



Donaldson
FILTRATION SOLUTIONS

OPERATION MANUAL

Controller C 200



INTRODUCTION

Congratulations with the purchase of the C200 Controller!

The C200 is equipped with the latest processor & data transfer technology to ensure easy, smart & functional operation.

Your controller is already set up with default settings and can be used as a plug and play device. Please contact our Donaldson trained personnel for optimal alignment of the cleaning system with your specific application.

Once connected to the power supply, the C200 controller operates automatically & independently.

TABLE OF CONTENTS

Overview product line	4
Safety recommendations	5
Device description	5
Installation	6
User interface	9
Operation	11
Multiple pilot valves or valve control units	12
Glossary	15
Troubleshooting	18
Declaration of Conformity	A1

OVERVIEW PRODUCT LINE

C 100



AC & DC supplied

3 status LEDs

6 valve out (max 12)*

2 fixed inputs
interrupt
fan feedback

C 200



AC & DC supplied

Graphic display & buttons

6 valve out (max 12)*

ΔP sensor

2 programmable inputs

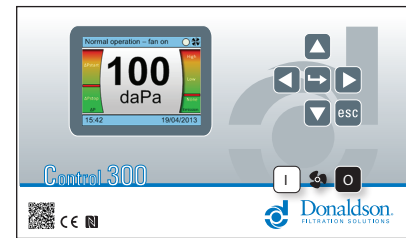
2 programmable outputs

1 fixed bursting disc input

Analog I/O

5W 24VDC power out

C 300



AC supplied

Colour display & buttons

6 valve out (max 12)*

ΔP sensor

real time data logging system

5 programmable inputs

3 programmable outputs

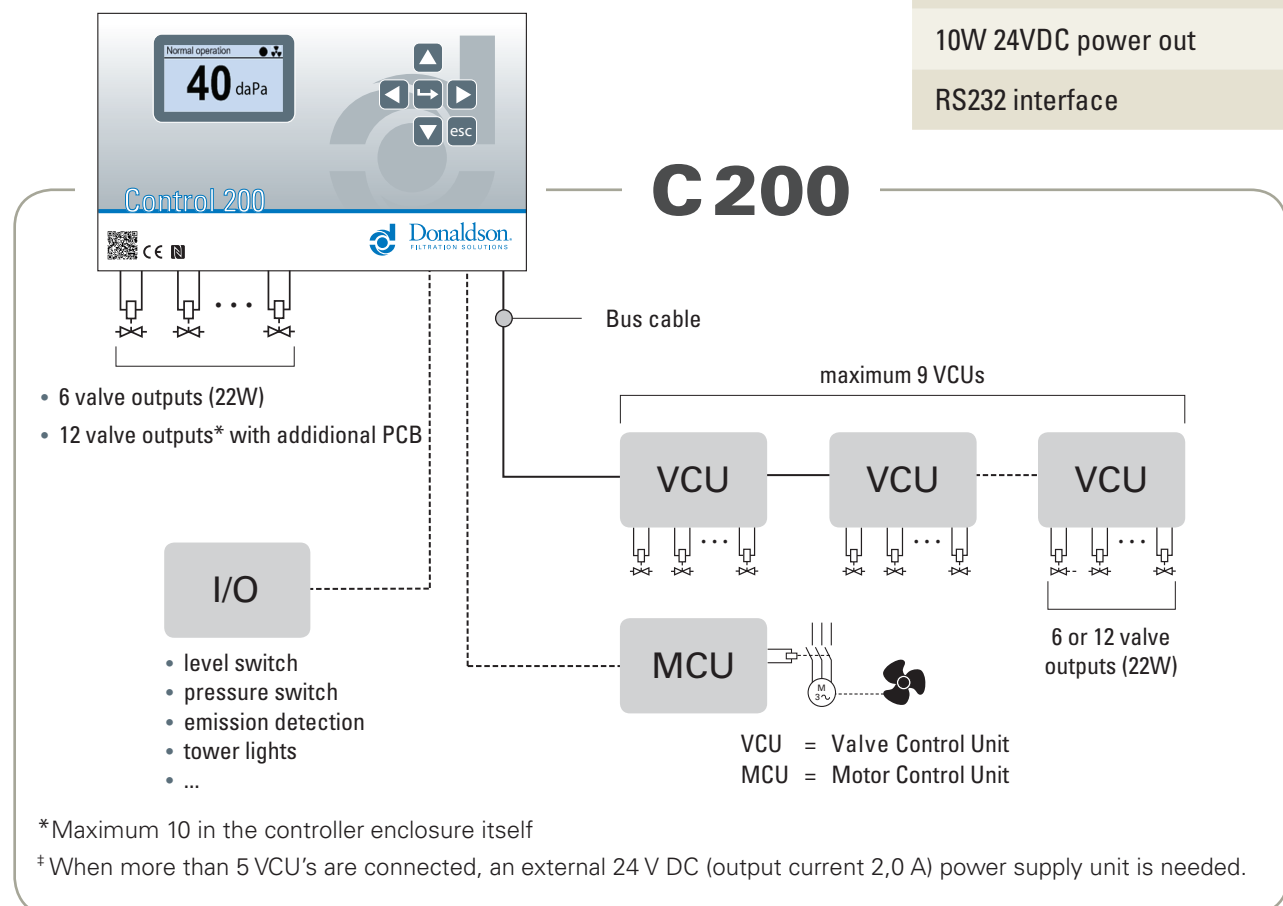
1 fixed bursting disc input

PTC input
2 analog inputs
1 analog output

10W 24VDC power out

RS232 interface

*Maximum 10 in the controller enclosure itself



SAFETY RECOMMENDATIONS



This filter control unit carries hazardous electrical voltage when connected to the mains. Improper installation of the connected electrical equipment may cause device failure, serious or even fatal injuries. In addition to general safety rules of industrial electrical installations, pay particular attention to the following points:

- All applicable laws, conditions, rules and regulations governing the installation of electrical equipment must be observed.
- All electrical work has to be done by a qualified electrician according to the national and local electric codes that apply (EN60204.1, IEC 364).
- It is a requirement of the Supply of Machinery (Safety) Regulations 1992 to provide adequate isolation and emergency stop facilities. Due to the varied nature of site installations this cannot be provided by Donaldson but instead is the responsibility of the customer.
- For installation in hazardous areas, all work must be carried out with the electrical supply isolated or only when the potentially explosive atmosphere is not present.

DEVICE DESCRIPTION

The C 200 controller is used to control 24 V DC solenoid valves on dust collectors with compressed air cleaning.

In its basic version, a maximum of 6 pilot valves can be connected to the device. By plugging in an extension card, 6 additional valve outputs become available, giving a total of 12 pilot valves that can be connected to the Bus interface of the C 200 controller.

Additionally, the C 200 valve outputs can be extended by using VCU modules or Valve Control Units. VCU modules with 6 or 12 outputs are available.

Optionally, the C 200 can also control a fan motor when equipped with a Motor Control Unit or MCU. Both VCU and MCU are connected to the C 200 Bus system.

