Voltage Repeater

Features

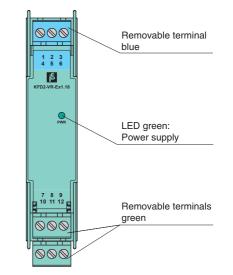
- 1-channel isolated barrier
- 24 V DC supply (Power Rail)
- Voltage input 0 V ... 12 V
- Voltage output 0 V ... 12 V

Function

This isolated barrier is used for intrinsic safety applications. It transfers voltage signals from hazardous areas to safe areas.

The input voltage of the terminals 4 and 5 is transferred to the terminals 7 and 8. The terminals 4 and 8 have the same polarity.

It repeats 0 V \dots 12 V signals from strain gauges, transducers, and inductive motion sensors with signal frequencies up to 1.2 kHz.



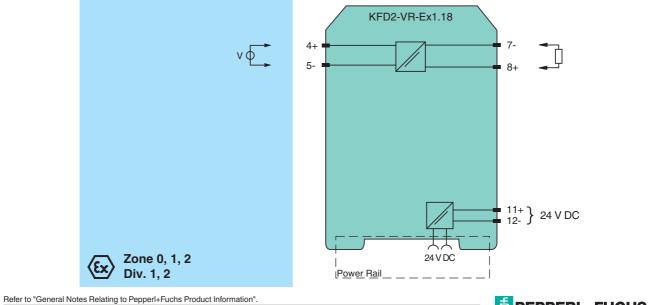
CE

Assembly

Front view



Connection



KFD2-VR-Ex1.18

Pepperl+Fuchs Group USA: +1 330 www.pepperl-fuchs.com pa-info@us.pepp

USA: +1 330 486 0002 pa-info@us.pepperl-fuchs.com Germany: +49 621 776 2222 pa-info@de.pepperl-fuchs.com Singapore: +65 6779 9091 pa-info@sg.pepperl-fuchs.com



