

2025 CALMS AIR INC.

DATA SHEET

CAL-CFC

FLOW CONTROLLER



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Advanced control. Proven savings. Reliable performance.

The CFC-X device in connection with the CAL-PM device offers compressed air control with stable and low pressure, complete air management, alarming, reporting, data logging. Motor valve for control and switching of neutral through to highly aggressive media in process engineering, chemical industries and for plant equipment.



WHAT DOES IT DO?

- Advanced flow controller that **separates the supply side (compressors) from demand side (peaks)**
- **Maintains constant system pressure**, regardless of fluctuating demand
- CFC is the only device with **integrated online monitoring and compressor control** – enabling maximum energy efficiency
- **Fail-safe operation** ensures system stability at all times



BENEFITS OF CAL-CFC



ENERGY SAVINGS & EFFICIENCY

- **Average compressed air savings:** 6% – up to 10% or more in optimized systems
- **Reduces artificial demand** by isolating supply and demand sides
- **Minimizes leakage losses** with integrated shut-off function
- Shortens compressor **unload periods**, boosting overall system efficiency
- **Enhances useful air storage** and system response
- **Self-adapting** to changing demand profiles for consistent performance



INTELLIGENT CONTROL & MONITORING

- **Online monitoring & compressor control**
- **Remote monitoring** via CALMS web platform
- **Pressure-based or flow-based control** with ramped start for dry air protection
- **Bi-directional flow support**, also functions as back-pressure controller
- **Multiple valve control** with CAL-PM-x box integration
- **Programmable pressure schedules** for individual lines
- **Fail-safe operation** ensures reliability in all scenarios

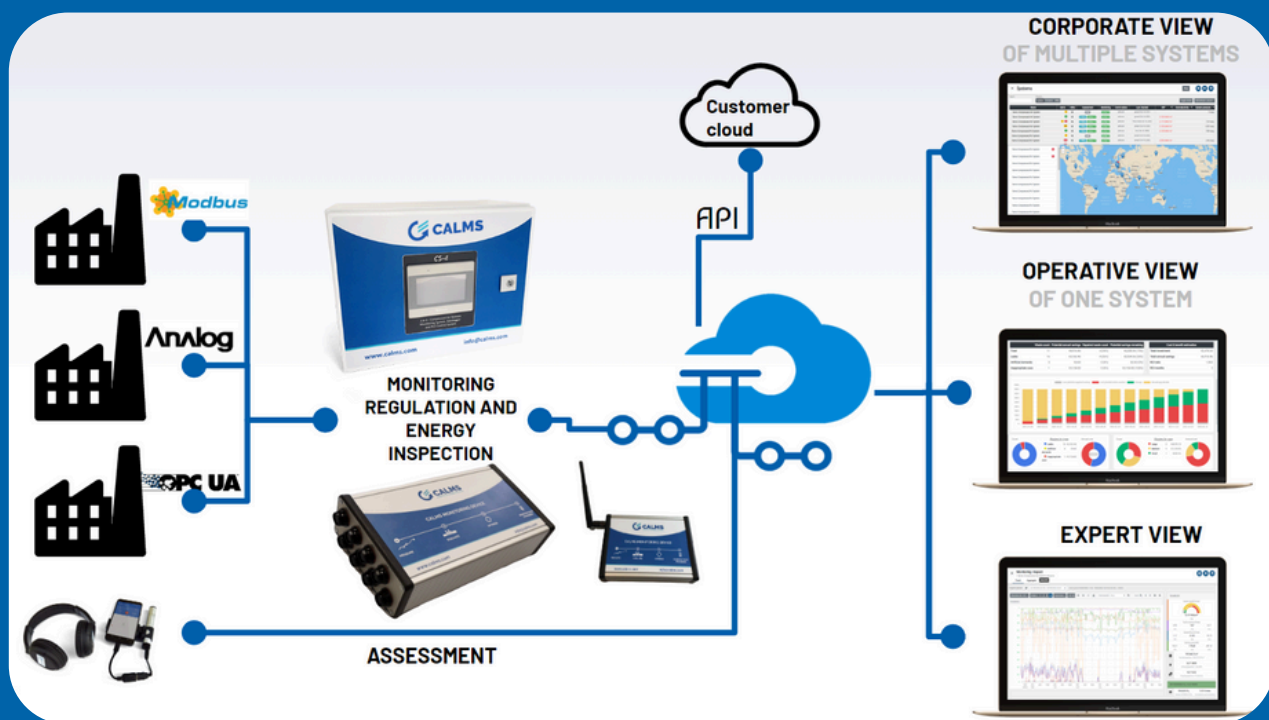


EASY INSTALLATION & FLEXIBILITY

- **Modular design** – install as many as needed across production lines
- **Wafer-type construction** – compact and space-saving
- **Lightweight, low-noise, customer-installable**
- **No dry air required** for operation
- Pressure control range: 2–40 barg / 30–580 psig
- Setpoint resolution: 0.08 bar / 1 psig
- **High differential pressure control** using compact actuators
- **Flow calibration option** included on all models

CALMS – PROCESS DIAGRAM

CFC is installed somewhere inside the factory. All measured data will be sent to the CALMS – PM by analog 4...20mA signal. CALMS – PM has an antenna, which allows data transmission to the CALMS virtual cloud, if connection is established. Data inside the cloud will be sent to the CALMS platform, where data are shown in graphic or numerical form. That allows you to analyze your compressed air system.



