-MP-RE	1000	20	24	2-10v output, adjustable parameter	£506.00
NVK24A-3-RE	1000	20	24	Failsafe, 3 position	£710.00
NVK24A-MP-RE	1000	20	24	Failsafe, 2-10v output, adjustable parameter	£752.00
NV230A-RE	1000	20	230	2-/3-position	£475.00
NVK230A-3-RE	1000	20	230	Failsafe, 3-position	£710.00
SVL24A-MP-RE	1500	50	24	2-10v output, adjustable parameter	£1,005.00
SVL230A-RE	1500	50	230	2-/3-position	£944.00
EV24A-RE	2500	50	24	2-/3-position	£1,008.00
EV24A-MP-RE	2500	50	24	2-10v output, adjustable parameter	£1,075.00
EV230A-RE	2500	50	230	2-/3-position	£1,008.00
RV24A-MF-RE	4500	50	24	2-10v output	£1,362.00

For details of retrofit actuator compatibility and any required linkage kits please contact the office.



EV24A-MP-TPC

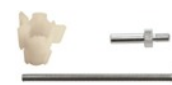
Linkage Kits

Linkage Kit	Actuator	Valve	Retail Price
MS-NRE	HT...	Esbe 3G...	£15.92
MS-NRE6	HT...	Esbe VRG...	£17.01
MS-NRED	HT...	Danfoss HRE3 (from 2012)	£15.91
MS-NRS	HT...	Satchwell MNB/MBX	£25.30
MS-NRSF	HT...	Satchwell MBF (newer, metric threaded spindles only)	£40.80
MS-NRLX	HT...	Siemens VBG31.../ VBF... (to 50mm)/ VBI31...	£67.35
MKES-D	SM...	Danfoss HFE	£121.57
MKESA	SM...	Esbe 3G & 3F	£132.00
ZMBFA	SM...	Satchwell MBF	£110.25
ZMBA	SM...	Satchwell MB/MBX (not flanged)	£118.96
WLF	LF...	All ball valves up to 1¼"	£53.50
KH8	General	Crank arm 6.2mm slot	£14.50
KG10A	General	Straight ball joint (10mm)	£17.50
KG8	General	90° angle ball joint (8mm)	£15.00
AV8-25	General	Spindle extension (250mm)	£47.40

Other linkages are available; please contact the office to discuss your requirements.



MS-NRE



MS-NRL

Actuator Accessories

Part No	Description	Retail Price
S1A	1x SPDT auxiliary switch Damper actuators (NM.../SM... etc.)	£56.50
S2A	2x SPDT auxiliary switch Damper actuators (NM.../SM... etc.)	£75.80
SNR2	1x SPDT auxiliary switch HT... (3-point, screw terminal only)	£31.00
P140A	140 ohm feedback potentiometer Damper actuators (NM.../SM... etc.)	£92.30
ZTH-EU	Programming/ servicing tool Parameterisable actuators/VAV controllers	£471.00



S2A

Positioners

Part No	Description	Use With	Retail Price
SGF24	0-100% positioner (panel)	...SR (2-10v)	£86.50
SGA24	0-100% positioner (surface)	...SR (2-10v)	£122.00
SGE24	0-100% positioner (din rail)	...SR (2-10v)	£122.00

Fan Coil & VAV Controls

Part No	Description	Retail Price
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



SGF24

Please see "actuator accessories" section above for ZTH-EU servicing tool.

Passive Temperature Sensors (10K3A1 Trend Compatible) & Switching Condensation Sensors

Part No	Sensor Type	Features	Retail Price
01UT-1L	Outdoor temp	Passive, IP65, -35/+50°C	£23.20
01DT-1LH	Duct/immersion temp	Passive, IP65, -50/+150°C, 50mm probe	£35.70
01DT-1LL	Duct/immersion temp	Passive, IP65, -50/+150°C, 100mm probe	£35.70
01DT-1LN	Duct/immersion temp	Passive, IP65, -50/+150°C, 150mm probe	£37.80
01DT-1LR	Duct/immersion temp	Passive, IP65, -50/+150°C, 300mm probe	£39.90
01DT-1LT	Duct/immersion temp	Passive, IP65, -50/+150°C, 450mm probe	£42.80
01ST-1L3	Strap-on temp	Passive, IP65, -35/+150°C, 2000mm cable	£15.80
01CT-1LH	Cable temp	Passive, -35/+100°C, 2000mm cable, 50mm probe	£13.20
22HH-10	Strap-on condensation	Switching, IP65, LED display	£126.00



01DT-1LH

Active Sensors

Part No	Sensor Type	Features	Retail Price
22DTH-11M	Duct temp & humidity	IP65, multirange, 140mm probe, 0-10v output	£202.00
22DTH-13M	Duct temp & humidity	IP65, multirange, 140mm probe, 4-20mA output	£202.00
22RTH-19-1	Room temp & humidity	IP30, 0/+50°C, 0-100% (RH) 0-10v output	£110.00
22DC-11	Duct CO ₂	IP65, 0-2000ppm, 180mm probe, 0-10v output	£291.00
22DC-13	Duct CO ₂	IP65, 0-2000ppm, 180mm probe, 4-20mA output	£301.00
22DTC-11	Duct CO ₂ & temp	IP65, 0/+50°C, 0-2000ppm, 180mm probe, 0-10v output	£365.00
22DTC-13	Duct CO ₂ & temp	IP65, 0/+50°C, 0-2000ppm, 180mm probe, 4-20mA output	£373.00
22RTM-19-1	Space CO ₂ , RH & temp	IP30, 0/+50°C, 0-2000ppm, 0-100% (RH), 0-10v output	£227.00
22ADP-18Q	Differential pressure - air	IP65, multirange (to 250Pa), 0-10v/4-20mA output	£162.00
22ADP-184	Differential pressure - air	IP65, multirange (to 2500 Pa), 0-10v/4-20mA output	£162.00
22ADP-186	Differential pressure - air	IP65, multirange (to 7000 Pa), 0-10v/4-20mA output	£162.00
22WP-114	Static pressure - water/refr	0-4 bar, 0-10v output	£151.00
22WP-115	Static pressure - water/refr	0-6 bar, 0-10v output	£151.00
22WP-116	Static pressure - water/refr	0-10 bar, 0-10v output	£151.00
22WP-117	Static pressure - water/refr	0-16 bar, 0-10v output	£151.00
22WP-134	Static pressure - water/refr	0-4 bar, 4-20mA output	£144.00
22WP-135	Static pressure - water/refr	0-6 bar, 4-20mA output	£144.00
22WP-136	Static pressure - water/refr	0-10 bar, 4-20mA output	£144.00
22WP-137	Static pressure - water/refr	0-16 bar, 4-20mA output	£144.00
22WDP-111	Diff. pressure - water	0-1 bar, 0-10v output	£457.00
22WDP-112	Diff. pressure - water	0-2.5 bar, 0-10v output	£457.00
22WDP-114	Diff. pressure - water	0-4 bar, 0-10v output	£457.00
22WDP-115	Diff. pressure - water	0-6 bar, 0-10v output	£457.00
22WDP-131	Diff. pressure - water	0-1 bar, 4-20mA output	£457.00
22WDP-132	Diff. pressure - water	0-2.5 bar, 4-20mA output	£457.00
22WDP-134	Diff. pressure - water	0-4 bar, 4-20mA output	£457.00
22WDP-135	Diff. pressure - water	0-6 bar, 4-20mA output	£457.00



22ADP-18Q



22WDP-135

Sensors with other ranges/ outputs are available; please contact the office for details.

Sensor Accessories

Part No	Description	Sensor Compatibility	Retail Price
A-22P-A06	Pocket - 50mm stainless steel, G $\frac{1}{2}$ " , SW27	01DT-...H/ 22DT-...H	£25.80
A-22P-A08	Pocket - 100mm stainless steel, G $\frac{1}{2}$ " , SW27	01DT-...L/ 22DT-...L	£28.50
A-22P-A10	Pocket - 150mm stainless steel, G $\frac{1}{2}$ " , SW27	01DT-...N/ 22DT-...N	£31.00
A-22P-A12	Pocket - 200mm stainless steel, G $\frac{1}{2}$ " , SW27	01DT-...P/ 22DT-...P	£32.80
A-22P-A14	Pocket - 300mm stainless steel, G $\frac{1}{2}$ " , SW27	01DT-...R/ 22DT-...R	£36.10
A-22P-A16	Pocket - 400mm stainless steel, G $\frac{1}{2}$ " , SW27	01DT-...T/ 22DT-...T	£39.00
A-22P-A18	Pocket - 50mm brass, G $\frac{1}{2}$ " , SW22	01DT-...H/ 22DT-...H	£12.80
A-22P-A20	Pocket - 100mm brass, G $\frac{1}{2}$ " , SW22	01DT-...L/ 22DT-...L	£13.30
A-22P-A22	Pocket - 150mm brass, G $\frac{1}{2}$ " , SW22	01DT-...N/ 22DT-...N	£14.80
A-22P-A24	Pocket - 200mm brass, G $\frac{1}{2}$ " , SW22	01DT-...P/ 22DT-...P	£16.20
A-22P-A26	Pocket - 300mm brass, G $\frac{1}{2}$ " , SW22	01DT-...R/ 22DT-...R	£18.40
A-22P-A28	Pocket - 450mm brass, G $\frac{1}{2}$ " , SW22	01DT-...T/ 22DT-...T	£20.90



A-22P-A26

2000 Series Gas Solenoid Valves

Part No	Size	Face-to-face	Max Pressure	Features	Retail Price
2005-230	¾"	126mm	360 mbar		POA
2006-230	1"	126mm	200 mbar		POA
2007-230	1¼"	167mm	200 mbar		POA
2008-230	1½"	167mm	200 mbar		POA
2009-230	2"	195mm	200 mbar		POA
2005-230-C	¾"	126mm	360 mbar	C/w closed position indication switch	POA
2006-230-C	1"	126mm	200 mbar	C/w closed position indication switch	POA
2007-230-C	1¼"	167mm	200 mbar	C/w closed position indication switch	POA
2008-230-C	1½"	167mm	200 mbar	C/w closed position indication switch	POA
2009-230-C	2"	195mm	200 mbar	C/w closed position indication switch	POA



2009-230

Above solenoid valves are all 230v. Please contact the office for details on alternative supplies.

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 Price
PE6683	1½"	67	1000	£1,563.96
PE6684	2"	80	1000	£1,563.96
PE6685	2½"	150	350	£1,731.68
PE6686	3"	165	350	£1,758.53
PE6685FL4	65mm (FL)	100	350	£2,434.43
PE6686FL4	80mm (FL)	100	350	£2,527.08
PE6687FL4	100mm (FL)	220	250	£2,794.31
PE6689FL4	150mm (FL)	510	500	£5,098.13
BC66810FL4	200mm (FL)	1200	250	£13,226.20
BC66811FL4	250mm (FL)	1430	250	£16,304.48



PE66...



PE66...FL4

Accessories & Spares

Part No	Description	To Suit	Retail Price
66RSR	Remote manual reset unit	All valves	£229.36
66RS-230	Manual reset unit 230v	668 series	£POA
668S	230v head only	6683 & 6684	£1,457.88
668LS	230v head only	6685 & 6686 screwed	£1,473.02
668HS	230v head only	6685 & 6686 flanged	£1,504.44
6687S	230v head only	6687FL4	£1,762.99
6689S	230v head only	6689FL4	£2,781.64
66810S	230v head only	66810FL4	£6,536.58



668LS

Electrothermic Actuators

Part No	Supply	Features	Retail Price
22CX230NC2	230v	2-wire, normally closed c/w aux switch	£62.68
22CX230NC4	230v	4-wire, normally closed c/w aux switch	£68.90
22CX24NC2	24v	2-wire, normally closed c/w aux switch	£62.68
22CX24NC4	24v	4-wire, normally closed c/w aux switch	£68.90
22CX230NA2	230v	2-wire, normally open c/w aux switch	£62.68
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

3-Port Linear Valves

Part No	Size	Kvs (m ³ /h)	Features	Retail Price
VMB3	¾" bspf	6.3	PN16, for water up to 120°C	£227.16
VMB4	1" bspf	10	PN16, for water up to 120°C	£251.22
VMB5	1¼" bspf	16	PN16, for water up to 120°C	£362.05
VMB6	1½" bspf	25	PN16, for water up to 120°C	£465.39
VMB8	2" bspf	40	PN16, for water up to 120°C	£551.76
VMB16-65	65mm (FL)	63	PN16, for water up to 120°C	£1,138.62
VMB16-80	80mm (FL)	100	PN16, for water up to 120°C	£1,281.16
VMB16-100	100mm (FL)	160	PN16, for water up to 120°C	£1,760.55
VMB16-125	125mm (FL)	250	PN16, for water up to 120°C	£2,980.52
VMB16-150	150mm (FL)	360	PN16, for water up to 120°C	£3,999.24
3FGB65	65mm (FL)	63	PN16, for water up to 150°C	£684.40
3FGB80	80mm (FL)	100	PN16, for water up to 150°C	£821.27
3FGB100	100mm (FL)	130	PN16, for water up to 150°C	£1,144.46
3FGB125	125mm (FL)	200	PN16, for water up to 150°C	£1,718.59
3FGB150	150mm (FL)	300	PN16, for water up to 150°C	£2,395.38



VMB4

Bronze Control Valves

Part No	Size	Kvs (m ³ /h)	Features	Actuator	Retail Price
2TBB15T	½" bspf	2.5	2-port, PN16, max media temp 120°C	MVC.03/R	£258.40
2TBB20T	¾" bspf	4	2-port, PN16, max media temp 120°C	MVC.03/R	£271.20
2TBB25T	1" bspf	8	2-port, PN16, max media temp 120°C	MVC.03/R	£331.90
2TBB32T	1¼" bspf	12	2-port, PN16, max media temp 120°C	MVC.03/R	£428.15
2TBB40T	1½" bspf	21	2-port, PN16, max media temp 120°C	MVC.03/R	£466.10
2TBB50T	2" bspf	33	2-port, PN16, max media temp 120°C	MVC.03/R	£623.10
3TBB15T	½" bspf	2	3-port, PN16, max media temp 120°C	MVC.03/R	£266.00
3TBB20T	¾" bspf	5	3-port, PN16, max media temp 120°C	MVC.03/R	£278.80
3TBB25T	1" bspf	10	3-port, PN16, max media temp 120°C	MVC.03/R	£352.20
3TBB32T	1¼" bspf	16	3-port, PN16, max media temp 120°C	MVC.03/R	£456.10
3TBB40T	1½" bspf	25	3-port, PN16, max media temp 120°C	MVC.03/R	£478.90
3TBB50T	2" bspf	38	3-port, PN16, max media temp 120°C	MVC.03/R	£641.00



VMB16-65

Controlli Actuators

Part No	Supply	Features	To suit...	Retail Price
MVT403S	24v	R/L (3 position), 300N	Controlli VMT, VTT	£140.92
MVT503S	24v	0-10v output, 300N	Controlli VMT, VTT	£313.86
MVB56	24v	0-10v output, 21mm stroke, 450N	Controlli VMB, VSB (to 50mm)	£645.69
MVB46	24v	R/L, 21mm stroke, 450N	Controlli VMB, VSB (to 50mm)	£498.47
MVB26	230v	R/L, 21mm stroke, 450N	Controlli VMB, VSB (to 50mm)	£538.43
MVE510	24v	0-10v, 5-60mm stroke, 1000N	Controlli 3FGB, VMB16 (w/ AG51)	£441.96
MVE510-52	24v	0-10v output, 1000N	Controlli VMB	£508.58
MVE510-65	24v	0-10v output, 1000N, IP65	Controlli VMB	£634.93
MVH56	24v	0-10v, 1500N	Controlli 3FGB, VMB16 (w/ AG51)	£929.57
MVH56FA	24v	Spring return (up), 700N	Please contact office	£1,028.68
MVH56FC	24v	Spring return (down), 700N	Please contact office	£1,028.68
MVE515-AG5162	24v	0-10v output, c/w linkage, 1500N	Please contact office	£975.82
MVC203	230v	R/L (3-pos), 16mm stroke, 300N	2/3TBB..T, S'well V/MZX (w/AG73)	£243.40
MVC403	24v	R/L (3-pos), 16mm stroke, 300N	2/3TBB..T, S'well V/MZX (w/AG73)	£288.24
MVC503	24v	0-10v output, 16mm stroke, 300N	2/3TBB..T, S'well V/MZX (w/AG73)	£326.67
MVC503R	24v	0-10v output, 16mm stroke, spring-return	2/3TBB..T, S'well V/MZX (w/AG73)	£376.69
MVE510-SAT2	24v	0-10v output, 1000N	Satchwell (confirm pre-order)	£615.80
MVE510R-SAT2	24v	0-10v output, 1000N, spring-return	Satchwell (confirm pre-order)	£718.46



MVB56



MVH56FC

Accessories:

D36	Auxiliary switch *to suit MVB*	£61.50
AG51	Linkage kit *to suit MVE/VMB16, MVH/VMB16*	£41.07
AG73	Linkage kit *to suit MVC/Sat*	£38.43

Other linkage kits are available to fit MVE/MVH actuators to a range of valves from other manufacturers. Please contact the office for details.