Generation Analog input Signal type Analog input Signal type Power Rail or terminals 11+, 12- Read voltage Up Signal type Consection Read voltage Up Read voltage Up Read voltage Up Read voltage Up Parted voltage 0			
SuppiNumerial or terminal 11, 12-0.Rated voltageVoeRated voltage voltage2035 VOERated voltage volt	General specifications		
<table-container>Connection99908 b/OCRelate vicing08 b/OCRelate vicing08 b/OCRelate vicing008 b/OCInsult00Insult vicing008 b/OCRelate vicing008 b/OCRelate vicing008 b/OCInsult vicing/burnel008 b/OCRelationer008 b/OCRelationer008 b/OCRelationer008 b/OCRelationer008 b/OCRelationer008 b/OCRelationer008 b/OCRelationer008 b/OCRelationer008 b/OCRelationer008 b/OCRelationer08 b/OC08 b/OCRelationer08 b/OC<td>• •</td><td></td><td>Analog input</td></table-container>	• •		Analog input
Rated vargetQui a SV DCRated vargetwhite the supply loteranceRated vargetSupploSV DCConnectionSV DCDection SV DV DCNE SV DCConnectionSV DCDection SV DV DCSV DVDection SV DV			
Ripbiwith supply toleranceRead currer is<20 AG	Connection		
Rest orantIConclusionInput resistance10 MAConclusion10 MATransmission rango012 VOffer voltaging/current2 mW < 7 nA	Rated voltage	Un	
input"Compotionseminal A. 6-5Expertediations rangeSeminal A. 6-5Expertediations rangeSeminal A. 6-5Expertediations rangeSeminal A. 6-5Distry obligations rangeSeminal A. 7.8ConsectionEminals 7, 8-4Output residenceSeminal A. 6.8Output residenceSeminal A. 6.8Output residenceSeminal A. 6.8Prove characteristicsSeminal A. 6.8Prove characteristicsSeminal A. 6.8Prove characteristicsSeminal A. 6.8BandwidthSeminal A. 6.8Res fundSeminal A. 6.8SeminalSeminal A. 6.8Output residence more stateSeminal A. 6.8Diverside constative more stateSeminal A. 6.8Output residence more stateSeminal A. 6.	Ripple		within the supply tolerance
Connocionterminals 44, 5-Transmission range012 VOfficat voltageburent> 210 MAOfficat voltageburent> 210 VOfficat voltageburent> 210 VConnectionterminals 7, 9-Connection112 VOutput> 210 VOutput> 210 VDarbat> 210 VConnection2 012 VOutput resistance2 0.02Darbat> 210 VDarbat> 210 VDarbat> 210 VDarbat> 210 VInstance of antient temperature> 2005 % of range per KInduction> 210 VInduction Insulation, rated insulation voltage 50 VACDirective compatibilityInternation voltage 50 VACDirective 2004/08/ECEN 61326-12006Directive 2004/08/ECEN 61326-120	Rated current	I _n	< 20 mA
input residence 9.019 Order 012 V Contaction 012 V Output residence 0012 V Directive contornity 0012 V Electronagnetic compatibility Verol 100 V/OUTPU Directive contornity Electronagnetic compatibility Electronagnetic compatibility Verol 112 V/OUTPU Degree of protection FE 0.002 V/OUTPU Degree of protection Verol 124 V/OUTPU Degree of protection Papox 100 Q Degree of protection Verol 124 V/OUTPU Degree of protection Papox 100 Q Degree of pro	Input		
Tamba de la construit 2	Connection		terminals 4+, 5-
Olise violagiourint<2 mV / <7 nAOutput<2 mV / <7 nAOutputConnactionValues<2 a 12 VOutput residence<2 a 12 VColuput residence<2 a 12 VDivision<Transfer characteristicsDivision<2 a 10 × C (8 P)Influence of antibut tumperature<2 a 00 × C (8 P)Bandwidth<2 b 00 × C (8 P)Disciput coluption tumperature<2 b 00 × C (8 P)Bandwidth<2 b 00 × C (8 P)Disciput coluption tumperature<2 b 00 × C (4 - 140 P)Mechanical spectation to CentralityNE 21Disciput coluption tumperature<2 b 00 × C (4 - 140 P)Mechanical spectation to CentralityNE 20 × C (4 - 140 P)Disciput coluption tumperature<2 b 00 × C (4 - 140 P)Mechanical spectation to Centrality<2 b 00 × C (4 - 140 P)Contractify coluption tumperature<2 b 00 × C (4 - 140 P)Disciput coluption tumperature<2 b 00 × C (4 - 140 P)Disciput coluption tumperature<2 b 00 × C (4 - 140 P)Disciput coluption tumperature <th< td=""><td>Input resistance</td><td></td><td>\geq 10 MΩ</td></th<>	Input resistance		\geq 10 M Ω
Output Meminale 7, 8+ Connection Lemminale 7, 8+ Output resistance 5:00 Transfer characteristics State Call Call Call Call Call Call Call Cal	Transmission range		0 12 V
ConsignerImage 7, 8-Voltagie012 VVoltagie2.02Voltagie2.02Voltagie3.02Neution3.02Neution3.02Neution2.0.02Neution2.0.02Neution2.0.02Neution2.0.02Neution2.0.02Neution2.0.02Neution2.02	Offset voltage/current		< 2 mV / < 7 nA
Voltgo012 VOutput rosistance≤ 20 ΩTansfar characteristicsDeviation= 5 mV al 20 °C (68 °F)Influence of ambient temperature≤ 0.005 % of range per KBandwidth1 2 kHz (3 dB)Rise time< 0.40 ms	Output		
