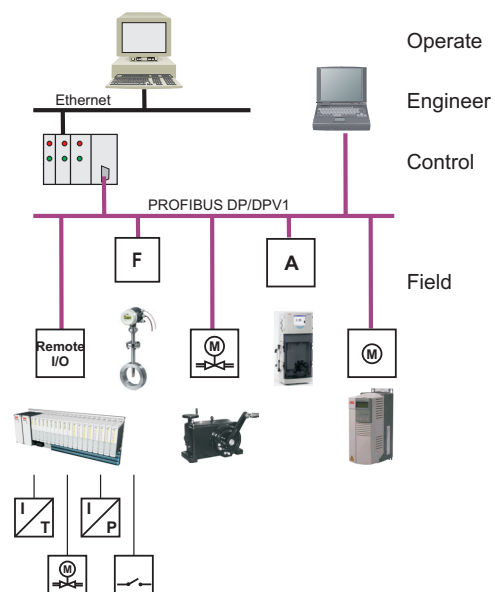


Devices overview PROFIBUS DP



Flowmeter

Flow Calculators

Analyzer

Process Controller

Electrical Actuator

DC Drives

Frequency Converter

MNS Motor Management INSUM®

Motor Management, Soft Starter

Wireless Automation

Redundancy Link Module

Remote I/O and I/O System

Distributed Automation

Network components, Accessories

	Flowmeter		
			
	M00596	M00605	
	FXE4000	FXM2000	
Data sheet	D184S075U02 D184B093U10	D184S007U02 D184B093U05	
Internet	www.abb.com/flow		
Application	Electromagnetic Flowmeter Affordable standard instrument in flanged and adapter-flanged versions. Option: Stainless steel with variable process connections. <u>Accuracy:</u> $\leq \pm 0.5\%$ of rate <u>Range:</u> DN 3 ... DN 1000 (flanged) DN 3 ... DN 100 (variabel / wafer / flange)	Electromagnetic Flowmeter Suitable for flow measurement in the chemical and pharmaceutical industries, the food industry, in water and waste water treatment facilities and all other industries <u>Accuracy:</u> $\leq \pm 0.4\%$ of rate (opt. 0.2 %) <u>Minimum conductivity:</u> 5 $\mu\text{S}/\text{cm}$ <u>Range:</u> DN 3 ... 1000 (flanged) DN 1 ... 100 (variabel / wafer / flange)	
Ambient temperature	-25 ... 60 °C	-25 ... 60 °C	
Type of protection	IP 67 (IP 68)	IP 67 (IP 68)	
Explosion protection	—	—	
Approvals	3A, EHEDG, CE	3A, EHEDG, CE	
Overvoltage protection DP	Yes (optional)	Yes (optional)	
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	
Protocol	PROFIBUS DP	PROFIBUS DP	
Baud Rate	$\leq 1.5\text{ Mbit/s}$	$\leq 1.5\text{ Mbit/s}$	
Ident. No.	6666 HEX	6666 HEX	
PI Certificate No.	—	—	
Bus address	1 ... 125 (default 126)	1 ... 125 (default 126)	
local adjustment	Keypad	Keypad	
central adjustment	Software (e.g.: PLC)	Software (e.g.: PLC)	
PA Profile	—	—	
Transducer Block (TB)	—	—	
Function Block (FB) (Only for profile compliant devices)	DP device only: rate, status, counter	DP device only: rate, status, counter	
FB Data length cyclical			
read	16 Byte	16 Byte	
write	16 Byte	16 Byte	
Device configuration			
central adjustment	—	—	
local adjustment	Keypad and display	Keypad and display	
Asset Monitor	—	—	
External supply	Yes	Yes	

	Flowmeter		
	 M00606	 M00607	 M00608
	MMASMF MagMaster	MMASLF MagMaster LoFlo	APROBE AquaProbe
Data sheet	SS/MAG/WW	SS/MMLF	SS/AQUAP
Internet	www.abb.com/flow	www.abb.com/flow	www.abb.com/flow
Application	Electromagnetic Flowmeter for use with water and waste water. Available in compact or split architecture <u>Accuracy:</u> 0.15 % of rate <u>Meter Size:</u> DN 15 ... DN 2400	Electromagnetic Flowmeter with reduced bore for enhanced performance at low flow rates <u>Accuracy:</u> 0.25 % of rate <u>Meter Size:</u> DN 15 ... DN 600	Insertion electromagnetic flowmeter. Alternative to full bore meters for temporary or permanent use on clean/potable water <u>Accuracy:</u> 2 % of actual velocity <u>Meter Size:</u> Pipe size DN 200 ... DN 8000
Ambient temperature	-20 ... 60 °C	-20 ... 60 °C	-20 ... 60 °C
Type of protection	IP 65 (IP 68)	IP 65 (IP 68)	IP 65 (IP 68)
Explosion protection	–	–	–
Approvals	CE	CE	CE
Overvoltage protection DP	–	–	–
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	EIA 485 (RS 485)
Protocol	PROFIBUS DP	PROFIBUS DP	PROFIBUS DP
Baud Rate	≤ 12 Mbit/s	≤ 12 Mbit/s	≤ 12 Mbit/s
Ident. No.	07EB HEX	07EB HEX	07EB HEX
PI Certificate No.	–	–	–
Bus address	1 ... 125 (default 126)	1 ... 125 (default 126)	1 ... 125 (default 126)
local adjustment	–	–	–
central adjustment	Software (e.g.: PLC)	Software (e.g.: PLC)	Software (e.g.: PLC)
PA Profile	–	–	–
Transducer Block (TB)	–	–	–
Function Block (FB) (Only for profile compliant devices)	DP Device only: Flow rate, Totalizer, Status signals: error	DP Device only: Flow rate, Totalizer, Status signals: error	DP Device only: Flow rate, Totalizer, Status signals: error
FB Data length cyclical read	10 ... 24 Byte	10 ... 24 Byte	10 ... 24 Byte
write	–	–	–
Device configuration central adjustment	–	–	–
local adjustment	Keypad and display	Keypad and display	Keypad and display
Asset Monitor	–	–	–
External supply	Yes	Yes	Yes

	Flowmeter		
	 M00609	 M00610	
	FEV1xx WaterMaster	FEF1xx WaterMaster	
Data sheet	DS/WM	DS/WM	
Internet	www.abb.com/flow	www.abb.com/flow	
Application	Electromagnetic Flowmeter with virtual full bore for enhanced performance at low flow rates <u>Accuracy:</u> 0.2 % of rate <u>Meter Size:</u> DN 40 ... DN 300	Electromagnetic Flowmeter for use with water and waste water. Available in compact or split architecture <u>Accuracy:</u> 0.2 % of rate <u>Meter Size:</u> DN 350 ... DN 2400	
Ambient temperature	-20 ... 60 °C	-20 ... 60 °C	
Type of protection	IP 68 (NEMA 6)	IP 68 (NEMA 6)	
Explosion protection	—	—	
Approvals	CE	CE	
Overvoltage protection DP	—	—	
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	
Protocol	PROFIBUS DPV1	PROFIBUS DPV1	
Baud Rate	≤ 1.5 Mbit/s	≤ 1.5 Mbit/s	
Ident. No.	in progress	in progress	
PI Certificate No.	in progress	in progress	
Bus address	1 ... 125	1 ... 125	
local adjustment	Keypad and display	Keypad and display	
central adjustment	Software (e.g.: Asset Vision)	Software (e.g.: Asset Vision)	
PA Profile	V3.01	V3.01	
Transducer Block (TB)	Flow	Flow	
Function Block (FB) (Only for profile compliant devices)	4 AI: flow, internal forward and reverse totalizers, diagnostic signal, 2 TOT: forward and reverse totalizers, 1 AO: display value.	4 AI: flow, internal forward and reverse totalizers, diagnostic signal, 2 TOT: forward and reverse totalizers, 1 AO: display value.	
FB Data length cyclical read	5 / 10 / 15 / 20 / 25 / 30 Byte	5 / 10 / 15 / 20 / 25 / 30 Byte	
write	0 ... 5 Byte	0 ... 5 Byte	
Device configuration central adjustment	DTM or EDD	DTM or EDD	
local adjustment	Keypad and display	Keypad and display	
Asset Monitor	Yes (for ABB Tools)	Yes (for ABB Tools)	
External supply	Yes	Yes	

