

# MCM20

## Autoremove Particle Counter



### Permanent installation ensures 24/7 monitoring of systems

#### Online continuous particle counting to protect fluid systems

MCM20 online continuous particle counting ensures constant system monitoring within defined parameters. PC/PLC controlled, it can be pre-set to carry out tests at specific intervals and connects permanently to a System20 sensor via a 2-metre hose assembly.



### Contact Information:

Parker Hannifin  
**Hydraulic Filter Division Europe**

**European Product Information Centre**  
**Freephone: 00800 27 27 5374**  
**(from AT, BE, CH, CZ, DE, EE, ES, FI, FR, IE, IT, PT, SE, SK, UK)**  
**filtrationinfo@parker.com**

[www.parker.com/hfde](http://www.parker.com/hfde)

### Product Features:

- MCM20 online continuous particle counting ensures constant system monitoring within defined parameters.
- Calibration carried out to ISO11171 via ISO11943 principles. Multi-standard ISO and NAS reporting including full count/100 ml. detection at size ranges.
- Interactive handset options available for direct test sequencing, change test parameters and last test results.
- PC/PLC controlled.
- Can be pre-set to carry out tests at specific intervals.
- Connects permanently to System20 sensors via 2 metre hose assembly.

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### Features & Benefits

- The MCM20 is an online continuous particle counter ensuring constant system monitoring within defined parameters.
- PC/PLC controlled
- Ensures constant system monitoring.
- Can be pre-set to carry out tests at specific intervals.
- Can be set up via optional detachable Handset.
- Enclosed in a metal casing, with internal workings on a removable chassis for ease of service and calibration.
- Connects permanently to System20 sensors via 2 metre hose assembly (supplied).
- Simple data formatting programme for trend analysis.

### Typical Applications

- Test rigs
- Construction machinery
- Industrial plant
- Hydraulic equipment & system manufacturers
- Paper processing
- Steel rolling mills
- Military equipment application

### The Parker MCM20

Using proven portable particle counting technology (icountLCM20), the MCM20 and its principles are available to users where continuous, permanent installed monitoring is required.

The MCM20 utilises the latest laser diode method of particle counting. The unit is enclosed in a metal casing with access to the hydraulic connection, DC input power, fuse holder and PC/PLC connection ports located on the front panel.

The internal workings are manufactured onto a removable chassis for ease of service and calibration.



**Test cycle time:**

Variable between 30 seconds and 3 minutes.

**Repeat test time:**

Continuous Mode or between 30 seconds and 1440 minutes (24 Hours).

**Principle of operation:**

Optical scanning analysis and measurement of actual particles.

**Particle counts:**

6 channels either ACFTD or MTD calibrated.

**International codes:**

ISO 7-22, NAS 0-12.

**Storage temperature:**

-40°C to +80°C (104°F to 176°F).

**Operating temperature:**

+5°C to +60°C (41°F to 140°F) (hydraulic oil temperature).

**Unit control connection:**

Terminal protocol via RS 232 or optional handset.

**Data retrieval:**

Local PC / PLC program or by optional handset.

**Calibration:**

By accepted on-line methods confirmed by relevant International Standard Organisation procedures.

**Re-calibration:**

Annual certification by an approved Parker Service Centre.

**Max. working pressure:**

420 bar (6000 PSI).

**Minimum working pressure:**

2 bar (29 PSI).

**Fluid compatibility:**

Mineral oil or petroleum based fluids.  
Aggressive fluid version also available.

**Sample requirements:**

0.3 – 1.5 DP bar (differential pressure) via approved inline sampling concept.

**System connection:**

Via System 20 inline sensors / single point sampler

**Computer compatibility:**

Interface via RS 232 connection @ 9600 baud rate.

**Weight:**

8.75kg.