Fan Coil Valves & Actuators

Part No	Description	Size	KVS (m ³ /h)	Reference	Retail Price
VZL4/15/0.4	4-port, PN16	½" bspm (compression)	0.4	065Z2061	£47.70
VZL4/15/0.63	4-port, PN16	½" bspm (compression)	0.63	065Z2062	£47.70
VZL4/15/1.0	4-port, PN16	½" bspm (compression)	1	065Z2063	£47.70
VZL4/15/1.6	4-port, PN16	½" bspm (compression)	1.6	065Z2064	£47.70
VZL4/20/2.5	4-port, PN16	¾" bspm (compression)	2.5	065Z2065	£57.80
VZL4/20/3.5	4-port, PN16	¾" bspm (compression)	3.5	065Z2066	£57.80
Actuators to Suit					
AMV130-24	24v raise/lower, 200N, 5.5mm max stroke			082H8036	£74.50
AMV130-230	230v raise/lower			082H8037	£74.50
AME130-24	24v 0-10v output, 200N, 5.5mm max stroke			082H8044	£168.00

Alternatives are available, including 2-port valves and thermic actuators. Please contact the office for details.



VZL4...



AMV130-24

Linear Valves

Part No	Description	Size	KVS (m ³ /h)	Suitable Actuators	Reference	Retail Price
VRB2/15/4.0	2-port, PN16	½" bspf	4	AM...435/ AM...438	065Z0235	£123.00
VRB2/20/6.3	2-port, PN16	¾" bspf	6.3	AM...435/ AM...438	065Z0236	£143.00
VRB2/25/10	2-port, PN16	1" bspf	10	AM...435/ AM...438	065Z0237	£151.00
VRB2/32/16	2-port, PN16	1¼" bspf	16	AM...435/ AM...438	065Z0238	£188.00
VRB2/40/25	2-port, PN16	1½" bspf	25	AM...435/ AM...438	065Z0239	£226.00
VRB2/50/40	2-port, PN16	2" bspf	40	AM...435/ AM...438	065Z0240	£326.00
VRB3/15/0.63	3-port, PN16	½" bspf	0.63	AM...435/ AM...438	065Z0211	£123.00
VRB3/15/1.0	3-port, PN16	½" bspf	1	AM...435/ AM...438	065Z0212	£123.00
VRB3/15/1.6	3-port, PN16	½" bspf	1.6	AM...435/ AM...438	065Z0213	£123.00
VRB3/15/2.5	3-port, PN16	½" bspf	2.5	AM...435/ AM...438	065Z0214	£123.00
VRB3/15/4.0	3-port, PN16	½" bspf	4	AM...435/ AM...438	065Z0215	£123.00
VRB3/20/6.3	3-port, PN16	¾" bspf	6.3	AM...435/ AM...438	065Z0216	£143.00
VRB3/25/10	3-port, PN16	1" bspf	10	AM...435/ AM...438	065Z0217	£151.00
VRB3/32/16	3-port, PN16	1¼" bspf	16	AM...435/ AM...438	065Z0218	£188.00
VRB3/40/25	3-port, PN16	1½" bspf	25	AM...435/ AM...438	065Z0219	£226.00
VRB3/50/40	3-port, PN16	2" bspf	40	AM...435/ AM...438	065Z0220	£326.00
VF2/65/63	2-port, PN16	65mm (FL)	63	AM...435	065Z0281	£1,080.00
VF2/80/100	2-port, PN16	80mm (FL)	100	AM...435	065Z0282	£1,220.00
VF2/100/145	2-port, PN16	100mm (FL)	145	AM...55	065B3205	£1,110.00
VF2/125/220	2-port, PN16	125mm (FL)	220	AM...55/AM...85	065B3230	£1,700.00
VF2/150/320	2-port, PN16	150mm (FL)	320	AM...55/AM...85	065B3255	£2,340.00
VF3/65/63	3-port, PN16	65mm (FL)	63	AM...435	065Z0261	£1,080.00
VF3/80/100	3-port, PN16	80mm (FL)	100	AM...435	065Z0262	£1,220.00
VF3/100/145	3-port, PN16	100mm (FL)	145	AM...55	065B1685	£1,100.00
VF3/125/220	3-port, PN16	125mm (FL)	220	AM...55/AM...85	065B3125	£1,820.00
VF3/150/320	3-port, PN16	150mm (FL)	320	AM...55/AM...85	065B3150	£2,440.00



VRB3...



VF3...

Actuators for Linear Valves

Part No	Thrust (N)	Stroke (mm)	Supply	Features	Reference	Retail Price
AMV435-24	400	20	24v	3-position	082H0162	£238.00
AMV435-230	400	20	230v	3-position	082H0163	£238.00
AME435	400	20	24v	0-10v output	082H0161	£285.00
AMV438-24	450	15	24v	3-position, "Spring Up"	082H0122	£502.00
AMV438-230	450	15	230v	3-position, "Spring Up"	082H0123	£502.00
AME438	450	15	24v	0-10v output, "Spring Up"	082H0121	£616.00
AMV55-24	2000	40	24v	3-position	082H3020	£491.00
AMV55-230	2000	40	230v	3-position	082H3021	£491.00
AME55-24	2000	40	24v	0-10v output	082H3022	£617.00
AMV85-24	5000	40	24v	3-position	082G1450	£1,260.00
AMV85-230	5000	40	230v	3-position	082G1451	£1,260.00
AME85-24	5000	40	24v	0-10v output	082G1452	£1,440.00



AME85-24

3-Port Rotary Valves (Iron)

Part No	Description	Size	KVS (m ³ /h)	Suitable Actuators	Reference	Retail Price
HRE3/20/6.3	3-port, PN6	¾" bspf	6.3	Belimo HT & MS-NRED (p16&17)	065Z0418	£155.00
HRE3/25/10	3-port, PN6	1" bspf	10	Belimo HT & MS-NRED (p16&17)	065Z0419	£168.00
HRE3/32/16	3-port, PN6	1¼" bspf	16	Belimo HT & MS-NRED (p16&17)	065Z0420	£174.00
HRE3/40/25	3-port, PN6	1½" bspf	25	Belimo HT & MS-NRED (p16&17)	065Z0421	£296.00
HRE3/50/40	3-port, PN6	2" bspf	40	Belimo HT & MS-NRED (p16&17)	065Z0422	£355.00
HFE3-50	3-port, PN6	50mm (FL)	60	Belimo SM & MKESD (p12&17)	065Z0432	£487.00
HFE3-65	3-port, PN6	65mm (FL)	90	Belimo SM & MKESD (p12&17)	065Z0433	£507.00
HFE3-80	3-port, PN6	80mm (FL)	150	Belimo SM & MKESD (p12&17)	065Z0434	£724.00
HFE3-100	3-port, PN6	100mm (FL)	225	Belimo SM & MKESD (p12&17)	065Z0435	£785.00
HFE3-125	3-port, PN6	125mm (FL)	280	Belimo SM & MKESD (p12&17)	065Z0436	£997.00
HFE3-150	3-port, PN6	150mm (FL)	400	Belimo SM & MKESD (p12&17)	065Z0437	£1,323.00

Alternatives are available; please contact office for details.



HRE3...

Zone Valves

Part No	Description	Size	KVS (m ³ /h)	Reference	Retail Price
AMZ112	2-port, 230v	½"	17	082G5406	£144.00
AMZ112	2-port, 230v	¾"	28	082G5407	£145.00
AMZ112	2-port, 230v	1"	39	082G5408	£145.00
AMZ112	2-port, 230v	1¼"	84	082G5409	£186.00
AMZ112	2-port, 230v	1½"	156	082G5410	£240.00
AMZ112	2-port, 230v	2"	243	082G5411	£282.00
AMZ112	2-port, 24v	22Cu	28	082G5427	£193.00
AMZ112	2-port, 24v	½"	17	082G5400	£144.00
AMZ112	2-port, 24v	¾"	28	082G5401	£145.00
AMZ112	2-port, 24v	1"	39	082G5402	£145.00
AMZ112	2-port, 24v	1¼"	84	082G5403	£186.00
AMZ112	2-port, 24v	1½"	156	082G5404	£240.00
AMZ112	2-port, 24v	2"	243	082G5405	£282.00
AMZ113	3-port, 230v	½"	4.3	082G5418	£190.00
AMZ113	3-port, 230v	¾"	8.3	082G5419	£192.00
AMZ113	3-port, 230v	1"	13	082G5420	£201.00
AMZ113	3-port, 230v	1¼"	21	082G5421	£293.00
AMZ113	3-port, 24v	½"	4.3	082G5412	£190.00
AMZ113	3-port, 24v	¾"	8.3	082G5413	£192.00
AMZ113	3-port, 24v	1"	13	082G5414	£201.00
AMZ113	3-port, 24v	1¼"	21	082G5415	£267.00



AMZ112



AMZ113

Pressure-Independent H-Module for Fan Coil Units

Part No	Size	Min Flow (l/h)	Max Flow (l/h)	Features	Reference	Retail Price
HERO DN15	DN15	90	450	C/w test points, measuring points	146B5928	POA
HERO DN20	DN20	180	900	Extended handle	146B5929	POA
HERO DN25	DN25	340	1,700		146B5930	POA
HERO DN32	DN32	640	3,200	Extended handle	146B2683	POA
HERO DN40	DN40	3,000	7,500		146B2684	POA
HERO DN50	DN50	5,000	12,500	Extended handle	146B2685	POA
HERO DN65	DN65	8,000	20,000		146B2686	POA
HERO DN80	DN80	11,200	28,000	Extended handle	146B5931	POA



HERO...

Pressure-Independent Balancing and Control Valves - ABQM 4.0/ 3.0 Range
(all complete with measuring points)

Part No	Size	Qnom (l/h)	Reference	Retail Price
ABQM15LF 4.0	DN15 (INT)	200	003Z8300	£134.00
ABQM15 4.0	DN15 (INT)	650	003Z8301	£140.00
ABQM15HF 4.0	DN15 (INT)	1,200	003Z8302	£153.00
ABQM20 4.0	DN20 (INT)	1,100	003Z8303	£173.00
ABQM20HF 4.0	DN20 (INT)	1,900	003Z8304	£183.00
ABQM25 4.0	DN25 (INT)	2,200	003Z8305	£157.00
ABQM25HF 4.0	DN25 (INT)	3,800	003Z8306	£115.00
ABQM32 4.0	DN32 (INT)	3,600	003Z8307	£135.00
ABQM32HF 4.0	DN32 (INT)	5,000	003Z8308	£156.00
ABQM15LF 4.0	DN15 (EXT- see below for unions)	200	003Z8200	£134.00
ABQM15 4.0	DN15 (EXT- see below for unions)	650	003Z8201	£140.00
ABQM15HF 4.0	DN15 (EXT- see below for unions)	1,200	003Z8202	£153.00
ABQM20 4.0	DN20 (EXT- see below for unions)	1,100	003Z8203	£173.00
ABQM20HF 4.0	DN20 (EXT- see below for unions)	1,900	003Z8204	£183.00
ABQM25 4.0	DN25 (EXT- see below for unions)	2,200	003Z8205	£157.00
ABQM25HF 4.0	DN25 (EXT- see below for unions)	3,800	003Z8206	£115.00
ABQM32 4.0	DN32 (EXT- see below for unions)	3,600	003Z8207	£135.00
ABQM32HF 4.0	DN32 (EXT- see below for unions)	5,000	003Z8208	£156.00
ABQM40	DN40 (EXT - see below for unions)	7,500	003Z0770	£496.00
ABQM50	DN50 (EXT - see below for unions)	12,500	003Z0771	£558.00
ABQM65	DN65 (FLANGED) PN16	20,000	003Z0773	£1,270.00
ABQM65HF	DN65 (FLANGED) PN16	25,000	003Z0793	£1,300.00
ABQM80	DN80 (FLANGED) PN16	28,000	003Z0774	£1,450.00
ABQM80HF	DN80 (FLANGED) PN16	40,000	003Z0794	£1,740.00
ABQM100	DN100 (FLANGED) PN16	38,000	003Z0775	£1,990.00
ABQM100HF	DN100 (FLANGED) PN16	59,000	003Z0795	£2,390.00
ABQM125	DN125 (FLANGED) PN16	90,000	003Z0705	£4,530.00
ABQM125HF	DN125 (FLANGED) PN16	110,000	003Z0715	£5,600.00
ABQM150	DN150 (FLANGED) PN16	145,000	003Z0706	£5,660.00
ABQM150HF	DN150 (FLANGED) PN16	190,000	003Z0716	£6,990.00
ABQM200	DN200 (FLANGED) PN16	200,000	003Z0707	£8,780.00
ABQM200HF	DN200 (FLANGED) PN16	270,000	003Z0717	£10,850.00
ABQM250	DN250 (FLANGED) PN16	300,000	003Z0708	£11,260.00
ABQM250HF	DN250 (FLANGED) PN16	370,000	003Z0718	£13,510.00
Unions to Suit (2x needed for screwed ABQMs up to DN50)				
003Z0232	1x union to convert DN15 to ½" bspf			£2.90
003Z0233	1x union to convert DN20 to ¾" bspf			£4.10
003Z0234	1x union to convert DN25 to 1" bspf			£6.90
003Z0235	1x union to convert DN32 to 1¼" bspf			£9.70
003Z0279	1x union to convert DN40 to 1½" bspf			£19.60
003Z0278	1x union to convert DN50 to 2" bspf			£22.90



ABQM (INT)



ABQM (EXT)



ABQM...HF

Actuators for Pressure-Independent Balancing and Control Valves

Part No	Thrust	Stroke	Supply	Features	To suit...	Reference	Retail Price
AMV110NL	130N	5mm	24v	3-position	ABQM/HERO DN15-32	082H8056	£80.70
AME110NL	130N	5mm	24v	0-10v output	ABQM/HERO DN15-32	082H8057	£132.00
NOVOCON-S	90N	7mm	24v	0-10v output	ABQM/HERO DN15-32	003Z8504	£297.00
AME435QM	400N	20mm	24v	0-10v output	ABQM DN40-100	082H0171	£276.00
NOVOCON-M	550N	20mm	24v	0-10v output	ABQM DN40-100	003Z8540	£946.00
AME55QM	2000N	40mm	24v	0-10v output	ABQM DN125-150	082H3078	£535.00
NOVOCON-L	2000N	50mm	24v	0-10v output	ABQM DN125-150	003Z8560	£2,377.00
AME685-1	4000N	32mm	24v	0-10v output	ABQM DN200-250	082H5013	£2,980.00
NOVOCON-XL	4000N	80mm	24v	0-10v output	ABQM DN200-250	003Z8563	£3,462.00



AMV110NL

Thermostats & Humidistats

Part No	Description	Range	Features	Retail Price
EC-2	Capillary thermostat	-20/+40°C	IP43, 2m	£116.71
EC-3D	Capillary thermostat	-15/+45°C	IP43, rigid stem	£168.04
EFP-1	Capillary thermostat	-15/+15°C	IP43, 6m	£70.39
EFP-2	Capillary thermostat	-15/+15°C	IP43, 6m, manual reset	£71.33
EBS-1	Immersion thermostat	0/+35°C (control)	IP43, auto reset	£POA
EBS-2	Immersion thermostat	0/+80°C (control)	IP43, auto reset	£POA
EBS-3	Immersion thermostat	+35/+95°C (control)	IP43, auto reset	£POA
EBS-4	Immersion thermostat	+50/+130°C (control)	IP43, auto reset	£POA
EBS-7	Immersion thermostat	+30/+65°C (limit)	IP43, manual reset	£POA
EBS-8	Immersion thermostat	+60/+95°C (limit)	IP43, manual reset	£POA
EHR-1	Space humidistat	30/100%	IP30, concealed adjust.	£138.60
EHD-1	Duct humidistat	30/100%	IP54, concealed adjust.	£231.88



EC...D



EBD...

