OPTIFLEX 6200 C/F Technical Datasheet

Guided radar (TDR) level transmitter for solids from granulates to powders

- Designed to withstand high traction loads
- Aluminium and stainless steel housing, compact and remote up to 100 m / 328 ft
- Insensitive to dusty atmosphere and deposits on the probe

HART COMMUNICATION PROTOCOL

KROHNE

2.1 Order code

Make a selection from each column to get the full order code. The characters of the order code highlighted in light grey describe the standard.

VFAB	4	0	OPTIFLEX 6200 C/F Guided Radar (TDR) level transmitter for solids from granulates to powders up to 40 barg (580 psig) and +200°C (+392°F)	
			Regional directives or approvals	
			1	Europe
			2	China
			3	USA
			4	Canada
			5	Brazil
			6	Australia
			A	Russia
			B	Kazakhstan
			C	Belarus
			W	Worldwide
			Ex approval ①	
			0	Without
			1	ATEX II 1/2 G Ex ia IIC T6…T3 Ga/Gb + II 1/2 D Ex ia IIIC T85°C…T*°C Da/Db 2
			2	ATEX II 1/2 G Ex ia/db IIC T6…T3 Ga/Gb + II 1/2 D Ex ia/tb IIIC T85°C…T*°C Da/Db 2
			3	ATEX II 3 G Ex ic IIC T6…T3 Gc + II 3 D Ex ic IIIC T85°C…T*°C Dc 2
			4	ATEX II 3 G Ex ic nA T6…T3 Gc
			5	NEPSI Ex ia IIC T3~T6 Ga/Gb + Ex iaD 20/21 T85~T** 2
			6	NEPSI Ex d ia IIC T3~T6 Ga/Gb + Ex iaD 20 tD A21 IP6X T85°C~T*°C 2
			A	cQPSus IS CL I/II/III DIV 1 GP A-G + CL I Z0 AEx ia/Ex ia IIC T6…T3 Ga + Z20 AEx ia/Ex ia IIIC T85°C…T*°C Da 2
			B	cQPSus XP-IS/DIP-IS CL I DIV 1 GP A-G + CL I Z1 AEx db ia/Ex db ia IIC T6…T3 Gb + Z21 AEx ia tb/Ex ia tb IIIC T85°C…T*°C Db 2
			C	cQPSus NI CL I/II/III DIV 2 GP ABCDFG
			K	IECEx Ex ia IIC T6…T3 Ga/Gb + Ex ia IIIC T85°C…T*°C Da/Db 2
			L	IECEx Ex ia/db IIC T6…T3 Ga/Gb + Ex ia/tb IIIC T85°C…T*°C Da/Db 2
			M	IECEx Ex ic IIC T6…T3 Gc + Ex ic IIIC T85°C…T*°C Dc 2
			P	EAC Ex Ga/Gb Ex ia T6…T3 X + Da/Db Ex ia IIIC T85°C…T*°C X (Pending) 2
			R	EAC Ex Ga/Gb Ex ia/db IIC T6...T3 X + Da/Db Ex ia/tb IIIC T85°C…T*°C X (Pending) 2
			Industry / safety	
			0	Without
			1	SIL2/3 – only available for the compact version (C)
VFAC	4	0	Order code (complete this code on the pages that follow)	

						Construction	
					0	Without	
					3	NACE MR0175 (ISO 15156), MR0103 (ISO 17945)	
					Converter version (Housing material / IP class)		
					2	C / Compact version (aluminium housing - IP66/IP68)	
					3	C/ Compact version (stainless steel housing - IP66/IP68)	
					7	F / Remote version (converter and sensor: aluminium housing - IP66/IP68) 3	
					8	F / Remote version (converter and sensor: stainless steel housing - IP66/IP68) 3	
					Outputs		
					1	2-wire / 4...20 mA passive HART®	
					2	2 × 2-wire / 4...20 mA passive HART® + 4...20 mA passive	
					3	2-wire + 4-wire / 4...20 mA passive HART® + switch output - relay (48 V AC / 6 A; 24 V DC / 6 A)	
					Cable entry / cable gland		
					1	M20×1.5 / without	
					2	M20×1.5 / 1 × plastic + plug 4	
					3	M20×1.5 / 1 × nickel-plated brass + plug 5	
					4	M20×1.5 / 1 × stainless steel + plug 5	
					6	M20×1.5 / 2 × plastic Ⓐ	
					7	M20×1.5 / 2 × nickel-plated brass 7	
					8	M20×1.5 / 2 × stainless steel 7	
					C	½ NPT / without	
					D	½ NPT / 1 × nickel-plated brass + plug 5	
					E	½ NPT / 1 × stainless steel + plug 5	
					F	½ NPT / 2 × nickel-plated brass 7	
					G	½ NPT / 2 × stainless steel 7	
					Display / Housing orientation		
					1	No Display / Vertical	
					2	No Display / Horizontal	
					4	Display / Vertical top	
					5	Display / Vertical side	
					6	Display / Horizontal side	
VFAC	4	0				Order code (complete this code on the pages that follow)	

