



FCU-Link[™] V3

Pressure Independent
Control Hook - Up Link

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FCU-Link™ V3 is a set of valves and accessories that are designed to connect the fan coil unit to the chilled water or the hot water piping networks with excellent pressure independent control features.

FCU-Link™ V3 combines the pressure independent control valve, actuator, isolation valves, strainer, drain valve, flexible connections, and thermal insulation into a single assembly, factory tested and ready to install unit.

APPLICATION

FCU-Link™ V3 is designed to connect fan coil units to chilled/hot water network with PICV features. FCU-Link™ V3 is used where is a requirement for accurate, compact and easy-to-install hook up system.

BENEFITS

Design

- ▶ Compact Solutions that warrants Minimized design and risk
- ▶ Optimum space utilization with small compact product
- ▶ Guaranteed performance for the entire assembly set

Installation

- ▶ Zero installation errors
- ▶ Easy for flushing and coil isolation
- ▶ Specially designed thermal insulation for minimum condensation
- ▶ No specialized balancing team required for installation

Operation

- ▶ Hi-flexibility in adding networks

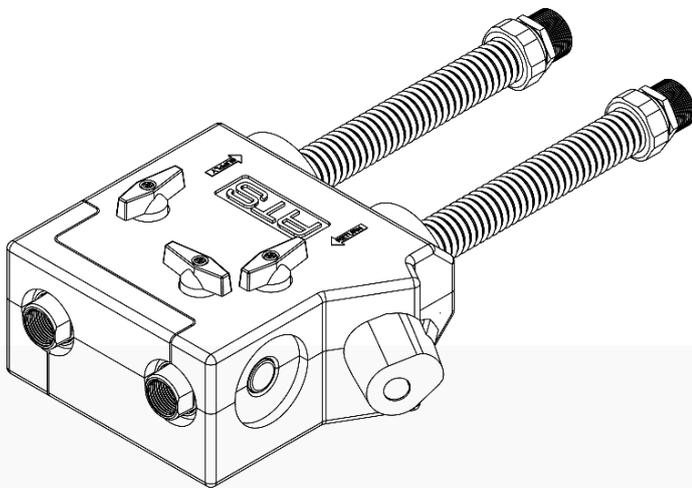


Fig.01 FCU Link V3 - with PICV

FEATURES

- ▶ Available in 20mm and 25mm sizes
- ▶ Integral union joints for easy alignment and tightening
- ▶ Extended T-handle isolation valves,
- ▶ Full bore isolating valves for supply, return and bypass
- ▶ Strainer is integrated with drain cock for compact installation
- ▶ Flexible connections of length 30mm suitable for the site conditions, provided as a standard accessory
- ▶ Special thermal insulation boxes provided as a standard accessory
- ▶ P/T plugs provided to check the flow rate and temperature
- ▶ 230V/24V on/off and 0~10V modulating actuator available