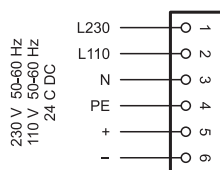
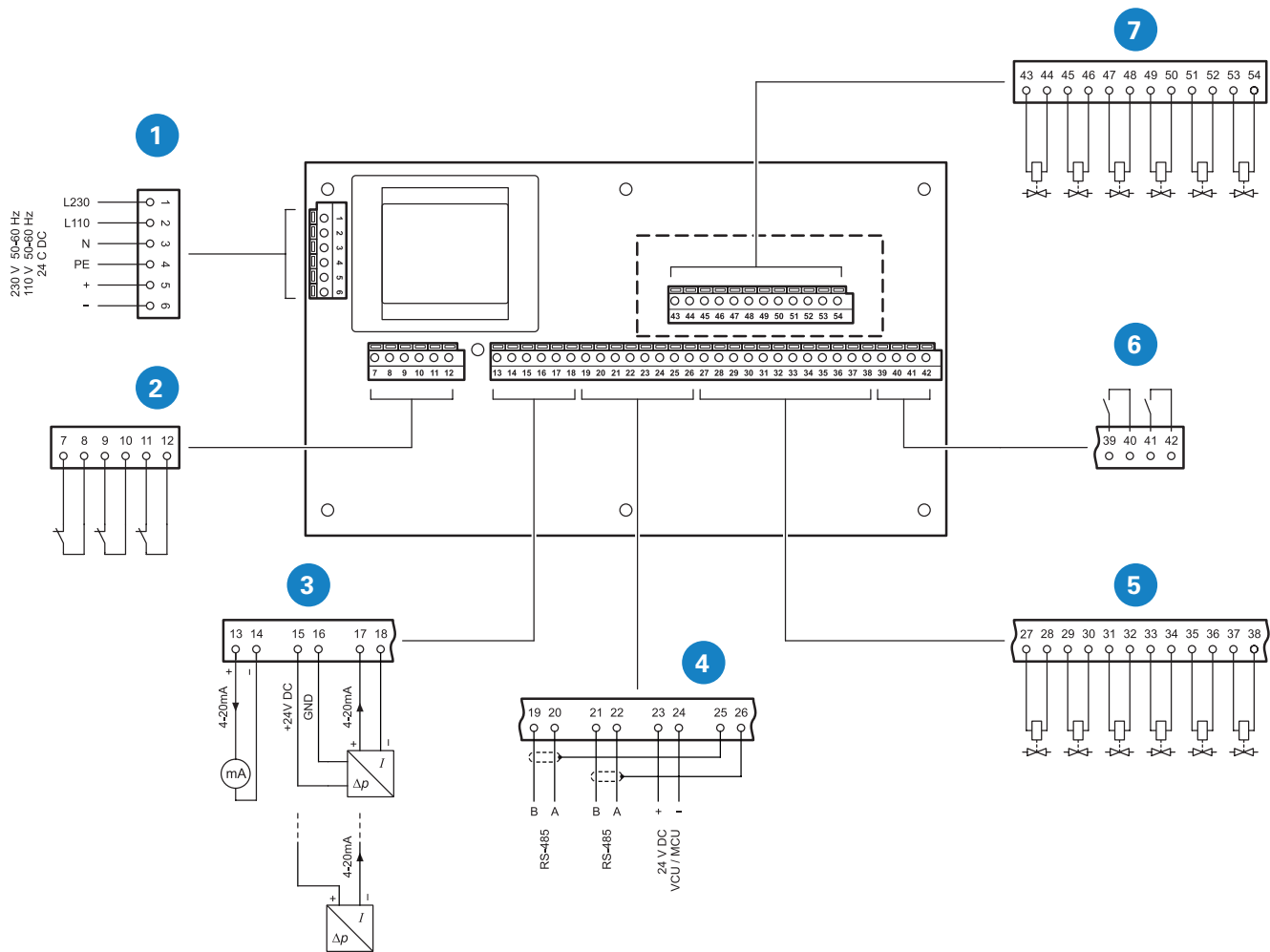
Once connected to the power supply, the C 200 controller operates automatically and independently.



The C200 can operate with 2 different supply voltages:

- 230/115VAC (50-60Hz) supplied
- 24VDC supplied

INSTALLATION



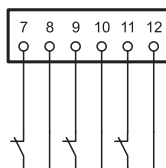
1 Power supply connection

The C200 can be supplied with either AC (230 or 110 VAC; 50-60 Hz) or DC (24VDC) power.



Using the wrong DC polarity will destroy the control board.

Do not use cables larger than 1,5 mm² to connect to power supply as this may damage the terminal block.



2 Digital input connection

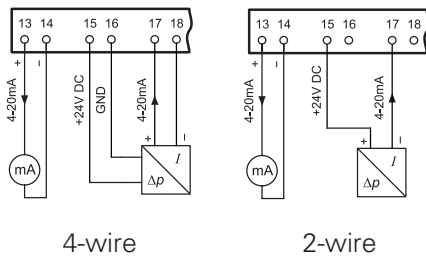
7, 8 input 1 function, chosen in the program menu

9, 10 input 2 function, chosen in the program menu

11, 12 fixed input for connection explosion panel



All inputs are normally closed.



3 Analog input / analog output

13, 14 4-20 mA-output for Δp -remote indicator connection

17, 18 4-20 mA-input, 4-wire technology

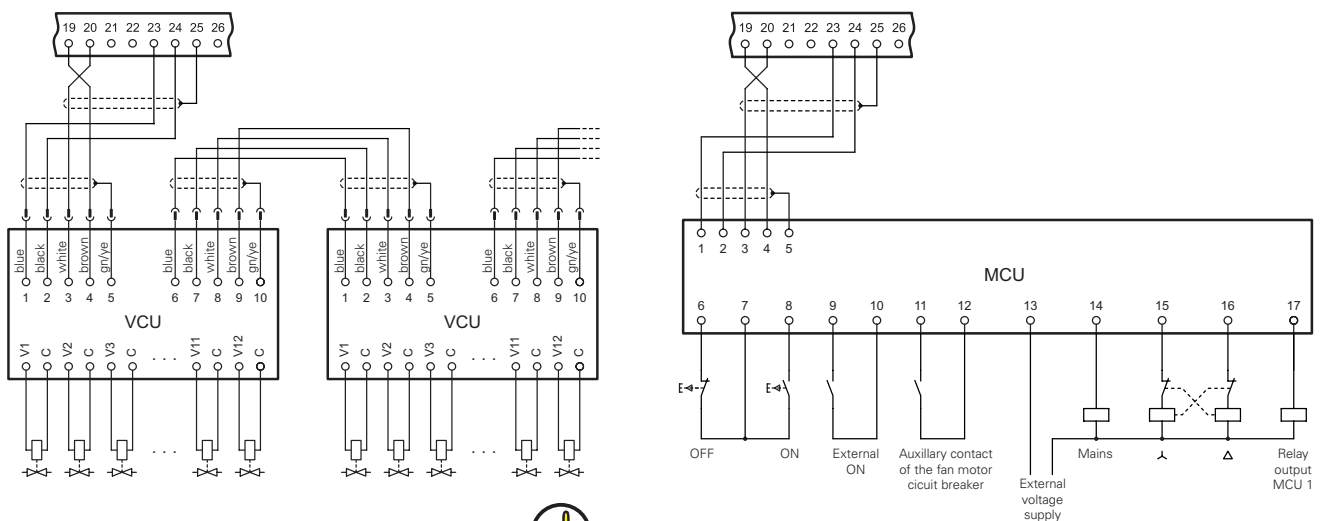
15, 17 4-20 mA-input, 2-wire technology



See page 8 for specifications of the sensor for analog inputs.

