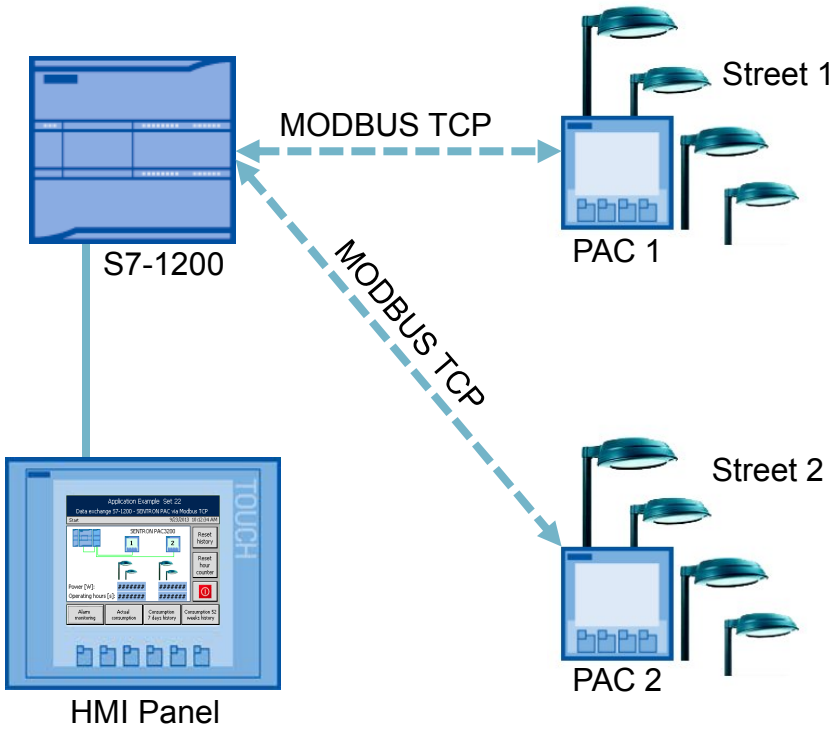
Set 22 – Data Communication between S7-1200 and SENTRON PAC3200 via MODBUS TCP

Task



- The energy consumption of two sets of lamps is to be captured and displayed.
- If the value falls below or exceeds a certain consumption that can be defined, a message with a time stamp is to be generated to record the fact.
- The overall energy consumption of all streets is to be displayed as a time course.
- The daily energy consumption is to be depicted in a weekly overview.
- After one week, the weekly energy consumption is calculated from the daily energy consumption.
- The operating hours are to be captured and be reset after maintenance.

Scan the code to get more information!

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http://support.automation.siemens.com/WW/view/en/40614428

