Väggdetektor för fukt och temperatur
Modbus RTU

HT 24W

Feb. 15

HT 24W

Utmärkande egenskaper

- **Högpresterande digitala sensorer och kretsar ger noggrann mätning och temperaturkompensation**
- **God långsiktig stabilitet och tillförlitlighet**
- **100-procentigt utbytbara sensorer på fältet. Omkalibrering ej behövlig.**
- **Snabb respons**
- **Flera valbara utsignaler: 4-20mA, 0-10Vdc eller 0-5Vdc**
- **Visning i grader Celcius eller Fahrenheit**

Tekniska data

Strömförsörjning	12 till 24Vac/dc, ±10%
Belastning, strömutg.	< 500 Ω
Display	LCD-skärm
Displayupplösning	0,1°C, 0,1% rH
Omgivande temperatur	-30 till +70°C, 0 till 95% rH (Icke-kondenserande)
Plasthölje	Flamsäkerhet UL 94V0 file E194560
Kapslingsgrad	IP65 (Hölje)

Sensor - fukt	Kapacitanspolymer
Område	0-100%rH icke-kondenserande
Utgång	4-20mA, 0-10Vdc eller 0-5Vdc, RS 485
Noggrannhet	3% rH (25°C, 20 till 80% rH)
Hysteres	< ±1%rH
Responstid	< 10s (@25°C, i långsam luft)
Drift	< ±0,5% rH / år

Sensor - temperatur	10K internt
Område	-30°C till +70°C, (-22°F till 158°F)
Utgång	4-20mA, 0-10Vdc eller 0-5Vdc, RS 485
Noggrannhet	< ±0,5°C @25°C

Denna produkt uppfyller kraven i CE-godkännande

Användning

Fukt- och temperaturdetektorer är konstruerade för miljöövervakning och reglering på följande platser:

- industrier
- kommeriell miljöer
- övriga byggnader

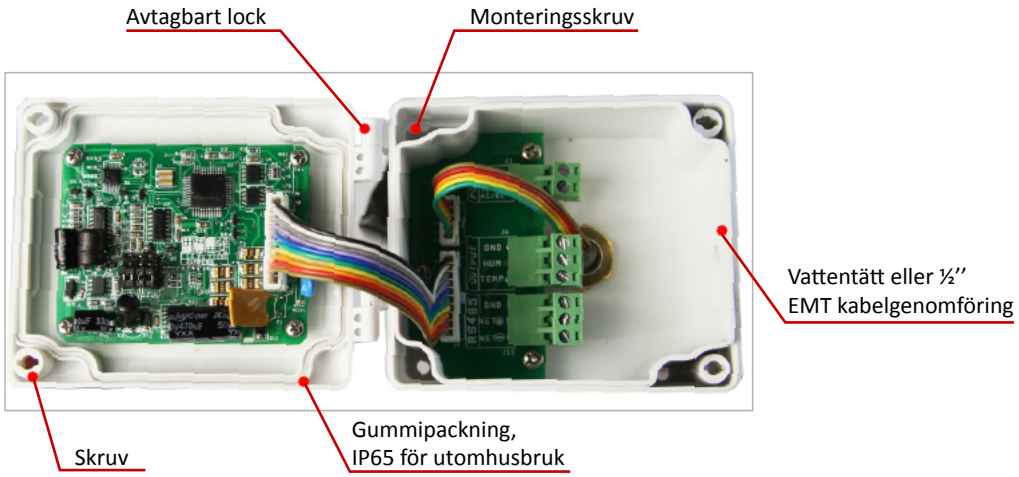
Tillämpningsområden

- Arenor
- Bibliotek
- Flygplatser
- Industriella anläggningar
- Kommersiella byggnader
- Kontor
- Laboratorier
- Maskinrum
- Muséer
- Renrum
- Stationer
- Växthus