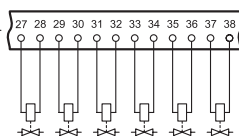
4 Bus RS-485-Interface (optional)

connection of VCU and MCU module

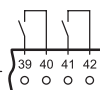


When more than 5 VCU's are connected, an external 24 V DC (output current 2,0 A) power supply unit is needed.

This feed is to be connected to clamps 5+ and 6-.



5 Solenoid valves 1 to 6



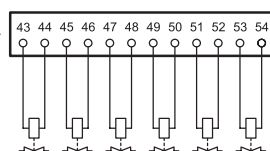
6 Relay outputs

39, 40 relay output 1, function chosen in the program menu

41, 42 relay output 2, function chosen in the program menu



All outputs are normally open.



7 Solenoid valves 7 to 12

Additional board required!

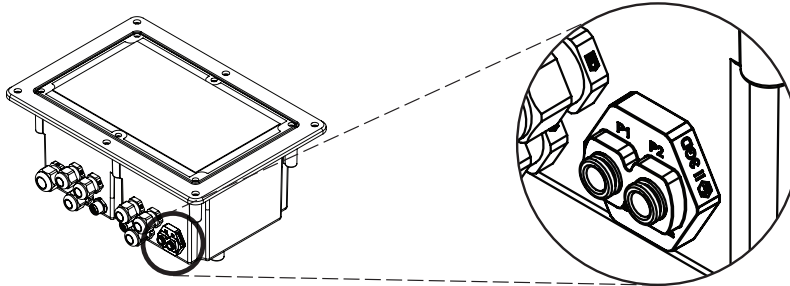


Do not use cables larger than 1,5 mm² to connect to power supply as this may damage the terminal block.



When the online cleaning is set to ΔP cleaning mode, the ΔP hoses from the dirty air and clean air plenum should be connected to the controller.

DAP / CAP hoses can be connected either side. The controller corrects negative pressure automatically.

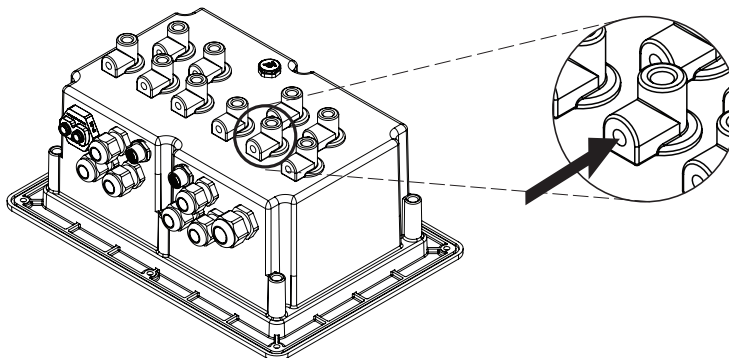


The specifications of the sensor for analog inputs should correspond to the following ranges:

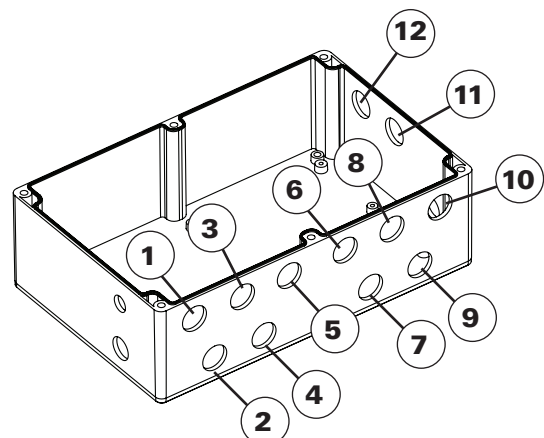
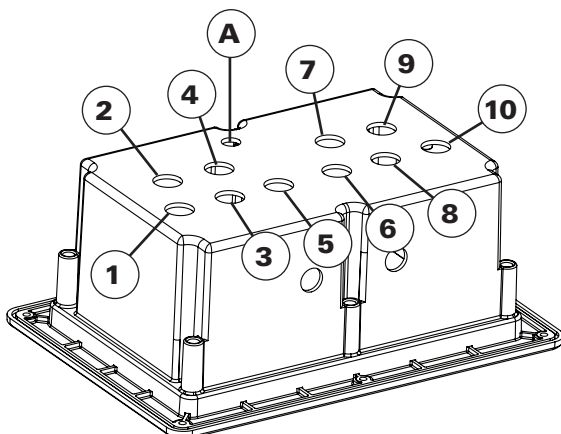
Manifold pressure	Analog pressure sensor	0 - 10 bar
Remote ΔP	Analog pressure sensor	0 - 3500 Pa
Emission sensor	Analog emission sensor	0 - 100%



Ensure correct connection of the pneumatic tubing (4 x 6 mm), see figure below.

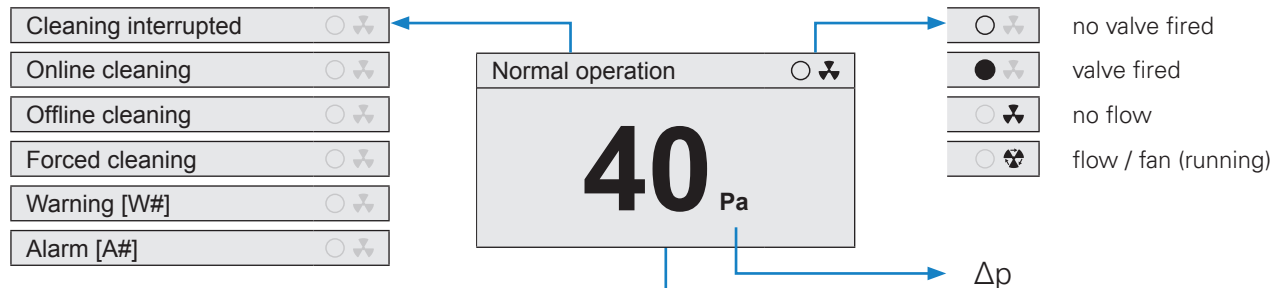


Ensure correct connection order. **A** is the air ventilation plug.



USER INTERFACE

Home screen



Alarms



An alarm message needs to be manually reset before the alarm message will disappear.