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Automation Solution

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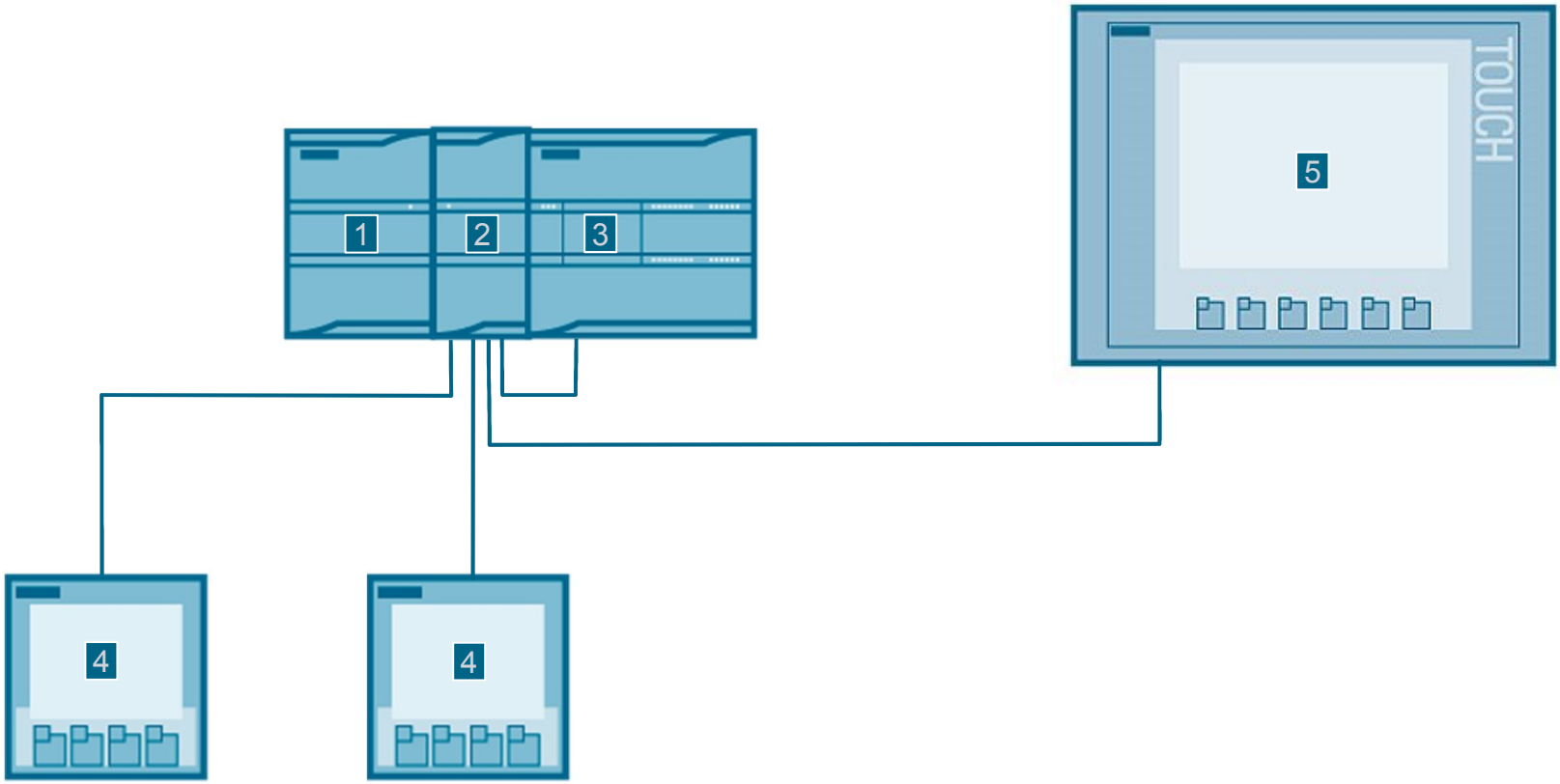

1	PM 1207	2	CSM 1277	3	CPU 1215C	4	SENTRON PAC3200	5	KTP600 Basic

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Main Components

		Product	Function description
1		**Power supply S7-1200 PM 1207** **Article no.** **6EP1 332-1SH71**	• Power supply for the CPU 1215C and KTP600 Basic
2		**Compact Switch Module CSM 1277** **Article no.** **6GK7277-1AA10-0AA0**	• Ethernet switch for expanding the number of ports to 6 ports
3		**CPU 1215C, DC/DC/DC** **Article no.** **6ES7 215-1AG31-0XB0**	• Evaluation of the power consumption
4		**PMD SENTRON PAC3200** **Article no.** **7KM2112-0BA00-3AA0**	• Device to be fitted in a switchboard for measuring the power and its transmission to the control system
5		**SIMATIC HMI KTP600 BASIC COLOR PN** **Article no.** **6AV6 647-0AD11-3AX0**	• Displaying the energy consumption for a day, a week and the whole year • Displaying warning if the values fall below a certain power consumption or exceed it

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Main Components

		Product	Function description
6		**SIMATIC STEP 7 BASIC V13** **Article no.** **6ES7822-0AA03-0YA5**	• Software for programming the CPU 1215C • Configuration of the KTP600 Basic Panel

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Further Information

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Benefits

- Maintenance work considerably reduced since short-circuits and lamp failures are reported
- Since the operating hours are recorded, the time when the lamps must be replaced can be calculated

Range of use

- Street lighting

Similar topics

- Detecting overloads and automatic switch-off of prioritizable loads by means of SENTRON PAC3200 via the Modbus-on-TCP communication (Set 24)

Further information

- LOGO! and S7-1200 Sets: www.siemens.de/support.automation.applikationen
- Service and Support Portal: http://support.automation.siemens.com/

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Security Information

For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered.
For more information about industrial security, visit http://www.siemens.com/industrialsecurity.

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