Miscellaneous Switches & Sensors

Part No	Description	Range	Features	Retail Price
EAA-1	Duct airflow switch (c/w paddle)	Max flow: 15m/s	IP54, max. media: 80°C	£POA
ELF-1C	Water flow switch (c/w paddles)	Max pressure: 12bar	IP65, temp: +4/+110°C	£118.23
EDA-22	Air differential pressure switch	0.2/3 mbar	IP54 *Fitting kit as below*	£51.56
EDA-33	Air differential pressure switch	0.5/5 mbar	IP54 *Fitting kit as below*	£51.56
EDA-44	Air differential pressure switch	1/10 mbar	IP54 *Fitting kit as below*	£51.56
EE-D2	Fitting kit *to suit EDA...*	N/A	2x spigots & 2m tube	£3.35
EFS-02	Air differential pressure switch	0.13/30 mbar	IP30, max. media: 80°C	£120.35
EFS-02HT	Air differential pressure switch	0.13/30 mbar	IP30, max. Media: 300 °C	£204.57
EP-100	Water differential pressure switch	15-250 mbar	IP65, max media: 80°C	£306.96
ELL-01	Horizontal float switch	N/A	IP54, max media 90°C	£202.39



EDA-22



EP-113

Heating Compensator Controller

Part No	Description	Features	Retail Price
E15-PCOM1	Compensator for heating	0-10v output *REQUIRES OUTSIDE & FLOW SENSORS*	£272.00
E10-X	Outside air temp sensor	*To suit E14-PCOM1*	£38.51
E10-S	Clamp-on pipe temp sensor	*To suit E14-PCOM1*	£51.91
E10-I	Immersion pipe temp sensor	*To suit E14-PCOM1*	£42.79
EE-STK	Stainless steel pocket	*To suit E10-I*	£48.85



E13-PCOM1

Actuators

Part No	Description	Torque (Nm)	Supply	Retail Price
E08-230	2/3 position damper actuator	8	230v	£POA
E08-24	2/3 position damper actuator	8	24v	£225.52
E08-24M	0-10v modulating damper actuator	8	24v	£355.29
E16-230	2/3 position damper actuator	16	230v	£286.12
E16-24	2/3 position damper actuator	16	24v	£255.93
E16-24M	0-10v modulating damper actuator	16	24v	£359.65



E08...

Spartan Controls can supply the full range of Electro Controls products. Please contact the office with requirements for any item not listed above.

ESBE 3-Port Rotary Shoe Valves

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



VRG131-25



3F...

ESBE4-Port Rotary Shoe Valves

Part No	Size	Kvs (m ³ /h)	Features	Retail Price
4F40	40mm (FL)	44	PN6, water -10/+110°C	£788.79
4F50	50mm (FL)	60	PN6, water -10/+110°C	£1,016.32
4F65	65mm (FL)	90	PN6, water -10/+110°C	£1,126.37
4F80	80mm (FL)	150	PN6, water -10/+110°C	£1,371.50
4F100	100mm (FL)	225	PN6, water -10/+110°C	£1,886.86



4F...

ESBE Actuators

Part No	Supply	Features	Torque (Nm)	To fit	Retail Price
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



ARA659

Other actuators for ESBE valves:

VRG131... Belimo HT series (page 16) with MS-NRE6 linkage kit (page 17).
 3/4F series... Belimo SM...A (page 12) with MKESA linkage kit (page 17).

CO₂, Temperature & RH Sensors
For ventilation or gas safety applications

Part No	Description	Type	Supply	Features	Retail Price
TR-CO2T	CO ₂ & Temp	Wall	24vAC/DC	0-10v OR 10K3A1	£100.00
TR-CO2TH	CO ₂ , Temp & RH	Wall	24vAC/DC	0-10v OR 10K3A1	£110.00
TR-TH	Temp & RH	Wall	24vAC/DC	0-10v OR 10K3A1	£55.00
TR-T	Temp	Wall	24vAC/DC	0-10v OR 10K3A1	£40.00
TR-CO2TL	CO ₂ & Temp (LCD)	Wall	24vAC/DC	0-10v OR 10K3A1, traffic light display	£120.00
TR-CO2THL	CO ₂ , Temp & RH (LCD)	Wall	24vAC/DC	0-10v OR 10K3A1, traffic light display	£130.00
TR-THL	Temp & RH (LCD)	Wall	24vAC/DC	0-10v OR 10K3A1, traffic light display	£75.00
TR-TL	Temp (LCD)	Wall	24vAC/DC	0-10v OR 10K3A1, traffic light display	£60.00
DTR-CO2	CO ₂	Duct	24vAC/DC	0-10v OR 10K3A1	£150.00
DTR-CO2TH	CO ₂ , Temp & RH	Duct	24vAC/DC	0-10v OR 10K3A1	£165.00
DTR-TH	Temp & RH	Duct	24vAC/DC	0-10v OR 10K3A1	£105.00



DTR-

BACnet CO₂, Temperature & RH Sensors
For BMS/ HVAC integration

Part No	Description	Type	Supply	Features	Retail Price
BAC-CO2T	CO ₂ & Temp	Wall	24vAC/DC	BACnet, 3x 0-10v	£140.00
BAC-CO2TH	CO ₂ , Temp & RH	Wall	24vAC/DC	BACnet, 3x 0-10v	£150.00
BAC-CO2TL	CO ₂ & Temp (LCD)	Wall	24vAC/DC	BACnet, 3x 0-10v, traffic light display	£160.00
BAC-CO2THL	CO ₂ , Temp & RH (LCD)	Wall	24vAC/DC	BACnet, 3x 0-10v, traffic light display	£170.00
DBAC-CO2	CO ₂	Duct	24vAC/DC	BACnet, 3x 0-10v	£190.00
DBAC-CO2TH	CO ₂ , Temp & RH (LCD)	Duct	24vAC/DC	BACnet, 3x 0-10v	£205.00
DBAC-TH	Temp & RH (LCD)	Duct	24vAC/DC	BACnet, 3x 0-10v	£145.00



BAC-

CO₂, Temperature & RH Sensor Ranges:-

Type	CO ₂	RH	Temp
TR-..., DR-...	0-2000ppm	0-100%	0-50°C
BAC-...	0-2000/5000 ppm	0-100%	0-50°C

Gas Sensors

Versatile sensors for connection to Flamefast gas safety systems or most third-party controllers

Part No	Description	Type	Range	Features	Retail Price
FGS-NG	Methane	Catalytic	100% LEL	BACnet, 0-10v, VFC, traffic light display	£160.00
FGS-LPG	Propane	Catalytic	100% LEL	BACnet, 0-10v, VFC, traffic light display	£160.00
FGS-H2	Hydrogen	Catalytic	100% LEL	BACnet, 0-10v, VFC, traffic light display	£160.00
FGS-CO	Carbon Monoxide	Electrochemical	200 PPM	BACnet, 0-10v, VFC, traffic light display	£160.00
FGS-NO2	Nitrogen Dioxide	Electrochemical	5 PPM	BACnet, 0-10v, VFC, traffic light display	£180.00
FGS-NH3	Ammonia	Electrochemical	100 PPM	BACnet, 0-10v, VFC, traffic light display	£POA
FGS-SO2	Sulfur Dioxide	Electrochemical	5 PPM	BACnet, 0-10v, VFC, traffic light display	£POA
FGS-O2	Oxygen	Electrochemical	25% VOL	BACnet, 0-10v, VFC, traffic light display	£POA



FGS-

Note: Other gases are available. Duct mounted options are available by adding a "D" prefix to the part number. Please contact the office for the price on anything not listed.

Gas Detectors

A cost-effective sensing solution for use with the Flamefast range of gas safety systems

Part No	Description	Type	Range	Features	Retail Price
FGD-NG	Methane	Catalytic	100% LEL	BACnet, traffic light display	£120.00
FGS-LPG	Propane	Catalytic	100% LEL	BACnet, traffic light display	£160.00
FGD-H2	Hydrogen	Catalytic	100% LEL	BACnet, traffic light display	£120.00
FGD-CO	Carbon Monoxide	Electrochemical	200 PPM	BACnet, traffic light display	£120.00
FGS-NO2	Nitrogen Dioxide	Electrochemical	5 PPM	BACnet, traffic light display	£180.00
FGD-CL2	Chlorine	Electrochemical	5 PPM	BACnet, traffic light display	£POA
FGD-O2	Oxygen	Electrochemical	% VOL	BACnet, traffic light display	£POA



FGD-

Note: Other gases are available. Duct mounted options are available by adding a "D" prefix to the part number. Please contact the office for the price on anything not listed.

Only the most common products are listed below. Please contact the office for details of the full range.

Temperature Control & Thermostats

Part No	Description	Features	Retail Price
T6360B1028	Room thermostat	+10/+30°C, 240v, 10A	£59.58
T4360A1009	Frost thermostat	+3/+22°C, 240v, 10A	£63.48
L641A1039	Cylinder thermostat	+40/+80°C, SPDT	£60.87
ST9100A1008	Electronic Heating/ HWS Programmer	24h, 3A	£POA
ST9400C1000	Electronic Heating/ HWS Programmer	7-day, 3A	£208.02



T6360B1028

Motorised Domestic Valves

Part No	Description	Size	KVS (m ³ /h)	Features	Retail Price
V4043H1056/U	2-port zone	22mm compr.	6.9	230v, spring return (NC), aux. switch	£180.36
V4043H1106/U	2-port zone	28mm compr.	8.6	230v, spring return (NC), aux. switch	£249.63
V4043C1156/U	2-port zone	½" bspf	3.0	230v, spring return (NC)	£214.74
V4043H1007/U	2-port zone	¾" bspf	3.0	230v, spring return (NC), aux. switch	£213.30
V4043H1080/U	2-port zone	1" bspf	8.6	230v, spring return (NC), aux. switch	£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'n	22mm compr.	6.0	230v, spring return (NC)	£255.96
V4073A1088/U	3-port mid pos'n	28mm compr.	8.1	230v, spring return (NC)	£318.00
V4073A1062/U	3-port mid pos'n	1" bspf	8.1	230v, spring return (NC)	£336.84



ST9400C1000



V4043...

3-Port Rotary Valves & Actuators

Part No	Description	Size	KVS (m ³ /h)	Retail Price
V5433A1031	3-port	¾" bspf	6.3	£113.49
V5433A1049	3-port	1" bspf	10	£99.33
V5433A1056	3-port	1¼" bspf	16	£118.62
V5433A1064	3-port	1½" bspf	25	£151.35
V5433A1072	3-port	2" bspf	40	£195.87



V4073...

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



V5822A1055

Linear Unit Valves & Actuators

Part No	Description	Size	KVS (m ³ /h)	Retail Price
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
V5823C2017	4-port unit	15mm compression	0.4	£108.36
V5823C2025	4-port unit	15mm compression	0.63	£101.43
V5823C2033	4-port unit	15mm compression	1.0	£100.04
V5823C2041	4-port unit	15mm compression	1.6	£98.64
V5823C2157	4-port unit	22mm compression	2.5	£150.05
V5823C2165	4-port unit	22mm compression	4.0	£161.17



V5823C2165

Actuators to suit

M7410C1007	180N, 6.5mm stroke, 24v raise/lower	£110.43
M7410E1002	180N, 6.5mm stroke, 24v 0-10v output	£180.09
M7410E2026	180N, 6.5mm stroke, 24v 0-10v output, manual operation	£205.07
M7410E4022	180N, 6.5mm stroke, 24v 0-10v output, manual operation, 2x auxiliary switches	£410.15



M7410C1007

Please see page 7 for compatible compression valve fittings.

Linear Valves

Part No	Description	Size	KVS	Stroke	Retail Price
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

Only the most common products are listed above. Please contact the office for details of the full range.



V5011R1059



V5011R1059



V5013R1065

Actuators for Linear Valves

Part No	Thrust	Stroke	Supply	Features	To Suit...	Retail Price
MT8-024-NC	90N	8mm	24v	Spring return (NC)	Fan coil valves	£71.66
MT8-024-NO	90N	8mm	24v	Spring return (NO)	Fan coil valves	£70.20
M6410C2031	300N	6.5mm	24v	Raise/lower, manual operation	V5832B/ V5833A	£165.65
M7410E1028	300N	6.5mm	24v	0-10v modulating	V5832B/ V5833A	£226.10
M7410E2034	300N	6.5mm	24v	0-10v modulating, manual op	V5832B/ V5833A	£245.81
ML6420A3007	600N	20mm	24v	Raise/lower	H'well 20mm stroke	£401.67
ML6420A3015	600N	20mm	230v	Raise/lower	H'well 20mm stroke	£437.09
ML6425A3006	600N	20mm	24v	Spring return (stem extends)	H'well 20mm stroke	£1,174.68
ML6425B3005	600N	20mm	24v	Spring return (stem retracts)	H'well 20mm stroke	£1,292.76
ML7420A6009T	600N	20mm	24v	0-10v modulating	H'well 20mm stroke	£452.48
ML7425A6008	600N	20mm	24v	Spring return (stem extends), 0-10v	H'well 20mm stroke	£777.20
ML7425B6007	600N	20mm	24v	Spring return (stem retracts), 0-10v	H'well 20mm stroke	£1,121.94
ML7421A3004	1800N	20mm	24v	0-10v modulating, high torque	H'well 20mm stroke	£694.08
ML6421B3004	1800N	38mm	24v	Raise/ lower, manual op	H'well 38mm stroke	£774.11
ML6421B3012	1800N	38mm	230v	Raise/ lower, manual op	H'well 38mm stroke	£1,163.48
ML7421B3003	1800N	38mm	24v	0-10v modulating, manual op	H'well 38mm stroke	£944.96

Only the most common products are listed above. Please contact the office for details of the full range.



