

Technical Data F200K ... / F200K ... Ex-II ... / F200K ... Ex



Fig. 1-1 F200K ... , F200K ... Ex-II

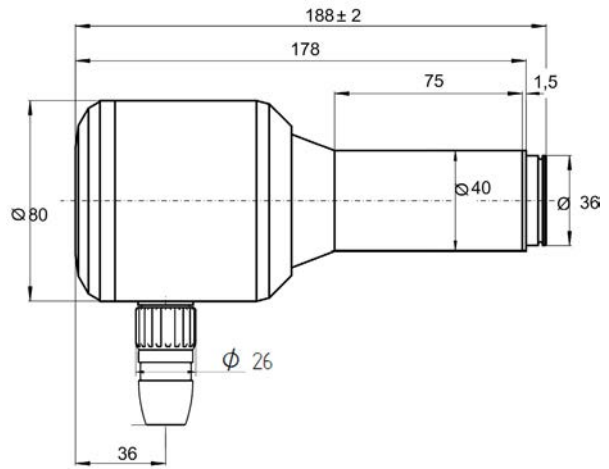


Fig. 1-2 F200K ... , F200K ... Ex-II

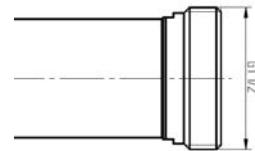


Fig. 1-3 F200K ..V

NOTICE

Without connecting cable! Connection cable must be ordered separately, see order details..

F200K ... Ex



Fig. 1-4 F200K ... Ex

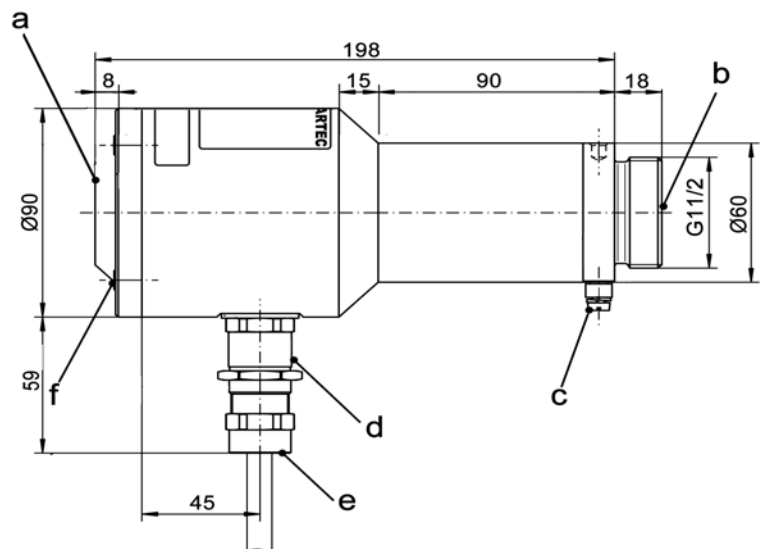


Fig. 1-5 F200K ... Ex

NOTICE

With connecting cable! Available lengths 3/5/10 m, see order details

Technical Data F200K ... / F200K2 ... Ex-II ... / F200K ... Ex

F200K ... , F200K2 ..., Ex-II

Dimension	
Dimension Version V	Total length: 180 mm/7.09" in; Diameter: 40/80 mm/1.57/3,15 in with male thread G 1 1/2, length 10 mm/0.4" in
Weight Version V	0,60 kg/1.32 lb 0,65 kg/1.43 lb
Material	Corrosion-resistant aluminium EN AW 6082 (seawater 2*; atmospheric condition 1*), nickel plated, varnished (F200K Ex-II)

* Comparative evaluation from 1 (very good) to 6 (unsuitable)

