

Enka Insaat ve Sanayi A.S. /Moscow City Business Center B Block Building Automation System

Prepared : Süleyman AKDEMİR / 02.03.2005 / Rev.0

Item No	Description	Point type				Equipment model and description											
		AI-Analog Inputs	AO-Analog Outputs	DI-Digital Inputs	DO-Digital Outputs	DPS400	ML4195E1010	ML7295E1007	T6950A1026	LF20	EH7015B1020	VF20T	T7413A1041	SN10-395	DCMV10	S6065A2001	KSW230
	Substation CP-2701 (27th floor Mechanical Room)																
1	Air Handling Unit AC-2.1/AC-2.2 (14-26 th Floors Offices)																
	Supply fan AC2.1a/b start/stop	0	0	0	1												
	Supply fan AC2.1a/b speed command	0	1	0	0												
	Supply fan AC2.1a status	0	0	1	0												
	Supply fan AC2.1b status	0	0	1	0												
	Supply fan AC2.1a/b thermic fault	0	0	1	0												
AC-2.1/DA1.1	Supply air damper command	0	0	0	0		1										
AC-2.1/DA1.2	Fresh air damper command	0	0	0	0		1										
AC-2.1/DPS1	Pre-filter (EU3) dirty alarm	0	0	1	0	1											
AC-2.1/DPS2	Bag filter (EU7) dirty alarm	0	0	1	0	1											
AC-2.1/DPS3	Active carbon filter dirty alarm	0	0	1	0	1											
CV-HC-AC2.1	Heating valve command (Q=20.3m3/h, ΔP=0.41mWC) (*)	0	1	0	0												
AC-2.1/TS1	Fresh air temperature (recovered)	1	0	0	0					1							
AC-2.1/FT	Frost protection (air side)	0	0	1	0			1									
AC-2.1/TR1	Frost protection (water side)	1	0	0	0						1						
CV-CC-AC2.1	Cooling valve command (Q=24.4m3/h, ΔP=0.6mWC) (*)	0	1	0	0												
	E.S.Humidifier HU-AC2.1.1 start/stop	0	0	0	1												
	E.S.Humidifier HU-AC2.1.1 status	0	0	1	0												
	E.S.Humidifier HU-AC2.1.1 general fault	0	0	1	0												
	E.S.Humidifier HU-AC2.1.1 command signal	0	1	0	0												
	E.S.Humidifier HU-AC2.1.1 circuit breaker status	0	0	1	0												
	E.S.Humidifier HU-AC2.1.2 start/stop	0	0	0	1												
	E.S.Humidifier HU-AC2.1.2 status	0	0	1	0												
	E.S.Humidifier HU-AC2.1.2 general fault	0	0	1	0												
	E.S.Humidifier HU-AC2.1.2 command signal	0	1	0	0												
	E.S.Humidifier HU-AC2.1.2 circuit breaker status	0	0	1	0												
	E.S.Humidifier HU-AC2.1.3 start/stop	0	0	0	1												
	E.S.Humidifier HU-AC2.1.3 status	0	0	1	0												
	E.S.Humidifier HU-AC2.1.3 general fault	0	0	1	0												
	E.S.Humidifier HU-AC2.1.3 command signal	0	1	0	0												
	E.S.Humidifier HU-AC2.1.3 circuit breaker status	0	0	1	0												
	H.Recovery wheel start/stop	0	0	0	1												
	H.Recovery wheel status	0	0	1	0												
AC-2.1/DPT3	H.Recovery wheel differential pressure	1	0	0	0												
	H.Recovery wheel thermic fault	0	0	1	0												
	H.Recovery wheel speed command	0	1	0	0												