CFC MODEL SPECIFICATIONS

Model	Description	Pipe Diameter mm / inch	Design Flow m3 / min	Design Pressure Bar / PSI	Pressure SP resolution Bar / PSI
CFC-50	CALMS Flow Controller DN50 (2") with CALMS online connection	DN50 / 2"	2-25	10 / 145	0.05 / 1
CFC-65	CALMS Flow Controller DN65 (2 ½") with CALMS online connection	DN65 / 2.5"	2-34	10 / 145	0.05 / 1
CFC-80	CALMS Flow Controller DN80 (3") with CALMS online connection	DN80 / 3"	5-45	10 / 145	0.08 / 1
CFC-100	CALMS Flow Controller DN100 (4") with CALMS online connection	DN100 / 4"	5-89	10 / 145	0.08 / 1
CFC-150	CALMS Flow Controller DN150 (6") with CALMS online connection	DN150 / 6"	5-120	10 / 145	0.08 / 1
CFC-200	CALMS Flow Controller DN200 (8") with CALMS online connection	DN200 / 8"	12-177	10 / 145	0.08 / 1

TECHNICAL INFORMATION VALVE

Design	wafer-type design for flanges acc. DIN EN 1092-1 form B
Nominal Sizes	DN 50 - 200, 2" - 8"
Nominal pressure acc. DIN 2401 for flanges with facing type B	PN 40 DN 50 - DN 150
Rangeability	30 : 1
Temperature	from -60°C up to +350°C
Leakage Rate (% of Kvs-value)	sliding unit STN2 < 0,0001
Specific leakage rate shaft and body sealing	ISO FE-BH-CC3-SSA0-t(-40°C/+350°C) - PN40-ISO 15848-1

NOTE: All CFC kit are designed and calculated based on application reference condition !

TECHNICAL INFORMATION

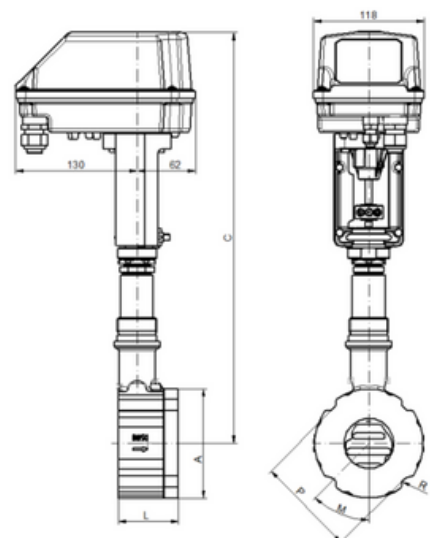
CA-ACTUATOR

Function	Control			
Motor type	CA24C	CA260C	CA24C-R	CA260C-R
Mains connection	24V AC/DC	90-260V AC	24V AC/DC	90-260V AC
Set point range	(0)2-10V / (0)4-20mA			
Feedback	(0)2-10V / (0)4-20mA			
Limit switch	2			
Potentiometer feedback	-			
Max. switching capacity	24V AC/DC 200 mA			
Actuating speed	1.5 / 2 / 3 s/mm (Standard: 2 s/mm)			
Safety functions	Monitoring of tensile force, set point, temperature of the electronics, etc.			
Diagnostic functions	Storage of motor and total operating time, temperature and directional classes, etc.			
Fail Safe position	-	-	Freely adjustable	
Load	500 Ω for current set point / 95 kΩ for voltage set point			
Max. input	13 W	12 W	13 W	12 W
Input heating resistor	10 W			
Starting current heating resistor	6 A	2,5 A	6 A	2,5 A
Actuating power	800 N			
Protection class (EN 60529)	IP 65			
Adm. Ambient temperature	-10°C to +60°C			
Duty cycle	100%			

DIMENSIONS AND WEIGHTS

DN	A	C	L	Stroke	Weight kg
15	64	410	56	6	4
20	72	415	56	6	4
25	82	420	56	6	5
32	89	425	56	6	5
40	99	430	56	6	5
50	116	440	64	8	7
65	138	447	68	8	8
80	153	457	70	8	9
100	184	470	75	9	13
125	212	485	80	8,5	15