	Flowmeter		
	 M00611		
	FMT500-IG Sensyflow		
Data sheet	10/14-6.41-EN		
Internet	/www.abb.com/flow		
Application	Thermal mass flowmeter for air and gases, determination of mass flow / standard volume flow and gas temperature. <u>Turn down ratio:</u> 1:150 <u>Temperature of fluid:</u> -25 ... 300 °C <u>Accuracy:</u> 0.9 % of reading + 0.05 % fs <u>Meter size:</u> DN 25 ... DN 3000 (1 ... 120")		
Ambient temperature	-25 ... 50 °C		
Type of protection	IP 67		
Explosion protection	II 2(1) G EEx de [ia] ib II C T4; II 2 D EEx		
Approvals	CE, ATEX, FM, CSA		
Overvoltage protection DP	Yes (category III)		
Physics	EIA 485 (RS 485)		
Protocol	PROFIBUS DPV1		
Baud Rate	≤ 1.5 Mbit/s		
Ident. No.	05CA HEX		
PI Certificate No.	—		
Bus address	1 ... 125 (default 126)		
local adjustment	Keypad		
central adjustment	Software (e.g.: Asset Vision)		
PA Profile	V3.0		
Transducer Block (TB)	Flow		
Function Block (FB) (Only for profile compliant devices)	2 AI: flow, gas temperature 1 TOT, SET-, SET/MOD-TOT: flow totalizer 1 Charact. Input: characteristic curve, PRESET-TOT value		
FB Data length cyclical			
read	5 ... 15 Byte		
write	0 ... 9 Byte		
Device configuration			
central adjustment	DTM		
local adjustment	Keypad and display		
Asset Monitor	—		
External supply	Yes		

	Flow Calculators		Gateway
	 M00612	 M00613	 M00614
	FCU200 SensyCal	FCU400 SensyCal	UNIGATE
Data sheet	10/18-5.22 EN	10/18-5.22 EN	10/49-7.20 EN
Internet	www.abb.com/flow	www.abb.com/flow	www.abb.com
Application	Universal Measuring Computer designed for industrial process signal monitoring and logging. Model FCU200-W - Caloric energy computer for liquid Model FCU200-T - 2 channel current-pulse converter (Counter)	<u>Model FCU400-S</u> - Computer for superheated and saturated steam (flow, heat) <u>Model FCU400-G</u> - Computer for gas flow, gas translator <u>Model FCU400-P</u> - Process Signal combination (summation, dT-measurement)	PROFIBUS-DP Gateway for Flow Calculators. Transmission of measured variables without delay, 1 ... 15 Recorders / Power Transducers connectable.
Ambient temperature	-5 ... 55 °C	-5 ... 55 °C	0 ... 45 °C
Type of protection	IP 65	IP 65	IP 20
Explosion protection	—	—	—
Approvals	CE, PTB (FCU200-W), CSA	CE, CSA	CE
Overvoltage protection DP	Yes	Yes	Yes
Physics	via gateway UNIGATE	via gateway UNIGATE	EIA 485 (RS 485)
Protocol			PROFIBUS DP
Baud Rate			≤ 12 Mbit/s
Ident. No.			2079 HEX
PI Certificate No.			—
Bus address	via gateway UNIGATE	via gateway UNIGATE	1 ... 125 (default 1)
local adjustment			Switch
central adjustment			—
PA Profile	via gateway UNIGATE	via gateway UNIGATE	—
Transducer Block (TB)			—
Function Block (FB) (Only for profile compliant devices)			—
Read: physical parameter, error messages and data logger		Read: physical parameter, error messages and data logger	
FB Data length cyclical	via gateway UNIGATE	via gateway UNIGATE	0 ... 228 Byte
read			0 ... 72 Byte
write			
Device configuration	—	—	—
central adjustment			
local adjustment	Software ParaTool via Optohead or M-Bus Repeater	Software ParaTool via Optohead or M-Bus Repeater	Switches
Asset Monitor	—	—	—
External supply	Yes	Yes	Yes

	Analyzer		
	 M00615	 M00616	
	AO2000 Advence Optima	EL3000 EasyLine	
Data sheet	10/24-1.20-EN	10/24-4.10-EN	
Internet	www.abb.com/analytical	www.abb.com/analytical	
Application	Modular gas analyzers for process analytics and emission monitoring. Offers a range of different analytical principles: from NDIR, IR UV, thermal conductivity, O ₂ (paramagnetic), Trace Oxygen sensor, flame ionization measurement of Hydrocarbons (FID) to in-situ laser measurements.		Gas analyzers for process analytics and emission monitoring. Different analytical principles: IR, UV, thermal conductivity, O ₂ (paramagnetic and electrochemical), trace oxygen sensor.
Ambient temperature	5 ... 50 °C (45 °C Uras)	5 ... 45 °C	
Type of protection	IP 20 / IP 54 / IP 65	IP 20 / IP 65	
Explosion protection	II 2G Ex px e d [ib] IIC T4 II 3G Ex nA py II T4	II 3G Ex nAC II T4 X	
Approvals	CE, TÜV, CSA Class I Div.2, GOST, MCERTS, EPA, ATEX	CE, TÜV, CSA, MCERTS, ATEX	
Overvoltage protection DP	—	—	
Physics	EIA 485 (RS 485), (MBP optional)	EIA 485 (RS 485), (MBP optional)	
Protocol	PROFIBUS DPV1	PROFIBUS DPV1	
Baud Rate	≤ 6 Mbit/s	≤ 6 Mbit/s	
Ident. No.	07A4 HEX, 3401 HEX	3400 HEX	
PI Certificate No.	Z01053, Z01432	Z01311	
Bus address	1 ... 125 (default 126)	1 ... 125 (default 126)	
local adjustment	Keypad and display	—	
central adjustment	Software (e.g.: Remote HMI)	Software (EasyLine Config. Tool)	
PA Profile	V3.01	V3.01	
Transducer Block (TB)	Analyzer	Analyzer	
Function Block (FB) (Only for profile compliant devices)	AI, AO, DI, DO , max 60 physical values, analog / digital I/O's, Status signals: error, maintenance request, maintenance mode	AI, DI, DO , max 55 physical values, analog inputs and digital I/O's, Status signals: error, maintenance request, maintenance mode	
FB Data length cyclical			
read	up to 240 Byte	up to 240 Byte	
write	up to 240 Byte	up to 240 Byte	
Device configuration			
central adjustment	Full remote control with Ethernet TCP/IP and HMI-Software	EasyLine Configuration Tool (Ethernet TCP/IP)	
local adjustment	Keypad and display	Keypad and display	
Asset Monitor	—	—	
External supply	Yes	Yes	