TECHNICAL DATA

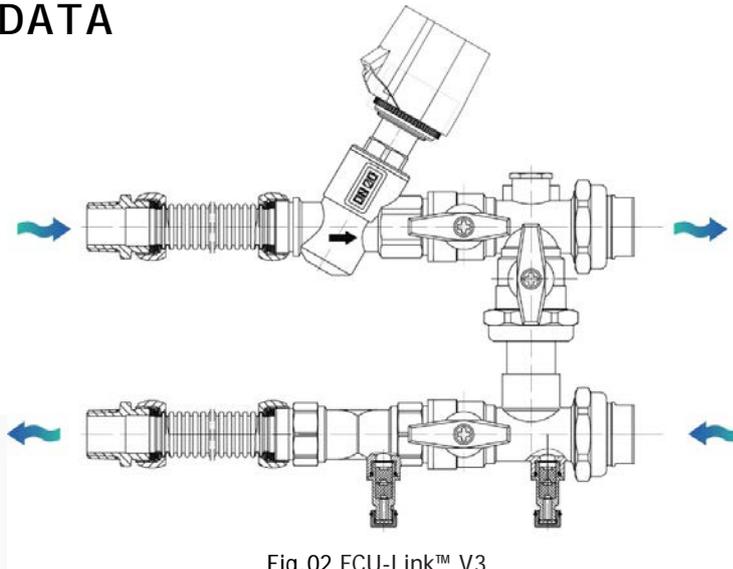


Fig.02 FCU-Link™ V3

End Connection

Pressure/ Temperature Ratings

Pressure (Bar)	Temperature (°C)
20	-10 to 100

Size	Connection Type
20mm	F20
25mm	M25

Cartridge Type

Type	Pressure range (kPa)
A	10 to 95
B	21 to 400

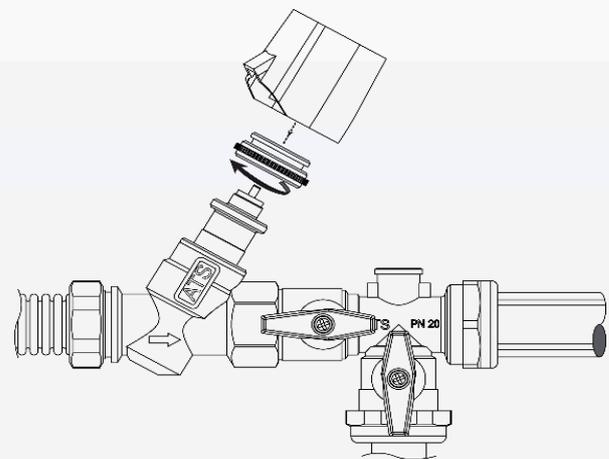


Fig.04 FCU-Link™ V3 Control Actuator

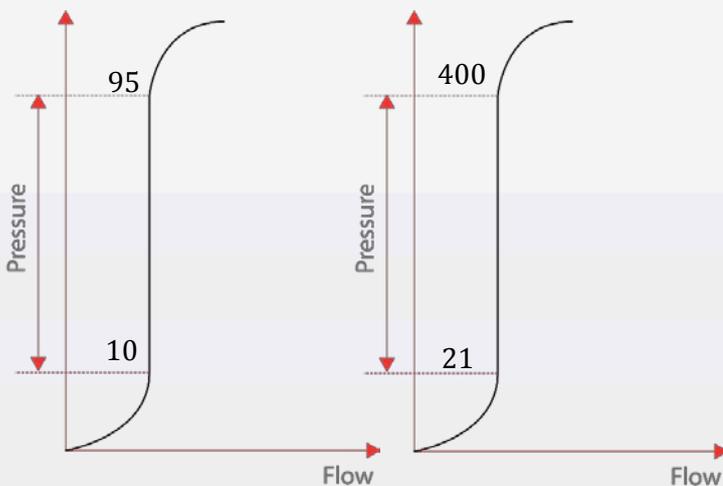


Fig. 03 Graph of Pressure - Flow across characteristics

Control Actuator

Type	Voltage
On/Off	24V
On/Off	230V
Modulating	0-10V

DRAWINGS

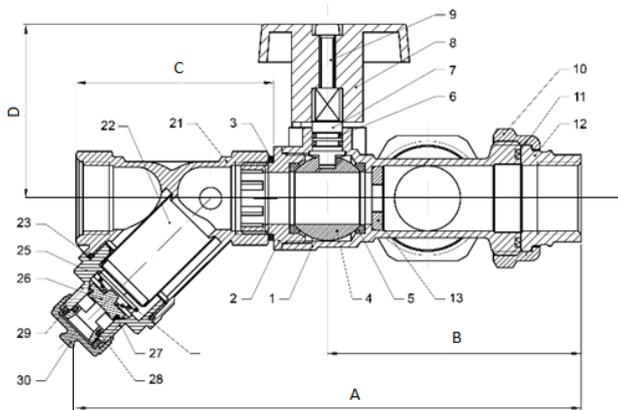


Fig.05 FCU-Link™ V3 Side View

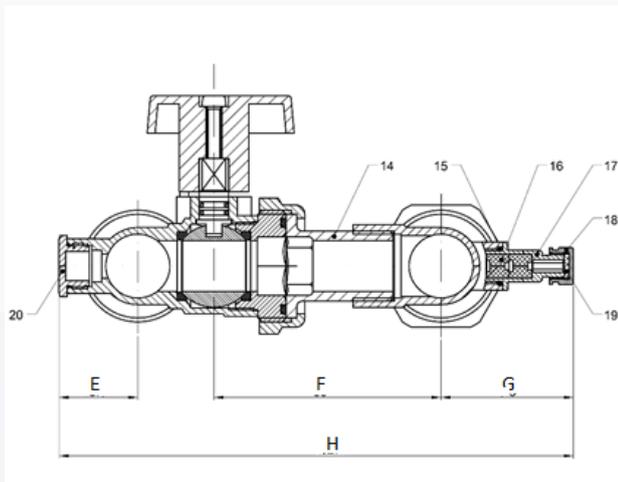


Fig.06 FCU-Link™ V3 Front View

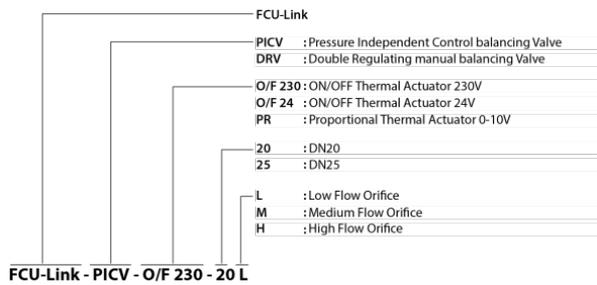
Dimensions

Size	20mm	25mm
A	184	203
B	92.5	99.5
C	72	84
D	64	64
E	29.5	29.5
F	85	85
G	49.5	49.5
H	192.5	192.5