Beställningskod

HT 24W	Väggdetektor för fukt och temperatur

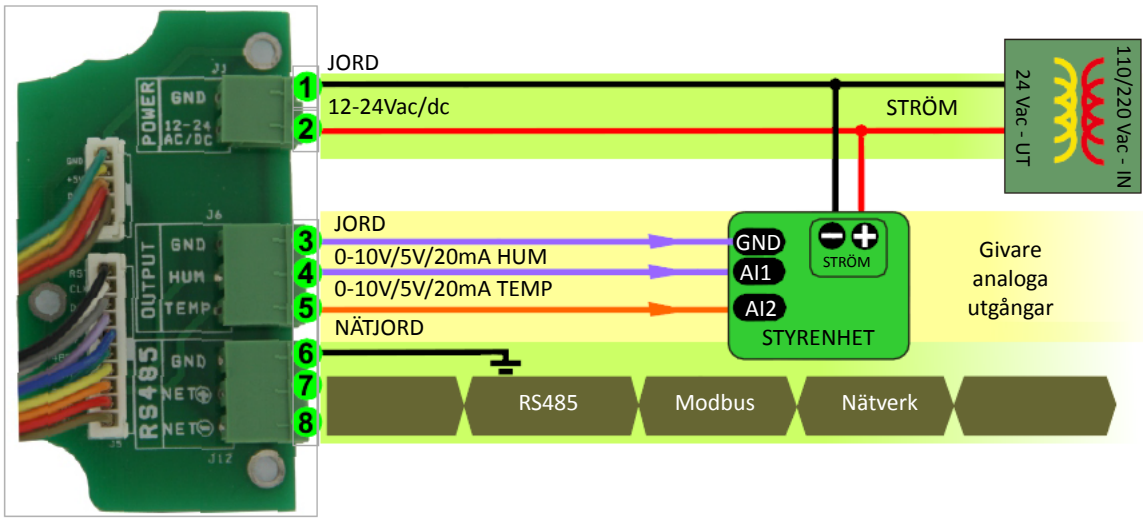
Kapsling - insida



Kopplingsschema

Schemat nedan visar anslutningarna för fukt- och temperaturgivare.

Givarvärdena ansluter till en regulator med hjälp av de traditionella analoga utsignalerna, 0-10Vdc, 0-5Vdc, 4-20mA.