Outpuint <20 Q	Connection		terminals 7-, 8+
Tansfer characteristics Internation Deviation = 5 mV at 20 °C (68 °F) Influence of ambient temperature 50.005 % of range per K Bardwidth 12 kHz (3 dB) Bardwidth 12 kHz (3 dB) Bardwidth 12 kHz (3 dB) Electrical isolation 0.04 ms Electrical compability functional insulation, rated insulation voltage 50 V AC Directive conformity Electromagnicic compability Electromagnicic compability NE 21 Electromagnicic compability NE 21 Degree of protection 16C 60529 Ambient conditions 20 - 60 °C (4 - 140 °F) Ambient conditions 20 - 60 °C (4 - 140 °F) Mechanical begree of protection 1P20 Mass apport. 100 g Dimensions 20 × 107 × 115 mm (0.8 × 4.2 × 4.5 in), housing type B1 Data for application in comection 40 B (116 kg ll uC, [Exial] (2.0 °C < T _{amb} ≤ 60 °C) (circuit(s) in zone 0/1/2] Vatage Up 18 V Courtent 42 mA Power Po 19 mW Supper Supper SU	Voltage		0 12 V
Transfer characteristics Image:	Output resistance		\leq 20 Ω
Affer calibration ± 5 mV at 20 °C (68 °F) Influence of ambient temperature 5 0.005 °s of range par K Bandwidth 1.2 kHz (3 dB) Bise time 5.0 nms Electrical isolation Unctional insulation, rated insulation voltage 50 V AC Directive conformity Unctional insulation, rated insulation voltage 50 V AC Directive conformity Electronagenetic compatibility Directive conformity Electronagenetic compatibility Directive conformity Electronagenetic compatibility Degree of protection EC 660529 Ambient conditions 20	•		
Affer calibration ± 5 mV at 20 °C (68 °F) Influence of ambient temperature 5 0.005 °s of range par K Bandwidth 1.2 kHz (3 dB) Bise time 5.0 nms Electrical isolation Unctional insulation, rated insulation voltage 50 V AC Directive conformity Unctional insulation, rated insulation voltage 50 V AC Directive conformity Electronagenetic compatibility Directive conformity Electronagenetic compatibility Directive conformity Electronagenetic compatibility Degree of protection EC 660529 Ambient conditions 20	Deviation		
Influence of ambient temperature ≤ 0.005 % of range per K Bandwith 1.2 kHz (3 dB) Bise time < 0 A ma			+ 5 mV at 20 °C (68 °F)
Bandwidth 1 2. kHz (3 dB) Rise time 5.04 ms Electrical isolation Unput/power supply Uncload insulation, rated insulation voltage 50 V AC Directive conformity Uncload insulation, rated insulation voltage 50 V AC Directive conformity Electromagnetic compatibility E 1 Electromagnetic compatibility E 2 1 Electromagnetic E 2 2 1 0 / 0 / 11 8 V Electromagnetic E 2 2 1 0 / 0 / 0 / 11 8 V Electromagnetic E 2 2 1 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0 / 0		erature	
<table-container>RiskineElectrical isolationindicional isolation voltage SO VACOutput/over supplyindicional isolation voltage SO VACDirecte condratingNalasci accondrationElectronageticompatibilityNalasci accondrational voltage SO VACDirecte 2004/08/CCNalasci accondrational voltage SO VACElectronageticompatibilityNalasci accondrational voltage SO VACDirecte 2004/08/CCNalasci accondrational voltage SO VACElectronageticompatibilityNalasci accondrational voltage SO VACDirecte 2004/08/CCNalasci accondrational voltage SO VACDirecte 2004/08/CCSO VACDirecte 2004/08/CCSO VACNalasci 2004/08/</table-container>	•		•
Electrical isolation Functional insulation, rated insulation voltage 50 V AC Output/power supply Intentional insulation, rated insulation voltage 50 V AC Directive companity Electronagnetic compatibility Directive 2004/108/EC EN 61326-1:2006 Conformity Electronagnetic compatibility NE 21 Degree of protection EG 605:29 Ambient conditions - - Ambient conditions - - Ambient conditions EC 0: 0° C (4 140 °F) - Mechanical specification IP 20 - Mass 20.x 10° C (4 140 °F) - Mechanical specification in compatibility So 0 (C (4 140 °F) - Mass 20.x 10° X 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 - Directive of protection IB AS 01 ATEX 7282, for additional certificates see www.pepperif-uchs.com Gine (10 100 (MI) [Ex ia] II (-20 °C × T _{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2] Voltage Uo 18 V - Current IG 4.2 mA - Power Po 19 mW - Supply <t< td=""><td></td><td></td><td></td></t<>			