MATERIAL OF CONSTRUCTION

No	Part Name	Material
01	Body	DZR
02	Bonnet	SS
03	Gasket	PTFE
04	Ball	Lead, Brass
05	Sealing Ring	PTFE
06	O-Ring	EPDM281
07	Rod	DZR
08	Handle	POM
09	Screw	SS
10	Hex Nut	Lead, Brass
11	O-Ring	EPDM281
12	Union Connector	CuZn40Pb2
13	Orifice	DZR
14	Bypass Body	DZR
15	O-Ring	EPDM281
16	Washer	EPDM281
17	Joint	DZR
18	Cap	Lead, Brass
19	Washer	EPDM281
20	Plug	DZR
21	Body	DZR
22	Strainer Mesh	SS
23	Gasket	PTFE
24	Spring	SS
25	Bonnet	DZR
26	Valve	DZR
27	O-Ring	EPDM281
28	O-Ring	EPDM281
29	Gasket	EPDM281
30	Cover	CuZn40Pb2
31	Auto Flow Cartridge	SS
32	Thermal Insulation	EPP

SELECTION & PERFORMANCE



Orifice Size	Kvs Value
10mm	3

Size (mm)	Flow Range (l/s)
DN20	0.01 to 0.35
DN25	0.36 to 0.65

THERMAL INSULATION

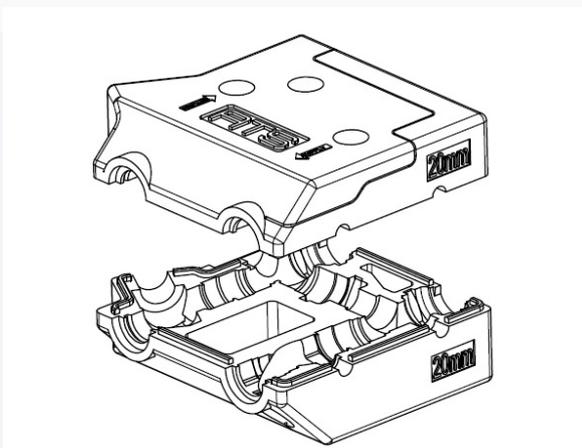


Fig.07 FCU-Link™ V3 Thermal Insulation

Benefits:

- ▶ Made specifically for the FCU Link V3
- ▶ Has a negative image of the valve
- ▶ Minimum condensation
- ▶ Easy installation
- ▶ Standard accessory with every valve package
- ▶ Made from EPP

FLEXIBLE HOSES



Fig.08 FCU-Link™ V3 Flexible Hoses

Sizes	Length (mm)		
	DN20	300	400
DN25	300	400	600

VALVE BODY



WARRANTY:

ATS warrants FCU-Link™ V3 to be defects free in material and workmanship with three years from the day of the delivery. In the event of such defect detected within warranty period ATS is to replace, recondition the product free of charge

PICV CARTRIDGE SELECTION

SI No.	Cartridge Ref	Offered Flow (L/S)	Offered FCU-Link (Size)	Selection Range	
	21-400 kPa			FROM	TO
1	B-1	0.021	FCU-Link 20 mm	0.010	0.026
2	B-2	0.031	FCU-Link 20 mm	0.026	0.047
3	B-3	0.062	FCU-Link 20 mm	0.047	0.071
4	B-4	0.079	FCU-Link 20 mm	0.071	0.091
5	B-5	0.102	FCU-Link 20 mm	0.091	0.106
6	B-6	0.109	FCU-Link 20 mm	0.106	0.116
7	B-7	0.122	FCU-Link 20 mm	0.116	0.124
8	B-8	0.125	FCU-Link 20 mm	0.124	0.134
9	B-9	0.143	FCU-Link 20 mm	0.134	0.147
10	B-10	0.150	FCU-Link 20 mm	0.147	0.155
11	B-11	0.159	FCU-Link 20 mm	0.155	0.165
12	B-12	0.171	FCU-Link 20 mm	0.165	0.178
13	B-13	0.184	FCU-Link 20 mm	0.178	0.189
14	B-14	0.193	FCU-Link 20 mm	0.189	0.197
15	B-15	0.200	FCU-Link 20 mm	0.197	0.211
16	B-16	0.221	FCU-Link 20 mm	0.211	0.237
17	B-17	0.253	FCU-Link 20 mm	0.237	0.268
18	B-18	0.283	FCU-Link 20 mm	0.268	0.299
19	B-19	0.314	FCU-Link 20 mm	0.299	0.329
20	B-20	0.344	FCU-Link 20 mm	0.329	0.357
21	B-21	0.369	FCU-Link 25 mm	0.357	0.389
22	B-22	0.408	FCU-Link 25 mm	0.389	0.414
23	B-23	0.419	FCU-Link 25 mm	0.414	0.437
24	B-24	0.455	FCU-Link 25 mm	0.437	0.471
25	B-25	0.487	FCU-Link 25 mm	0.471	0.503
26	B-26	0.518	FCU-Link 25 mm	0.503	0.532
27	B-27	0.546	FCU-Link 25 mm	0.532	0.560
28	B-28	0.573	FCU-Link 25 mm	0.560	0.586
29	B-29	0.599	FCU-Link 25 mm	0.586	0.617
30	B-30	0.635	FCU-Link 25 mm	0.617	0.655

Note: A difference of (+/- 5)% of the flow rate can be used in these cartridges