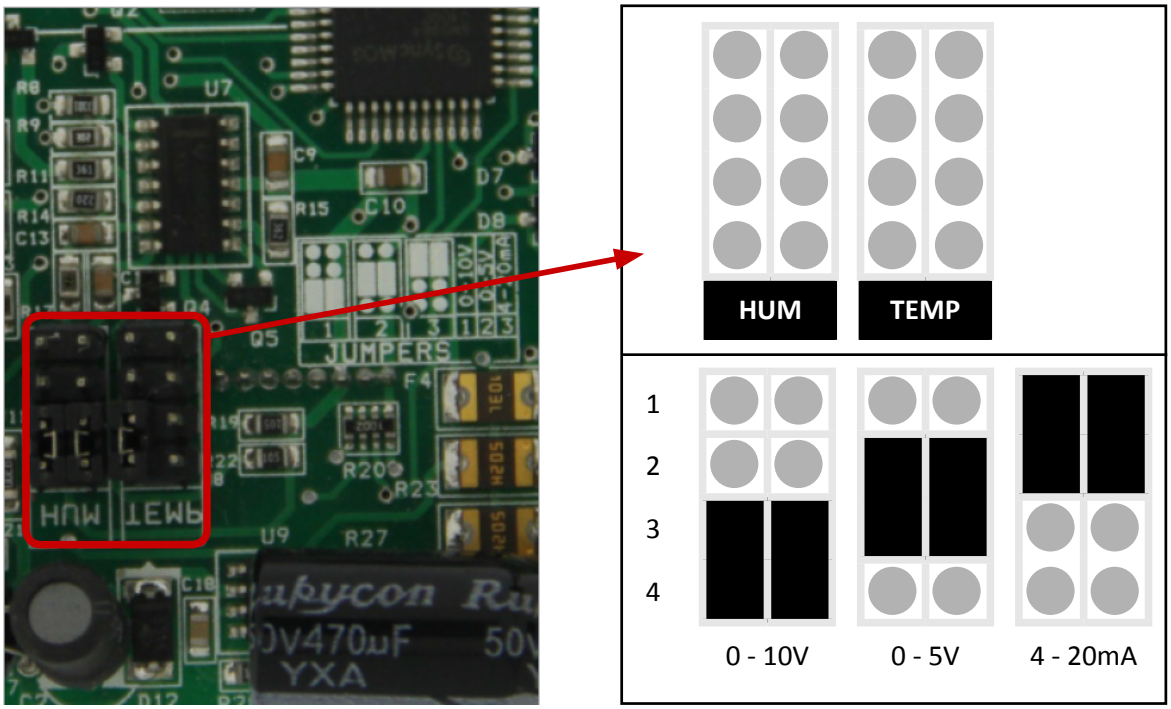


Bygelinställningar

I det här läget fungerar enheten som en traditionell givare där den sänder ut tre analoga signaler.

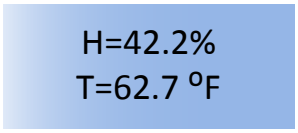
Allt man behöver göra är att ställa in denna enda bygel för lämplig utsignal:

- 4-20mA, 0-10Vdc, eller 0-5Vdc.

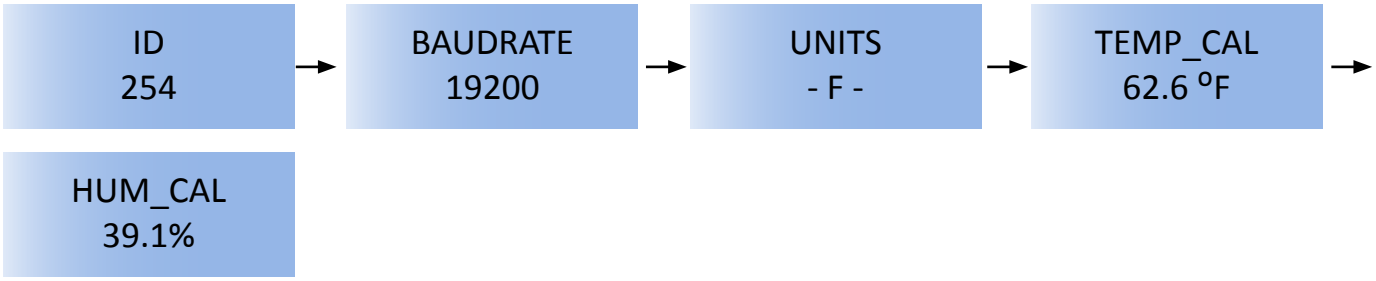


Instruktioner

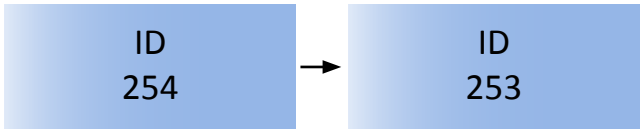
a. Normalläge.



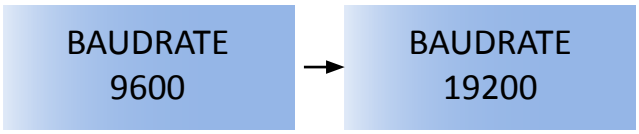
b. Knapparna ◄ eller ► växlar till menylistan. Fortsätt att trycka på ◄ eller ► för att växla mellan menykolumnerna.



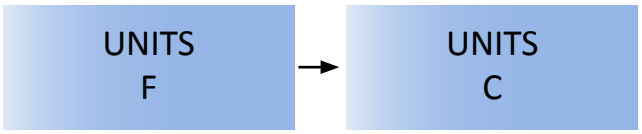
c. Detta är läget för adressinställningen. Fortsätt att trycka på ▲ eller ▼ för att justera adress-ID. Tryck på ◄ eller ► för att bekräfta.



d. Det finns två typer av baudrates - 19200 och 9600. Vid inställning av baudrate, klickar man på ▲ eller ▼ för att välja inställning.



e. Klicka på ▲ eller ▼ för val av temperaturenhet.



f. Klicka på ▲ eller ▼ för att justera värdet för temperatur och rätt kalibreringsinställning. Samma gäller för fukt.