Dimensions in mm



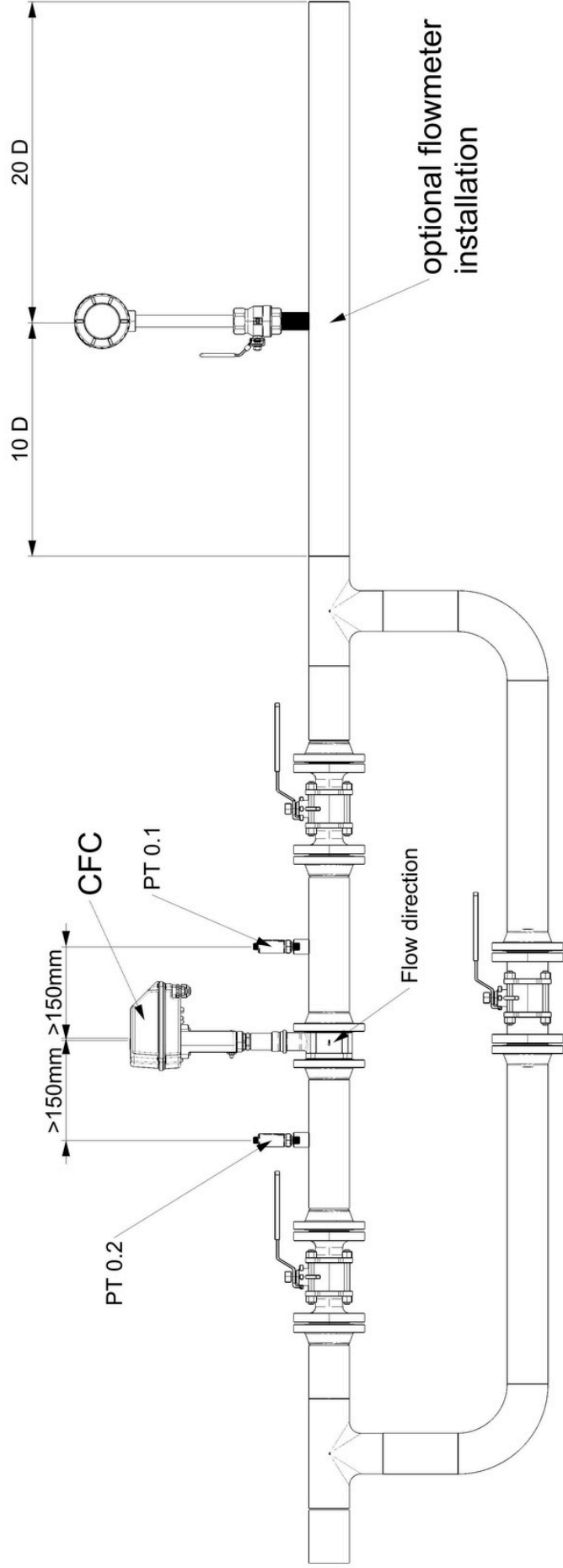
ORDER CODES AND INFORMATION

Order code:	Description:
CFC-50-KIT	CALMS Flow Controller Disc Valve -pipe DN50, Regulation range 2-40 bar,max 42 bar resolution 0.05 bar, range 2-25 m3/min, without on-off bypass valve, CALMS connection
CFC-65-KIT	CALMS Flow Controller Disc Valve pipe DN65, Regulation range 2-40 bar, max 42 bar resolution 0.05 bar, range 2-34 m3/min, without on-off bypass valve, CALMS connection
CFC-80-KIT	CALMS Flow Controller Disc Valve pipe DN80, Regulation range 2-40 bar, max 42 bar resolution 0.05 bar, range 5-45 m3/min, without on-off bypass valve, CALMS connection
CFC-100-KIT	CALMS Flow Controller Disc Valve,pipe DN100, Regulation range 2-40 bar, max 42 bar resolution 0.05 bar, range 5-89 m3/min, without on-off bypass valve, CALMS connection
CFC-150-KIT	CALMS Flow Controller Disc Valve, pipe DN150, Regulation range 2-40 bar,max 42 bar resolution 0.05 bar, range 8-120 m3/min, without on-off bypass valve, CALMS connection

What is inside the kit?

Kit includes: special electric disc valve DN50–150 flange type with electric positioner assembly , pressure sensors and junction box to connect to existing CALMS CAL-PM-X base via EtherCAT with calibration and control software. Full close function up to 40bar.





The CFC should be installed such that it can be isolated from the system and removed for inspection or repair.

The CFC may be installed in any orientation but the FLOW DIRECTION must be adhered to. PT0.1 is upstream.

An optional connection with isolation valve for a flow meter is recommended either upstream or downstream of the CFC. Please adhere to the manufacturers installation instructions regarding straight length before and after the meter.

A bypass is recommended

CFC Installation

@ 2025 CALMS AIR INC.

LET'S WORK TOGETHER

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