Input Data	
Power supply	24 VDC ± 20 % ≤ 4 W

Characteristics	
Output contact Analogue output - (change-over switch, floating)	approved switching voltage; max 42 VDC; min. 6 VAC/DC 0/4 ... 20 mA approved switching current; max. 0,5 A; min. 1 mA, load max. 200 Ohm
Frequency range	10 ... 190 Hz (F200K1 ...); 10/20/30 ... 190 Hz (F200K2 ...)
Safety time "OPERATION" FFDT	t ≤ 1 s (standard) t ≤ 3 s (on request, at the factory)
Mode of operation	Continuous operation



Environmental conditions	
Level of protection	IP67, NEMA 4X
Ambient temperature	-40 °C ... +75 °C/-40 °F ... 167 °F)

Extended temperature range valid for all devices with serial number from 83103000

Sensor	IR-1	IR-2	UV-1, UV-2, UV-3
-40 °C/-40 °F */**	✓	✓	✓
+60 °C/140 °F	✓	✓	✓
+75 °C/167 °F *		✓	✓

* F200K2 ... Ex (see Ex approval) min. -20 °C/-4 °F

** not for safety times 4 s

Application in hazardous areas of zone 2, 22:	
Certificate	IECEX IBE 15.0012X
Marking	 II 3 G Ex nA nC IIC T5 (T6) Gc X,  II 3 D Ex tc IIIC T85°C Dc X T6 -40 °C ≤ T _a ≤ +60 °C

Technical Data F200K ... / F200K ... Ex-II ... / F200K ... Ex

F200K2 ... Ex

Dimension	
Dimension	Total length: 216 mm/8.5" in Diameter: 60/90 mm/2.36"/3.54" in
Weight	2 kg/4.4 lb
Material	Corrosion-resistant aluminium EN AW 6082 (seawater 2*; atmospheric condition 1*), anodised
Tightening torque for brackets Fv...	Hand-tight approx. 5 Nm

* Comparative evaluation from 1 (very good) to 6 (unsuitable)

Input data	
Power supply	24 VDC \pm 20 % \leq 4 W



Characteristics	
Output contact Analogue output (change-over switch, floating)	approved switching voltage; max 42 VDC; min. 6 VAC/DC 0/4 ... 20 mA approved switching current; max. 0,5 A ; min. 1 mA, load max. 200 Ohm
Frequency range	10/20/30 ... 190 Hz
Safety time "OPERATION" FFDT	t \leq 1 s (standard) t \leq 3 s (on request, at the factory)
Mode of operation	Continuous operation
Mounting dimension	1 1/4 " external thread Connection just with ball-and-socket joint FV 30 or FV 40

Environmental conditions	
Level of protection	IP66, NEMA 4X
Ambient temperature	-20 °C ... +65 °C/- 4 °F ... 149 °F (Temperature class T6)

Extended temperature range valid for all devices with serial number from 83103000

Sensor	IR-1	IR-2	UV-1, UV-2, UV-3
-20 °C/-4 °F	✓	✓	✓
+60 °C/140 °F	✓	✓	✓
+65 °C/149 °F *		✓	✓

Application in hazardous areas of zone 1, 21:

Certificate	IECEX EPS 14.0042
Marking	 II 2G Ex d IIC T6 Gb  II 2D Ex tb IIIC T80°C Db

