

BACnet and EPICS

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SNS BACnet driver

See <https://controlsoftware.sns.ornl.gov/bacnet/index.html>

BACnet properties, object types, etc.

Properties

Enum val	Property
85	Present-Value
77	Object-Name
111	Status-Flags
117	Units
81	Out-Of-Service
87	Priority-Array

Object types

Enum val	Object type
0	analog-input
1	analog-output
2	analog-value
3	binary-input
4	binary-output
5	binary-value
6	calendar
7	command
8	device
9	event-enrollment
10	file
11	group
12	loop

13	multi-state-input
14	multi-state-output
15	notification-class
16	program
17	schedule
18	averaging
19	multi-state-value
20	trend-log
21	life-safety-point
22	life-safety-zone

Priorities for write requests

Enum val	Priority
1	Manual-Life Safety
2	Automatic-Life Safety
3	Available
4	Available
5	Critical Equipment Control
6	Minimum On/Off
7	Available
8	Manual Operator
9	Available
10	Available
11	Available
12	Available
13	Available
14	Available
15	Available
16	Available

Engineering unit enums

Value	Unit	Unit Type
0	Square-meters	Area
1	Square-feet	Area
2	Milliamperes	Electrical
3	Amperes	Electrical
4	Ohms	Electrical
5	Volts	Electrical
6	Kilo-volts	Electrical
7	Mega-volts	Electrical
8	Volt-amperes	Electrical

9	Kilo-volt-amperes	Electrical
10	Mega-volt-amperes	Electrical
11	Volt-amperes-reactive	Electrical
12	Kilo-volt-amperes-reactive	Electrical
13	Mega-volt-amperes-reactive	Electrical
14	Degrees-phase	Electrical
15	Power-factor	Electrical
16	Joules	Energy
17	Kilojoules	Energy
18	Watt-hours	Energy
19	Kilowatt-hours	Energy
20	BTUs	Energy
21	Therms	Energy
22	Ton-hours	Energy
23	Joules-per-kilogram-dry-air	Enthalpy
24	BTUs-per-pound-dry-air	Enthalpy
25	Cycles-per-hour	Frequency
26	Cycles-per-minute	Frequency
27	Hertz	Frequency
28	Grams-of-water-per-kilogram-dry-air	Humidity
29	Percent-relative-humidity	Humidity
30	Millimeters	Length
31	Meters	Length
32	Inches	Length
33	Feet	Length
34	Watts-per-square-foot	Light
35	Watts-per-square-meter	Light
36	Lumens	Light
37	Luxes	Light
38	Foot-candles	Light
39	Kilograms	Mass
40	Pounds-mass	Mass
41	Tons	Mass
42	Kilograms-per-second	Mass Flow
43	Kilograms-per-minute	Mass Flow
44	Kilograms-per-hour	Mass Flow
45	Pounds-mass-per-minute	Mass Flow
46	Pounds-mass-per-hour	Mass Flow
47	Watts	Power
48	Kilowatts	Power
49	Megawatts	Power

50	BTUs-per-hour	Power
51	Horsepower	Power
52	Tons-refrigeration	Power
53	Pascals	Pressure
54	Kilopascals	Pressure
55	Bars	Pressure
56	Pounds-force-per-square-inch	Pressure
57	Centimeters-of-water	Pressure
58	Inches-of-water	Pressure
59	Millimeters-of-mercury	Pressure
60	Centimeters-of-mercury	Pressure
61	Inches-of-mercury	Pressure
62	Degrees-Celsius	Temperature
63	Degrees-Kelvin	Temperature
64	Degrees-Fahrenheit	Temperature
65	Degree-days-Celsius	Temperature
66	Degree-days-Fahrenheit	Temperature
67	Years	Time
68	Months	Time
69	Weeks	Time
70	Days	Time
71	Hours	Time
72	Minutes	Time
73	Seconds	Time
74	Meters-per-second	Velocity
75	Kilometers-per-hour	Velocity
76	Feet-per-second	Velocity
77	Feet-per-minute	Velocity
78	Miles-per-hour	Velocity
79	Cubic-feet	Volume
80	Cubic-meters	Volume
81	Imperial-gallons	Volume
82	Liters	Volume
83	Us-gallons	Volume
84	Cubic-feet-per-minute	Volumetric Flow
85	Cubic-meters-per-second	Volumetric Flow
86	Imperial-gallons-per-minute	Volumetric Flow
87	Liters-per-second	Volumetric Flow
88	Liters-per-minute	Volumetric Flow
89	Us-gallons-per-minute	Volumetric Flow
90	Degrees-angular	Other