Output/power supply Innetional insulation, rated insulation voltage 50 V AC Directive conformity File Directive 2004/108/EV File Directive 2004/108/EV File Electromagnetic compatibility NE 21 Electromagnetic compatibility NE 21 Degree of protection LEC 60529 Ambient comparature 00.00 °C (-4140 °F) Degree of protection IP20 Dimensions 00.00 °C (-4140 °F) Degree of protection IP20 Dimensions 00.00 °C (-4140 °F) Degree of protection IP20 Dimensions Sour for No (B x 4.2 x 4.5 in), housing type B1 Dimensions Sour for No (B x 4.2 x 4.5 in), housing type B1 Current IG IP1(I)(D, I (MI) [Ex in] I/C, [Ex in] I, (E2° °C × T _{amb} < 60 °C) [dircuit(b in zone 0/1/2]			
Directive conformity Electromagnetic compatibility Electromagnetic compatibility EN 61326-11:2006 Conformity NE 21 Electromagnetic compatibility NE 21 Degree of protection IEC 60529 Ambient temperature 2060 °C (4140 °F) Mechanical specifications IP20 Mass approx100 g Dimensions 20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 Electromagnetic compatibility BAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com Group, category, type of protection (B) (11(BC). I (MI) [Ex ia] II:(20 °C ≤ T _{amb} ≤ 60 °C) (circuit(s) in zone 0/1/2] Vatage U ₀ 18 V Current U ₀ 4.2 mA Powor P ₀ 19 mW Supply Sup V Sup V (Attention1 The rated voltage is lower.) Type of protection [Ex ia] Sup V (Attention1 The rated voltage is lower.) Statement of conformity BAS EEFA 10 ATEX X079X, observe statement of conformity Group, category, type of protection, fex ial I 4 device in zone 21 Sup VI (Attention1 The rated voltage is lower.) Input/Output safe electrical isola			functional insulation, rated insulation voltage EQ.V.A.C
Electromagnetic compatibility Fel 84824-1:2006 Conformity Electromagnetic compatibility NE 24 Degree of protection Electromagnetic compatibility NE 24 Ambient compatibility NE 24 Electromagnetic compatibility NE 24 Ambient compatibility NE 26 Electromagnetic compatibility NE 26 Ambient compatibility NE 26 Electromagnetic compatibility Electromagnetic compatibility Ne 26 Mathem compatibility Ne 0 of C4 140 °F) Electromagnetic compatibility Electromagnetico compatibility Electromagnetico c			Turiotional insulation, rateu insulation voitage 30 V AC
Directive 2004/108/EC EN 61326-1:2006 Conformity EN 61326-1:2006 Electronagnetic compatibility NE 21 Degree of protection IEC 60529 Ambient emperature 2060 °C (4 140 °F) Mechanical specifications IP20 Dagree of protection in connection IP20 Mass approx100 g Dimensions 20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 Data for application in connection with Exarces BAS 01 ATEX 7282, for additional certificates see www.pepperl-fuchs.com Group, category, type of protection BAS 01 ATEX 7282, for additional certificates see www.pepperl-fuchs.com Group, category, type of protection BAS 01 ATEX 7282, for additional certificates see www.pepperl-fuchs.com Group, category, type of protection BA 19 V Zort (10 G) ((int)) (Ex ia) 11/2 (2 °C ≤ T _{amb} ≤ 60 °C) (circuit(s) in zone 0/1/2] Votage U _o 4.2 mA Zort (2 C T math) ≤ 0 °C) (xircuit(s) in zone 0/1/2] Supply Zort (Attention) The rated voltage is lower.) Zort (2 C V (Attention) The rated voltage is lower.) Supply BASEEFA 10 ATEX 0079X, observe statement of conformity Go (2 (1 G C T math) ≤ 0 C (2 C C T math) ≤ 00 °C) (circuit(s) in zone 0/1/2]			
Eventority NE definition Electronagnetic compatibility NE 66 0529 Degree of protection Ambient temperature Ambient temperature Degree of protection Mechanical specifications Degree of protection Degree of protection Dimensions Corp, category, type of protection So application to neuritik So 10 ATEX 7262, for additional certificates see www.pepperf-fuchs.com Voltago Quitty So 11 ATEX 7262, for additional certificates see www.pepperf-fuchs.com Voltago Quitty So 11 (ILM) (LKi a) (L, [Ex ia]) (Ex ia] (20 °C ≤ T _{amb} ≤ 60 °C) (circuit(s) in zone 0/1/2] Voltago Quitty Is V Arranting after voltage Quitty So 10 (Attention The rated voltage is lower.) Supply So V Attention The rated voltage is lower.) Submerature of contomity Quitty IS Contextority Quitty IS Contextority Group Category, type of protecting Quitty IS Contextority Quitty IS Contextority Imamum safe voltage	,		
Electromagnetic compatibility NE 21 Degree of protection EC 60529 Ambient temperature -2060 °C (-4 140 °F) Mechanical specifications IP20 Degree of protection IP20 Mass approx. 100 g Data for application in commercian Con 100 x 4.2.x 4.5. in), housing type B1 Data for application in commercian BAS 01 ATEX 7262, for additional certificates see www.peppenf-fuchs.com Group, category, type of protection Go II (1/GD, 1/M1) [Ex ia]] IC, [Ex ia]] (-20 °C ≤ T _{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2] Voltage U _o 18 V Ourrent I _o 4.2 mA Power Pa 19 mW Supply In 9 mW Supply Maximum safe voltage U _m 50 V (Attention! The rated voltage is lower.) Type of protection [Ex ia] Um Supply Maximum safe voltage U _m Supply Input/Output Supple commercians Supple commercians Input/Output Supple commercians Supple commercians Input/Output Safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output Safe ele			EN 61326-1:2006