Adress	Byte	Område	Standard		Register och beskrivning
			°C	°F	
0 to 3	4	-	-	-	Serial Number -4 byte value. Read-only
4 to 5	2	-	-	-	Software Version –2 byte value. Read-only
6	1	255	254	254	ADDRESS. Modbus device address
7	1	0~255	13	13	Product Model. This is a read-only register that is used by the microcontroller to determine the product
8	1	0~255	-	-	Hardware Revision. This is a read-only register that is used by the microcontroller to determine the hardware Rev
9	1	0~255	-	-	PIC firmware version
10	1	0~255	-	-	'Plug n Play' address, used by the network master to resolve address conflicts. See VC code for algorithms
15	1	0~1	0	0	Base address selection. 0 = Protocol address, 1 = PLC address
16	1	0~255	-	-	Firmware Update Register, used to show the status of firmware updates
17-99					Blank, for future use
100	2	0~1000	-	-	ROOM TEMPERATURE reading in DegF. Can also write to this register for single point calibration.
101	2	0~600	-	-	ROOM TEMPERATURE reading in DegC. Can also write to this register for single point calibration.
111	1	0~2			Display parameter: 0=temp and humidity, 1=hum only, 2 = temp only
113	1	-	0 -		not used
121	1	0~1			LCD temperature will show C or F, 0 =C, 1=F
184	1				Info Byte, this register contains info about the state of the tstat. "Bit 0 is read/write and shows the occupancy mode. Bit 0 = 0 means unoccupied. Bit 0 = 1 means occupied. " "Bit 1 is read only and shows the reset state. Bit 1 = 0 means hardware restart. Bit 1 = 1 means software restart. " "Bit 2 is read/write and is the reset prevention bit. Bit 2 = 0 means the tstat will automatically reset after certain registers are changed. Bit 2 = 1 prevents this reset. Changing this bit from 1 to 0 will trigger a reset." Bit 3 is the state of the digital input. Bit 3 = 1 means logic high. Bit 3 = 0 means logic low. Bit 4: Reserved, used for some non standard occupancy sensor logic Bit5 short delay for Modbus reply, used for slower PLC's to switch from TX to RX, default is 0=5ms, 1= 10ms delay.
185	1	0~1	1	-	Bau - Baudrate, 0=9600, 1=19.2kbaud
186	1	1~3	-	-	The factory default is 1. Temperature Transducer output range, 1=0-10V, 2=0-5V, 3=4-20mA
187	1	1~3	-	-	The factory default is 1. Humidity Transducer output range, 1=0-10V, 2=0-5V, 3=4-20mA
217	2	0~1000	500	-	Temperature Calibration Offset for single point temperature calibration, offset of 500 in order to store positive and negative numbers in 2 bits, calculated automatically when you write to register 100.
304	2	0~1000	-	-	Relative Humidity reading. Writing a humidity value to the register will do calibration, for details, refer to Humidity Calibration.