	Analyzer (AW630 Aztec 600 Family)		
	 M00617	 M00618	 M00619
	AW631 Aztec 600	AW632 Aztec 600	AW633 Aztec 600
Data sheet	DS/AZT6AL-EN	DS/AZT6AM-EN	DS/AZT6IR-EN
Internet	www.abb.com/instrumentation	www.abb.com/instrumentation	www.abb.com/instrumentation
Application	The Aztec 600 <u>Aluminium</u> analyzer has been designed specifically for the measurement of aluminium in potable water applications. It offers reliable, and accurate, on-line analysis of aluminium up to 1.5 ppm.	The Aztec 600 <u>Ammonia</u> analyzer has been designed specifically for the measurement of ammonia in ground waters, surface waters, potable waters and municipal wastewater effluents. It offers reliable, and accurate, on-line analysis of ammonia up to 3 ppm	The Aztec 600 <u>Iron</u> analyzer has been designed specifically for the measurement of iron in ground waters, surface waters and potable waters. It offers reliable, and accurate, on-line analysis of iron up to 5 ppm
Ambient temperature	5 ... 45 °C (41 ... 113 °F)	5 ... 45 °C (41 ... 113 °F)	5 ... 45 °C (41 ... 113 °F)
Type of protection	IP 31	IP 31	IP 31
Explosion protection	–	–	–
Approvals	CE, UL, CSA	CE, UL, CSA	CE, UL, CSA
Overvoltage protection DP	–	–	–
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	EIA 485 (RS 485)
Protocol	PROFIBUS DPV1	PROFIBUS DPV1	PROFIBUS DPV1
Baud Rate	≤ 12 Mbit/s	≤ 12 Mbit/s	≤ 12 Mbit/s
Ident. No.	0AD4 HEX	0AD4 HEX	0AD4 HEX
PI Certificate No.	–	–	–
Bus address	1 ... 125 (default 6)	1 ... 125 (default 6)	1 ... 125 (default 6)
local adjustment	Keypad and display	Keypad and display	Keypad and display
central adjustment	–	–	–
PA Profile	–	–	–
Transducer Block (TB)	–	–	–
Function Block (FB) (Only for profile compliant devices)	Streams 1 to 3: Concentration values, alarm status, current outputs	Streams 1 to 3: Concentration values, alarm status, current outputs	Streams 1 to 3: Concentration values, alarm status, current outputs
FB Data length cyclical read	up to 30 bytes	up to 30 bytes	up to 30 bytes
write	–	–	–
Device configuration central adjustment	DTM	DTM	DTM
local adjustment	Keypad and display	Keypad and display	Keypad and display
Asset Monitor	–	–	–
External supply	Yes	Yes	Yes

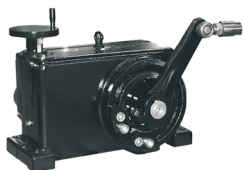
	Analyzer (AW630 Aztec 600 Family)		
	 M00620	 M00621	
	AW635 Aztec 600	AW636 Aztec 600	
Data sheet	DS/AZT6MN-EN	DS/AZT6PO-EN	
Internet	www.abb.com/instrumentation	www.abb.com/instrumentation	
Application	The Aztec 600 <u>Manganese</u> analyzer has been designed specifically for the measurement of manganese in ground waters, surface waters and potable waters. It offers reliable, and accurate, on-line analysis of manganese up to 10 ppm.	The Aztec 600 <u>Phosphate</u> analyzer has been designed specifically for the measurement of phosphate in both potable water and municipal wastewater effluents. It offers reliable and accurate on-line analysis of phosphate up to 50 ppm PO ₄ .	
Ambient temperature	5 ... 45 °C (41 ... 113 °F)	5 ... 45 °C (41 ... 113 °F)	
Type of protection	IP 31	IP 31	
Explosion protection	—	—	
Approvals	CE, UL, CSA	CE, UL, CSA	
Overvoltage protection DP	—	—	
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	
Protocol	PROFIBUS DPV1	PROFIBUS DPV1	
Baud Rate	≤ 12 Mbit/s	≤ 12 Mbit/s	
Ident. No.	0AD4 HEX	0AD4 HEX	
PI Certificate No.	—	—	
Bus address	1 ... 125 (default 126)	1 ... 125 (default 126)	
local adjustment	Keypad and display	Keypad and display	
central adjustment	—	—	
PA Profile	—	—	
Transducer Block (TB)	—	—	
Function Block (FB) (Only for profile compliant devices)	Streams 1 to 3: Concentration values, alarm status, current outputs	Streams 1 to 3: Concentration values, alarm status, current outputs	
FB Data length cyclical read	up to 30 bytes	up to 30 bytes	
write	—	—	
Device configuration central adjustment	DTM	DTM	
local adjustment	Keypad and display	Keypad and display	
Asset Monitor	—	—	
External supply	Yes	Yes	

	Analyzer (AW640 Navigator 600 Family)		
	 M00622	 M00623	
	AW641 Navigator 600	AW642 Navigator 600	
Data sheet	SS/NAV6S	SS/NAV6P	
Internet	www.abb.com/instrumentation	www.abb.com/instrumentation	
Application	Monitoring the <u>Silica</u> level in boiler and demineralized water, primarily in Power applications	Monitoring the <u>Phosphate</u> level in boiler and demineralized water, primarily in Power applications	
Ambient temperature	5 ... 45 °C	5 ... 45 °C	
Type of protection	IP 31	IP 31	
Explosion protection	—	—	
Approvals	CE, UL, CSA	CE, UL, CSA	
Overvoltage protection DP	—	—	
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	
Protocol	PROFIBUS DPV1	PROFIBUS DPV1	
Baud Rate	≤ 12 Mbit/s	≤ 12 Mbit/s	
Ident. No.	0AD4 HEX	0AD4 HEX	
PI Certificate No.	—	—	
Bus address	1 ... 125 (default 6)	1 ... 125 (default 6)	
local adjustment	Keypad and display	Keypad and display	
central adjustment	—	—	
PA Profile	—	—	
Transducer Block (TB)	—	—	
Function Block (FB) (Only for profile compliant devices)	Streams 1 to 6: Concentration values, alarm status, current outputs	Streams 1 to 6: Concentration values, alarm status, current outputs	
FB Data length cyclical			
read	up to 30 bytes	up to 30 bytes	
write	—	—	
Device configuration			
central adjustment	DTM	DTM	
local adjustment	Keypad and display	Keypad and display	
Asset Monitor	—	—	
External supply	Yes	Yes	