Adjust screen brightness using arrows.



Service alarm >
Too high pressure drop measured. Filters need servicing. Contact your local sales office.

Valve X Failure >
Valve X (VCU Y) has an open circuit malfunction. Check the solenoid wiring.

VCU X lost >
VCU X is not responding. Check bus cable, if necessary replace the VCU.

MCU X lost >
MCU X is not responding. Check bus cable, if necessary replace the MCU.

4-20mA error >
The sensor 4-20mA signal is either below 4mA or above 20mA.

Fan alarm >
The fan overload contact tripped. Check the settings & the fan wiring.

Bursting disc alarm >
Bursting disc input open, possibly an explosion has occurred. Check wiring and state of the filter.

Filter stop alarm >
Forced stop on digital input. Check input state.

Emission alarm >
Emission is 20 times higher than initial calibrated situation. Verify filter integrity.

Pressure alarm >
Manifold pressure above or below specs. Please apply correct compressed air supply.

Config alarm >
No filter configuration has been loaded. Please contact your sales rep. to load correct settings.

Wrong fan rotation >
The system has detected wrong fan rotation. Switch over 2 phases of the fan connection.

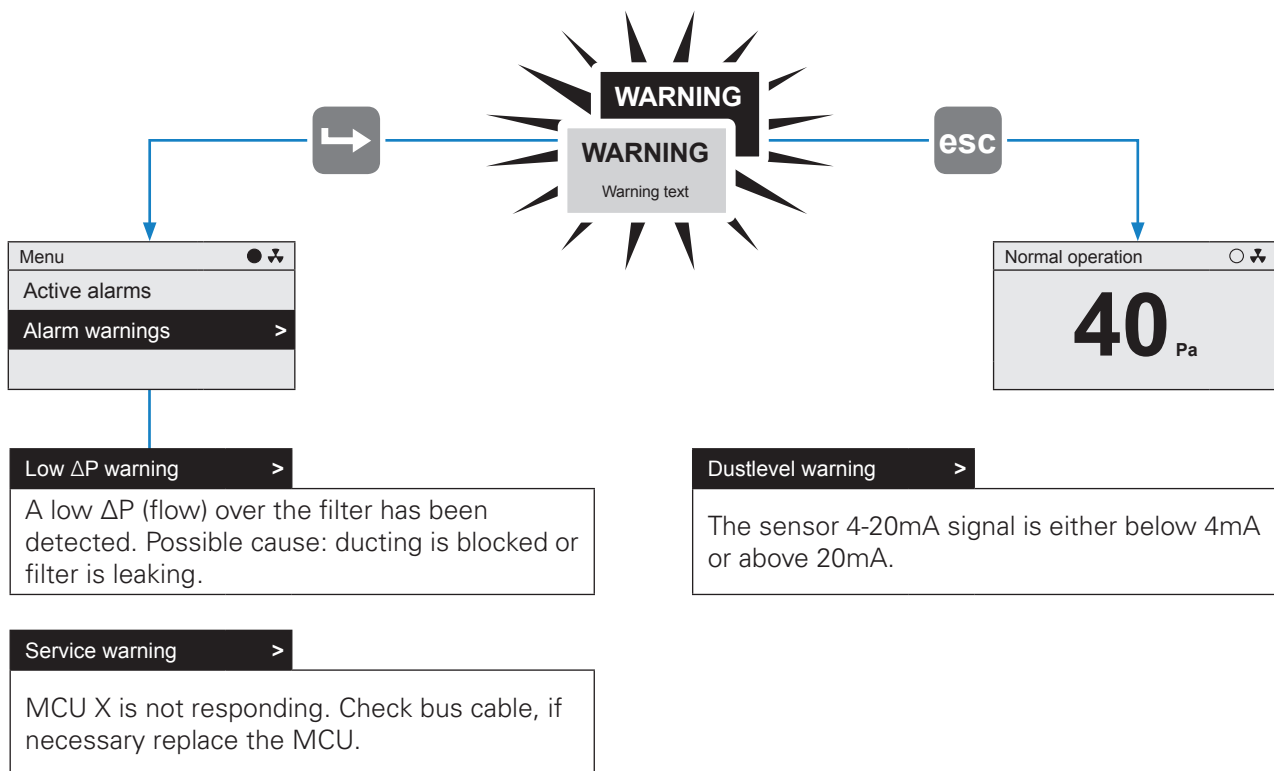
Data corrupted >

Data corruption has been detected or no configuration file is loaded.
The following parameters will be used:

- #VCU/valves/MCUs as detected
- Continuous cleaning
- 100 msec. opening time
- Offline cleaning = 0 cycles
- Pulse interval = 12 seconds
- Low/high ΔP warning = 0

Warnings

A warning message will disappear as soon as the warning condition is no longer true.

**Modifying settings**

To modify settings you need to login: go to the menu system by pressing enter on the home screen and navigate down to 'settings'. A PIN code is requested.

Depending on the code entered you access the operator setting menu or the Donaldson setting menu:

- Operator level: change basic settings:
Units / Language / I/O options / # Offline Cycles. Default PIN code is '9999'
- Donaldson level:
Modify cleaning / Input & output / Fan settings.

Please contact your local sales agent to modify the Donaldson level settings.

OPERATION

The controller is fully automatic & ensures the cleaning system is operated at regular intervals, to facilitate efficient cleaning of the filter elements.

The first time the controller is powered up, a complete system check is performed and at regular intervals the system performs diagnostic tests to ensure system & data integrity. If any abnormality is found, an alarm or warning message is triggered for your information.

Your controller is already set up with default settings and can be used as a plug and play device. Please contact our Donaldson trained personnel for optimal alignment of the cleaning system with your specific application.

Once connected to the power supply, the C200 controller operates automatically & independently.

Under normal operation a dust coating is build up on the filtration medium. This coating can enhance the filter's overall efficiency but it can also become damaging to the dust collector's performance. This will happen when the dust coating is allowed to build up to such an extent that it becomes a barrier to the air flow.

The cleaning system of the C200 is designed & set-up to ensure the best filter efficiency and lifetime. It fires the compressed air cleaning valves sequentially with a regular interval to partly remove the build up dust cake from the filtration medium.

Furthermore, the C200 is equipped with 2 programmable inputs, 2 programmable relay outputs and one analog input for interfacing with external systems. The 5W output is used for the power supply for the analog sensor.

A fixed bursting disc sensor input, analog output (interface ΔP signal to another system) and a 4-20mA analog input for a remote ΔP sensor & output (interface ΔP signal to another system) are also available.

