

Profibus-DP Slave Unit

CQM1-PRT21

Profibus-DP Slave for CQM1(H) PLCs

- No PLC settings need to be made.
- Auto-detect all Profibus-DP baud rates from 9.6 kbit/s to 12 Mbit/s.
- Slave address setting, selectable from 0 to 99.
- Support and indication of Profibus-DP broadcast functions (Sync/Freeze/Clear).
- Communication status available externally via relay output.
- Configurable for 2, 4, 6 or 8 words.



Ordering Information

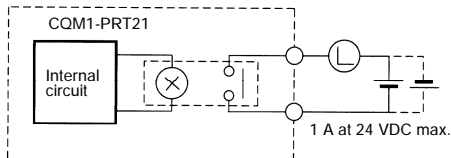
Product Code	Description
CQM1-PRT21	Profibus-DP slave unit for CQM1(H) PLCs

Specifications

■ Communication Specification

Applicable standard	EN 50170 vol. 2
Station type	Modular station, max. 1 module Configurable with I/O-modules of 2, 4, 6 or 8 words
Data consistency	By word
Bus connector	9-pin female sub-D connector (RS-485 Profibus connector)
Bus termination	External
Baud rate (auto-detect)	9.6 / 19.2 / 45.45 / 93.75 / 187.5 / 500 kbit/s, 1.5 / 3 / 6 / 12 Mbit/s
Profibus address range	0 to 99, Remote setting not supported
Communication cable	Type A (EN 50170 vol. 2)
Minimum slave interval time	0.5 ms
Watchdog base	10 ms, 1 ms selectable by parameter setting
Supported DP functions	\$ Data_Exchange \$ Slave_Diag \$ Set_Prm \$ Chk_Cfg \$ Global_Control (SYNC, FREEZE, CLEAR) \$ Get_Cfg \$ RD_Inp \$ RD_Outp
Profibus-DP GSD file	OC_054D.GSD

■ Unit Specification

Host PLC system	CQM1, CQM1H
Switch settings	Number of I/O words Motorola/Intel data format Profibus-DP address
LED indicators	Unit status : RUN (green LED), ERR (red LED) Network status : COMM (green LED), BF (red LED) WD OFF (yellow LED), CLEAR (yellow LED) SYNC (yellow LED), FREEZE (yellow LED)
No. of occupied words	Configurable by DIP switches (see note) \$ 2 words in + 2 words out \$ 4 words in + 4 words out \$ 6 words in + 6 words out \$ 8 words in + 8 words out
I/O refresh time (data exchange with CPU)	Max. 0.16 ms
Current consumption (max)	350 mA at 5 V DC (at CQM1 I/O bus)
Weight	170 g
Storage temperature	-20 to +75 °C
Operating temperature	0 to +55 °C
Operating humidity	10% to 90% (non-condensing)
EMC compliance	EN50081-2, EN61131-2
Circuit configuration	Communication status output (COMM) terminal 

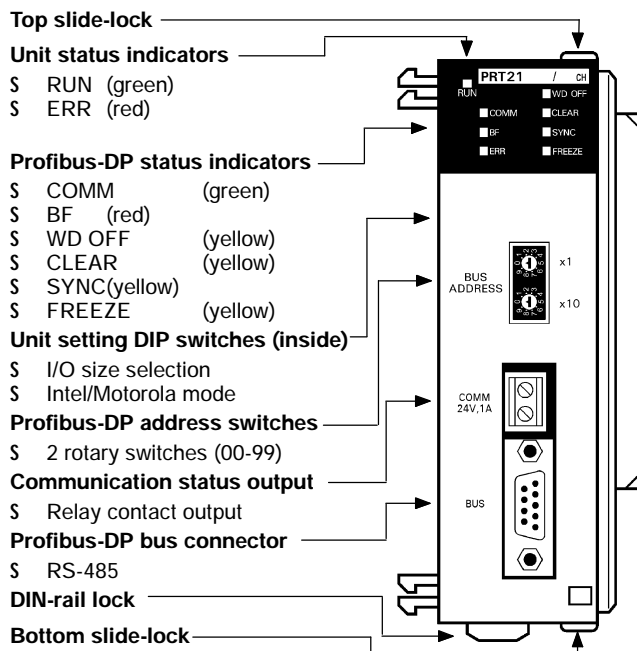
Note: The CQM1-PRT21 can be mounted to any CQM1- or CQM1H-series CPU. The maximum amount of I/O data that can be exchanged with the CPU depends on the selected CPU type, and on the number and type(s) of any additional I/O unit(s). To operate with the Unit's maximum I/O capacity, a CQM1H-CPU51 or CQM1H-CPU61 is required.