Analyzer (AX400 Family)			
	 M00624	 M00624	 M00625
	AX41x, AX43x, AX45x	AX46x	AX48x
Data sheet	SS/AX4CO SS/AX4CO4	SS/AX4PH	SS/AX4DO
Internet	www.abb.com/instrumentation	www.abb.com/instrumentation	www.abb.com/instrumentation
Application	Conductivity as primary variable. Single and dual input analyzer for conductivity, pH/Redox (ORP) and DO2 with integral PID controller. Use in water and waste water treatment - power - chemical - pharmaceutical - pulp and paper <u>Accuracy:</u> 0.01 % of span	pH/Redox as primary variable. Single and dual input analyzer for pH/Redox (ORP), Conductivity and DO2 with integral PID controller. Use in water and waste water treatment - power - chemical - pharmaceutical - pulp and paper <u>Accuracy:</u> 0.01 pH	Dissolved Oxygen as primary variable. Single and dual input analyzer for DO2, Conductivity and pH/Redox (ORP) with integral PID controller. Use in water and waste water treatment - food and beverage - pulp and paper <u>Accuracy:</u> 1 % saturation, 0.1 mg/l-1 or ppm
Ambient temperature	-20 ... 65 °C	-20 ... 65 °C	-20 ... 65 °C
Type of protection	IP 65	IP 65	IP 65
Explosion protection	ATEX Type N FM/CSA C1-D1 (in preparation)	ATEX Type N FM/CSA C1-D1 (in preparation)	ATEX Type N FM/CSA C1-D1 (in preparation)
Approvals	CE	CE	CE
Overvoltage protection DP	—	—	—
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	EIA 485 (RS 485)
Protocol	PROFIBUS DP	PROFIBUS DP	PROFIBUS DP
Baud Rate	≤ 12 Mbit/s	≤ 12 Mbit/s	≤ 12 Mbit/s
Ident. No.	07EB HEX	07EB HEX	07EB HEX
PI Certificate No.	—	—	—
Bus address	1 ... 125 (default 126)	1 ... 125 (default 126)	1 ... 125 (default 126)
local adjustment	Buttons	Buttons	Buttons
central adjustment	—	—	—
PA Profile	—	—	—
Transducer Block (TB)	—	—	—
Function Block (FB) (Only for profile compliant devices)	DP Device only: Process variable, Temperature, Calculated variable, Sensor status, Alarm status	DP Device only: Process variable, Temperature, Calculated variable, Sensor status, Alarm status	DP Device only: Process variable, Temperature, Calculated variable, Sensor status, Alarm status
FB Data length cyclical read	10 ... 24 Byte	10 ... 24 Byte	10 ... 24 Byte
write	—	—	—
Device configuration central adjustment	—	—	—
local adjustment	Keypad and display	Keypad and display	Keypad and display
Asset Monitor	—	—	—
External supply	Yes	Yes	Yes

	Process Controller		
	 M00656	 M00657	 M00658
	CM10 ControlMaster	CM15 ControlMaster	CM30 ControlMaster
Data sheet	DS/CM10-EN	DS/CM15-EN	DS/CM30-EN
Internet	www.abb.com/instrumentation	www.abb.com/instrumentation	www.abb.com/instrumentation
Application	1/8th DIN universal process controller featuring a high quality TFT display providing detailed process information and exceptional ease of use. On / off, timer proportioning and analog PID controller make the CM10 suitable for controlling many process variables including temperature, pressure and flow.	1/8th DIN universal process indicator featuring a high quality TFT display providing detailed process information and exceptional ease of use. Frequency input, totalisation, level indication functions and dual point indication make the CM15 suitable for indication of any process signal.	1/4th DIN universal process controller featuring a high quality TFT display providing detailed process information and exceptional ease of use. Power features including, cascade, feed forward, dual loop, dead time and adaptive control ensure the CM30 is suitable for virtually any application. Additional features including math & logic and historical trending provide powerful problem solving capability.
Ambient temperature	0 ... 50 °C	0 ... 50 °C	0 ... 50 °C
Type of protection	IP 66 & NEMA 4X	IP 66 & NEMA 4X	IP 66 & NEMA 4X
Explosion protection	—	—	—
Approvals	CE & cULus	CE & cULus	CE & cULus
Overvoltage protection DP	—	—	—
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	EIA 485 (RS 485)
Protocol	PROFIBUS DPV1	PROFIBUS DPV1	PROFIBUS DPV1
Baud Rate	≤ 12 Mbit/s	≤ 12 Mbit/s	≤ 12 Mbit/s
Ident. No.	in progress	in progress	in progress
PI Certificate No.	in progress	in progress	in progress
Bus address	1 ... 125 (default 126)	1 ... 125 (default 126)	1 ... 125 (default 126)
local adjustment	Keypad and display	Keypad and display	Keypad and display
central adjustment	Software (e.g.: Asset Vision)	Software (e.g.: Asset Vision)	Software (e.g.: Asset Vision)
PA Profile	3.02	3.02	3.02
Transducer Block (TB)	Control	Control	Control
Function Block (FB) (Only for profile compliant devices)	in progress	in progress	in progress
FB Data length cyclical			
read	in progress	in progress	in progress
write	in progress	in progress	in progress
Device configuration			
central adjustment	DTM	DTM	DTM
local adjustment	Keypad and display	Keypad and display	Keypad and display
Asset Monitor	in progress	in progress	in progress
External supply	Yes	Yes	Yes

	Process Controller		
	 M00659		
	CM50 ControlMaster		
Data sheet	DS/CM50-EN		
Internet	www.abb.com/instrumentation		
Application	3 x 6 format universal process controller featuring a high quality TFT display providing detailed process information and exceptional ease of use. Power features including, cascade, feed forward, dual loop, dead time and adaptive control ensure the CM50 is suitable for virtually any application. Additional features including math & logic and historical trending provide powerful problem solving capability.		
Ambient temperature	0 ... 50 °C		
Type of protection	IP 66 & NEMA 4X		
Explosion protection	—		
Approvals	CE & cULus		
Overvoltage protection DP	—		
Physics	EIA 485 (RS 485)		
Protocol	PROFIBUS DPV1		
Baud Rate	≤ 12 Mbit/s		
Ident. No.	in progress		
PI Certificate No.	in progress		
Bus address	1 ... 125 (default 126)		
local adjustment	Keypad and display		
central adjustment	Software (e.g.: Asset Vision)		
PA Profile	3.02		
Transducer Block (TB)	Control		
Function Block (FB)	in progress		
(Only for profile compliant devices)			
FB Data length cyclical			
read	in progress		
write	in progress		
Device configuration			
central adjustment	DTM		
local adjustment	Keypad and display		
Asset Monitor	in progress		
External supply	Yes		

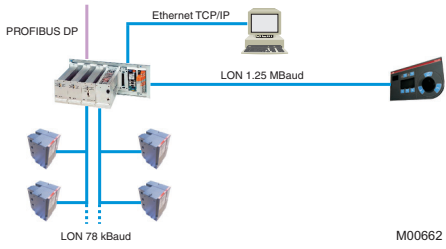
	Electrical Actuators		
			
	M00626	M00627	
	Contrac (PME.., RHD.., RHDE..)	Contrac (LME.., RSD.., RSDE..)	
Data sheet	10/68-1.xx-EN, 10/68-8.xx-EN	10/68-2.xx-EN, 10/68-8.xx-EN	
Internet	www.abb.com/instrumentation	www.abb.com/instrumentation	
Application	Intelligent electrical continuous Actuators for modulating control. Part turn actuators: 100 ... 16000 Nm digital communication, µPC control <u>Range:</u> Continuous positioning, precise, long life	Intelligent electrical continuous Actuators for modulating control. Linear actuators: 4 ... 200 kN; digital communication, µPC control <u>Range:</u> Continuous positioning, precise, long life	
Ambient temperature	-30 ... 65 °C	-30 ... 65 °C	
Type of protection	IP 66	IP 66	
Explosion protection	RHDE... II 2G ck Ex de [ib] ib IIB T4 II 2D ck Ex tDA21 IP6x T130°C	RSDE... II 2G ck Ex de [ib] ib IIB T4 II 2D ck Ex tDA21 IP6x T130°C	
Approvals	CE, ATEX (RHDE..), GOST	CE, ATEX (RSDE..), GOST	
Overvoltage protection DP	—	—	
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	
Protocol	PROFIBUS DPV1	PROFIBUS DPV1	
Baud Rate	≤ 1.5 Mbit/s	≤ 1.5 Mbit/s	
Ident. No.	9655 HEX (DP) / 09EC (DPV1)	9655 HEX (DP) / 09EC (DPV1)	
PI Certificate No.	—	—	
Bus address	2 ... 125 (default 126)	2 ... 125 (default 126)	
local adjustment	—	—	
central adjustment	Software (e.g.: Asset Vision)	Software (e.g.: Asset Vision)	
PA Profile	V3.0, Class A	V3.0, Class A	
Transducer Block (TB)	Electrical actuator	Electrical actuator	
Function Block (FB) (Only for profile compliant devices)	1 AI: Setpoint with status, position with status, digital position, standard and extended bit coded device information, signal ready for operation	1 AI: Setpoint with status, position with status, digital position, standard and extended bit coded device information, signal ready for operation	
FB Data length cyclical read	0 ... 15 Byte	0 ... 15 Byte	
write	5 / 10 Byte	5 / 10 Byte	
Device configuration central adjustment	DTM	DTM	
local adjustment	—	—	
Asset Monitor	—	—	
External supply	Yes	Yes	