MT8-024-NO



M7410E1028



ML7421B3003

Rotary Actuators

Part No	Joventa Part No	Torque (NM)	Features	Retail Price
M9108-AGA-1N	DAS1	8	24v, on/off	£186.88
M9108-AGC-1N	DAS1.S	8	24v, on/off, aux. switch	£232.20
M9108-ADA-1N	DAS2	8	230v, on/off	£186.88
M9108-ADC-1N	DAS2.S	8	230v, on/off, aux. switch	£240.66
M9108-GGA-1N	DMS1.1	8	24v, 0-10v modulating	£254.86
M9116-AGA-1N	DA1	16	24v, on/off	£213.41
M9116-AGC-1N	DA1.S	16	24v, on/off, aux. switch	£266.78
M9116-ADA-1N	DA2	16	230v, on/off	£240.09
M9116-ADC-1N	DA2.S	16	230v, on/off, aux. switch	£306.82
M9116-GGA-1N	DM1.1	16	24v, 0-10v modulating	£320.14
M9132-AGA-1N	DAG1	32	24v, on/off	£402.82
M9132-AGC-1N	DAG1.S	32	24v, on/off, aux. switch	£452.77
M9132-ADA-1N	DAG2	32	230v, on/off	£414.08
M9132-ADC-1N	DAG2.S	32	230v, on/off, aux. switch	£472.11
M9132-GGA-1N	DMG1.1	32	24v, 0-10v modulating	£502.74



M9108...



VG3...



VA-7480...

4-Port Linear Unit Valves & Actuators

Part No	Description	Size	KVS (m ³ /h)	Bypass KVS (m ³ /h)	Retail Price
VG3490CS	3-way w/ bypass, mixing	15mm compr.	0.63	0.4	£52.86
VG3490DS	3-way w/ bypass, mixing	15mm compr.	1.0	0.63	£52.86
VG3490ES	3-way w/ bypass, mixing	15mm compr.	1.6	1.0	£52.86
VG3490FS	3-way w/ bypass, mixing	15mm compr.	2.5	1.6	£52.86
Actuators to Suit					
VA-7087-21	Thermic actuator, 125N, 24v open/close (normally open)				£44.95
VA-7087-23	Thermic actuator, 125N, 230v open/close (normally open)				£44.95
VA-7480-0001	Electric actuator, 120N, 24v floating control				£124.10
VA-7482-2001	Electric actuator, 120N, 24v 0-10v modulating control				£136.39

3-Port Linear Valves

Part No	Description	Size	KVS (m ³ /h)	Retail Price
VG7802FT	3-port mixing, PN16, bronze body, brass trim	½" bspf	2.5	£258.87
VG7802GT	3-port mixing, PN16, bronze body, brass trim	½" bspf	4.0	£258.87
VG7802LT	3-port mixing, PN16, bronze body, brass trim	¾" bspf	6.3	£271.02
VG7802NT	3-port mixing, PN16, bronze body, brass trim	1" bspf	10.0	£380.69
VG7802PT	3-port mixing, PN16, bronze body, brass trim	1¼" bspf	16.0	£472.03
VG7802RT	3-port mixing, PN16, bronze body, brass trim	1½" bspf	25.0	£639.54
VG7802ST	3-port mixing, PN16, bronze body, brass trim	2" bspf	40.0	£883.14
VG88G1S1N	3-port mixing, PN16, cast iron body	DN65 (flanged)	63.0	£1,267.11
VG88H1S1N	3-port mixing, PN16, cast iron body	DN80 (flanged)	100.0	£1,506.98
VG88J1S1N	3-port mixing, PN16, cast iron body	DN100 (flanged)	160.0	£2,176.67
VG88K1S1N	3-port mixing, PN16, cast iron body	DN125 (flanged)	250.0	£3,449.78
VG88L1S1N	3-port mixing, PN16, cast iron body	DN150 (flanged)	350.0	£4,171.50



VG78...

Actuators to Suit

Part No	Features	Torque	To Suit...	Retail Price
VA-7700-1001	24v, raise/lower	500N	VG7802...	£232.20
VA-7700-1003	230v, raise/lower	500N	VG7802...	£246.34
VA-7706-1001	24v, 0-10v modulating	500N	VG7802...	£356.75
VA1125-GGA-1	24v, 3-pos or 0-10v	2500N	VG88... (to DN150)	£1,034.05
VA1220-GGA-1	24v, 3-pos or 0-10v, retracts on power fail	2000N	VG88... (to DN150)	£1,198.96
VA1420-GGA-1	24v, 3-pos or 0-10v, extends on power fail	2000N	VG88... (to DN150)	£1,198.77
VA1000-M230N	230v module	N/A	VA1...GGA-1 actuators	£76.19
VA1000-S2	2x SPDT aux switches	N/A	VA1...GGA-1 actuators	£136.08



VG8...



VA1420...

Temperature Sensors and Controllers

Part No	Description	Retail Price
TUC0311-2	N2/BACnet terminal unit controller	£368.27
TM-2140-0000	Space temperature sensor	£92.92
TM-2160-0000	Space temperature sensor c/w setpoint adjuster	£131.93
TM-2160-0007	Space temperature sensor c/w setpoint adjuster & fan speed override	£120.65
LP-RSM003-000C	Room sensor module (wall mounted)	£POA
LP-RSM003-003C	IR receiver & temperature sensor	£POA
LP-RSM003-004C	IR handheld control unit	£POA

Spartan Controls can offer a range of replacement Satchwell “legacy” products, available while stocks last.

Air Temperature Sensors

Part No	Description	Range	Features	To Suit	Retail Price
STR612	Room sensor - air	+10/+30°C	Exposed adj	CZU, KMC	£130.92
STR611	Room sensor - air	+10/+30°C	Concealed adj	CZU, KMC	£160.15
STD660	Duct sensor - air	-5/+100°C	Telescopic	All contemporary	£126.45
STD670	Duct sensor - air	+10/+40°C	1.5m flylead	CZU, MN	£POA
STO600	Outside sensor - air	-40/+55°C		All contemporary	£POA
STP660	Immersion sensor -water	-10/120°C	Telescopic	All contemporary	£116.10
9121066000	Brass pocket (120mm)	N/A		STP660	£POA
STC600	Strap-on pipe sensor- water	Max 120°C		All contemporary	£59.38



STR612



STO600

Spartan Controls are able to offer “clone” sensors to replace old Satchwell models. Please contact the office for details.

Micronet Controller Series

Part No	Description	Retail Price
MN650-ARC	Micronet controller	POA
MN650-XCOM	Micronet controller	POA
MN550-XCOM	Micronet controller	POA
MN350-NCP	Micronet controller	POA
MN50-LCDP	LCD screen (panel mounting)	POA
MN50-TSP-NCP	Touch screen (panel mounting)	POA
MN50-MI-NCP	Modem interface	POA
XENTA555	Web browser 007308250	POA
7309200	Xenta serial kit	POA



STC600



MN50-LCDP

3-Port Rotary Shoe Valves

Part No	Size	CV	Suitable Actuators	Retail Price
MB1402	½” bspf	1.8	RM, XRM, MD (+ link: see below)	£571.38
MB1452	¾” bspf	4.0	RM, XRM, MD (+ link: see below)	£404.92
MB1502	1” bspf	8.0	RM, XRM, MD (+ link: see below)	£417.92
MB1552	1¼” bspf	12.0	RM, XRM, MD (+ link: see below)	£589.46
MB1602	1½” bspf	20.0	RM, XRM, MD (+ link: see below)	£718.44
MB1652	2” bspf	32.0	RM, XRM, MD (+ link: see below)	£831.96
MBX4401	½” bspf	1.8	RM, XRM, MD (+ link: see below)	£464.29
MBX4451	¾” bspf	4.0	RM, XRM, MD (+ link: see below)	£383.84
MBX4501	1” bspf	8.0	RM, XRM, MD (+ link: see below)	£420.40
MBX4551	1¼” bspf	12.0	RM, XRM, MD (+ link: see below)	£441.13
MBX4601	1½” bspf	20.0	RM, XRM, MD (+ link: see below)	£535.30
MBX4651	2” bspf	32.0	RM, XRM, MD (+ link: see below)	£624.30
MBF4732	65mm (flanged)	63.0	MD (+ link: see below)	£1,246.01
MBF4782	80mm (flanged)	80.0	MD (+ link: see below)	£1,479.46
MBF4857	100mm (flanged)	120.0	MD (+ link: see below)	£1,529.77



MB1402



MBF-4732

Linkages to Suit

9141070000	To link Schneider MD actuator to Satchwell MBF valves	£201.75
9141071000	To link Schneider MD actuator to Satchwell MB/MBX valves	£216.38

Please see page 33 for details of Schneider MD valve options.

Rotary Actuators

File No	Torque (Nm)	Features	Suitable Valves	Retail Price
RM3601	2	230v, reversing, aux. switch	MB...	£1,149.58
XRM3201	2	24v, reversing, aux. switch	MB...	£1,149.58



XRM3201

Spartan Controls can offer a range of replacement Satchwell “legacy” products, available while stocks last.

2-Port Linear Valves

Part No	Size	CV	Stroke	Retail Price
VZ1401	½” bspf	0.2	5.9mm	£605.33
VZ1402	½” bspf	0.5	5.9mm	£800.59
VZ1403	½” bspf	1	5.9mm	£605.33
VZ1404	½” bspf	2	5.9mm	£605.33
VZ1451	¾” bspf	4	5.9mm	£646.98
VZ2501	1” bspf	8	15.9mm	£695.64
VZ2551	1¼ bspf	12	15.9mm	£789.85
VZ2601	1½” bspf	20	15.9mm	£903.33
VZ2651	2” bspf	32	15.9mm	£1,050.49
VZX4404	½” bspf	2.0	12.7mm	£475.01
VZX4451	¾” bspf	4.0	12.7mm	£509.72
VZX4501	1” bspf	8.0	12.7mm	£547.39
VZX4551	1¼ bspf	12.0	12.7mm	£622.72
VZX4601	1½” bspf	20.0	12.7mm	£687.86
VZX4651	2” bspf	32.0	12.7mm	£787.72
VSF1576	32mm (flanged)	16	24.5mm	£POA
VSF1626	40mm (flanged)	25	24.5mm	£POA
VSF1676	50mm (flanged)	40	24.5mm	£POA
VZF1852	100mm (flanged)	125	25.4mm	£POA
VZF1902	125mm (flanged)	200	38mm	£POA
VZF1954	150mm (flanged)	315	38mm	£POA



VZ2601



VZX4551

3-Port Linear Valves

Part No	Size	CV	Stroke	Retail Price
MZ3402	½” bspf	2.5	9.5mm	£533.34
MZ3452	¾” bspf	4.0	9.5mm	£593.76
MZ3501	1” bspf	8.0	15.9mm	£679.15
MZ3551	1¼” bspf	12.0	15.9mm	£769.28
MZ3601	1½” bspf	20.0	15.9mm	£1,062.88
MZ3651	2” bspf	32.0	15.9mm	£1,508.75
MZX4402	½” bspf	2.5	12.7mm	£421.97
MZX4452	¾” bspf	4.0	12.7mm	£419.70
MZX4501	1” bspf	8.0	12.7mm	£475.74
MZX4551	1¼” bspf	12.0	12.7mm	£566.97
MZX4601	1½” bspf	20.0	12.7mm	£621.72
MZX4651	2” bspf	32.0	12.7mm	£750.75



MZX4551

Packing Kits

Part No	Description	Retail Price
626-9-204	Gland, gland assembly & grease for VZX & MZX	£310.73
626-9-203	Gland, gland assembly & grease for VZ, (Mk2) MZ (Mk3) & VSF (to 1”)	£285.07
626-9-310	Gland, gland assembly & grease for VZ (Mk1) & MZ (Mk1)	£409.16
626-9-311	Gland, gland assembly & grease for VZF & MZF	£508.98

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



AVU2201

Linear Actuators

Part No	Thrust	Features	Suitable Valves	Retail Price
SPA-AVUX	220	(Repl. AVUX5202) 24v, floating control	VZX, MZX	£326.67
SPA-AVUE	220	(Repl. AVUE5304) 24v, 0-10v, direct acting	VEU, MEU, FEU, VZX, MZX	£365.10
SPA-AVUM	220	(Repl. AVUM5601) 230v	VZX, MZX	£313.21
MV15B-24 & L7SV	1500	24v, floating control, inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£2,092.21
MV15B-230 & L7SV	1500	230v, floating control, inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£1,974.69
M800-L2SV	800N	24v, 0-10v, inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£1,146.38
M800-S2-L2SV	800N	24v, 0-10v, inc. Linkage & aux. switch	MZ, VZ, MJF, VSF, MZF, VZF	£POA
M700-S2-SRSU & L7SV	700N	24v, 0-10v, “spring up”, inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£1,979.84
M700-S2-SRSD & L7SV	700N	24v, 0-10v, “spring down”, inc. linkage	MZ, VZ, MJF, VSF, MZF, VZF	£2,048.59



M700...

3-Port Linear Valves

Part No	Description	Size	Kvs (m ³ /h)	Unions Required	Retail Price
BUN015F330	3-port, PN16	½" bspf	1.0	3x 0361951015	£217.17
BUN015F320	3-port, PN16	½" bspf	1.6	3x 0361951015	£215.67
BUN015F310	3-port, PN16	½" bspf	2.5	3x 0361951015	£215.67
BUN015F300	3-port, PN16	½" bspf	4.0	3x 0361951015	£208.37
BUN020F300	3-port, PN16	¾" bspf	6.3	3x 0361951020	£234.47
BUN025F300	3-port, PN16	1" bspf	10.0	3x 0361951025	£269.33
BUN032F300	3-port, PN16	1¼" bspf	16.0	3x 0361951032	£335.90
BUN040F300	3-port, PN16	1½" bspf	22.0	3x 0361951040	£399.53
BUN050F200	3-port, PN16	2" bspf	28.0	3x 0361951050	£670.85
BQD065F300	3-port, PN6	DN65 (flanged)	49.0	N/A	£795.90
BQD080F300	3-port, PN6	DN80 (flanged)	78.0	N/A	£1,149.70
BQD100F300	3-port, PN6	DN100 (flanged)	124.0	N/A	£1,855.82
Unions:					
361951015	Screw fittings DN15 for VUN/BUN vales				£13.44
361951020	Screw fittings DN20 for VUN/BUN vales				£18.43
361951025	Screw fittings DN25 for VUN/BUN vales				£24.52
361951032	Screw fittings DN32 for VUN/BUN vales				£33.71
361951040	Screw fittings DN40 for VUN/BUN vales				£37.70
361951050	Screw fittings DN50 for VUN/BUN vales				£64.52



BUN...



BQD...



AVM321SF132

Linear Valve Actuators

Part No	Thrust	Features	Suitable Valves	Retail Price
AVM105SF132	250N	24v, 2/3-position or 0-10v	BUN...	£257.93
AVM115SF132	500N	24v, 2/3-position or 0-10v	BUN...	£328.76
AVM321SF132	1000N	24v, 2/3-position or 0-10v	BUN...	£563.28
AVM234SF132	2500N	24v, 2/3-position or 0-10v	BQD...	£956.45
AVF234SF132	2000N	24v, 2/3-position or 0-10v, spring return	BQD...	£1,275.96



VUL...