**Power requirement:**

12 Vdc input. (1.25A (T) fuse). Regulated.

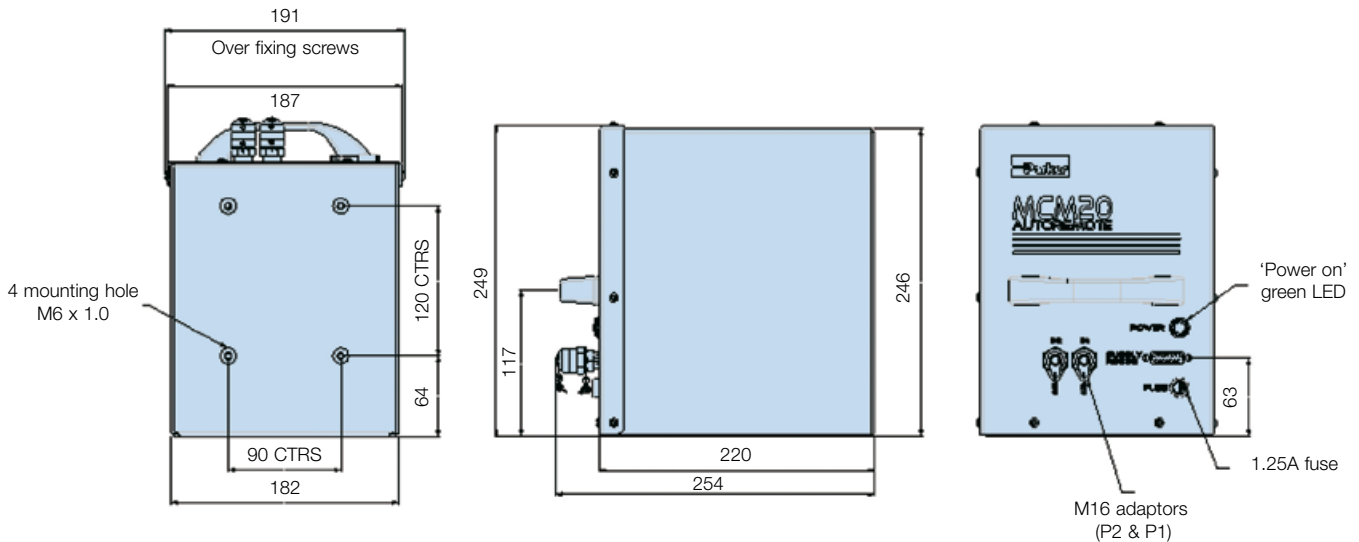
**Installation:**

Back/base M6x1.0 mounting inserts (see annotated diagrams).

**Software:**

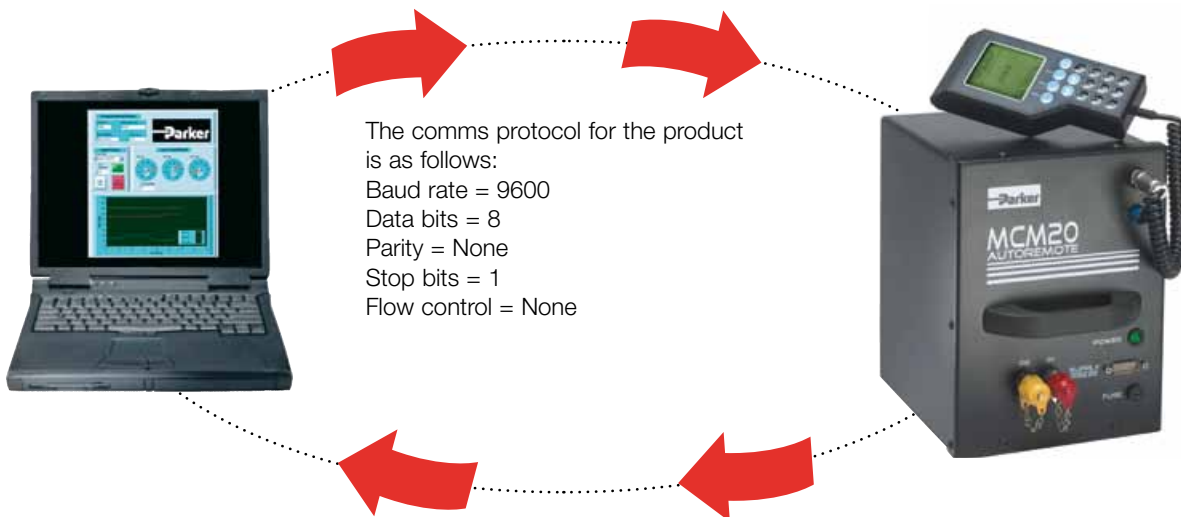
LabView demonstration software.