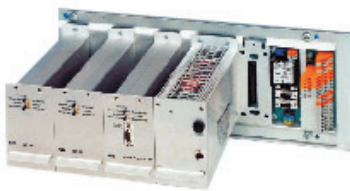
	DC Drives		
			
	M00628	M00629	
	DCS400	DCS800	
Data sheet	3ADW000095 EN	3ADW000191 EN	
Internet	www.abb.com/dc	www.abb.com/dc	
Application	DC DRIVE: Optimal for machine-builders or replacement; compact, fast commissioning, easy installation via configuration macros, regenerative or non-regenerative; <u>Applications:</u> extruder, mixer, wire drawing, etc. <u>Power connection:</u> 3-phase, 230 ... 500 V, 50 ... 60 Hz, 12 ... 520 kW, 4 ... 1000 A	The drive meet the requirements of all demanding drive applications like: testrig, mine hoist, rolling mill, as well as non motoric application like electrolysis, magnet, battery charger. Embekbed software functions offer the upgrades of all classic installations 12-puls, shared motion. <u>Power connection:</u> 3-phase, 220 ... 1200 V $\pm$ 10 %, 45 ... 65 Hz, 5.5 ... 20,000 kW	
Ambient temperature	0 ... 40 °C (55 °C)	0 ... 40 °C	
Type of protection	IP 00	IP 00, Schrank IP 21 (IP31, IP42, IP54)	
Explosion protection	—	—	
Approvals	cULus, CE, C-tick	CE, CSA, cULus	
Overvoltage protection DP	Yes (for power connection)	Yes (for power connection)	
Physics			
Protocol	via communication module	via communication module	
Baud Rate	NPBA-12	RPBA-01 or NPBA-12	
Ident. No.			
PI Certificate No.			
Bus address	2 ... 125 (default 2)	2 ... 125 (default 2)	
local adjustment	Panel, Software DriveWindow Light	Panel, Software DriveWindow (Light)	
central adjustment	—	—	
PA Profile	V2.0	V2.0	
Transducer Block (TB)	Adjustable drives	Adjustable drives	
Function Block (FB) (Only for profile compliant devices)	Reference and actual value, speed, current, torque, power, fault signals, PPO1-PPO4 (PPO5) with parameter transfer	Reference and actual value, speed, current, torque, fault signals, PPO1-PPO5 with parameter transfer	
FB Data length cyclical			
read	4 ... 20 (28) Byte	4 ... 28 Byte	
write	4 ... 20 (28) Byte	4 ... 28 Byte	
Device configuration			
central adjustment	Software (e.g. PLC)	Software (e.g. PLC)	
local adjustment	Panel or Software DriveWindow Light via RS 232	Panel or Software DW via FOC or DWL via RS232	
Asset Monitor	—	—	
External supply	Yes	Yes	

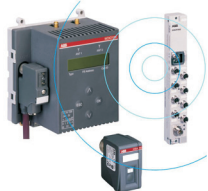
	Frequency Converter		
	 M00630	 M00631	 M00632
	ACSM1	ACS350, ACS355	ACS550, ACH550
Data sheet	3AFE68675073 EN	3AFE68596106 EN	3AFE64792857 EN
Internet	www.abb.com/motors&drives	www.abb.com/motors&drives	www.abb.com/motors&drives
Application	Frequency converter <u>Applications:</u> High performance machinery drives <u>Power connection:</u> 3-phase, 380 ... 480 V +10 / -15 %, 50 ... 60 Hz $\pm$ 5 % <u>Motor connection:</u> Asynchronous motors (standard induction, servo) and synchronous motors (servo, high torque), 0 ... 500 Hz	Frequency converter <u>Applications:</u> General machinery drives <u>Power connection:</u> 1-phase, 200 ... 240 V $\pm$ 10 %, 0.37 ... 2.2 kW; 3-phase, 200 ... 240 V $\pm$ 10 %, 0.37 ... 11 kW; 3-phase, 380 ... 480 V $\pm$ 10 %, 0.37 ... 22 kW; 48 ... 63 Hz <u>Motor connection:</u> 0 ... 500 Hz	Frequency converter ACS550 for standard applications, ACH550 for HVAC applications. <u>Power connection:</u> 3-phase, 208 ... 240 / 380 ... 480 V, +10 % / -15 %, 48 ... 63 Hz, 0.75 ... 355 kW <u>Motor connection:</u> 0 ... 500 Hz
Ambient temperature	-10 ... 55 °C, derating above 40 °C	-10 ... 55 °C, derating above 40 °C	-15 ... 40 °C (50 °C)
Type of protection	IP 20	IP 20 / IP 66 / IP 67 / IP 69K	IP 21 / IP 54
Explosion protection	—	—	—
Approvals	CE, UL, cUL, CSA, C-Tick, GOST R	UL, cUL, CE, C-Tick, GOST R	CE, UL, cUL
Overvoltage protection DP	Yes (for power connection)	Yes (for power connection)	Yes (for power connection)
Physics			
Protocol	via communication module	via communication module	via communication module
Baud Rate	FPBA-01	FPBA-01	RPBA-01
Ident. No.			
PI Certificate No.			
Bus address	2 ... 125 (default 3)	2 ... 125 (default 3)	2 ... 125 (default 3)
local adjustment	Panel, Software DriveStudio	Panel, Software DriveWindow Light	Panel, Software DriveWindow Light
central adjustment	—	—	—
Drive Profile	Drive: V4.1, Application Class 1	Drive: V4.1, Application Class 1	Drive: V2.0
Transducer Block (TB)	Adjustable drives	Adjustable drives	Adjustable drives
Function Block (FB) (Only for profile compliant devices)	Reference and actual value, speed, current, torque, frequency, fault signals, PPO1-PPO6 with parameter transfer, ST1, ST2. DPV1 acyclical parameter channel	Reference and actual value, speed, current, torque, frequency, fault signals, PPO1-PPO6 with parameter transfer, ST1, ST2. DPV1 acyclical parameter channel	Reference and actual value, speed, current, torque, frequency, fault signals, PPO1-PPO5 with parameter transfer
FB Data length cyclical			
read	4 ... 28 Byte	4 ... 28 Byte	4 ... 28 Byte
write	4 ... 28 Byte	4 ... 28 Byte	4 ... 28 Byte
Device configuration			
central adjustment	Software (e.g. PLC)	Software (e.g. PLC)	Software (e.g. PLC)
local adjustment	Panel or Software DriveStudio via RS 232	Panel or Software DriveWindow Light via RS 232	Panel or Software DriveWindow Light via RS 232
Asset Monitor	—	—	—
External supply	Yes	Yes	Yes