Linear Unit Valves

Part No	Description	Size	Kvs (m ³ /h)	Retail Price
VUL010F630	2-port	15mm (compression)	0.4	£55.97
VUL010F620	2-port	15mm (compression)	0.6	£55.97
VUL010F610	2-port	15mm (compression)	1.0	£55.97
VUL010F600	2-port	15mm (compression)	1.6	£55.97
VUL015F310	2-port	¾" (flat-face)	2.5	£76.81
BUL010F630	4-port	15mm (compression)	0.4	£87.31
BUL010F620	4-port	15mm (compression)	0.6	£89.93
BUL010F610	4-port	15mm (compression)	1.0	£89.93
BUL010F600	4-port	15mm (compression)	1.6	£95.18
BUL015F410	4-port	¾" (flat-face)	2.5	£104.42



BUL... (left)



AXT...

Linear Unit Valve Actuators

Part No	Thrust	Features	To Suit...	Retail Price
AXM217SF402	120N	24v, 0-10v (motorised)	VUL.../ BUL...	£215.78
AXS215SF122*	125N	24v, 0-10v (thermic), normally closed	VUL.../ BUL...	£POA
AXM217F202	120N	24v, raise/lower (motorised)	VUL.../ BUL...	£182.54
AXT211F112*	115N	24v, raise/lower (thermic), normally closed	VUL.../ BUL...	£POA
AXT211F110*	115N	230v, raise/lower (thermic), normally closed	VUL.../ BUL...	£POA

* Discontinued products. Alternative solutions are available; please contact the office for details.

Rotary Actuators

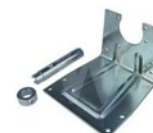
Part No	Torque (Nm)	Features	Application	Retail Price
MD20B-230	20	230v, reversing	Dampers, Satchwell MB/MBF	£392.46
MD20B-24	20	24v, reversing	Dampers, Satchwell MB/MBF	£317.57
MD20A-24	20	24v, 0-10v	Dampers, Satchwell MB/MBF	£446.67
Linkage Kits				
LK2701	9141070000	Linkage kit for Satchwell MBF valves		£201.75
LK2702	9141071000	Linkage kit for Satchwell MB valves		£216.38



MD20B...

Linear Valves

Part No	Description	Size	KVS (m ³ /h)	Retail Price
V311T/15/2.5	3-port, PN16, tight seal	½" bspf	2.5	£257.52
V311T/15/4	3-port, PN16, tight seal	½" bspf	4	£257.52
V311T/20/6.3	3-port, PN16, tight seal	¾" bspf	6.3	£287.07
V311T/25/10	3-port, PN16, tight seal	1" bspf	10	£319.44
V311T/32/16	3-port, PN16, tight seal	1¼" bspf	16	£356.30
V311T/40/25	3-port, PN16, tight seal	1½" bspf	25	£424.73
V311T/50/38	3-port, PN16, tight seal	2" bspf	38	£586.10
V311/15/1.6	3-port, PN16	15mm (flanged)	1.6	£446.07
V311/15/2.5	3-port, PN16	15mm (flanged)	2.5	£446.07
V311/15/4	3-port, PN16	15mm (flanged)	4	£446.07
V311/20/6.3	3-port, PN16	20mm (flanged)	6.3	£489.72
V311/25/10	3-port, PN16	25mm (flanged)	10	£503.79
V311/32/16	3-port, PN16	32mm (flanged)	16	£610.73
V311/40/25	3-port, PN16	40mm (flanged)	25	£817.59
V311/50/38	3-port, PN16	50mm (flanged)	38	£917.50
V321/65/63	3-port, PN16	65mm (flanged)	63	£2,006.36
V321/80/100	3-port, PN16	80mm (flanged)	100	£2,173.67
V321/100/160	3-port, PN16	100mm (flanged)	160	£2,930.11
V321/125/250	3-port, PN16	125mm (flanged)	250	£7,859.29
V321/150/320	3-port, PN16	150mm (flanged)	320	£9,781.83



9141070000



V311T...



V321/100...

Linear Actuators

Part No	Thrust	Features	Suitable Valves	Retail Price
MV15B-230	1500N	230v, floating control	V311, V321	£1,305.17
MV15B-24	1500N	24v, floating control	V311, V321	£1,422.69
M800	800N	24v, 0-10v	V311, V321	£525.43
M800-S2	800N	24v, 0-10v, inc. aux. switch	V311, V321	£866.25
M700-S2-SRSU	700N	24v, 0-10v, "spring up"	V311, V321	£1,311.63
M700-S2-SRSD	700N	24v, 0-10v, "spring down"	V311, V321	£1,379.07



M700...

Only the most common products have been listed above. Please contact the office for details on any item not listed.

FOR SATCHWELL LEGACY PRODUCTS, PLEASE SEE PAGES 30-31.

Controllers & Thermostats

Part No	Description	Retail Price
QAX31.1	Adjustable sensor	£129.00
QAX33.1	Adjustable sensor & 3-speed fan switch	£138.00
QAX34.3	Adjustable sensor, 3-speed fan switch & programming tool for RXB21.1	£165.00
RAA11	Tamperproof room thermostat, +8/+30°C setpoint range	£21.00
RAA21	Room thermostat, +8/+30°C setpoint range	£27.00
RDG100	Thermostat for fan coil & heat pump, 230v w/ LCD display	£110.00
RDG100T	Thermostat for fan coil & heat pump, 230v w/ LCD display & 7-day timeswitch	£116.00
RDG160T	Thermostat for fan coil & heat pump, 24v 0-10v w/ LCD display & 7-day time switch	£131.00
RLA162	Room temperature controller, 24v supply, 2x 0-10vdc outputs	£147.00
RLE162	Immersion temperature controller, 24v supply, 2x 0-10vdc outputs	£300.00
RLM162	Duct temperature controller, 24v supply, 2x 0-10vdc outputs	£236.00
RVL480	Optimiser/ compensator for boiler & zone control	£984.00
RVL481	Optimiser/ compensator for boiler, zone & HWS control	£1,154.00
RVL482	Optimiser/ compensator for zone, HWS & boiler sequencing control	£1,315.00
RVP201.0	Compensator *no communication module included*	£508.00
AUZ3.1	Daily timeswitch *to suit RVP201*	£56.00
RAK-TW.1000HB	Auto-reset immersion/strap-on thermostat, 15/+95°C IP43	£90.00
RAK-TW.1200B-H	Auto-reset immersion/strap-on thermostat, 40/+120°C IP43	£87.00
RAK-TB.1410B-M	Manual reset immersion/strap-on thermostat, 50/+70°C IP43	£90.00
RAK-TB.1420S-M	Manual rest immersion/strap-on thermostat, 65/+80°C IP43	£96.00
RAK-ST.1430S-M	Manual reset immersion/strap-on thermostat, 80/+100°C IP43	£88.00
RCC30	Room thermostat for 4-pipe fan coils, 230v	£89.00
RVP340	Optimiser/ compensator for zone control	£571.00
RVP350	Optimiser/ compensator for zone, HWS & boiler sequencing	£754.00
RVP360	Optimiser/ compensator - 2 zone, boiler & HWS control	£907.00
RWD62	Universal controller, 24v, 2x modulating outputs	£144.00
RWD82	Universal controller, 24v, 1x modulating output, 1x 2-point output	£156.00
RXB21.1/FC10	Programmable unit controller	£289.00

NOTE: sensors sold separately. Please see sensors section for prices.



RVL480



RLA162

Sensors, Inserts & Modules

Part No	Description	Range	Retail Price
QAA24	Room temperature sensor	0/+50°C	£35.00
QAC22	Outside temperature sensor	-35/+50°C	£30.00
QAD22	Clamp-on temperature sensor	-30/+130°C	£40.00
QAP22	Fly lead temperature sensor	-25/+95°C	£18.00
QAH11.1	Cable temperature sensor (2.5m cable)	-20/+70°C	£24.00
QAE2120.010	Immersion temperature sensor	-30/+130°C	£60.00
QAM2120.040	Duct temperature sensor	-50/+80°C	£59.00
QAF64.2-J	Duct frost sensor (2m capillary)	0/+15°C	£229.00
QFA2060	Room temp & humidity sensor	0/+50°C, 0-100%	£216.00
QFM2160	Duct temp & humidity sensor	0/+50°C or -35/+35°C, 0-100%	£216.00
QPA2000	CO ₂ space sensor, 24v 0-10v	0-2000 ppm	£273.00
QPM2100	CO ₂ duct sensor, 24v 0-10v	0-2000 ppm	£454.00
SEZ91.6	Phase cut interface, 0/10vdc output	N/A	£101.00



QAC22



SEZ91.6

Damper Actuators

Part No	Torque/ Thrust	Features	Air Damper Area	Retail Price
GDB161.1E	5Nm	24v, 0-10v modulating	0.8m ²	£132.00
GEB341.1E	15Nm	230v, 3-position	3m ²	£129.00
GEB141.1E	15Nm	24v, 3-position	3m ²	£129.00
GEB161.1E	15Nm	24v, 0-10v modulating	3m ²	£181.00
GBB131.1E	25Nm	24v, 3-position	4m ²	£160.00
GBB161.1E	25Nm	24v, 0-10v modulating	4m ²	£218.00
GIB331.1E	35Nm	230v, 3-position	6m ²	£220.00
GIB131.1E	35Nm	24v, 3-position	6m ²	£220.00
GIB161.1E	35Nm	24v, 0-10v modulating	6m ²	£281.00



GDB161.1E

Accessories to Suit[□]

ASC77.1E	Auxiliary switch (single) for GEB..., GBB... & GIB... damper actuators	£48.00
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Ball Valves

Part No	Description	Size	Kvs (m ³ /h)	Retail Price
VAI61.15-1	2-port ball valve, PN40	½" bspf	1.0	£54.00
VAI61.15-1.6	2-port ball valve, PN40	½" bspf	1.6	£54.00
VAI61.15-2.5	2-port ball valve, PN40	½" bspf	2.5	£54.00
VAI61.15-4	2-port ball valve, PN40	½" bspf	4.0	£54.00
VAI61.15-6.3	2-port ball valve, PN40	½" bspf	6.3	£54.00
VAI61.15-10	2-port ball valve, PN40	½" bspf	10.0	£54.00
VAI61.20-4	2-port ball valve, PN40	¾" bspf	4.0	£62.00
VAI61.20-6.3	2-port ball valve, PN40	¾" bspf	6.3	£62.00
VAI61.20-10	2-port ball valve, PN40	¾" bspf	10.0	£62.00
VAI61.25-6.3	2-port ball valve, PN40	1" bspf	6.3	£75.00
VAI61.25-10	2-port ball valve, PN40	1" bspf	10.0	£75.00
VAI61.25-16	2-port ball valve, PN40	1" bspf	16.0	£75.00
VAI61.32-10	2-port ball valve, PN40	1¼" bspf	10.0	£108.00
VAI61.32-16	2-port ball valve, PN40	1¼" bspf	16.0	£108.00
VAI61.32-25	2-port ball valve, PN40	1¼" bspf	25.0	£108.00
VAI61.40-16	2-port ball valve, PN40	1½" bspf	16.0	£128.00
VAI61.40-25	2-port ball valve, PN40	1½" bspf	25.0	£128.00
VAI61.40-40	2-port ball valve, PN40	1½" bspf	40.0	£128.00
VAI61.50-25	2-port ball valve, PN40	2" bspf	25.0	£165.00
VAI61.50-40	2-port ball valve, PN40	2" bspf	40.0	£165.00
VAI61.50-63	2-port ball valve, PN40	2" bspf	63.0	£165.00
VBI61.15-1.6	3-port ball valve, PN40	½" bspf	1.6	£91.00
VBI61.15-2.5	3-port ball valve, PN40	½" bspf	2.5	£91.00
VBI61.15-4	3-port ball valve, PN40	½" bspf	4.0	£91.00
VBI61.15-6.3	3-port ball valve, PN40	½" bspf	6.3	£91.00
VBI61.20-4	3-port ball valve, PN40	¾" bspf	4.0	£103.00
VBI61.20-6.3	3-port ball valve, PN40	¾" bspf	6.3	£103.00
VBI61.25-10	3-port ball valve, PN40	1" bspf	10.0	£131.00
VBI61.32-16	3-port ball valve, PN40	1¼" bspf	16.0	£182.00
VBI61.40-25	3-port ball valve, PN40	1½" bspf	25.0	£248.00
VBI61.50-40	3-port ball valve, PN40	2" bspf	40.00	£354.00
VBI61.50-63	3-port ball valve, PN40	2" bspf	63.00	£354.00



VAI61.15...



VAI61.40...



VBI61.20...



GQD131.9A



GLB161.9E

Ball Valve Actuators

Part No	Torque (Nm)	Features	To suit...*	Retail Price
GQD131.9A	2	24v, 3-position, spring return	VAI.../VBI... (½"-1")	£180.00
GQD161.9A	2	24v, 0-10v modulating, spring return	VAI.../VBI... (½"-1")	£180.00
GDB341.9E	5	230v, 3-position	VAI.../VBI... (½"-1")	£97.00
GDB141.9E	5	24v, 3-position	VAI.../VBI... (½"-1")	£103.00
GDB161.9E	5	24v, 0-10v modulating	VAI.../VBI... (½"-1")	£126.00
GMA131.9E	7	24v, 3-position, spring return	VAI.../VBI... (½"-2")	£219.00
GMA161.9E	7	24v, 0-10v modulating, spring return	VAI.../VBI... (½"-2")	£226.00
GLB341.9E	10	230v, 3-position	VAI.../VBI... (½"-2")	£120.00
GLB141.9E	10	24v, 3-position	VAI.../VBI... (½"-2")	£117.00
GLB161.9E	10	24v, 0-10v modulating	VAI.../VBI... (½"-2")	£158.00

*dependent on pressure; please check before ordering.

Butterfly Valves

Part No	Description	Size	Kvs (m ³ /h)	Retail Price
VFW41.40	Wafer-type, PN6/10/16, tight closing	DN40 (flanged)	40	£196.00
VFW41.50	Wafer-type, PN6/10/16, tight closing	DN50 (flanged)	100	£208.00
VFW41.65	Wafer-type, PN6/10/16, tight closing	DN65 (flanged)	155	£239.00
VFW41.80	Wafer-type, PN6/10/16, tight closing	DN80 (flanged)	260	£250.00
VFW41.100	Wafer-type, PN6/10/16, tight closing	DN100 (flanged)	520	£273.00
VFW41.125	Wafer-type, PN6/10/16, tight closing	DN125 (flanged)	820	£324.00
VFW41.150	Wafer-type, PN6/10/16, tight closing	DN150 (flanged)	1600	£443.00
VFW41.200	Wafer-type, PN6/10/16, tight closing	DN200 (flanged)	4000	£613.00

Fully lugged types available. Please contact the office for suitable actuators.