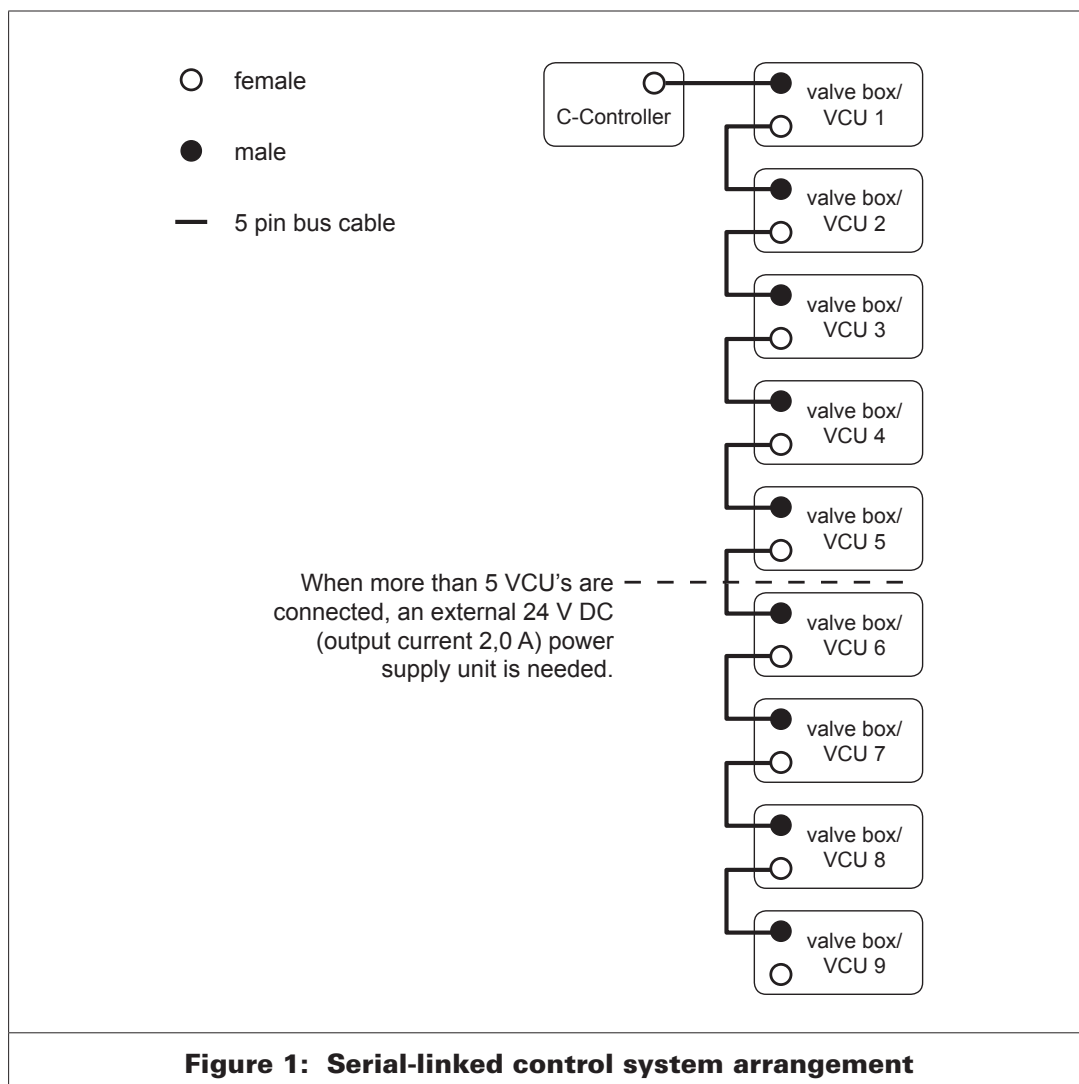
MULTIPLE PILOT VALVES OR VALVE CONTROL UNITS

The C-controllers work with a serial-linked system allowing one single controller to operate up to 9 Pilot valve boxes/VCU's.

Each C-controller can house up to 10 valves in its enclosure and each valve box/VCU can operate up to 12 solenoid valves. This brings the maximum number of solenoid valves to be operated by one single controller up to 118 (= 10 + (9 x 12)).

Wiring of the boxes are done by a simple bus cable and in series.

Male connector of the bus cable fits in the female connector of the controller, female connector of the bus cable fits in the male connector of the valve box or VCU, see figure below. The connected valve boxes/VCU's, and their number of solenoid valves, will automatically be detected by the controller.



The solenoid valves in a serial-linked control system will fire sequentially as shown in figure 2.

Starting with the controller itself, next the valve box/VCU closest to the controller, etc.

The to be set pulse interval on the controller will be the desired pulse interval for one unit, divided by the [(# valve boxes/VCU's) + 1].

For further explanation let's state the following:

- **desired pulse interval (for one unit)** = the time needed between the firing of valve 2/unit 1 and valve 1/unit 1. (= t_2 in figure 2+1)
- **to be set pulse interval** = the pulse interval that needs to be entered/set in the controller = pulse interval, controller setting. (= t_3 in figure 2+1)
- **# valve boxes/VCU's** = amount of pilot valve boxes/VCU's connected to the controller.