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AC-2.1/THS1	Supply air temperature/humidity	2	0	0	0						1						
AC-2.1/DPT1	Supply air pressure	1	0	0	0	(Diff.pressure sensor, 0-1000Pa., 650Pa setpoint, DPT1000D)											
	Supply fan AC2.2a/b start/stop	0	0	0	1	(to MCC-15)											
	Supply fan AC2.2a/b speed command	0	1	0	0	(to frequency inverter)											
	Supply fan AC2.2a status	0	0	1	0	(Current switch, Sontay PM-CSW510)											
	Supply fan AC2.2b status	0	0	1	0	(Current switch, Sontay PM-CSW510)											
	Supply fan AC2.2a/b thermic fault	0	0	1	0	(from MCC-14)											
AC-2.2/DA1.1	Supply air damper command	0	0	0	0	1	(Electrically interlock with supply fan AC2.2a/b)										
AC-2.2/DA1.2	Fresh air damper command	0	0	0	0	1	(Electrically interlock with supply fan AC2.2a/b)										
AC-2.2/DPS1	Pre-filter (EU3) dirty alarm	0	0	1	0	1											
AC-2.2/DPS2	Bag filter (EU7) dirty alarm	0	0	1	0	1											
AC-2.2/DPS3	Active carbon filter dirty alarm	0	0	1	0	1											
CV-HC-AC2.2	Heating valve command (Q=20.3m3/h, ΔP=0.41mWC) (*)	0	1	0	0	(2-Way, DN80/PN16, Kvs:100, V5016A1135/ML7420A3006)											
AC-2.2/TS1	Fresh air temperature (recovered)	1	0	0	0					1							
AC-2.2/FT	Frost protection (air side)	0	0	1	0			1									
AC-2.2/TR1	Frost protection (water side)	1	0	0	0						1						
CV-CC-AC2.2	Cooling valve command (Q=24.4m3/h, ΔP=0.6mWC) (*)	0	1	0	0	(2-Way, DN80/PN16, Kvs:100, V5016A1135/ML7420A3006)											
	E.S.Humidifier HU-AC2.2.1 start/stop	0	0	0	1	(to MCC-15)											
	E.S.Humidifier HU-AC2.2.1 status	0	0	1	0	(from humidifier panel)											
	E.S.Humidifier HU-AC2.2.1 general fault	0	0	1	0	(from humidifier panel)											
	E.S.Humidifier HU-AC2.2.1 command signal	0	1	0	0	(to humidifier panel)											
	E.S.Humidifier HU-AC2.2.1 circuit breaker status	0	0	1	0	(from MCC-15)											
	E.S.Humidifier HU-AC2.2.2 start/stop	0	0	0	1	(to MCC-15)											
	E.S.Humidifier HU-AC2.2.2 status	0	0	1	0	(from humidifier panel)											
	E.S.Humidifier HU-AC2.2.2 general fault	0	0	1	0	(from humidifier panel)											
	E.S.Humidifier HU-AC2.2.2 command signal	0	1	0	0	(to humidifier panel)											
	E.S.Humidifier HU-AC2.2.2 circuit breaker status	0	0	1	0	(from MCC-15)											
	E.S.Humidifier HU-AC2.2.3 start/stop	0	0	0	1	(to MCC-15)											
	E.S.Humidifier HU-AC2.2.3 status	0	0	1	0	(from humidifier panel)											
	E.S.Humidifier HU-AC2.2.3 general fault	0	0	1	0	(from humidifier panel)											
	E.S.Humidifier HU-AC2.2.3 command signal	0	1	0	0	(to humidifier panel)											
	E.S.Humidifier HU-AC2.2.3 circuit breaker status	0	0	1	0	(from MCC-15)											
	H.Recovery wheel start/stop	0	0	0	1	(to MCC-15)											
	H.Recovery wheel status	0	0	1	0	(from MCC-15)											
AC-2.2/DPT3	H.Recovery wheel differential pressure	1	0	0	0	(Diff.pressure sensor, 0-250Pa., DPT250)											
	H.Recovery wheel thermic fault	0	0	1	0	(from MCC-15)											
	H.Recovery wheel speed command	0	1	0	0	(to frequency inverter)											
AC-2.2/THS1	Supply air temperature/humidity	2	0	0	0					1							
AC-2.2/DPT1	Supply air pressure	1	0	0	0	(Diff.pressure sensor, 0-1000Pa., 650Pa setpoint, DPT1000D)											