91	Degrees-Celsius-per-hour	Other
92	Degrees-Celsius-per-minute	Other
93	Degrees-Fahrenheit-per-hour	Other
94	Degrees-Fahrenheit-per-minute	Other
95	No-units	Other
96	Parts-per-million	Other
97	Parts-per-billion	Other
98	Percent	Other
99	Percent-per-second	Other
100	Per-minute	Other
101	Per-second	Other
102	Psi-per-Degree-Fahrenheit	Other
103	Radians	Other
104	Revolutions-per-minute	Other
105	Currency1	Currency
106	Currency2	Currency
107	Currency3	Currency
108	Currency4	Currency
109	Currency5	Currency
110	Currency6	Currency
111	Currency7	Currency
112	Currency8	Currency
113	Currency9	Currency
114	Currency10	Currency
115	Square-inches	Area
116	Square-centimeters	Area
117	BTUs-per-pound	Enthalpy
118	Centimeters	Length
119	Pounds-mass-per-second	Mass Flow
120	Delta-Degrees-Fahrenheit	Temperature
121	Delta-Degrees-Kelvin	Temperature
122	Kilohms	Electrical
123	Megohms	Electrical
124	Millivolts	Electrical
125	Kilojoules-per-kilogram	Energy
126	Megajoules	Energy
127	Joules-per-degree-Kelvin	Entropy
128	Joules-per-kilogram-degree-Kelvin	Entropy
129	Kilohertz	Frequency
130	Megahertz	Frequency
131	Per-hour	Frequency

132	Milliwatts	Power
133	Hectopascals	Pressure
134	Millibars	Pressure
135	Cubic-meters-per-hour	Volumetric Flow
136	Liters-per-hour	Volumetric Flow
137	Kilowatt-hours-per-square-meter	Other
138	Kilowatt-hours-per-square-foot	Other
139	Megajoules-per-square-meter	Other
140	Megajoules-per-square-foot	Other
141	Watts-per-square-meter-Degree-Kelvin	Other
142	Cubic-feet-per-second	Volumetric Flow
143	Percent-obscuration-per-foot	Other
144	Percent-obscuration-per-meter	Other
145	Milliohms	Electrical
146	Megawatt-hours	Energy
147	Kilo-BTUs	Energy
148	Mega-BTUs	Energy
149	Kilojoules-per-kilogram-dry-air	Enthalpy
150	Megajoules-per-kilogram-dry-air	Enthalpy
151	Kilojoules-per-degree-Kelvin	Entropy
152	Megajoules-per-degree-Kelvin	Entropy
153	Newton	Force
154	Grams-per-second	Mass Flow
155	Grams-per-minute	Mass Flow
156	Tons-per-hour	Mass Flow
157	Kilo-BTUs-per-hour	Power
158	Hundredths-seconds	Time
159	Milliseconds	Time
160	Newton-meters	Torque
161	Millimeters-per-second	Velocity
162	Millimeters-per-minute	Velocity
163	Meters-per-minute	Velocity
164	Meters-per-hour	Velocity
165	Cubic-meters-per-minute	Volumetric Flow
166	Meters-per-second-per-second	Acceleration
167	Amperes-per-meter	Electrical
168	Amperes-per-square-meter	Electrical
169	Ampere-square-meters	Electrical
170	Farads	Electrical
171	Henrys	Electrical
172	Ohm-meters	Electrical

173	Siemens	Electrical
174	Siemens-per-meter	Electrical
175	Teslas	Electrical
176	Volts-per-degree-Kelvin	Electrical
177	Volts-per-meter	Electrical
178	Webers	Electrical
179	Candelas	Light
180	Candelas-per-square-meter	Light
181	Kelvins-per-hour	Temperature
182	Kelvins-per-minute	Temperature
183	Joule-seconds	Other
185	Square-meters-per-Newton	Other
186	Kilogram-per-cubic-meter	Other
187	Newton-seconds	Other
188	Newtons-per-meter	Other
189	Watts-per-meter-per-degree-Kelvin	Other