VFW41.40

3-Port Rotary Shoe Valves

Part No	Description	Size	Kvs (m ³ /h)	Retail Price
VBF21.40	3-port rotary shoe, PN6	DN40 (flanged)	25	£162.00
VBF21.50	3-port rotary shoe, PN6	DN50 (flanged)	40	£206.00
VBF21.65	3-port rotary shoe, PN6	DN65 (flanged)	63	£264.00
VBF21.80	3-port rotary shoe, PN6	DN80 (flanged)	100	£324.00
VBF21.100	3-port rotary shoe, PN6	DN100 (flanged)	160	£541.00
VBF21.125	3-port rotary shoe, PN6	DN125 (flanged)	550	£1,022.00
VBF21.150	3-port rotary shoe, PN6	DN150 (flanged)	820	£1,358.00



VBF21.50...

Rotary Actuators

Part No	Torque	Features	To suit... *Linkages required*	Retail Price
SAL31.00T10	10Nm	230v, 3-position	VBF21...*	£340.00
SAL81.00T10	10Nm	24v, 3-position	VBF21...*	£340.00
SAL61.00T10	10Nm	24v, 0-10v modulating	VBF21...*	£419.00
Linkage kits to suit				
ASK31N	To link SAL... to VBF21... DN65-150			£57.00
ASK32N	To link SAL.. To VBF21... DN40-50			£45.00



SAL61.00T10

Linear Valves for Fan Coil Units

Part No	Description	Size	Kvs (m ³ /h)	Retail Price
VVP47.10-0.63s	2-port, PN16	15mm (compression)	0.63	£36.00
VVP47.10-1s	2-port, PN16	15mm (compression)	1.0	£33.00
VVP47.10-1.6s	2-port, PN16	15mm (compression)	1.6	£33.00
VVP47.15-2.5s	2-port, PN16	22mm (compression)	2.5	£38.00
VVP47.10-0.4	2-port, PN16	½" (flat-face)	0.4	£33.00
VVP47.10-0.63	2-port, PN16	½" (flat-face)	0.63	£33.00
VVP47.10-1	2-port, PN16	½" (flat-face)	1.0	£33.00
VVP47.10-1.6	2-port, PN16	½" (flat-face)	1.6	£33.00
VVP47.15-2.5	2-port, PN16	¾" (flat-face)	2.5	£38.00
VXP47.10-0.4	3-port, PN16	½" (flat-face)	0.4	£40.00
VXP47.10-0.63	3-port, PN16	½" (flat-face)	0.63	£40.00
VXP47.10-1	3-port, PN16	½" (flat-face)	1.0	£40.00
VXP47.10-1.6	3-port, PN16	½" (flat-face)	1.6	£40.00
VXP47.15-2.5	3-port, PN16	¾" (flat-face)	2.5	£47.00
VMP47.10-0.63s	4-port, PN16	15mm (compression)	0.63	£48.00
VMP47.10-1s	4-port, PN16	15mm (compression)	1.0	£48.00
VMP47.10-1.6s	4-port, PN16	15mm (compression)	1.6	£48.00
VMP47.15-2.5s	4-port, PN16	22mm (compression)	2.5	£57.00
VMP47.10-0.4	4-port, PN16	½" (flat-face)	0.4	£46.00
VMP47.10-0.63	4-port, PN16	½" (flat-face)	0.63	£46.00
VMP47.10-1	4-port, PN16	½" (flat-face)	1.0	£46.00
VMP47.10-1.6	4-port, PN16	½" (flat-face)	1.6	£46.00
VMP47.15-2.5	4-port, PN16	¾" (flat-face)	2.5	£54.00



VVP47.15...



VXP47.10...



VMP47.10...

Please see BBZ fittings on page 7 for compatible fittings for compression valves.

Actuators & Accessories to Suit

Part No	Description	Thrust	Features	Retail Price
SSP31	Electric actuator	160N	230v, 3-position control	£82.00
SSP81	Electric actuator	160N	24v, 3-position control	£71.00
SSF161.05HF	Electric actuator	160N	24v, 0-10v modulating	£105.00
STP321.65L10	Electro-thermic actuator	100N	230v, 2-position/ PWM (normally open)	£28.00
STP121.65L10	Electro-thermic actuator	100N	24v, 2-position/ PWM (normally open)	£28.00
AL100	Linkage kit	-	To link S...P to Staefa 2/3/4W valve	£31.00



SSP31

2-Port Linear Valves

Part No	Description	Size	Kvs (m ³ /h)	Stroke	Actuators*	Retail Price
VVG44.15-1.6/C	2-port seat, PN16, +1/+120°C	½" bspf	1.6	5.5mm	SAS...	£141.00
VVG44.15-2.5/C	2-port seat, PN16, +1/+120°C	½" bspf	2.5	5.5mm	SAS...	£141.00
VVG44.15-4.0/C	2-port seat, PN16, +1/+120°C	½" bspf	4	5.5mm	SAS...	£141.00
VVG44.20-6.3/C	2-port seat, PN16, +1/+120°C	¾" bspf	6.3	5.5mm	SAS...	£151.00
VVG44.25-10/C	2-port seat, PN16, +1/+120°C	1" bspf	10	5.5mm	SAS...	£169.00
VVG44.32-16/C	2-port seat, PN16, +1/+120°C	1¼" bspf	16	5.5mm	SAS...	£214.00
VVG44.40-25/C	2-port seat, PN16, +1/+120°C	1½" bspf	25	5.5mm	SAS...	£283.00
VVG41.13/C	2-port seat, PN16, -15*/150°C	½" bspf	1.6	20mm	SAX/SKD/SKB	£280.00
VVG41.14/C	2-port seat, PN16, -15*/150°C	½" bspf	2.5	20mm	SAX/SKD/SKB	£280.00
VVG41.15/C	2-port seat, PN16, -15*/150°C	½" bspf	4	20mm	SAX/SKD/SKB	£280.00
VVG41.20/C	2-port seat, PN16, -15*/150°C	¾" bspf	6.3	20mm	SAX/SKD/SKB	£325.00
VVG41.25/C	2-port seat, PN16, -15*/150°C	1" bspf	10	20mm	SAX/SKD/SKB	£367.00
VVG41.32/C	2-port seat, PN16, -15*/150°C	1¼" bspf	16	20mm	SAX/SKD/SKB	£417.00
VVG41.40/C	2-port seat, PN16, -15*/150°C	1½" bspf	25	20mm	SAX/SKD/SKB	£446.00
VVG41.50/C	2-port seat, PN16, -15*/150°C	2" bspf	40	20mm	SAX/SKD/SKB	£545.00
VVF32.40-25	2-port seat, PN10, -10*/150°C	DN40 (FL)	25	20mm	SAX/SKD/SKB	£297.00
VVF32.50-40	2-port seat, PN10, -10*/150°C	DN50 (FL)	40	20mm	SAX/SKD/SKB	£374.00
VVF32.65-63	2-port seat, PN10, -10*/150°C	DN65 (FL)	63	20mm	SAX/SKD/SKB	£503.00
VVF32.80-100	2-port seat, PN10, -10*/150°C	DN80 (FL)	100	20mm	SAX/SKD/SKB	£677.00
VVF32.100-160	2-port seat, PN10, -10*/150°C	DN100 (FL)	160	40mm	SKC...	£1,024.00
VVF32.125-250	2-port seat, PN10, -10*/150°C	DN125 (FL)	250	40mm	SKC...	£1,284.00
VVF32.150-400	2-port seat, PN10, -10*/150°C	DN150 (FL)	400	40mm	SKC...	£1,599.00

*NOTE: if below 5°C on VVG41/ VVF32, spindle heater is required. Please see overleaf for notes on suitable actuators.



VVG44.15...



VVG41.25...



VVF32.100...

3-Port Linear Valves

Part No	Description	Size	Kvs (m ³ /h)	Stroke	Actuators*	Retail Price
VXG44.15-0.25/C	3-port seat, PN16, +1/+120°C	½" bspf	0.25	5.5mm	SAS...	£131.00
VXG44.15-0.4/C	3-port seat, PN16, +1/+120°C	½" bspf	2.5	5.5mm	SAS...	£131.00
VXG44.15-0.63/C	3-port seat, PN16, +1/+120°C	½" bspf	4.0	5.5mm	SAS...	£131.00
VXG44.15-1.0/C	3-port seat, PN16, +1/+120°C	½" bspf	1.0	5.5mm	SAS...	£131.00
VXG44.15-1.6/C	3-port seat, PN16, +1/+120°C	½" bspf	1.6	5.5mm	SAS...	£131.00
VXG44.15-2.5/C	3-port seat, PN16, +1/+120°C	½" bspf	2.5	5.5mm	SAS...	£131.00
VXG44.15-4.0/C	3-port seat, PN16, +1/+120°C	½" bspf	4.0	5.5mm	SAS...	£131.00
VXG44.20-6.3/C	3-port seat, PN16, +1/+120°C	¾" bspf	6.3	5.5mm	SAS...	£152.00
VXG44.25-10/C	3-port seat, PN16, +1/+120°C	1" bspf	10.0	5.5mm	SAS...	£167.00
VXG44.32-16/C	3-port seat, PN16, +1/+120°C	1¼" bspf	16.0	5.5mm	SAS...	£210.00
VXG44.40-25/C	3-port seat, PN16, +1/+120°C	1½" bspf	25.0	5.5mm	SAS...	£275.00
VXG41.1301/C	3-port seat, PN16, -15*/150°C	½" bspf	1.6	20mm	SAX/SKD/SKB	£285.00
VXG41.1401/C	3-port seat, PN16, -15*/150°C	½" bspf	2.5	20mm	SAX/SKD/SKB	£285.00
VXG41.15/C	3-port seat, PN16, -15*/150°C	½" bspf	4.0	20mm	SAX/SKD/SKB	£285.00
VXG41.20/C	3-port seat, PN16, -15*/150°C	¾" bspf	6.3	20mm	SAX/SKD/SKB	£331.00
VXG41.25/C	3-port seat, PN16, -15*/150°C	1" bspf	10.0	20mm	SAX/SKD/SKB	£369.00
VXG41.32/C	3-port seat, PN16, -15*/150°C	1¼" bspf	16.0	20mm	SAX/SKD/SKB	£420.00
VXG41.40/C	3-port seat, PN16, -15*/150°C	1½" bspf	25.0	20mm	SAX/SKD/SKB	£481.00
VXG41.50/C	3-port seat, PN16, -15*/150°C	2" bspf	40.0	20mm	SAX/SKD/SKB	£552.00
VXF32.40	3-port seat, PN10, -10*/150°C	DN40 (FL)	25.0	20mm	SAX/SKD/SKB	£298.00
VXF32.50	3-port seat, PN10, -10*/150°C	DN50 (FL)	40.0	20mm	SAX/SKD/SKB	£374.00
VXF32.65	3-port seat, PN10, -10*/150°C	DN65 (FL)	63.0	20mm	SAX/SKD/SKB	£503.00
VXF32.80	3-port seat, PN10, -10*/150°C	DN80 (FL)	100.0	20mm	SAX/SKD/SKB	£677.00
VXF32.100	3-port seat, PN10, -10*/150°C	DN100 (FL)	160.0	40mm	SKC...	£1,024.00
VXF32.125	3-port seat, PN10, -10*/150°C	DN125 (FL)	250.0	40mm	SKC...	£1,284.00
VXF32.150	3-port seat, PN10, -10*/150°C	DN150 (FL)	400.0	40mm	SKC...	£1,600.00

Continued overleaf...

*NOTE: if below 5°C on VXG41/ VXF32, spindle heater is required. Please see overleaf for notes on suitable actuators.



VXG44.20...



VXG41.50...



VXF32.100...

2-Port Linear HTHW & Steam Valves

Part No	Description	Size	Kvs (m ³ /h)	Stroke	Actuators*	Retail Price
VVF53.15-1.25	2-port seat, PN25, -20/220°C	DN15 (FL)	1.25	20mm	SAX**/SKB/SKD	£330.00
VVF53.15-1.6	2-port seat, PN25, -20/220°C	DN15 (FL)	1.6	20mm	SAX**/SKB/SKD	£330.00
VVF53.15-2	2-port seat, PN25, -20/220°C	DN15 (FL)	2.0	20mm	SAX**/SKB/SKD	£330.00
VVF53.15-2.5	2-port seat, PN25, -20/220°C	DN15 (FL)	2.5	20mm	SAX**/SKB/SKD	£330.00
VVF53.15-3.2	2-port seat, PN25, -20/220°C	DN15 (FL)	3.2	20mm	SAX**/SKB/SKD	£330.00
VVF53.15-4	2-port seat, PN25, -20/220°C	DN15 (FL)	4.0	20mm	SAX**/SKB/SKD	£330.00
VVF53.20-6.3	2-port seat, PN25, -20/220°C	DN20 (FL)	6.3	20mm	SAX**/SKB/SKD	£361.00
VVF53.25-5	2-port seat, PN25, -20/220°C	DN25 (FL)	5.0	20mm	SAX**/SKB/SKD	£382.00
VVF53.25-6.3	2-port seat, PN25, -20/220°C	DN25 (FL)	6.3	20mm	SAX**/SKB/SKD	£382.00
VVF53.25-8	2-port seat, PN25, -20/220°C	DN25 (FL)	8.0	20mm	SAX**/SKB/SKD	£382.00
VVF53.25-10	2-port seat, PN25, -20/220°C	DN25 (FL)	10.0	20mm	SAX**/SKB/SKD	£382.00
VVF53.32-16	2-port seat, PN25, -20/220°C	DN32 (FL)	16	20mm	SAX**/SKB/SKD	£473.00
VVF53.40-12.5	2-port seat, PN25, -20/220°C	DN40 (FL)	12.5	20mm	SAX**/SKB/SKD	£553.00
VVF53.40-16	2-port seat, PN25, -20/220°C	DN40 (FL)	16.0	20mm	SAX**/SKB/SKD	£553.00
VVF53.40-20	2-port seat, PN25, -20/220°C	DN40 (FL)	20.0	20mm	SAX**/SKB/SKD	£553.00
VVF53.40-25	2-port seat, PN25, -20/220°C	DN40 (FL)	25.0	20mm	SAX**/SKB/SKD	£553.00
VVF53.50-40	2-port seat, PN25, -20/220°C	DN50 (FL)	40.0	20mm	SAX**/SKB/SKD	£756.00



VVF53.15...



VVF53.40...