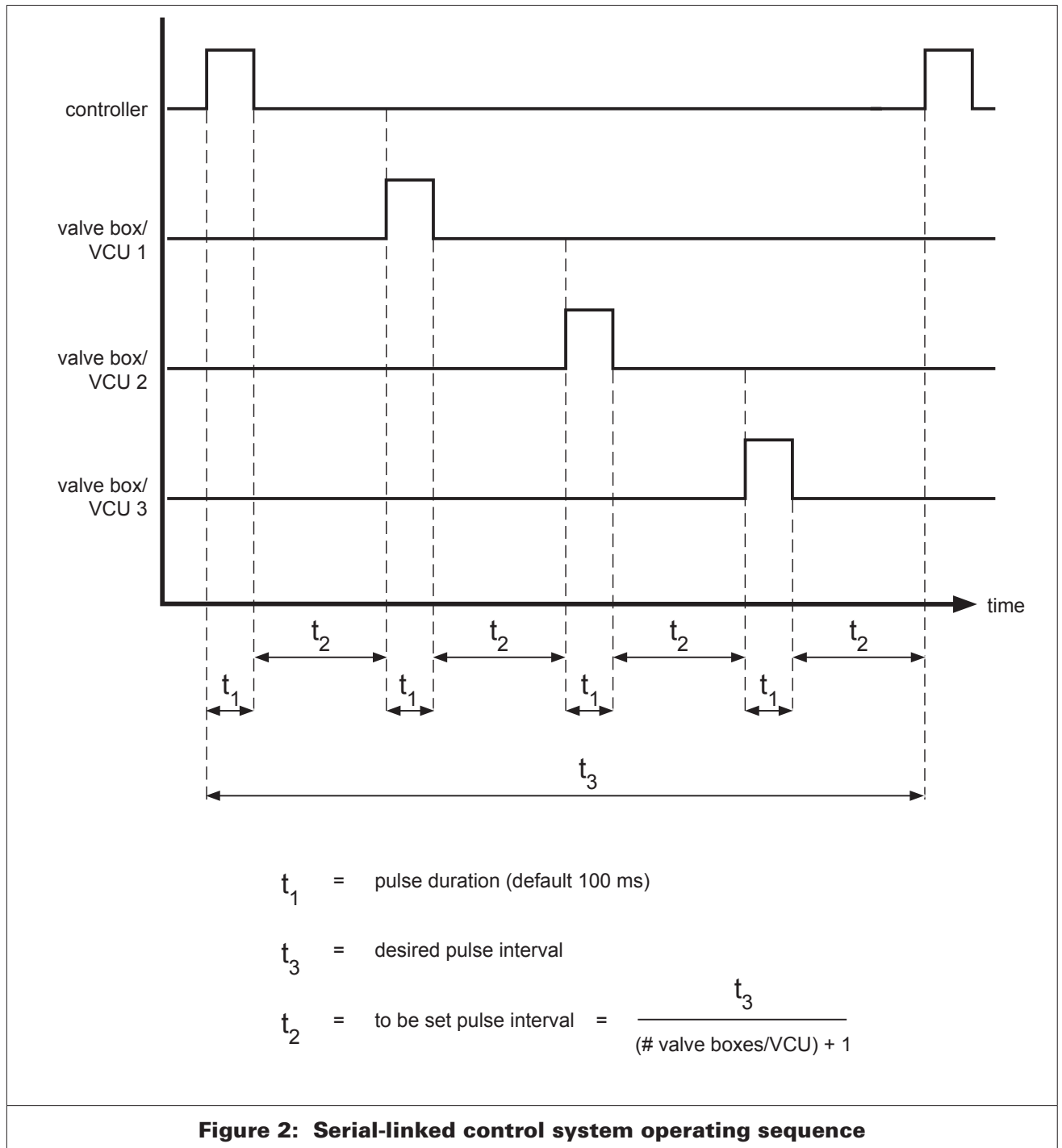


Figure 2: Serial-linked control system operating sequence

In formula:

$$\text{to be set pulse interval} = \frac{\text{desired pulse interval}}{(\# \text{ valve boxes/VCU's}) + 1}$$

Examples:

The 1 is for the controller itself. In case there are no valve boxes/VCU's attached, the formula becomes:

$$\text{to be set pulse interval} = \frac{\text{desired pulse interval}}{0 + 1} = \text{desired pulse interval}$$

The **desired pulse interval** for one unit = **12 seconds**

When we work with a 4 bank unit (or 4 VCU's) and we want the pulse interval for one bank (= one manifold) to be 12 seconds, the formula becomes:

$$\text{to be set pulse interval} = \frac{\text{desired pulse interval}}{3 + 1} = \frac{12 \text{ sec.}}{4} = 3 \text{ sec.}$$

The parameter entered in the controller as the pulse interval has to be **3 seconds**.

The pulsing sequence will go as followed:

pulse valve**1**/unit**1** ⇒ 3 sec. later ⇒ pulse valve**1**/unit**2** ⇒ 3 sec. later ⇒
 pulse valve**1**/unit**3** ⇒ 3 sec. later ⇒ pulse valve**1**/unit**4** ⇒ 3 sec. later ⇒
 pulse valve**2**/unit**1** ⇒ 3 sec. later ⇒ pulse valve**2**/unit**2** ⇒ 3 sec. later ⇒ ...

In total it takes 12 seconds after pulsing valve1/unit1 to pulse valve2/unit1 = the manifold of unit1 has 12 seconds to get filled.

GLOSSARY

CLEANING	
Online cleaning	Online cleaning is only performed when flow is detected to be running. 2 online cleaning modes exist: a. ΔP cleaning mode and b. continuous cleaning mode flow is detected to be running if one of the following three conditions are met: • the ΔP over the filter is higher than 12daPa for 5 seconds • the 'fan feedback' input is closed • an MCU is used and an 'on signal' is given
a. ΔP cleaning	The ΔP cleaning mode ensures effective and economical use of the dust collector's reverse-jet cleaning system. The system monitors this build-up of dust by measuring the Differential Pressure (ΔP) across the filtration medium and dust cake. The controller will activate the cleaning system when an adjustable preset high level limit 'ΔP_{start}' is reached (while flow is running) and maintain cleaning until the differential pressure has returned to a second adjustable preset low limit 'ΔP_{stop}', the cleaning system will be switched off (after completing its cycle). This process is repeated every time the pressure rises to the high level limit.
b. Continuous cleaning	When the online cleaning mode is set to continuous, the cleaning is always active while flow is detected to be running.
Offline cleaning	When enabled, the function starts a defined number of cleaning cycles to be performed after the fan has been switched off. It is a useful feature to increase the cleaning efficiency as no flow is running through the filters.
Cycle time	The cycle time is a configurable parameter; it is defined as the time necessary to pulse all X filter packs one time. Typically, the division of the cycle time by the number of packs results in the interval between cleaning pulses (= pulse interval).

INPUTS	
Level/emission/ pressure switch	If set, the system will trigger the level/emission/pressure switch alarm or warning if the input is opened for respectively 60/10/120 seconds. When closed (and the alarm is reset) the message will disappear.
Interrupt cleaning	The controller offers the facility to interrupt and restart the cleaning cycle at any point during operation via the interrupt function. This is particularly useful on venting applications where the actual filter operates over a short period of time and a complete cleaning cycle might not take place. The interrupt option can be used to start and stop the cleaning without the controller resetting (the function remembers the last pulse valve fired), ensuring that all filter elements are cleaned. The interrupt function can also be used as a safety feature as it overrides all other cleaning commands; no cleaning will be performed while the interrupt cleaning input is open.
Fan feedback	The fan feedback input can be used to initiate offline cleaning. If set, it is connected to the aid contactor of the main fan contactor. While the fan is running, the input is closed, and the system will perform online cleaning, if the fan stops running, the input is opened and, after a certain time, the system will perform its offline cleaning cycles.
Fan rotation	If set, the system will trigger the fan rotation alarm if the input is opened for 5 seconds. When closed (and the alarm is reset) the message will disappear.
Force cleaning	The forced cleaning input can be used to force the system to clean, regardless of the system status. Once the input is opened, the system will start cleaning until it is closed.
Stop filter	If set, the controller will seize all cleaning activities and stop the fan as soon as the input is opened. An alarm message is shown. As long as the input remains open, neither the cleaning system nor the fan will operate. To reset, the input should be closed and the alarm reset.
Remote ΔP sensor	The C200 has the option to use a remote ΔP sensor. When set, the 4-20mA input signal overrides the internal ΔP sensor signal.

OUTPUTS	
Cleaning	The relay output is closed if the cleaning system is operating.
Fan-on	The relay output is closed if the fan/flow is running.
Alarm (NO)	The relay output is closed if an alarm is present.
Alarm (NC)	The relay output is opened if an alarm is present (can be used to if 'power off' should also be considered as an alarm).
Warning	The relay output is closed if a warning is present.
Rotary airlock	The contact is closed when the fan or cleaning system is active. The contact has a 30 s off-delay for better dust evacuation.
Lime feeder	A lime feeder can be used to enhance the filter life time in greasy or sticky dust applications. When the output is set to lime feeder, the output is closed and opened automatically to ensure an optimal lime distribution. For more information, please refer to the software diagram.