	Frequency Converter		
	 M00633	 M00634	
	ACS800	ACS850	
Data sheet	3AFE64572504 EN	3AUA0000041481 EN	
Internet	www.abb.com/motors&drives	www.abb.com/motors&drives	
Application	Frequency converter <u>Applications:</u> Pumps and ventilators, centrifuges, mixers, winders, spinning machines, materials-handling technology, roller tables, packing machines. <u>Power connection:</u> 3-phase, 380 ... 500 V, 48 ... 63 Hz 1.1 ... 3000 kW <u>Motor connection:</u> 0 ... 300 Hz	Frequency converter <u>Applications:</u> In process industries such as the pulp & paper, metals, mining, cement, power, chemical, and oil & gas. <u>Power connection:</u> 3-phase, 380 ... 500 V +10 / -15 %, 50 ... 60 Hz ± 5 % <u>Motor connection:</u> Asynchronous and permanent magnet motors, 0 ... 500 Hz	
Ambient temperature	-15 ... 40 °C (50 °C)	-10 ... 55 °C, derating above 40 °C	
Type of protection	IP 21/IP 55 or IP 21/IP 22/IP 42/IP 45	IP 20	
Explosion protection	—	—	
Approvals	UL, CSA, CE	CE, GOST R, UL, cUL, CSA, C-Tick	
Overvoltage protection DP	Yes (for power connection)	Yes (for power connection)	
Physics			
Protocol	via communication module NPBA-12 or RPBA-01	via communication module FPBA-01	
Baud Rate			
Ident. No.			
PI Certificate No.			
Bus address	2 ... 125 (default 3)	2 ... 125 (default 3)	
local adjustment	Panel, Software DriveWindow	Panel, Software DriveStudio	
central adjustment	—	—	
Drive Profile	Drive: V2.0	Drive: V4.1, Application Class 1	
Transducer Block (TB)	Adjustable drives	Adjustable drives	
Function Block (FB) (Only for profile compliant devices)	Reference and actual value, speed, current, torque, frequency, fault signals, PPO1-PPO5 with parameter transfer	Reference and actual value, speed, current, torque, frequency, fault signals, PPO1-PPO6 with parameter transfer, ST1, ST2. DPV1 acyclical parameter channel	
FB Data length cyclical			
read	4 ... 28 Byte	4 ... 28 Byte	
write	4 ... 28 Byte	4 ... 28 Byte	
Device configuration			
central adjustment	Software (e.g. PLC)	Software (e.g. PLC)	
local adjustment	Panel or Software DriveWindow via FOC	Panel or Software DriveStudio via RS 232	
Asset Monitor	—	—	
External supply	Yes	Yes	

	Communication module		
	 M00635	 M00636	 M00637
	NPBA-12	RPBA-01	FPBA-01
Data sheet	3BFE64341588 EN	3AFE64504215 EN	3AFE68573271 EN
Internet	www.abb.com/motors&drives	www.abb.com/motors&drives	www.abb.com/motors&drives
Application	PROFIBUS communication module	PROFIBUS communication module	PROFIBUS communication module
Ambient temperature	5 ... 40 °C (55 °C)	-15 ... 40 °C (55 °C)	-15 ... 60 °C
Type of protection	IP 20	IP 20	IP 20
Explosion protection	—	—	—
Approvals	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE
Overvoltage protection DP	—	—	—
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	EIA 485 (RS 485)
Protocol	PROFIBUS DP	PROFIBUS DPV1	PROFIBUS DPV1
Baud Rate	≤ 12 Mbit/s	≤ 12 Mbit/s	≤ 12 Mbit/s
Ident. No.	6012 HEX	0812 HEX	0959 HEX
PI Certificate No.	—	—	—
Bus address	see ACS800, DCS400 or DCS800	see ACS800, ACS550, ACH550 or DCS800	see ACSM1, ACS350/355 or ACS850
local adjustment			
central adjustment			
PA Profile			
Transducer Block (TB)			
Function Block (FB) (Only for profile compliant devices)			
FB Data length cyclical read write			
Device configuration central adjustment			
local adjustment			
Asset Monitor	—	—	—
External supply	Yes	—	—

MNS Motor Management INSUM®			
	 M00638	 M00638	 M00639
	MCU1	MCU2	MMI
Data sheet	1TGC901007B0202	1TGC901007B0202	1TGC901007B0202
Internet	www.abb.com/mns	www.abb.com/mns	www.abb.com/mns
Application	Motor Control Unit 1: controls, monitors and protects single and three phase motors in accordance with set parameters. MCU1 provides control for standard drive types with two contactor control and current based motor protection and 12 pre-defined digital inputs for field contacts	Motor Control Unit 2: see MCU1. MCU2 additionally provides voltage based protection functions. MCU 2 provides control for drive types with three contactor control and 15 pre-defined and 2 general purpose digital inputs for field contacts.	Man-Machine-Interface for INSUM® <u>6-digit LCD-display:</u> For a clear display of data from all 128 connected field devices. <u>Encoder wheel and function keys:</u> Simple and clear menu-driven operation.
Ambient temperature	-5 ... 55 °C	-5 ... 55 °C	-5 ... 70 °C
Type of protection	IP 20	IP 20	IP 30
Explosion protection	PTB 03 ATEX 3033	PTB 03 ATEX 3033	—
Approvals	CE, IEC 439-1, PTB	CE, IEC 439-1, PTB	CE, IEC 439-1
Overvoltage protection DP	—	—	—
Physics	 via INSUM® - Gateway		
Protocol			
Baud Rate			
Ident. No.			
PI Certificate No.			
Bus address			
local adjustment			
central adjustment			
PA Profile			
Transducer Block (TB)			
Function Block (FB) (Only for profile compliant devices)	<u>Measurement:</u> current, temperature <u>Operating Commands</u> <u>Messages:</u> time meter, status, service, warnings, errors, ect.	<u>Measurement:</u> current, voltage, power, cos-phi, temperature <u>Operating Commands</u> <u>Messages:</u> time meter, status, service, warnings, errors, ect.	see MCU1 and MCU2
FB Data length cyclical	—	—	—
read	—	—	—
write	—	—	—
Device configuration	—	—	—
central adjustment	—	—	—
local adjustment	Via Software OS on Ethernet TCP/IP	Via Software OS on Ethernet TCP/IP	—
Asset Monitor	Yes (for ABB Tools)	Yes (for ABB Tools)	Yes (for ABB Tools)
External supply	Yes	Yes	Yes

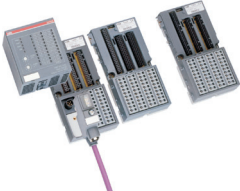
	MNS Motor Management INSUM®		
	 M00641		
	Backplane, Double Router	Gateway	
Data sheet	1TGC901007B0202	1TGC901007B0202	
Internet	www.abb.com/mns	www.abb.com/mns	
Application	The INSUM Communication Unit (ICU) is the switchgear communication hub for both internal and external communication. Internally it allows four subnet connections via routers for 32 devices/ subnet. The ICU can provide three communication links for external communication. Besides this, the Local MMI and INSUM OS software are also directly connected to ICU.	Gateway serves for protocol conversion from LON (INSUM system) to Profibus (DCS). The Profibus Gateway can provide 24 binary bits of status information and current information to DCS.	
Ambient temperature	-5 ... 70 °C	-5 ... 70 °C	
Type of protection	IP 30	IP 30	
Explosion protection	–	–	
Approvals	CE, IEC 439-1	CE, IEC 439-1	
Overvoltage protection DP	–	Yes	
Physics	via INSUM® - Gateway	EIA 485 (RS 485)	
Protocol		PROFIBUS DP	
Baud Rate		1.5 Mbit/s fix	
Ident. No.		067E HEX (Software Version 2.3)	
PI Certificate No.		–	
Bus address	see MCU1 and MCU2	1 ... 125 (default 126)	
local adjustment		MMI, Software OS	
central adjustment		–	
PA Profile			
Transducer Block (TB)			
Function Block (FB)		see MCU1 and MCU2	
(Only for profile compliant devices)			
FB Data length cyclical			
read	–	0 ... 244 Byte	
write	–	0 ... 49 Byte	
Device configuration			
central adjustment	–	–	
local adjustment	–	–	
Asset Monitor	–	–	
External supply	Yes	Yes	