										Display - Documentation language					
									1	English 8					
									2	German					
									3	French					
									4	Italian					
									5	Spanish					
									6	Portuguese					
									7	Japanese					
									8	Chinese (simplified)					
									A	Russian					
									B	Czech					
									C	Turkish					
									D	Polish					
								0		Process seal / gaskets					
									0	Without					
									1	-1...40 barg (-14.5…580 psig) / -40°C...+200°C (-40…+392°F) / Single PTFE process seal system with FKM/FPM gasket					
									2	-1...40 barg (-14.5…580 psig) / -20°C...+200°C (-4…+392°F) / Single PTFE process seal system with Kalrez® 6375 gasket					
									3	-1...40 barg (-14.5…580 psig) / -50°C...+150°C (-58…+302°F) / Single PTFE process seal system seal with EPDM gasket					
										Probe / Probe end / Material					
									0	Without					
									1	Single rod Ø16 mm (0.63¨) / none / 316L - 1.4404 / 0.6...4 m (1.97. 13.12 ft)					
									6	Single cable Ø8 mm (0.32¨) / counterweight 12×100mm / 316 - 1.4401 / 1.0...40 m (3.28. 131.23 ft)					
									7	Single cable Ø8 mm (0.32¨) / counterweight 38×245mm / 316 - 1.4401 / 1.0...40 m (3.28. 131.23 ft)					
									C	Single cable Ø8 mm (0.32¨) / open end / 316 - 1.4401 / 1.0...40 m (3.28. 131.23 ft)					
										0	Process connection: Size / Pressure class / Sealing face				
											0	0	0	Without	
											Threaded – ISO 228				
											G	P	0	G 1½ A	
											Threaded – ASME B1.20.1				
											G	A	0	1½ NPT	
VFAC	4	0							0		0			Order code (complete this code on the pages that follow)	

														EN 1092-1 flanges ®				
														G	E	1	DN40 PN16 - Type B1	
														G	F	1	DN40 PN25 - Type B1	
														G	G	1	DN40 PN40 - Type B1	
														H	G	1	DN50 PN40 - Type B1	
														L	E	1	DN80 PN16 - Type B1	
														M	E	1	DN100 PN16 - Type B1	
														P	D	1	DN150 PN10 - Type B1	
														P	E	1	DN150 PN16 - Type B1	
														ASME B16.5 flanges ⊙O				
														G	1	A	1½¨ 150 lb - RF	
														H	1	A	2¨ 150 lb - RF	
														L	1	A	3¨ 150 lb - RF	
														L	2	A	3¨ 300 lb - RF	
														M	1	A	4¨ 150 lb - RF	
														P	1	A	6¨ 150 lb - RF	
														R	1	A	8¨ 150 lb - RF	
														JIS B2220 Flanges				
														H	U	P	50A JIS 10K RF	
														L	U	P	80A JIS 10K RF	
														M	U	P	100A JIS 10K RF	
VFAC	4	0								0		0					Order code (complete this code on the pages that follow)	

																		Alternative flange faces		
																	5	Type E, EN 1092-1 (Spigot)		
																	B	FF, ASME B16.5 (Flat face)		
																		Calibration certificate		
																	0	Without (accuracy ±2 mm (0.08¨) up to 10 m (32.81 ft))		
																	1	Calibration certificate ±2 mm (0.08¨), 2 factory default points		
																	2	Calibration certificate ±2 mm (0.08¨), 5 factory default points		
																	3	Calibration certificate ±2 mm (0.08¨), 5 points specified by customer		
																			0	Accessories / Tag plate
																			0	Without
																			1	Weather protection
																			2	Adaptor for OPTIFLEX 1300 C process connections (before June 2009)
																			3	Stainless steel tag plate (18 characters max.)
																			6	Weather protection + stainless steel tag plate (18 characters max.)
VFAC	4	0							0		0				0					Order code

① For more data, refer to the Technical data section (Approvals and certification)

② If the device has a PTFE process seal system and an FPM/FKM or Kalrez® gasket, then T*°C = T200°C or T**=T200. For all other versions, T*°C = T150°C or T**=T150.

③ Length of RS-485 cable between the remote converter and the probe: 1...100 m / 3.28. 328.08 ft

④ This option is available if the device has one output. This option is not available for devices with an Ex d ia approval.

⑤ This option is available if the device has one output

Ⓐ This option is available if the device has two outputs. This option is not available for devices with an Ex d ia approval.

⑦ This option is available if the device has two outputs

⑧ If no language is selected or the selected language is not available, the device is supplied with documentation in English

Ⓡ Other flange faces are available. Refer to your local supplier for more data.

①⓪Flanges with RF faces have a slip on-type design with an anti-blowout feature. Other flange faces are available. Refer to your local supplier for more data.