Order Information

659R60-	A 10 SPECTRUM	A 20 HOUSING	A 30 MAINS FREQUENCY	A 40 CURRENT OUTPUT	A 50 DISPLAY RANGE	A 60 CABLE LENGTH
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A 10 – SPECTRUM	Selection
F200K1 UV-1 UV-SPECTRAL RANGE 260 ... 400 nm, not for Ex1 and Ex2	03*
F200K2 UV-1 UV-SPECTRAL RANGE 260 ... 400 nm	04
F200K1 UV-2 UV-SPECTRAL RANGE 210 ... 380 nm, not for Ex1 and Ex2	05
F200K2 UV-2 UV-SPECTRAL RANGE 210 ... 380 nm	06
F200K1 UV-3 UV-SPECTRAL RANGE 210 ... 380 nm, not for Ex1 and Ex2	13
F200K2 UV-3 UV-SPECTRAL RANGE 210 ... 380 nm	14
F200K1 IR-1 IR-SPECTRAL RANGE 1.200 ... 2.800 nm, not for Ex1 and Ex2	01
F200K2 IR-1 IR-SPECTRAL RANGE 1.200 ... 2.800 nm	02
F200K1 IR-1 H 3s IR-SPECTRAL RANGE 1.200 ... 2.800 nm, not for Ex1 and Ex2**	11
F200K2 IR-1 H 3s IR-SPECTRAL RANGE 1.200 .. 2.800 nm**	12
F200K2 IR-2 F IR-SPECTRAL RANGE 850 ... 1.200 nm***	00
F200K2 IR-2 F 4s IR-SPECTRAL RANGE 850 ... 1.200 nm***	08

* (Default setting)

** H= Wood application

*** F= Combustion chamber monitoring

A 20 – HOUSING	Selection
HOUSING STANDARD suitable ball-and-socket joint FH30-00, FH30-10, FH40-10	0*
HOUSING WITH SCREW FASTENING suitable ball-and-socket joint FV30-00, FV30-10, FV40-10	V
HOUSING IR FOR Ex-ZONE 1 WITH SCREW FASTENING suitable ball-and-socket joint FV30-00, FV30-10, FV40-10	Z1 IR
HOUSING UV FOR Ex-ZONE 1 WITH SCREW FASTENING suitable ball-and-socket joint FV30-00, FV30-10, FV40-10	Z1 UV
HOUSING FOR Ex-ZONE 2 suitable ball-and-socket joint FH30-00, FH30-10, FH40-10	Z2
HOUSING FOR Ex-ZONE 2 WITH SCREW FASTENING suitable ball-and-socket joint FV30-00, FV30-10, FV40-10	Z2/V

* (Default setting)

A 30 – MAINS FREQUENCY	Selection
MAINS FREQUENCY 50 Hz	0*
MAINS FREQUENCY 60 Hz	60 Hz

* (Default setting)

A 40 – CURRENT OUTPUT	Selection
CURRENT OUTPUT 4 ... 20 mA	0*
CURRENT OUTPUT 0 ... 20 mA	0 mA

* (Default setting)

A 50 – LED DISPLAY / SIGNAL OUTPUT 0/4... 20 mA	Selection
INTEGRATED (STANDARD)	0*

2 Order Information

A 50 – LED DISPLAY / SIGNAL OUTPUT 0/4... 20 mA	Selection
REAL	A

* (Default setting)

A 60 – CABLE LENGTH FOR TYPE EX-AREA 1	Selection
WITHOUT CONNECTING CABLE	0*
CONNECTING CABLE, length 3 m/9.84 ft, only Ex1	3 m
CONNECTING CABLE, length 5 m/16.40 ft, only Ex1	5 m
CONNECTING CABLE, length 10 m/32.81 ft, only Ex1	10 m

* (Default setting)

Accessories for F200K... / F200K... EX 2	Selection
CONNECTION/EXTENSION CABLE, length 3 m/9.84 ft, (not for Ex1)	659R6112
CONNECTION/EXTENSION CABLE, length 3 m/9.84 ft, (not for Ex1), silicon	659R6112/SI
CONNECTION/EXTENSION CABLE, length 5 m/16.40 ft, (not for Ex1)	659R6113
CONNECTION/EXTENSION CABLE, length 5 m/16.40 ft, (not for Ex1), silicon	659R6113/SI
CONNECTION/EXTENSION CABLE, length 10 m/32.81 ft,(not for Ex1)	659R6114
CONNECTION/EXTENSION CABLE, length 10 m/32.81 ft,(not for Ex1), silicon	659R6114/SI

Approvals



The information in this publication is subject to technical changes.



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