■ Communication status output

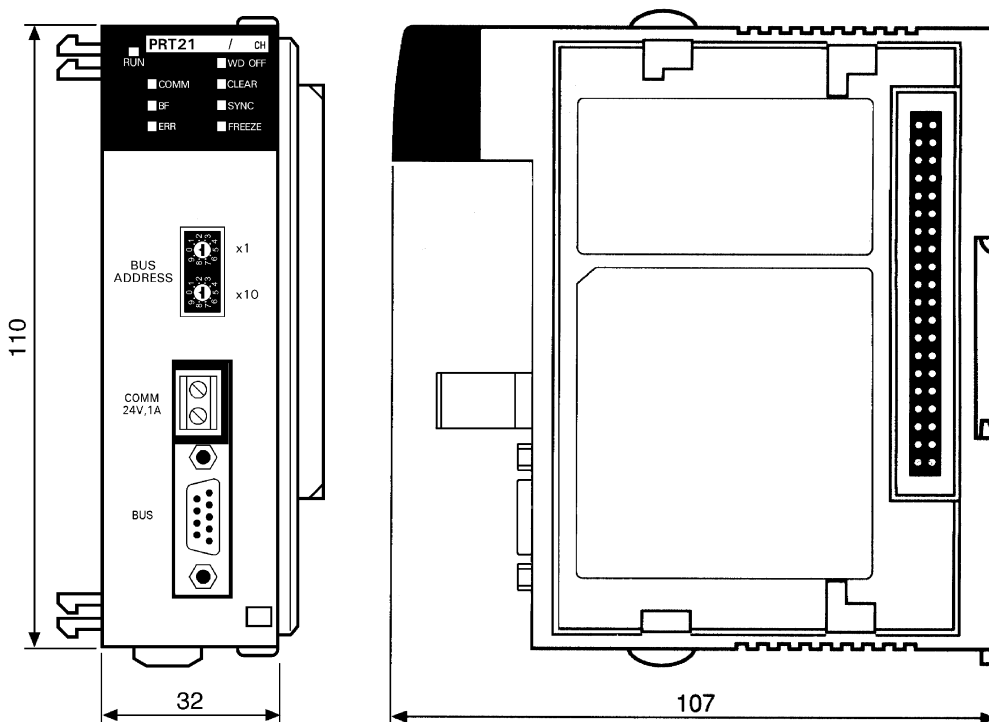
The COMM relay contact output indicates if data exchange with the Profibus-DP master unit is active. This signal can be connected to a PLC input or external signalling device. It is recommended to use this information in the PLC to judge the validity of the received data.

ON state	\$ I/O data exchange with the Profibus-DP master is active.
OFF state	\$ PLC Power OFF \$ Fatal error in PLC CPU or I/O bus. \$ No I/O data exchange with Profibus-DP master (check LED indication).
Relay type	OMRON G6H-2F, non-replaceable
Maximum load	1 A at 24 V DC
ON/OFF delay	less than 10 ms
Connector	Phoenix MSTBA 2,5/2-G

Nomenclature



Dimensions



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. P907-E2-01 **In the interest of product improvement, specifications are subject to change without notice.**

OMRON EUROPE B.V.

Wegalaan 67-69

2132 JD Hoofddorp

The Netherlands

Phone: +31 23 568 13 00

Fax: +31 23 568 13 88

Printed in The Netherlands