Address	Register and Description
365	Temperature Output calibration voltage value(0-10V),0-5V use the same value
366	Humidity Output calibration voltage value(0-10V),0-5V use the same value
367	Calibrate Temperature Output in 4-20mA mode
368	Calibrate Humidity Output in 4-20mA mode
369	Output for current calibration, current calibration decrease number
370	Auto/Manual output calibrate set. 0 : default value 1 : user manual. Bit 0 :temperture bit1 :Humidity
371	Temperature manual output value input, releative with register 370
372	Humidity manual output value input, releative with register 370
373	Relative Humidity in percentage,the same to register304
374	Sensor frequency on time
375	Spare for futher function
376	Spare for futher function
377	Spare for futher function
378	Spare for futher function
379	Spare for futher function
380	Spare for futher function
381	Factory 1st Calibration point. RH
382	Factory 1st Calibration point. Frequency
383	Factory 2nd Calibration point. RH
384	Factory 2nd Calibration point. Frequency
385	Factory 3rd Calibration point. RH
386	Factory 3rd Calibration point. Frequency
387	Factory 4th Calibration point. RH
388	Factory 4th Calibration point. Frequency
389	Factory 5th Calibration point. RH
390	Factory 5th Calibration point. Frequency
391	Factory 6tht Calibration point. RH
392	Factory 6th Calibration point. Frequency
393	Factory 7th Calibration point. RH
394	Factory 7th Calibration point. Frequency
395	Factory 8th Calibration point. RH
396	Factory 8th Calibration point. Frequency
397	Factory 9th Calibration point. RH
398	Factory 9th Calibration point. Frequency
399	Factory 10th Calibration point. RH
400	Factory 10th Calibration point. Frequency
401	Temperature output voltage calibration offset value adjust value(0 - 10%)
402	Temperature output voltage calibration offset value adjust value(10% - 20%)
403	Temperature output voltage calibration offset value adjust value(20% - 30%)
404	Temperature output voltage calibration offset value adjust value(30% - 40%)
405	Temperature output voltage calibration offset value adjust value(40% - 50%)
406	Temperature output voltage calibration offset value adjust value(50% - 60%)
407	Temperature output voltage calibration offset value adjust value(60% - 70%)
408	Temperature output voltage calibration offset value adjust value(70% - 80%)
409	Temperature output voltage calibration offset value adjust value(80% - 90%)

Address	Register and Description
410	Temperature output voltage calibration offset value adjust value(90% - 100%)
411	Humidity output voltage calibration offset value adjust value(0 - 10%)
412	Humidity output voltage calibration offset value adjust value(10% - 20%)
413	Humidity output voltage calibration offset value adjust value(20% - 30%)
414	Humidity output voltage calibration offset value adjust value(30% - 40%)
415	Humidity output voltage calibration offset value adjust value(40% - 50%)
416	Humidity output voltage calibration offset value adjust value(50% - 60%)
417	Humidity output voltage calibration offset value adjust value(60% - 70%)
418	Humidity output voltage calibration offset value adjust value(70% - 80%)
419	Humidity output voltage calibration offset value adjust value(80%- 90%)
420	Humidity output voltage calibration offset value adjust value(90% - 100%)
421	Temperature output current calibration offset value adjust value(0 - 10%)
422	Temperature output current calibration offset value adjust value(10% - 20%)
423	Temperature output current calibration offset value adjust value(20% - 30%)
424	Temperature output current calibration offset value adjust value(30% - 40%)
425	Temperature output current calibration offset value adjust value(40% - 50%)
426	Temperature output current calibration offset value adjust value(50% - 60%)
427	Temperature output current calibration offset value adjust value(60% - 70%)
428	Temperature output current calibration offset value adjust value(70%- 80%)
429	Temperature output current calibration offset value adjust value(80% - 90%)
430	Temperature output current calibration offset value adjust value(90% - 100%)
431	Humidity output current calibration offset value adjust value(0 - 10%)
432	Humidity output current calibration offset value adjust value(10% - 20%)
433	Humidity output current calibration offset value adjust value(20% - 30%)
434	Humidity output current calibration offset value adjust value(30% - 40%)
435	Humidity output current calibration offset value adjust value(40% - 50%)
436	Humidity output current calibration offset value adjust value(50% - 60%)
437	Humidity output current calibration offset value adjust value(60% - 70%)
438	Humidity output current calibration offset value adjust value(70% - 80%)
439	Humidity output current calibration offset value adjust value(80%- 90%)
440	Humidity output current calibration offset value adjust value(90% - 100%)
441	Spare for futher function
442	Spare for futher function
443	Temperature output offset, depending on sensor range
450	Temperature Calibration Offset for sensor
451	Humidity Calibration Offset for sensor
452	The filter of Temperature
453	The filter of Humidity
454	Sare for futher function
455	Spare for futher function