Degree of protection IEC 60529 Ambient conditions -2060 °C (4 140 °F) Mechanical specification IP20 Mass aprox. 100 g Dimensions 2010 °T x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1 Data for application in connection Go x 0, 07 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1 Data for application in connection Go x 107 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1 Data for application in connection Go x 107 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1 Data for application in connection Go x 101 X X X 262 , for additional certificates see www.pepperl-fuchs.com Group, category, type of protection Go x 101 X X X 262 , for additional certificates see www.pepperl-fuchs.com Group, category, type of protection Go x 101 X X X 262 , for additional certificates see www.pepperl-fuchs.com Youtage Uo 18 V Current I,0 18 V Supply So Y (Attention! The rated voltage is lower.) So Y (Attention! The rated voltage is lower.) Ype of protection [Ex ia] Go x All IT 4 [device in zone 2] Go x All IT 4 [device in zone 2] Input/Output Sale electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V III A 10	•		
Ambient conditions Ambient conditions Ambient temperature -2060 °C (-4140 °F) Mechanical specifications IP20 Degree of protection IP20 Mass approx.100 g Dimensions 20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1 Discrete application in connection BAS 01 ATEX 7262 , for additional certificates see www.pepperl-fuchs.com Group, category, type of protection Go II (1)GD, I (M1) [Ex ia] II (-20 °C < T _{amb} < 60 °C) [circuit(s) in zone 0/1/2]			
Ambient temperature <2060 °C (4140 °F)	v ,		IEC 60529
Mechanical specifications IP20 Degree of protection IP20 Mass approx.100 g Dimensions 20 × 107 x 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 Data for application in converture EAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com C-Type Examination Certificate BAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com C-Type Examination Certificate BAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com C-Type Examination Certificate BAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com Current I_0 4.2 mA Power P_0 19 mW Supply	Ambient conditions		
Degree of protection IP20 Mass approx.100 g Dimensions 20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 Data for application in connection S0 x 107 x 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 Charl paplication in connection S0 x 107 x 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 EC-Type Examination Certificates BAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com Group, category, type of protection Sull (1)GD, 1 (M1) [Ex ia] IC, [Ex iaD], [Ex ia] 1 (-20 °C ≤ T _{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2] Voltage U_o 18 V Power P_o 19 mW Power P_o 19 mW Supply 19 mW Supply Supply Supply Maximum safe voltage Um Super A 10 ATEX 0079X, observe statement of conformity Maximum safe voltage Um Super A 10 ATEX 0079X, observe statement of conformity Group, category, type of protection Sup BASEEFA 10 ATEX 0079X-11, voltage peak value 375 V Input/Output Safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output Safe electrical isolation acc. to IEC/EN 60079-11, voltage peak v	Ambient temperature		-20 60 °C (-4 140 °F)
Mass approx. 100 g Dimensions 20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 Data for application in connection BAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com Group, category, type of protection BAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com Group, category, type of protection Go II (1)GD, I (M1) [Exi a] IIC, [Exi aD], [Exi a] I (-20 °C ≤ T _{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2] Voltage U ₀ 18 V Current U ₀ 4.2 mA Power Po 19 mW Supply Sto V (Attention! The rated voltage is lower.) Type of protection [Exi a] 250 V (Attention! The rated voltage is lower.) Statement of conformity BASEEFA 10 ATEX 0079X, observe statement of conformity Maximum safe voltage U ₀ 113 G Ex nA II T4 [device in zone 2] Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output Safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V <t< td=""><td colspan="2">-</td><td></td></t<>	-		