FAN	
Star-delta time	After the fan is switched on, outputs K1 (mains contactor) & K3 (star contactor) are activated. At the end of the star/triangle switch-over time, output K3 (star contactor) is switched off, and output K2 (triangle contactor) is activated.
Run-down time	The system will wait for the run-down time to elapse before starting offline cleaning cycles.

TROUBLESHOOTING

General C200 troubleshooting		
The C200 display is not illuminated and does not react on any command	No power is supplied to the PCB	Check supply circuit for proper voltage, fuses, circuit breakers etc. Replace as required.
	Fuse on PCB module blown	Check wiring connections and replace fuse with correct type.
	Internal controller failure	Replace PCB.
No cleaning	No flow is detected (fan symbol is not turning)	Online cleaning (continuous or ΔP) only works when flow is detected ($>12\text{daPa}$ for 5s / fan feedback closed / MCU on). If the ΔP is too low when the filter is running, use the fan feedback input.
	Interrupt active	If the interrupt input is active (shown in the status bar), no cleaning will be performed.
	ΔP below ΔP_{start} set-point	Lower the ΔP start value. Refer to 'Operation' section.
No cleaning pulse(s) although the controller indicates online, offline or forced cleaning in the status bar	Low supply voltage	Check supply voltage.
	Lack of compressed air for cleaning	Increase compressed air pressure for manifold (required pressure can be found in the dust collector datasheet).
	Diaphragm valve failure	Check for proper valve action and repair or replace if necessary.
	Valve X failure (alarm A2)	Valve X has an open circuit malfunction. Check the solenoid wiring, or if necessary replace the solenoid.
	VCU X lost (alarm A3)	VCU X is not responding. Check the bus cable, if necessary replace the VCU.
No offline cleaning	Offline cleaning is not set up	Set the number of offline cleaning cycles higher than 0.
	Flow is still running	The ΔP should be below 12daPa for the system to stop online cleaning, if the ΔP remains above this value, the fan feedback input can be used to force the system in offline mode.
Weak pulses	Insufficient air supply	Check the manifold pressure (required pressure can be found in the dust collector datasheet).
	Restriction in pneumatic tubing	Check the tubing between the solenoids & the diaphragm valves.
Incorrect ΔP reading	ΔP pressure lines dirty or with kinks	Drain ΔP pressure lines. Clean the pressure lines with compressed air (only in direction of filter, never in direction of sensor). Check the pressure lines for kinks.
	ΔP pressure lines loose	Check the pressure lines for leaks.

C200 equipped with motor control module		
Fan does not start	Main switch on control box open	Turn main switch to ON-position.
	Fan alarm (alarm A6)	The automatic circuit breaker is tripped. Reset it. Check the overload setting, check if the system has sufficient flow, check for short circuits & check if the motor is faulty.
	MCU is not responding	The motor control unit is not responding. Check the bus cable, replace the MCU when necessary.
	Electrical supply fault	Check supply circuit for proper voltage, fuses, circuit breakers etc. Replace as required.
The automatic circuit breaker switches off while the fan starts up	Delay time between star and triangle is too short	Increase the star-delta change-over time.
	Incorrect fan overload setting	Check fan overload setting in the controlbox.
The fan only works in star operation when the unit is switched on; in triangle the fan stops	The triangle contactor is defective	Change the delta contactor (see wiring diagram supplied with the controller).
	Incorrect wiring to fan	Check wiring from control box to fan.

Directives only applicable as defined by the Scope of Delivery.



EG-Konformitätserklärung EU-Declaration of Conformity / Déclaration de conformité CEE

nach Artikel 10.1 der Richtlinie 2014/30/EG und 2014/35/EG
acc. to Article 10.1 of the 2014/30/EG and 2014/35/EG
selon l'article 10.1 de la directive 2014/30/EG et 2014/35/EG

Wir,
We,
Nous, **Reco GmbH, Junkersring 11, 53844 Troisdorf, Allemagne**

Name und Anschrift des Herstellers oder des in der EU niedergelassenen Inverkehrbringers
Name and address of the manufacturer or of the introducer of the product who is established in the EU
Nom et adresse du fabricant ou la personne résidant dans la CEE qui introduit le sous-dit produit de la CEE

erklären in alleiniger Verantwortung, dass das Produkt
herewith take the sole responsibility to confirm that the product
soussignés déclarons de notre seule responsabilité que ce produit

C200

Typenbezeichnung und ggf. Artikel Nummer
Type designation and, if applicable, article no.
Type, nom et - si nécessaire - n° d'article du produit

mit den folgenden Normen bzw. normativen Dokumenten übereinstimmt.
is in accordance with the following standards or standardized documents.
est conforme aux normes ou spécifications Européennes suivantes.

1	DIN EN 61000-3-2:2015-03	EMV Grenzwerte für Oberschwingungsströme
2	DIN EN 61000-3-3:2014-03	EMV Grenzwerte – Begrenzung von Spannungsänderungen
3	DIN EN 61000-4-2:2009-12	EMV Störfestigkeit gegen die Entladung statischer Elektrizität
4	DIN EN 61000-4-3:2011-04	EMV Störfestigkeit gegen hochfrequente elektromagnetische Felder
5	DIN EN 61000-4-4:2013-04	EMV Störfestigkeit gegen schnelle transiente elektrische Störgrößen
6	DIN EN 61000-4-5:2015-03	EMV Störfestigkeit gegen Stoßspannung
7	DIN EN 61000-4-6:2014-08	EMV Störfestigkeit gegen leitungsgeführte Störgrößen
8	DIN EN 61000-4-8:2010-11	EMV Störfestigkeit gegen Magnetfelder
9	DIN EN 61000-4-11:2005-02	EMV Störfestigkeit gegen Spannungseinbrüche
10	DIN EN 61000-6-2:2011-06	EMV Störfestigkeit für Industriebereiche
11	DIN EN 61000-6-4:2011-09	EMV Störaussendung
12	DIN EN 55011:2011-04	Funkstörungen – Grenzwerte und Messverfahren
13	DIN EN 60204-1:2010-05	elektrische Ausrüstung von Maschinen

Die Betriebsbedingungen und Einsatzumgebungen gemäß Dokumentation sind vorauszusetzen.
The operating conditions and installation arrangements have to be presumed according documentation.
Les conditions d'opération et d'installation suivantes sont à respecter.

53844 Troisdorf, den 19.04.2016

Ort und Datum der Ausstellung
Place and date of issue
Lieu et date

i.V. Thomas Büttner

Name und Unterschrift
Name and signature
Nom et signature

RECO Gesellschaft für
Industriefilter-Regelung mbH
Junkersring 11
53844 Troisdorf - Germany
Tel.: +49(0)2241 / 397 04 - 0

Directive only applicable as defined by the Scope of Delivery.