	Motor Management		Wireless Automation
	 M00642	 M00643	 M00655
	UMC100-FBP	UMC22-FBP	WDIO100-CON-FBP
Data sheet	2CDC135013D02xx	2CDC135001D02xx	2CDC171004D020x
Internet	www.abb.com	www.abb.com	www.abb.de/stotz-kontakt
Application	Universal Motor Controller: The new UMC100 integrates motor management, advanced motor protection, fieldbus communication and diagnosis functions in one device. The internal logic can be adapted to customer specific needs. IO modules and a clear text LCD display are optionally available. <u>Motor current range:</u> 0.24 ... 63 A (built in current transf.) ≤ 3200 A (additional current transformers)	Universal Motor Controller: Efficient control and protection of three-phase a.c. motors with electronic measurement of the motor current and with some additional features such as blocking detection and others. <u>Motor current range:</u> 0.24 ... 63 A (built in current transformers) ≤ 3200 A (additional current transformers)	Wireless Input / Output Module: Receives / transmits up to 120 signals from / to wireless devices via two antennas and transmits them to the machine control via a field bus. <u>Features:</u> 2.4 GHz band with highest reliability due to dedicated protocol with frequency hopping and automatic repeat requests. Provides configuration and diagnosis functions.
Ambient temperature	0 ... 55 °C	0 ... 55 °C	0 ... 55 °C
Type of protection	IP 20	IP 20	IP 20
Explosion protection	II (2) GD (in preparation)	II (2) GD	–
Approvals	CE, cUL, others in preparation	CE, cUL, GL, BV, LRS, ATEX	CE, UL, CSA, FCC, ETSI, MIC, CIIT
Overvoltage protection DP	–	–	–
Physics			
Protocol	via PROFIBUS Plug	via PROFIBUS Plug	via PROFIBUS Plug
Baud Rate	PDP22-FBP or PDQ22	PDP22-FBP or PDQ22	PDP22-FBP
Ident. No.			
PI Certificate No.			
Bus address	1 ... 125	1 ... 125	1 ... 125
local adjustment	Panel	Panel	Keypad / Display
central adjustment	–	–	–
PA Profile	–	–	–
Transducer Block (TB)	Low Voltage Switchgear	Low Voltage Switchgear	–
Function Block (FB) (Only for profile compliant devices)	Control of the contactors and the manual motor starter, motor current, additional I/O's	Control of the contactors and the manual motor starter, motor current, additional I/O's	Process data and diagnosis in cyclical data chosen; block- and single-parameters (depending on type configuration during first start-up).
FB Data length cyclical			
read	16 Byte	6 Byte	32 Byte
write	8 Byte	4 Byte	16 Byte
Device configuration			
central adjustment	DTM (BasicDTM-PB) or Software (e.g.: PLC)	DTM (BasicDTM-PB) or Software (e.g.: PLC)	Software (e.g.: PLC) via block or single parameters
local adjustment	Panel	Panel	Keypad
Asset Monitor	Yes, in preparation	Yes	–
External supply	24 V DC	24 V DC	Yes

	Soft Starter		
	 M00644	 M00645	
	PST / PSTB	PSR (plus PSR-FBPA)	
Data sheet	1SFC132004C02xx	1SFC132004C02xx	
Internet	www.abb.com	www.abb.com	
Application	The PST range is a microprocessor based soft starter designed with the latest technology for soft start and soft stop of three-phase a.c. motors. Functions like electronic motor overload protection, thermistor input, real time clock, phase monitoring, LCD display with clear text and more are standard. <u>Motor current range:</u> 9 ... 1810 A	The PSR range is a microprocessor based compact softstarter with built in by-pass contacts. The design offers a both soft start and soft stop functionings to be used for three phase standard a.c. motors. <u>Motor current range:</u> 3 ... 105 A	
Ambient temperature	0 ... 50 °C	-25 ... 60 °C	
Type of protection	IP 20 / IP 00	IP 20 / IP 10	
Explosion protection	—	—	
Approvals	CE, CCC, cULus, GL, ANCE, C-tick, GOST (for RU, UA)	CE, CCC, cULus, ANCE, C-tick, GOST (for RU, UA)	
Overvoltage protection DP	—	—	
Physics			
Protocol	via PROFIBUS Plug PDP22-FBP	via PROFIBUS Plug PDP22-FBP	
Baud Rate			
Ident. No.			
PI Certificate No.			
Bus address	1 ... 125	1 ... 125	
local adjustment	Keypad	—	
central adjustment	—	Software (e.g. PLC)	
PA Profile	—	—	
Transducer Block (TB)	—	—	
Function Block (FB) (Only for profile compliant devices)	Control of start and stop of the motor, status information of voltage, currents, frequency and programmable I/O's etc	Control of start and stop of the motor, status of used MMS, and if local control	
FB Data length cyclical			
read	30 Byte	1 Byte	
write	14 Byte	1 Byte	
Device configuration			
central adjustment	Software (e.g. PLC)	Software (e.g. PLC)	
local adjustment	Keypad	—	
Asset Monitor	—	—	
External supply	100 ... 250 V AC 50 / 60 Hz	24 V DC, 100 ... 240 V AC	

	PROFIBUS Plug		
	 M00646	 M00647	
	PDQ22-FBP	PDP22-FBP	
Data sheet	2CDC192001D020x	2CDC192001D020x	
Internet	www.abb.com	www.abb.com	
Application	PROFIBUS DP Plug: Connection of up to four devices to the PROFIBUS DPV1. Optimal solution for motor control centers. The device (e.g. UMC22) is mounted in a drawer. The PDQ22 is mounted in the cable chamber. No drop lines are created!	PROFIBUS DP Plug: Connection of devices with small to medium complexity to the PROFIBUS DPV1 and to the 24 V DC supply (hybrid cable) <u>Examples for devices:</u> Proximity switches, I/O modules, motor starter, soft starter, circuit breakers.	
Ambient temperature	0 ... 55 °C	0 ... 55 °C	
Type of protection	IP 67	IP 67	
Explosion protection	—	—	
Approvals	CE, UL, CSA, GL, BV, LRS	CE, UL, CSA, GL, BV, LRS	
Overvoltage protection DP	—	—	
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	
Protocol	PROFIBUS DPV1	PROFIBUS DPV1	
Baud Rate	≤ 12 Mbit/s	≤ 12 Mbit/s	
Ident. No.	0A09 HEX	082D HEX (UMC100-FBP: 34E0 HEX)	
PI Certificate No.	be applied	be applied	
Bus address			
local adjustment			
central adjustment			
PA Profile			
Transducer Block (TB)			
Function Block (FB)			
(Only for profile compliant devices)			
see		see	
UMC22-FBP or UMC100-FBP		UMC22-FBP, UMC100-FBP, PST/PSTB, WDIO100-CON-FBP or I/O S500-FBP	
FB Data length cyclical			
read			
write			
Device configuration			
central adjustment			
local adjustment			
Asset Monitor	see devices above	see devices above	
External supply	Yes, via hybrid bus cable	Yes, via hybrid bus cable	