Linear Valve Actuators

Part No	Thrust	Features	To suit...	Retail Price
SAS31.00	400N	230v, 3-position, 120s running time	5.5mm valves	£189.00
SAS31.03	400N	230v, 3-position, 30s running time	5.5mm valves	£213.00
SAS31.50	400N	230v, 3-position, spring-return, 120s running time	5.5mm valves	£343.00
SAS31.53	400N	230v, 3-position, spring-return, 30s running time	5.5mm valves	£343.00
SAS81.00	400N	24v, 3-position, 120s running time	5.5mm valves	£189.00
SAS81.03	400N	24v, 3-position, 30s running time	5.5mm valves	£213.00
SAS61.03	400N	24v, 0-10v, 30s running time	5.5mm valves	£223.00
SAS61.53	400N	24v, 0-10v, spring return 30s running time	5.5mm valves	£387.00
SAX31.00	800N	230v, 3-position, 120s running time	20mm valves	£340.00
SAX31.03	800N	230v, 3-position, 30s running time	20mm valves	£365.00
SAX81.00	800N	24v, 3-position, 120s running time	20mm valves	£340.00
SAX61.03	800N	24v, 0-10v, 30s running time	20mm valves	£435.00
SKD32.50	1000N	230v, 3-position, 120s running time	20mm valves	£551.00
SKD32.51	1000N	230v, 3-position, spring return, 120s running time	20mm valves	£660.00
SKD82.50	1000N	24v, 3-position, 120s running time	20mm valves	£551.00
SKD82.51	1000N	24v, 3-position, spring return, 120s running time	20mm valves	£660.00
SKD60	1000N	24v, 0-10v, 30s running time	20mm valves	£509.00
SKD62	1000N	24v, 0-10v, spring return, 30s running time	20mm valves	£594.00
SKB32.50	2800N	230v, 3-position, 120s running time	20mm valves	£935.00
SKB32.51	2800N	230v, 3-position, spring return, 120s running time	20mm valves	£1,122.00
SKB82.50	2800N	24v, 3-position, 120s running time	20mm valves	£935.00
SKB82.51	2800N	24v, 3-position, spring return, 120s running time	20mm valves	£1,122.00
SKB60	2800N	24v, 0-10v, 30s running time	20mm valves	£1,020.00
SKB62	2800N	24v, 0-10v, spring return, 30s running time	20mm valves	£1,212.00
SKC32.60	2800N	230v, 3-position, 120s running time	40mm valves	£1,042.00
SKC32.61	2800N	230v, 3-position, spring return, 120s running time	40mm valves	£1,225.00
SKC82.60	2800N	24v, 3-position, 120s running time	40mm valves	£1,041.00
SKC82.61	2800N	24v, 3-position, spring return, 120s running time	40mm valves	£1,225.00
SKC60	2800N	24v, 0-10v, 30s running time	40mm valves	£1,134.00
SKC62	2800N	24v, 0-10v, spring return, 30s running time	40mm valves	£1,318.00



SAS31.03



SAX81.00



SKB32.50



SKC.62

NOTE: * 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



ASK30

Accessories for Linear Valve Actuators

Part No	Description	To Suit...	Retail Price
ASK30	Linkage kit for obsolete VXG45... valve	SAS... actuators	£58.00
ASC10.51	Auxiliary switch (single)	SA... actuators	£56.00
ASC9.3	Auxiliary switch (double)	SKD/B/C 32 & 82	£115.00
ASC1.6	Auxiliary switch (single)	SKD/B/C 62	£49.00
ASK50	Stroke inverter	SKD... actuators	£493.00
ASK51	Stroke inverter	SKB... actuators	£626.00

2-Port Pressure-Independent Control Valves (c/w pressure test points)

Part No (PN25)	Size (bspf)	V _{min} (l/h)	V ₁₀₀ (l/h)	STA...3.../ STP...3...1		SSA....		SAY...P		Retail Price
				ΔP _{min} kPa	ΔP _{max} kPa	ΔP _{min} kPa	ΔP _{max} kPa	ΔP _{max} kPa	ΔP _{max} kPa	
VPI46.15L0.2Q	½"	30	200	16	600	16	600	-	-	£77.00
VPI46.15L0.6Q	½"	100	575	19	600	19	600	-	-	£77.00
VPI46.20F1.4Q	¾"	200	1,190	21	600	-	-	-	-	£89.00
		220	1,330	-	-	22	600	-	-	
VPI46.25F1.8Q	1"	238	1,530	39	600	-	-	-	-	£108.00
		280	1,800	-	-	39	600	-	-	
VPI46.32F4Q	1¼"	468	3,400	24	600	-	-	-	-	£180.00
		550	4,001	-	-	28	600	-	-	
VPI46.40F9.5Q	1½"	1,370	9,500	-	-	-	-	25	600	£527.00
VPI46.50F12Q	2"	1,400	11,500	-	-	-	-	36	600	£547.00



VPI46.20...

Part No (PN16)	Size (FL)	V _{min} (m³/h)	V ₁₀₀ (m³/h)	SAX...P...		SQV...P...		SAV...P...		Retail Price
				ΔP _{min} kPa	ΔP _{max} kPa	ΔP _{min} kPa	ΔP _{max} kPa	ΔP _{max} kPa	ΔP _{max} kPa	
VPF44.50F15	DN50	2.9	15.9	*	600	*	600	~	~	£848.00
VPF44.50F25	DN50	4.2	26.2	*	600	*	600	~	~	£848.00
VPF44.65F25	DN65	4	28	*	600	*	600	~	~	£1,289.00
VPF44.65F35	DN65	5.1	35.8	*	600	*	600	~	~	£1,289.00
VPF44.80F35	DN80	5.5	36.7	*	600	*	600	~	~	£1,458.00
VPF44.80F45	DN80	7.2	47.9	*	600	*	600	~	~	£1,458.00
VPF44.100F70	DN100	12.1	68	-	-	*	600	*	600	£1,505.00
VPF44.100F90	DN100	14.8	90	-	-	*	600	*	600	£1,505.00
VPF43.125F110	DN125	18.5	110	-	-	*	600	*	600	£4,635.00
VPF43.125F135	DN125	23	135	-	-	*	600	*	600	£4,635.00
VPF43.150F160	DN150	25.6	148	-	-	*	600	*	600	£4,867.00
VPF43.150F200	DN150	32	195	-	-	*	600	*	600	£4,867.00



VPF43.50...



VPF43.150...

* Please see p8. of datasheet: available on request

Pressure-Independent Control Valve Actuators

Part No	Description	Thrust	Stroke	Features	Retail Price
STA321.65L10	Electrothermal actuator	100N	4.5mm	230v, 2-position	£28.00
STA121.65L10	Electrothermal actuator	100N	4.5mm	24v, 2-position	£28.00
STA161.65L10	Electrothermal actuator	100N	4.5mm	24v, 0-10v modulating, 1m cable	£67.00
SSA331.00	Electric actuator	100N	5.5mm	230v, 3-position	£70.00
SSA131.00	Electric actuator	100N	5.5mm	24v, 3-position	£63.00
SSA161.05HF	Electric actuator	100N	5.5mm	24v, 0-10v modulating	£100.00
SAY81P03	Electric actuator	200N	20mm	24v, 3-position	£266.00
SAY61P03	Electric actuator	200N	20mm	24v, 0-10v modulating	£317.00
SAX81P03	Electric actuator	500N	20mm	24v, 3-position	£297.00
SAX61P03	Electric actuator	500N	20mm	24v, 0-10v modulating	£359.00
SQV91P30	Electric actuator	1100N	20mm	24v, 0-10v modulating	£855.00
SQV91P40	Electric actuator	1100N	40mm	24v, 0-10v modulating	£855.00
SAV31P00	Electric actuator	1100N	40mm	230v, 3-position	£541.00
SAV81P00	Electric actuator	1100N	40mm	24v, 3-position	£539.00
SAV61P00	Electric actuator	1100N	40mm	24v, 0-10v modulating	£578.00



STA161.65L10



SAY81P03

Magnetic Valves

Part No	Description	Size	Kvs (m³/h)	Features	Retail Price
MXG461.15-3/C	3-port, PN16, +1/+130°C	½" bspf	3.0	24vAC/DC, 0-10v	£832.00
MXG461.20-5/C	3-port, PN16, +1/+130°C	¾" bspf	5.0	24vAC/DC, 0-10v	£894.00
MXG461.25-8/C	3-port, PN16, +1/+130°C	1" bspf	8.0	24vAC/DC, 0-10v	£999.00
MXG461.32-12/C	3-port, PN16, +1/+130°C	1¼" bspf	12.0	24vAC/DC, 0-10v	£1,083.00
MXG461.40-20/C	3-port, PN16, +1/+130°C	1½" bspf	20.0	24vAC/DC, 0-10v	£1,167.00
MXG461.50-30/C	3-port, PN16, +1/+130°C	2" bspf	30.0	24vAC/DC, 0-10v	£1,248.00
MXF461.65-50	3-port, PN16, +1/+130°C	DN65 (flanged)	50.0	24vAC/DC, 0-10v	£1,851.00
M3P80FY	3-port, PN16, +1/+120°C	DN80 (flanged)	80.0	24vAC, 0-10v	£2,581.00
M3P100FY	3-port, PN16, +1/+120°C	DN100 (flanged)	100.0	24vAC, 0-10v	£3,374.00



MXG461.25...

NOTE: The above products are sold as a complete valve & actuator unit. The elements cannot be sold separately.

Signal Converter

Part No	Description	Retail Price
SEZ91.6	0-20v to 0-10v converter (min. 3-wire)	£101.00

Note: please contact the office if replacing phase-cut magnetic valve units with 0-10v. Power supply units sold separately.



SEZ91.6

Spartan Controls can offer the full range of Sontay products. Please contact the office for any item not listed.

Carbon Dioxide Sensors

Part No	Description	Range	Retail Price
GS-CO2-S	Space CO2 & temperature sensor	0-2000ppm	£179.58
GS-CO2-S-UN	Space CO2 sensor	0-2000ppm	£124.40
GS-CO2-D	Duct CO2 & temperature sensor	0-2000ppm	£269.37
GS-CO2-D-UN	Duct CO2 sensor	0-2000ppm	£170.23

Other gas sensors are available, including Carbon Monoxide, Nitrogen Dioxide & Sulphur Dioxide.



GS-CO2-S

Light Level & Occupancy Sensors

Part No	Description	Retail Price
LL-P-V	External light level sensor	£70.34
LL-C-V	Ceiling mounted internal light level sensor	£78.16
OC-C-LVN	Ceiling-mounted PIR occupancy detector	£POA
OC-W-LV	Wall-mounted PIR occupancy detector	£46.28



LL-C-M

Multi-Range Air DP Transmitters

Part No	Selectable Range - Pa	Selectable Outputs	Features	Retail Price
PA-DPT-01	0-25, 50, 100, 150, 200, 250, 300, 500 & +/- 50	0-10vDC, 4-20mA	Manual re-zero, IP65	£105.02
PA-DPT-02	0-125, 250, 500, 750, 1250, 1500, 2500 & +/- 250	0-10vDC, 4-20mA	Manual re-zero, IP65	£105.02
PA-DPT-MOD	-250 to +2500	Modbus RTU	Re-zero facility, IP65	£159.44

Relative Humidity & Temperature Sensors

Part No	Description	Temp Output Range (°C)	RH Output Range (°C)	Retail Price
RH-S	Space RH & temp sensor (±3%)	0/40	0-100	£113.18
RH-S-UN	Space RH single analogue output	-	0-100	£79.24
RH-D	Duct RH & temp sensor (±3%)	-20/50	0-100	£142.03
RH-D-UN	Duct RH single analogue output	-	0-100	£99.04



RH-D

Passive Temperature Sensors

Part No	Type	Description	Retail Price
TT-D-A	Duct	10K3A1, Trend, Cylon, Distech	£14.77
TT-O-A	Outside	10K3A1, Trend, Cylon, Distech	£13.21
TT-I-A	Immersion	10K3A1, Trend, Cylon, Distech	£16.34
TT-C-A	Clamp-on	10K3A1, Trend, Cylon, Distech	£18.45
TT-555-A	Flying Lead	10K3A1, Trend, Cylon, Distech	£7.02
TT-S-A	Space	10K3A1, Trend, Cylon, Distech	£8.15
TT-BB-A	Black Bulb	10K3A1, Trend, Cylon, Distech	£24.09

Accessories to Suit

TT-PO-521	Stainless steel 150mm immersion pocket	£12.06
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TT-BB-A



Wireless Sensors - LoRaWAN Output, NFC Configuration

Part No	Type	Description	Range	Retail Price
RF-LW-CO2-T-S	Space	CO2 & Temperature	0-2000ppm/ -20-+70°C	£236.45
RF-LW-RHT-CO2-S	Space	CO2, Temperature & RH	0-2000ppm/ -20-+70°C/ 0-100%	£273.35
RF-LW-RH-S	Space	Temperature & RH	-20-+70°C/ 0-100%	£154.32
RF-LW-RH-D	Duct	Temperature & RH	-20-+70°C/ 0-100%	£155.27
RF-LW-RH-O	Outside	Temperature & RH	-20-+70°C/ 0-100%	£278.53
RF-LW-T-S	Space	Temperature	-20-+70°C	£103.75
RF-LW-T-D	Duct	Temperature	-20-+70°C	£128.23
RF-LW-T-O	Outside	Temperature	-20-+70°C	£118.16
RF-LW-T-C	Clamp-on	Temperature	-20-+70°C	£129.55
RF-LW-T-555	Fly Lead	Temperature	-20-+70°C	£124.80
RF-LW-T-I	Immersion	Temperature	-20-+70°C	£121.57
RF-LW-HUB-100	100x pt hub		N/A	£POA

Batteries sold separately; please contact the office for details.



RF-LW-HUB

Temperature, Humidity & CO₂ Sensors
(Duct & Gen 3 Room - other versions are available)

Part No	Description	Output Ranges	Features	Retail Price
TP-RS-10K3	Room - temp only		Slimline 10K3A1 thermistor	£9.00
TP-RS-RHT-V-10K3	Room - temp & RH	0/+50°C, 0-100%	Slimline dual 0-10v w/ 10K3A1	£85.00
TP-RS-RHT-MA-10K3	Room - temp & RH	0/+50°C, 0-100%	Slimline dual 4-20mA w/ 10K3A1	£125.00
TP-RS-CO2RHT-V-10K3	Room - CO ₂ /temp/RH	0-2000ppm, 0/+50°C, 0-100%	Slimline 0-10v outputs w/ 10K3A1	£137.00
TP-RS-CO2RHT-V-10K3-H	Room - CO ₂ /temp/RH	0-2000ppm, 0/+50°C, 0-100%	HALO LED 0-10v outputs w/ 10K3A1	£162.00
TPTDS/S	Duct - temp only		10K3A1 thermistor, 150mm	£16.50
TPVDHT-RT/10K3	Duct - temp & RH	0/+50°C, 0-100%	Dual 0-10v w/ 10K3A1 thermistor	£118.00
TPDHT-RT/10K3	Duct - temp & RH	0/+50°C, 0-100%	Dual 4-20mA w/ 10K3A1 thermistor	£115.00
TPVDCO2	Duct - CO ₂	0-2000 ppm	0-10v output	£220.00



Gen 3 HALO



Gen 3 Slimline
*add £2.50 for black housing



TPZ Room Sensor



TPDPT8



IO-COM-8AO



RDU-Touch/B

*GEN3 sensors: new, modern enclosure with antimicrobial properties

BACnet & Modbus Temperature, Humidity & CO₂ Sensors
(Duct & Gen 3* Room - other versions are available)

Part No	Description	Features	Retail Price
TP-RS-RHT-BMS	Room - temp & RH	Slimline, BACnet/ Modbus	£108.00
TP-RS-CO2RHT-BMS	Room - CO ₂ , temp & RH	Slimline, BACnet/ Modbus	£159.00
TP-RS-CO2RHT-BMS-H	Room - CO ₂ , temp & RH	HALO LED, BACnet/ Modbus	£179.00
TPDCO2-COM	Duct - CO ₂	BACnet/Modbus	£235.00

*GEN3 sensors: new, modern enclosure with antimicrobial properties

TPZ-Net Wireless Temperature, Humidity & CO₂ Sensors (Gen 3)

Part No	Description	Features	Retail Price
TP-RS-RHT-TPZ	Room - temp & RH	TPZ-Net wireless, HALO LED	£140.00
TP-RS-CO2RHT-TPZ	Room - CO ₂ , temp & RH	TPZ-Net wireless, HALO LED	£190.00
TP-TPZC	TPZ-Net wall-mounted coordinator	BACnet/ Modbus gateway	£235.00
TP-TPZR	TPZ-Net wall-mounted repeater	Signal booster to add mesh networking	£150.00

Battery-powered CO₂ Indicator (Gen 3)

Part No	Description	Features	Retail Price
TP-IND-CO2	Room Indicator - CO ₂	HALO LED, battery-powered	£125.00

High Accuracy Air Differential Pressure Transmitters

Part No	Description	Ranges (Pa)	Retail Price
TPDPT8/125	4-range, +/- selection	0-25, 0-50, 0-100, 0-125	£125.00
TPDPT8/500	4-range, +/- selection	0-200, 0-300, 0-400, 0-500	£125.00
TPDPT8/2500	4-range, +/- selection	0-1000, 0-1500, 0-2000, 0-2500	£125.00

Smart BACnet & Modbus IO Modules

Part No	Description	Features	Retail Price
IO/COM-4DO	Smart IO Module: 4x UI & 4x digital outputs	Set up via NFC	£185.00
IO/COM-8AO	Smart IO Module: 8x UI & 8x analogue outputs	Set up via NFC	£225.00
IO/COM-8DO	Smart IO Module: 8x UI & 8x digital outputs	Set up via NFC	£225.00
IO/COM-8R	Smart IO Module: 8x UI & 8x relay outputs	Set up via NFC	£225.00

Fan Coil Control (w/ user adjustment & network routing)

Part No	Description	Features	Retail Price
FCU-503	FCU-503 BACnet fan coil/ UFH controller	For use with RDU-touch	£175.00
RDU-Touch/B	RDU-Touch setpoint & fan speed adjuster	For use with FCU-503	£295.00
TP-NM-D	NetMaster BACnet MS/TP to BACnet IP Router		£395.00

Please note that, although only a limited selection of products are listed above, Spartan Controls are able to supply the full range from Titan Products. For any solutions not listed, please contact the office and we will be happy to assist.