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4C-2.1-2.2/DPT4	Average pressure sensor	1	0	0	0	(Diff.pressure sensor, 0-1000Pa., 650Pa setpoint, DPT1000D)											
2	Exhaust Fans EF-2.1/EF-2.2																
	(14-26 th Floors Offices)																
	Exhaust fan EF2.1a/b start/stop	0	0	0	1	(to MCC-14)											
	Exhaust fan EF2.1a/b speed command	0	1	0	0	(to frequency inverter)											
	Exhaust fan EF2.1a status	0	0	1	0	(Current switch, Sontay PM-CSW510)											
	Exhaust fan EF2.1b status	0	0	1	0	(Current switch, Sontay PM-CSW510)											
	Exhaust fan EF2.1a/b thermic fault	0	0	1	0	(from MCC-14)											
EF-2.1/DA2.1	Return air damper command	0	0	0	0	1	(Electrically interlock with exhaust fan EF2.1a/b)										
EF-2.1/DA2.2	Exhaust air damper command	0	0	0	0	1	(Electrically interlock with exhaust fan EF2.1a/b)										
EF-2.1/DPS4	Return air filter dirty alarm	0	0	1	0	1											
EF-2.1/THS2	Exhaust air temperature/humidity	2	0	0	0					1							
EF-2.1/DPT2	Return air pressure	1	0	0	0	(Diff.pressure sensor, 0-1000Pa., 650Pa setpoint, DPT1000D)											
	Exhaust fan EF2.2a/b start/stop	0	0	0	1	(to MCC-15)											
	Exhaust fan EF2.2a/b speed command	0	1	0	0	(to frequency inverter)											
	Exhaust fan EF2.2a status	0	0	1	0	(Current switch, Sontay PM-CSW510)											
	Exhaust fan EF2.2b status	0	0	1	0	(Current switch, Sontay PM-CSW510)											
	Exhaust fan EF2.2a/b thermic fault	0	0	1	0	(from MCC-15)											
EF-2.2/DA2.1	Return air damper command	0	0	0	0	1	(Electrically interlock with exhaust fan EF2.2a/b)										
EF-2.2/DA2.2	Exhaust air damper command	0	0	0	0	1	(Electrically interlock with exhaust fan EF2.2a/b)										
EF-2.2/DPS4	Return air filter dirty alarm	0	0	1	0	1											
EF-2.2/THS2	Exhaust air temperature/humidity	2	0	0	0					1							
EF-2.2/DPT2	Return air pressure	1	0	0	0	(Diff.pressure sensor, 0-1000Pa., 650Pa setpoint, DPT1000D)											
EF-2.1-2.2/THS3	Average return air temperature/humidity	2	0	0	0					1							
EF-2.1-2.2/DPT3	Average return air pressure	1	0	0	0	(Diff.pressure sensor, 0-1000Pa., 650Pa setpoint, DPT1000D)											
3	Air Handling Unit AHU-7					(Software interlocked with EF-17)											
	(27th Floor Mechanical Room)																
	Supply fan AHU-7 start/stop	0	0	0	1	(to MCC-19)											
AHU-7/DPS02	Supply fan AHU-7 status	0	0	1	0	1											
	Supply fan AHU-7 thermic fault	0	0	1	0	(from MCC-19)											
AHU-7/DA01	Fresh air damper command	0	0	0	0	1	(Electrically interlock with supply fan)										
AHU-7/DPS01	Filter dirty alarm	0	0	1	0	1											
CV-HC-AHU7	Heating valve command	0	1	0	0	(2-Way, DN32/PN16, Kvs:16, V5328A1070/ML7420A3006)											
	(Q=4.4m3/h, ΔP=0.77mWC) (*)																
AHU-7/FT	Frost protection (air side)	0	0	1	0			1									
AHU-7/TR	Frost protection (water side)	1	0	0	0					1							
AHU-7/TS1	Supply air temperature	1	0	0	0				1								
4	Exhaust Fan EF-17					(Software interlocked with AHU-7)											
	(27th Floor Mechanical Room)																
	Exhaust Fan EF-17 start/stop	0	0	0	1	(to MCC-19)											

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		AI-Analog Inputs	AO-Analog Outputs	DI-Digital Inputs	DO-Digital Outputs	DPS400	ML4195E1010	ML7295E1007	T6950A1026	LF20	H7015B1020	VF20T	T7413A1041	SN10-395	DCMV10	S6065A2001	KSW230
<i>EF-17/DPS03</i>	Exhaust Fan EF-17 status	0	0	1	0	1											
	Exhaust Fan EF-17 thermic fault	0	0	1	0	<i>(from MCC-19)</i>											
<i>EF-17/DA02</i>	Exhaust air damper command	0	0	0	0	1	<i>(Electrically interlock with exhaust fan)</i>										
<i>EF-17/TS2</i>	Exhaust air temperature	1	0	0	0				1								
5	Others																
	Electric panel room water flooding alarm	0	0	1	0	<i>(Water leakage sensor, Sontay WD-AM1A / WD-CS5)</i>											
	MCC Panel supply energy cut-out	0	0	0	1	<i>(to MCC-14/15)</i>											
	Spare points	4	4	9	3												
	Total :	29	21	60	18	11	10	0	3	4	5	3	0	0	0	0	0
	128																

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		AI-Analog Inputs	AO-Analog Outputs	DI-Digital Inputs	DO-Digital Outputs	DPS400	ML4195E1010	ML7295E1007	T6950A1026	LF20	H7015B1020	VF20T	T7413A1041	SN10-395	DCMV10	S6065A2001	KSW230
						Differential Pressure Switch	On/off damper actuator, 220V,S/R,E/S	Proportional damper actuator, 24Vac, S/R	Frost protection thermostat	Duct type temperature sensor	Duct type temperature/humidity sensor	Imm. type temperature sensor	Imm. type temperature sensor	Pressure sensor	Presostat, 0-10Bar	Flow switch, 1" ... 8", 30Bar	Flow Switch, 10" ...30Bar

*Honeywell Excel 500 Controller
128 I/O Capacity*



at 27th Floor