Dimensions 20x 107 x 115 mm (0.8 x 4.2 x 4.5 in), housing type B1 Data for application is connection with Ex-areas Examination Certificate BAS 01 ATEX 7262, for additional certificates see www.pepperl-fuchs.com Group, category, type of protection Give 11 (I)GD, 1 (M1) [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C ≤ T _{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2] Voltage U_o 18 V Current 0_o 4.2 mA Power P_o 19 mW Supply Supply Sol V (Attention! The rated voltage is lower.) Supply Maximum safe voltage U_m Supply Suply (Attention! The rated voltage is lower.)	Degree of protection		IP20
Data for application in connection with Ex-areas BAS 01 ATEX 7262 , for additional certificates see www.pepperl-fuchs.com EC-Type Examination Certificate BAS 01 ATEX 7262 , for additional certificates see www.pepperl-fuchs.com Group, category, type of protection (a) II (1)GD, I (M1) [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C ≤ T _{amb} ≤ 60 °C) [circuit(s) in zone 0/1/2] Voltage Uo 18 V Current Io 4.2 mA Power Po 19 mW Supply 250 V (Attention! The rated voltage is lower.) Type of protection [Ex ia] 250 V (Attention! The rated voltage is lower.) Statement of conformity BASEEFA 10 ATEX 0079X, observe statement of conformity Group, category, type of protection, temperature class (a) II 3G Ex n A II T4 (device in zone 2] Electrical isolation (a) II 3G Ex n A II T4 (device in zone 2] Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/power supply safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/power supply safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/power supply safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/power suppl	Mass		approx. 100 g
with Exama Indext of the the term of term of term of the term of	Dimensions		20 x 107 x 115 mm (0.8 x 4.2 x 4.5 in) , housing type B1
Group, category, type of protection Image in the time of ti			
Voltage U ₀ 18 V Current I ₀ 4.2 mA Power P ₀ 19 mW Stupply 50 V (Attention! The rated voltage is lower.) Maximum safe voltage Um 250 V (Attention! The rated voltage is lower.) Type of protection [Ex ia] 250 V (Attention! The rated voltage is lower.) Maximum safe voltage Um 250 V (Attention! The rated voltage is lower.) Statement of conformity BASEEFA 10 ATEX 0079X, observe statement of conformity Group, category, type of protection, temperature class Safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/power supply safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Directive 94/9/EC EN 60079-0:2009, EN 60079-11:2012, EN 60079-11; voltage peak value 375 V Directive 94/9/EC EN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010 FM approval 116-0129 Control drawing 116-0129 UL approval 116-0133 (cULus) Control drawing 116-0132 Control drawing 116-0132	EC-Type Examination Certificate		
CurrentIo4.2 mAPowerPo19 mWSupply-Maximum safe voltageUm250 V (Attention! The rated voltage is lower.)Type of protection [Ex ia]-Output-Maximum safe voltageUm250 V (Attention! The rated voltage is lower.)Statement of conformityBASEEFA 10 ATEX 0079X, observe statement of conformityGroup, category, type of protection, fermperature class-Electrical isolation-Input/Outputsafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VInput/Power supplysafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VDirective conformity-Directive of y/9/ECEMaximum approval-FM approval-Control drawing116-0129UL approval-Control drawing-Control drawing-Control drawing116-0173 (cULus)Control drawing-Control drawing- <td>Group, category, type of pr</td> <td>otection</td> <td>$\langle Ex \rangle$ II (1)GD, I (M1) [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C $\leq T_{amb} \leq 60$ °C) [circuit(s) in zone 0/1/2]</td>	Group, category, type of pr	otection	$\langle Ex \rangle$ II (1)GD, I (M1) [Ex ia] IIC, [Ex iaD], [Ex ia] I (-20 °C $\leq T_{amb} \leq 60$ °C) [circuit(s) in zone 0/1/2]