Temperature Sensors

Part No	Description	Range	Features	Retail Price
TB/TS	Space sensor	0/+40°C	IP65	£27.30
TB/TS/K	Space sensor (adjustable)	0/+40°C	IP65, c/w adjusting knob	£67.17
TB/TO	Outside sensor	-30/+50°C	IP67	£71.34
TB/TC	Clamp-on sensor	-30/+100°C	IP67, c/w jubilee clip	£76.68
TB/TI-S	Immersion/duct sensor	-30/+110°C	IP67, short: 150mm	£64.20
TB/TI-L	Duct sensor	-30/+110°C	IP67, long: 400mm	£86.40
T/TFR-4	Fly lead sensor	-10/+50°C	IP67, 4m lead	£29.43
WB150	Brass pocket	N/A	150mm	£29.79
WS150	Stainless steel pocket	N/A	150mm	£63.99

Only the most common items have been listed above. Please contact the office for prices on anything not listed.



TB/TI..., T/TFR...

Temperature & Humidity Sensors

Part No	Type	Features	Retail Price
HT/S/2%	Space	±2% humidity accuracy over 30 to 75% RH	£POA
HT/S	Space	±3% humidity accuracy over 30 to 75% RH	£389.88
LFH10 - 2B65	Duct	±3% humidity accuracy over 10 to 90% RH, 0 - 10V output, NTC10kohm	£330.66

Only the most common items have been listed above. Please contact the office for prices on anything not listed.



HT/S...

Other Sensors

Part No	Description	Range	Retail Price
CO2/T/S	Temp & CO ₂ sensor	0/+50°C/ 0-2000 ppm	£624.60
CO2/T/D	Temp & CO ₂ sensor	0/+50°C/ 0-2000 ppm	£POA

Only the most common items have been listed above. Please contact the office for prices on anything not listed.



CO2/T...

Air Pressure Sensors & Switches

Part No	Description	Range	Features	Retail Price
DPTE252	Air pressure sensor	0/250pa	4-20mA	£422.37
DPTE502	Air pressure sensor	0/500pa	4-20mA	£373.75
DPTE50S	Air pressure sensor	-50/+50pa	0-10v, 4-20mA	£354.08
DPTE500S	Air pressure sensor	-500/+500pa	0-10v, 4-20mA	£384.86
DPS200	Air pressure switch	20/200pa		£68.09
DPS400	Air pressure switch	40/400pa		£68.09

Only the most common items have been listed above. Please contact the office for prices on anything not listed.



DPTE50S

Liquid Pressure Sensors & Switches

Part No	Description	Range	Features	Retail Price
DPSL/200	Liquid pressure switch	40/200 mbar		£405.08
DPSL/1000	Liquid pressure switch	150/1000 mbar		£405.08

Only the most common items have been listed above. Please contact the office for prices on anything not listed.

Control Modules

Part No	Description	Features	Retail Price
2RM/24VAC	2 relay module	24v, din rail mounting	£100.70
3RM/24VAC	3 relay module	24v, din rail mounting	£121.43
4DIX/24VAC	4 digital input expander module	24v, din rail mounting	£144.18

Only the most common items have been listed above. Please contact the office for prices on anything not listed.



4DIX/24VAC

General Purpose Transmitters

Part No	Type	Mounting	Description	Retail Price
HMW82	RH & temperature	Wall	2 wire, 4-20mA output, IP30	£104.00
HMW83	RH & temperature	Wall	3-wire, 0-10v output, IP30	£104.00
TMW82	Temperature	Wall	2-wire, 4-20mA output, IP30	£74.67
TMD82	Temperature	Duct	2-wire, 4-20mA output, IP65	£150.67
GMW83	CO2 & temp	Wall	0-10v output, IP30 LED CO2 indication (0...2000ppm)	£192.00
GMW84	CO2 & temp	Wall	4-20mA output, IP30 LED CO2 indication (0...2000ppm)	£192.00
GMW87	CO2	Wall	4-20mA/0-10v/ Modbus output, IP64, 0-5000ppm	£316.00
GMD20	CO2	Duct	4-20mA/0-10v output, IP65, display option	£360.00

NOTE: other options are available, including a range of high-spec room, duct-mounted and light industrial transmitters. Please contact the office for details.



Outdoor & Weather Transmitters

Part No	Type	Description	Retail Price
WXT530	Air pressure, temp, humidity, rainfall, wind speed & direction	Modbus, radiation shield	£POA
GMP252	CO2 probe (0...2000/3000/5000ppm) w/ radiation shield	4-20mA/ 0-10v/ Modbus	£POA
HMS82	RH, temp, dew point, wet bulb, enthalpy transmitter	I4-20mA, IP65	£308.00
HMS83	RH, temp, dew point, wet bulb, enthalpy transmitter	0-10v, IP65	£308.00

NOTE: other options are available, including with Modbus output. Please contact the office for details.



Handheld Meters

Part No	Type	Compatible with...	Operating Range	Retail Price
HM40	Humidity & temp - 4 options	N/A	-40...+100°C	£POA
HM70	Humidity & temp - data logging & PC transfer	HMW90, HMD60, HMDW110, HMT120/130	-70...+180°C	£POA
GM70	CO2 meter - data logging and PC transfer	GMW90 & GMD20	-20...+60°C	£POA

NOTE: a number of options are available. Please contact the office for details.



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

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

Please contact the office for a tailored quote.



Single pump, inverter-controlled



Twin pump, inverter-controlled



Three pump, inverter-controlled

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
- Meets current water bye-law requirements
- Supplied with separate expansion vessel



Please contact the office for a tailored quote.

Connections	
Supply:	¾" bspm
Discharge:	1" bspf
Overflow:	1½"
Electrical	220-240vAC
Dimensions	595mm x 845mm x 585mm (WxHxD)

Spartan Pressurisation Units - Prices

Part No	Reference	Features	Details	Retail Price
Aquamaster Standard	230-1020	Wall-mounted, enclosed, compact unit	See below	£697.41
Aquamaster Micro - Single	230-1030	Wall-mounted, enclosed, microprocessor-controlled, single pump	See below	£906.07
Aquamaster Micro - Twin	230-1010	Wall-mounted, enclosed, microprocessor-controlled, twin pump	See below	£1,249.67
Aquafil WM2/30	230-1150	Wall-mounted, enclosed, single pump, for larger systems	See page P3	£874.31
Aquafil WM2/30/Micro	230-1140	As WM2/30, microprocessor-controlled	See page P3	£1,131.73
Aquafil SU1	230-1060	Floor-standing, enclosed, single pump unit	See page P3	£828.95
Aquafil SU1 Micro	230-1070	Floor-standing, enclosed, microprocessor-controlled, single pump	See page P3	£1,161.22
Aquafil SU2	230-1080	Floor-standing, enclosed, twin pump unit	See page P3	£1,268.95
Aquafil SU2 Micro	230-1110	Floor-standing, enclosed, microprocessor-controlled, twin pump	See page P3	£1,460.59
Spartan SPA-BASE	230-1040	Floor-standing, open, single pump	See page P4	£827.82
Spartan SPA-BASE KIT	N/A	High/low pressure kit to suit SPA-BASE	See page P4	£POA

Note: prices for Aquafil SU and Spartan SPA-BASE units do not include cost of expansion vessels, which must be sized and purchased separately. Please see page P4 for details.

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.

Please see table above for prices.

Specification:

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



Outside view (Micro)



Inside view (Micro)

Spartan Aquafil WM2/30 Wall-Mounted Pressurisation Units

The Spartan WM2/30 (230-1150) is a wall-mounted, packaged sealed pressurisation unit for larger systems.

The unit is supplied complete with indication for power, low water level and high/low pressure, a control board for connection to boiler/chiller interlock, a fully rated pump and break tank and valve.

Standard models and microprocessor-controlled models are available.

Please see table on page P2 for prices.

Specification:	
Fill pressure:	0.5 - 2.5 Bar
Electrical:	240v, 1-phase
Full low current (FLC):	2.5A
Weight:	44Kg
Dimensions (LxHxD):	606mm x 530mm x 355mm



Outside view (Micro)



Inside view (Standard)

Spartan Aquafil "SU" Pressurisation Units

The Spartan "SU" pressurisation units are floor-standing units with visual indication for high/low pressure, power and water level. The units are fully enclosed within a steel cabinet.

Standard options include:-

- SU1** - single pump unit. A larger pump can be supplied for higher pressure.
- SU1 Micro** - single pump unit with microprocessor control (LCD display of pressure, volt-free contacts, service reminder).
- SU2** - twin pump unit for standby operation with pump selection switch for duty control.
- SU2 Micro** - twin pump unit with microprocessor control (LCD display of pressure, volt-free contacts, service reminder, automatic pump rotation).

Please see table on page P2 for standard pressurisation unit prices. Please note that these prices do not include the cost of expansion vessels, which must be sized and purchased separately. Please see page P4 for details.

Non-standard options include a 3-phase supply and minimum-run timers. Please contact the office for a tailored quote.

Specification:	
Fill pressure:	0.5-3.0 Bar
Electricity supply:	240v, 1-phase
Full low current (FLC):	2.6A
Weight:	SU1: 44Kg SU2: 50Kg
Dimensions (LxHxD):	480mm x 900mm x 480mm



Outside view (Micro)



Inside "SU1 Micro"



Inside "SU2 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 P2 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 Price
RD5	10 Bar	5 litres	¾”	316 mm	160 mm	£51.00
RD8	10 Bar	8 litres	¾”	321 mm	200 mm	£53.00
RD18	10 Bar	18 litres	¾”	379 mm	274 mm	£69.00
RD24V	10 Bar	24 litres	1”	450 mm	300 mm	£85.00
RD24H	10 Bar	24 litres	1”	480 mm	270 mm	£77.00
RD60	10 Bar	60 litres	1”	860 mm	380 mm	£174.00
RD80	10 Bar	80 litres	1”	800 mm	450 mm	£257.00
RD100	10 Bar	100 litres	1”	960 mm	450 mm	£302.00
RD200	10 Bar	200 litres	1½”	1280 mm	550 mm	£489.00
RD300	10 Bar	300 litres	1½”	1430 mm	630 mm	£625.00
RD500	10 Bar	500 litres	1½”	1610 mm	750 mm	£898.00
RD750	10 Bar	750 litres	1½”	2267 mm	750 mm	£1,492.00
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

Pressurisation Unit Replacement Pumps

Part No	Description	Retail Price
Hydra PKM80-1	230v, 5 Bar	£213.00
Lowara PABLRM15	230v, 4 Bar	£551.00
Lowara PSAM70/A	230v, 4 Bar	£POA
EP77 Aquamaster Pump	230v	£113.00


Hydra PKM80-1
Safety Valves, Gauges and Accessories

Part No	Description	Range	Retail Price
AAV1	¾" automatic air vent	110°C	£24.26
SV15	½" pressure safety valve	3 Bar	£30.66
SV22	¾" pressure safety valve	3 Bar	£50.72
SV25	1" pressure safety valve	3 Bar	£62.37
SPG-1	1½" 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	½" safety valve & gauge	3 Bar/ 0-6 Bar gauge	£23.52
SPT1	Strap-on thermometer	0-120°C	£22.37
37001	¼" MI pressure switch	0-6 Bar	£57.89


MAC3
Liquid Level Switches

Part No	Description	Electric	Features	Retail Price
MAC3	Vertical 5m cable	240v 10(4)A	Suspended by own cable	£71.78
SWFS-LEV1	Horizontal	230v 15(8)A	1" bsp horizontal	£119.24
MINIMATIC	Horizontal	230v 10(4)A	WRAS approved, 5m cable	£159.86

Pressure Reducing Valves

Part No	Size	Max Pressure	Max Temp	Length	Height	Retail Price
D06F-1B	1"	25 Bar (in), 1.5-6 Bar (out - adjustable)	40°C	180 mm	175 mm	£POA
D06F-11/4B	1¼"	26 Bar (in), 1.5-6 Bar (out - adjustable)	40°C	200 mm	175 mm	£POA
D06F-11/2B	1½"	27 Bar (in), 1.5-6 Bar (out - adjustable)	40°C	225 mm	299 mm	£POA
D06F-2B	2"	28 Bar (in), 1.5-6 Bar (out - adjustable)	40°C	255 mm	299 mm	£POA

Accessories to Suit

M07M-10	Back-entry pressure gauge, 0-10 Bar, 63mm dial	£POA
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D06F...
Screwed Counter-Flange Sets

Part No	Description	Features	Retail Price
FL40-1.5	40mm PN16 x 1½" bsp flange set	C/w nuts, bolts & gaskets	£POA
FL50-2	50mm PN16 x 2" bsp flange set	C/w nuts, bolts & gaskets	£POA
FL65-2.5	65mm PN16 x 2½" bsp flange set	C/w nuts, bolts & gaskets	£POA
FL80-3	80mm PN16 x 3" bsp flange set	C/w nuts, bolts & gaskets	£POA
FL100-4	100mm PN16 x 4" bsp flange set	C/w nuts, bolts & gaskets	£POA

Flexible Connections (Untied)
(PN16 or PN6 available)

Part No	Size	Max Pressure	Max Temp	Installed Length Range	Travel Length Range	Retail Price
FLEX32	32 mm	16 Bar	100°C	116 - 130mm	113 - 135mm	£64.00
FLEX40	40 mm	16 Bar	100°C	116 - 130mm	113 - 135mm	£82.00
FLEX50	50 mm	16 Bar	100°C	116 - 130mm	113 - 135mm	£89.00
FLEX65	65 mm	16 Bar	100°C	116 - 130mm	113 - 135mm	£106.00
FLEX80	80 mm	16 Bar	100°C	116 - 130mm	113 - 135mm	£127.00
FLEX100	100 mm	16 Bar	100°C	116 - 130mm	113 - 135mm	£158.00

Note: tied flexible connections are available. Please contact the office for details.


FLEX50



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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