

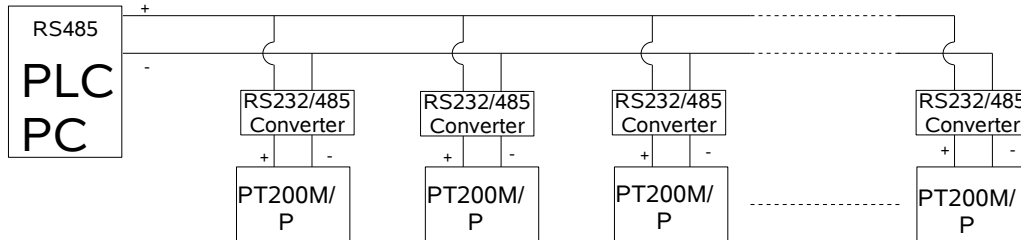


API 13.661 PT200M/P Network Setup

Product Support

The Purpose of this API is to provide a quick HOWTO to setting up the PT200M and PT200P indicators for networked communications. Detailed information can be found in the PT200M/P reference and communications manuals. The general layout is shown below, note the use of RS232 to RS485 converters to convert the RS485 signals of the network to the RS232 signals of the PT200M/P. These can be obtained as PT part EP100SC0080XXX or Dataforth's new LDM2485A/B series.

Note that a 4 wire RS485 network must be used with the PLC/PC as master.



Setting up the PT200M/P

The serial configuration is covered on page 33 of the reference manual. Set the communication **TYPE** to **NET**, set the **BAUD** and **BITS** as desired to be compatible with the PLC or PC. DTR handshake should be disabled and the default of 9600, n81- should be sufficient for most applications if set in all devices. Set a different **ADDRESS** in each PT200M/P so they can be communicated with individually.

When using the RS-232 port of the PT200M/P for communications, be aware that the remote input function cannot be used. The Connection to the PC/PLC may require an RS232/485 converter. The PC/PLC communications parameters must be set the same as the PT200M/P. By default the PT200M/P factory setting is 9600 baud, 8 data bits, no parity, 1 stop bit, but this can be changed in the indicator setup and should be checked. It is possible to set the PT200M/P to continuously output the weight (auto.1, auto.2) and still issue commands to the PT200M/P but this would be discouraged and may cause errors if there are more than 1 indicator on the network as the network would be flooded with traffic. On receipt of the command the PT200M/P will perform the request, respond (if a response was requested) and continue transmitting the weight if it is set for auto output. In a network situation this would not be desired as it would flood the network with print data.

Common Tasks.

The most common tasks involve communicating with just one PT200. The examples here transmit on the broadcast address so the single indicator is assured of receiving the command. For multi-drop connections where multiple PT200 must be individually addressed the address of the specific PT200 M/P can be inserted, please read the manual completely. The address field comprises the first 2 characters of the message sent to the indicator and is a 2 character hexadecimal number that incorporates the address and additional information. Communication can generally be configured to optionally suppress a response from the PT200 confirming completion of the requested action and advising any errors. The table on the following page lists the address fields for response suppressed, response required and typical responses.

A selection of common commands are listed in the following table and are the characters to send (type) for the command, the command ends with a↵ which is a <CR><LF> (ASCII dec.[13,10], hex 0d0a) pair. The values to set are in hexadecimal.

A typical command and response would be as below, ^ is a space.

Read weight from indicator 1	21050026:↵	response 81050026:^^10.00^kg^G
Read weight from indicator 10	2A050026:↵	response 8A050026:^^10.00^kg^G



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The table below lists some common communications functions using a broadcast address. All indicators on a network would respond and individual addressing would be preferred. The page number refers to the communications manual.

Task	Response suppressed	Response Required	Page
Read weight (human format)		20050026:↵	9
Press a button <ul style="list-style-type: none"> • Zero • Tare • G/N • f(function) 	00120008:8002↵ 00120008:8003↵ 00120008:8004↵ 00120008:8005↵	20120008:8002↵ 20120008:8003↵ 20120008:8004↵ 20120008:8005↵	9
Change filter setting	00120131:1↵	20120131:1↵	35
Change set point 1 (500kg)	00120171:1F4↵	20120171:1F4↵	9,36
Save Settings Permanently	00100010:↵	20100010:↵	26

Indicator addressing, first 2 characters of messages sent and first 2 characters of responses.

Indicator Address	Response suppressed	Response Required	Response no errors	Response with error	Indicator Address	Response suppressed	Response Required	Response no errors	Response with error
01	01	21	81	C1	16	10	30	91	D1
02	02	22	82	C2	17	11	31	92	D2
03	03	23	83	C3	18	12	32	93	D3
04	04	24	84	C4	19	13	33	94	D4
05	05	25	85	C5	20	14	34	95	D5
06	06	26	86	C6	21	15	35	96	D6
07	07	27	87	C7	22	16	36	97	D7
08	08	28	88	C8	23	17	37	98	D8
09	09	29	89	C9	24	18	38	99	D9
10	0A	2A	8A	CA	25	19	39	9A	DA
11	0B	2B	8B	CB	26	1A	3A	9B	DB
12	0C	2C	8C	CC	27	1B	3B	9C	DC
13	0D	2D	8D	CD	28	1C	3C	9D	DD
14	0E	2E	8E	CE	29	1D	3D	9E	DE
15	0F	2F	8F	CF	30	1E	3E	9F	DF
					31	1F	3F		