Dimensions (mm)



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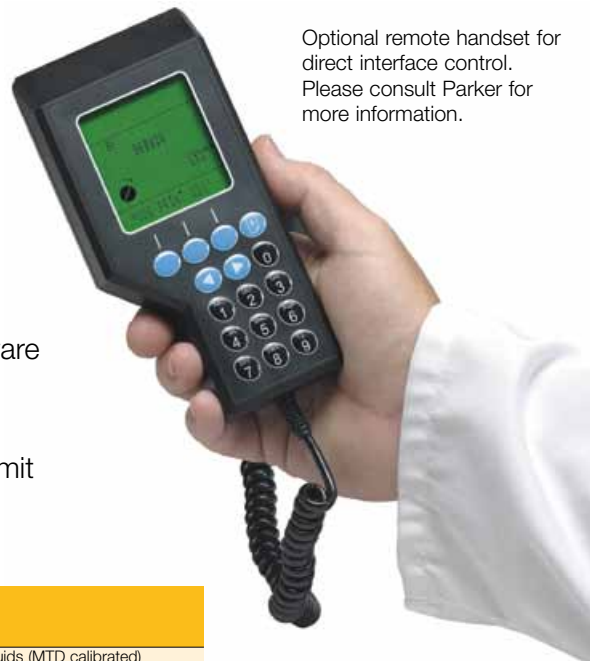
The comms protocol for the product is as follows:  
 Baud rate = 9600  
 Data bits = 8  
 Parity = None  
 Stop bits = 1  
 Flow control = None

Labview

Optional Remote Handset



- Customised demonstration/software for MCM operation.
- Full graphic display.
- Visual indication of limit parameters.



Optional remote handset for direct interface control. Please consult Parker for more information.

### Standard products table

Product number	Supersedes	Description
<b>MCM202022</b>	MCM20.2022	A/remote particle counter for mineral fluids (MTD calibrated)
<b>MCM202022HS</b>	MCM20.2022.HS	A/remote particle counter for mineral fluids (MTD calibrated) with Handset
<b>MCM202021</b>	MCM202021	A/remote particle counter for mineral fluids (ACFTD calibrated)
<b>MCM202021HS</b>	MCM202021HS	A/remote particle counter for mineral fluids (ACFTD calibrated) with handset
<b>MCM202061</b>	MCM202061	A/remote particle counter for mineral fluids (ACFTD calibrated)
<b>MCM202061HS</b>	MCM202062	A/remote particle counter for mineral fluids (ACFTD calibrated) with handset
<b>MCM202062</b>	MCM202061HS	A/remote particle counter for mineral fluids (MTD calibrated)
<b>MCM202062HS</b>	MCM202062HS	A/remote particle counter for mineral fluids (MTD calibrated) with handset
<b>ACC6NB001</b>	B94106	Handset (Blue keypad) mineral fluids
<b>ACC6NB002</b>	B94107	Handset (Red keypad) aggressive fluids
<b>ACC6NN003</b>	B94802	2 meter mineral hose assembly
<b>ACC6NN004</b>	B94801	2 meter aggressive hose assembly

Note 1: Part numbers featured with bold highlighted codes will ensure a 'standard' product selection.  
 Note 2: Alternate displayed part number selection will require you to contact Parker Filtration for availability.