	Redundancy Link Module	I/O System	Remote I/O
	 M00648	 M00649	 M00650
	RLM01	S900	S800
Data sheet	3BDD011641R0301	3BDD010420R0101	3BSE025986
Internet	www.abb.com/fieldbus	www.abb.com/controlsystems	www.abb.com/controlsystems
Application	PROFIBUS DP / FMS Redundancy Link Module Converts a non redundant RS 485 PROFIBUS DP / FMS line to two redundant RS 485 PROFIBUS DP / FMS lines and vice versa (line redundancy). - Monitoring of communication - Transparent for DPV1 services - Status- and error display - Repeater functionality	I/O system for zone 1 / zone 2 or Non-Ex applications. - Modular design with hot-pluggable modules - Redundant in power supply, communication interface and internal bus - HART pass through - HCIR - Hot Configuration In Run	Remote I/O system for zone 2 Class 1 Div.2 or Non-Ex applications. - Modular design - Comprehensive distributed system - Communication with parent controllers over industry-standard fieldbuses - HART pass through - Hot configuration in run - Redundancy on both, communication and I/O modules
Ambient temperature	0 ... 50 °C	-20 ... 60 °C	0 ... 55 °C
Type of protection	IP 20	IP 20	IP 20
Explosion protection	–	II 2 (1) G EEx [ia] ib IIC T4 and further	[EEx ia] IIC, Class 1 Div. 2
Approvals	CE, UL, CSA, Germanischer Lloyd for operation in maritime systems	ATEX, CE, NEPSI, INMETRO, OBAC; GOST (for RU, UA, BY)	ATEX, CSA, FM, cULus, GOST, CE, Marine approvals, ISA Class G3 (ISA.S71.04)
Overvoltage protection DP	–	Yes (optional)	–
Physics	EIA 485 (RS 485)	EIA 485 (RS 485)	EIA 485 (RS 485)
Protocol	PROFIBUS DP und FMS	PROFIBUS DPV1	PROFIBUS DPV1
Baud Rate	≤ 12 Mbit/s	≤ 1,5 Mbit/s	≤ 12 Mbit/s
Ident. No.	– (transparent)	04D2 HEX	08D3 HEX(CI801), 0630 HEX(CI840)
PI Certificate No.	–	–	–
Bus address	– (transparent)	0 ... 125 (default 0)	0 ... 99
local adjustment	–	Switch	Switch
central adjustment	–	–	–
PA Profile	–	Remote I/O	–
Transducer Block (TB)	–	–	–
Function Block (FB) (Only for profile compliant devices)	–	Analog: standard I/O, with/without HART and temperature free configurable Digital: standard I/O and EEx i low power valves incl. quitting	Analog: standard I/O, Ex i, HART and temperature (RTD and TC) Digital: standard I/O (24 / 48 V DC and 120 / 230 V AC), impulse totalizer (1.5 Mhz) and relay output
FB Data length cyclical read	–	together	0 ... 239 Byte
write	–	0 ... 216 Byte	0 ... 112 Byte
Device configuration central adjustment	–	DTM	DTM
local adjustment	Baud rate via switches	–	–
Asset Monitor	–	–	–
External supply	Yes (Redundant)	Yes	Yes

Distributed Automation			
			
	M00651	M00652	M00654
	I/O S500	I/O S500-FBP	PLC AC500: (PM571, PM58x, PM59x)
Data sheet	2CDC124007D0201 2CDC124001M0201	2CDC124014B0201 2CDC124025M0202	2CDC125001B0201 2CDC125080M0201
Internet	www.abb.com	www.abb.com/plc	www.abb.com/plc
Application	Remote I/O system: - modular system - bus module expandable with up to 7 I/O modules - small expansion by extension box plugged into bus module - 2/3-wire connection, screw / spring	Remote I/O system: - modular system - FBP Interface module expandable with up to 7 I/O modules - 1/2/3-wire connection, screw / spring - uses open fieldbus technology with FieldBusPlug (FBP) - up to 230 I/Os with 32 channels modules	Modular PLC family for central and decentralized use. Expandable with 10 modules with DI, DO, AI and AO. 2 serial interfaces RS232 / RS485 (Modbus integr.). Integrierter CS31-Bus and FBP slave interface, ARCNET / Ethernet. Up to 4 Master couplers: ASCII / RCOM / PROFIBUS DP / DeviceNet / CANopen / Ethernet / PROFINET and EtherCAT with internal 2 ports switch. User memory: 64 kB up to 4 MB. Direct connection to OperateIT via OPC
Ambient temperature	0 ... 55 °C	0 ... 60 °C	0 ... 60 °C
Type of protection	IP 20	IP 20	IP 20
Explosion protection	–	–	–
Approvals	CE, cUL	CE, cUL, cTIC, ABS, BV, DNV, GL, RINA, RMRS, GOSTc	CE, cUL, cTIC, ABS, BV, DNV, GL, RINA, RMRS, GOSTc
Overvoltage protection DP	–	–	–
Physics	EIA 485 (RS 485)	via PROFIBUS Plug PDP22-FBP	EIA 485 (RS 485)
Protocol	PROFIBUS DP		PROFIBUS DP
Baud Rate	≤ 12 Mbit/s		≤ 12 Mbit/s
Ident. No.	9520 HEX / 9521 HEX	091F HEX	in preparation
PI Certificate No.	–	–	–
Bus address	1 ... 125	1 ... 99	1 ... 99 (FBP)
local adjustment	DIP switch	Rotary switch	on-board display / keyboard
central adjustment	–	–	–
PA Profile	–	–	–
Transducer Block (TB)	–	–	–
Function Block (FB) (Only for profile compliant devices)	- Standard digital IN / OUT and configurable IN / OUT - Standard analog IN / OUT - INTERFAST connection is usable	- Standard digital IN / OUT and configurable IN / OUT - Standard analog IN / OUT and configurable IN / OUT	Programmable according IEC 61131-3 multitasking with high performance, open and closed loop control, PI and PID controller, encoder input, 32-bit integer and floating-point
FB Data length cyclical read write	0 ... 128 Byte 0 ... 128 Byte	0 ... 128 Byte 0 ... 128 Byte	0 ... 240 Byte (Slave) 0 ... 240 Byte (Slave)
Device configuration central adjustment	Fieldbus configurator SW FB1131 + configurator integrated in PLC programming system AC1131	Fieldbus configurator integrated in PLC programming software Control Builder AC500	Fieldbus configurator integrated in PLC programming software Control Builder AC500
local adjustment	–	–	–
Asset Monitor	–	–	–
External supply	Yes	Yes	Yes

	Network components , Accessories for EIA 485 (RS 485)													
	Adap- ter	Passive / active junctions						Connectors				Cables		
	NDA121-NO	NDJ120-NO	NDJ122-NO	NDJ130-NO	NDJ132-NO	NDJ120-NOS	NDJ122-NOS	NDE210-NO	NDE220-NO	NDE230-NO	NDE100-NE	NDC110-NO	NDC110-EX	
Data sheet	10/63-6.41-EN	10/63-6.40-EN										10/63-6.47-EN		
Installation suggestion	10/63-0.40-EN													
Internet	www.abb.com/fieldbus													
For hazardous areas														
USB / PB DP adapter	•													
Windows 2000, XP, Vista, 7	•													
DP rate ≤ 12 Mbit/s	•													
For hazardous areas														
Housing aluminum		•	•	•	•									
Housing stainless steel						•	•							
Bus termination active incl.			•		•		•							
One-way (T) junction		•	•	•	•	•	•							
Output - cable bushing				•	•									
Output - socket M12		•	•			•	•							
For hazardous areas											•			
For Non-Haz. areas											•			
Plug SUB-D, 9-pos								•	•	•				
Plug M12											•			
Metal housing											•			
Bus termination incl.									•	•				
Programming connection SUB-D										•				
For hazardous areas													•	
2 x 0.32 mm² (AWG22/1)													•	•

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