**EG-Konformitätserklärung gemäß
Explosionsschutzrichtlinie 2014/34 EG**

**EU-Declaration of Conformity according
to ATEX Directive 2014/34 EC**

Hersteller: RECO GmbH
Junkersring 11
53844 Troisdorf
Deutschland

Telefon: +49 2241 39704-0

E-Mail: info@reco-gmbh.com
www.reco-gmbh.com

Manufacturer: RECO GmbH
Junkersring 11
53844 Troisdorf
Germany

Phone: +49 2241 39704-0

e-mail: info@reco-gmbh.com
www.reco-gmbh.com

erklärt, dass die explosionsgeschützt ausgeführten

declares that the explosion-proof systems, designated

Bezeichnung:	Denomination:
Typ:	Type:
C200	C200
Kennzeichnung:	Identification:
II 3D Ex tc IIIC T85°C Dc Ambient Temp. -10 / +60°C	II 3D Ex tc IIIC T85°C Dc Ambient Temp. -10 / +60°C

Geräte im Sinne des Artikels 1 (3) der Richtlinie 94/9/EG sind und die grundlegenden Sicherheits- und Gesundheitsanforderungen gemäß Anhang II der Richtlinie 94/9/EG erfüllen. Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt in Übereinstimmung mit folgenden Normen:

EN 60079-0 (2014)
EN 60079-31 (2014)

Es wird vorausgesetzt, dass der Einbau und der Betrieb der Geräte nur ihrer bestimmungsgemäßen Verwendung entsprechen. Informationen zur bestimmungsgemäßen Verwendung sind aus der Betriebsanleitung und dem Spezifikationsblatt zum Explosionsschutz zu entnehmen.

are devices as defined in article 1 (3) of the standard RL 94/9/EC and that they meet the fundamental health and safety requirements according to the appendix II of Directive 94/9/EC. The fundamental health and safety requirements are met in accordance with the following standards:

EN 60079-0 (2014)
EN 60079-31(2014)

It is presumed that the devices are mounted and operated in accordance with their intended use. The intended use is described in the operation instructions, the specification sheet and in the supplement manual for explosion protection.

Troisdorf, den 31.03.2016

i.V. Thomas Büttner

**RECO Gesellschaft für
Industriefilter-Regelung mbH**
Junkersring 11
53844 Troisdorf - Germany
Tel.: +49(0)2241 / 397 04 -0

Ort, Datum / Place, Date

Name und Unterschrift / Name and signature

Stempel / Stamp

i.V. Thomas Büttner
Engineering Manager RD

Africa Donaldson Europe B.V.B.A.
Industrial Filtration Solutions
Research Parc Bldg No. 1303
Interleuvenlaan, 1
B-3001 Leuven
Belgium
IAF-africa@donaldson.com +32 16 38 39 70

Austria Donaldson Filtration Österreich GmbH
Gutheil-Schoder Gasse 8-12
A-1100 Wien
Österreich
IAF-at@donaldson.com +43 16 16 52 91

Belgium Donaldson Europe B.V.B.A.
Industrial Filtration Solutions
Research Parc Bldg No. 1303
Interleuvenlaan, 1
B-3001 Leuven
België
IAF-be@donaldson.com +32 16 38 39 70

Czech Republic Donaldson Filtration CR - koncern s.r.o.
Konevova 139
CZ-130 83 Praha 3
Ceská republika
IAF-cz@donaldson.com +420 2 67 108 242

Denmark Donaldson Scandinavia ApS
Lyngsø Allé 3A
DK - 2970 Hørsholm
Danmark
IAF-dk@donaldson.com +45 45 57 00 77

Finland Donaldson Scandinavia ApS
Lyngsø Allé 3A
DK - 2970 Hørsholm
Danmark
IAF-fi@donaldson.com +45 45 57 00 77

France Donaldson France s.a.s.
33 Rue des Vanesses
Zac Paris Nord II B.P. 51292 Villepinte
F-95958 Roissy
Charles de Gaulle Cedex
France
IAF-fr@donaldson.com +33 1 49 38 99 30

Germany Industrial Filtration Solutions
Industriestraße 11
D-48249 Dülmen
Deutschland
IAF-de@donaldson.com +49 2594 781-41

Hungary Donaldson Filtration Magyarország Kft.
Záhony u. 7.
H-1031 Budapest
Magyarország
IAF-hu@donaldson.com +36 1 453 28 65/66

Ireland Donaldson Filtration (GB) Ltd.
Suite 31, The Hyde Building The Park
Carrickmines, Dublin 18
Ireland
IAF-ie@donaldson.com +353 1 525 22 49

Italy Donaldson Italia S.r.l.
Via Cesare Pavese, 5/7
20090 Opera (Milan)
Italia
IAF-it@donaldson.com +39 0 25 30 05 21

Middle East Donaldson Europe B.V.B.A.
Office 1905
Jebel Ali Free Zone
Dubai
United Arab Emirates
IAF-middle-east@donaldson.com +971 4 885 5311

Netherlands Donaldson Nederland B.V.
Transistorstraat 44 III
NL-1322 CG Almere
Nederland
IAF-nl@donaldson.com +31 36 548 08 40

Norway Donaldson Filtration Norway AS
Postboks 196
N-1501 Moss
Norge
IAF-no@donaldson.com +47 69 21 53 00

Poland Donaldson Polska Sp. z o.
ul. Sienna 64
PL-00-825 Warszawa
Polska
IAF-pl@donaldson.com +48 22 517 15 00

Russia Predstavitelstvo AOOO Donaldson Nederland B.V.
Centr Meždunarodnoj Torgovli
Ofis 1004V, Krasnopresnenskaja nab.12
123610 Moskva
Russia
IAF-ru@donaldson.com +7 499 136 00 13

Slovakia Donaldson Filtration Slovensko s.r.o.
Púchovská 8
SK-83106 Bratislava 35
Slovensko
IAF-sk@donaldson.com +421 2 44872619

Spain Donaldson Ibérica, Soluciones en Filtración, S.L.
Colom, 391 - 3ªA
E-08223 Terrassa
España
IAF-es@donaldson.com +34 93 784 38 34

Sweden Donaldson Scandinavia
Industrigatan 68
S-261 35 Landskrona
Sverige
IAF-se@donaldson.com +46 418 457 550

Switzerland Donaldson Schweiz GmbH
Bruggacherstrasse 18
CH-8117 Fällanden
Schweiz
IAF-ch@donaldson.com +41 (0)44 302 07 15

Turkey Donaldson Filtre Sist. Tic. Ltd. Sti.
Barbaros Mahallesi Palladium Tower No:2 Kat:10
34746 Ataşehir / İstanbul
Türkiye
IAF-tr@donaldson.com +90 216 687 03 26

United Kingdom Donaldson Filtration (GB) Ltd.
Humberstone Lane Thurmaston
Leicester LE4 8HP
United Kingdom
IAF-uk@donaldson.com +44 116 269 6161

Other countries Donaldson Filtration (GB) Ltd.
Humberstone Lane Thurmaston
Leicester LE4 8HP
United Kingdom
IAF-export@donaldson.com +44 116 269 6161