Power Po 19 mW Supply Maximum safe voltage Um 250 V (Attention! The rated voltage is lower.) Type of protection [Ex ia] Output 500 V (Attention! The rated voltage is lower.) Maximum safe voltage Um 250 V (Attention! The rated voltage is lower.) Maximum safe voltage Um 250 V (Attention! The rated voltage is lower.) Statement of conformity BASEEFA 10 ATEX 0079X, observe statement of conformity BASEEFA 10 ATEX 0079X, observe statement of conformity Group, category, type of protection, temperature class Sol V (Attention! The rated voltage is lower.) Electrical isolation Sol Secret A 10 ATEX 0079X, observe statement of conformity Sol V (Attention! The rated voltage is lower.) Input/Output Sol Secret A 10 ATEX 0079X, observe statement of conformity Sol V (Attention! Tax 0079X, observe statement of conformity Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Sol electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/output EN 60079-0:2009, EN 60079-11; 2012, EN 60079-15; 2010 Imaget tettttttttttttttttttttttttttttttttt	Voltage	Uo	18 V
Supply Maximum safe voltage Um Statement of conformity Stafe electrical isolation acc. to IEC/EN 60079-11; vol	Current	I _o	4.2 mA
Supply Maximum safe voltage Um Statement of conformity Stafe electrical isolation acc. to IEC/EN 60079-11; vol	Power		19 mW
Maximum safe voltage Um 250 V (Attention! The rated voltage is lower.) Type of protection [Ex ia] Image: Control display of the rated voltage is lower.) Maximum safe voltage Um 250 V (Attention! The rated voltage is lower.) Statement of conformity BASEEFA 10 ATEX 0079X, observe statement of conformity Group, category, type of protection, temperature class Gel I3G Ex nA II T4 [device in zone 2] Electrical isolation Image: Control display of the rated voltage is lower.) Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/power supply safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Directive conformity safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Directive supply EN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010 International approval Info-0129 Control drawing 116-0129 UL approval Info-0129 Control drawing 116-0173 (CULus) Control drawing 116-0132 Control drawing Info-0129 Control drawing Info-0129 Control drawing Info-0129 Control drawing Info-0132	Supply		
Type of protection [Ex ia] International approval Output Statement of conformity Electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Statement of conformity State electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output State electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output State electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output State electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output State electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output State electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output State electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V International approvals Electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V International approvals Electrical isolation acc. to IEC/EN 60079-15:2010 International approvals Electrical isolation acc. to IEC/EN 60079-15:2010 UL approval Inte-0129 Control drawing Inte-0129 International approvals International approvals Control drawing Inte-0173 (cULus) Control drawing Inte-0132		U _m	250 V (Attention! The rated voltage is lower.)
Output 250 V (Attention! The rated voltage is lower.) Statement of conformity BASEEFA 10 ATEX 0079X, observe statement of conformity Group, category, type of protection, temperature class Statement of conformity Electrical isolation • Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Input/Output safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V Directive vonformity safe electrical isolation acc. to IEC/EN 60079-15.2010 Directive vonformity EN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010 International approvals EN 60079-0:2009, EN 60079-15:2010 Control drawing 116-0129 UL approval 116-0129 Control drawing 116-0173 (cULus) CSA approval I16-0132 IECEx approval IECEx BAS 10.0040X	Ŭ		
Maximum safe voltageUm250 V (Attention! The rated voltage is lower.)Statement of conformityBASEEFA 10 ATEX 0079X, observe statement of conformityGroup, category, type of protection, temperature classBASEEFA 10 ATEX 0079X, observe statement of conformityElectrical isolationState and II 14 [device in zone 2]Input/Outputsafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VInput/power supplysafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VDirective conformityEN 60079-0:2009, EN 60079-11, voltage peak value 375 VDirective 94/9/ECEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsInte-0129FM approval116-0129UL approval116-0129UL approval116-0173 (cULus)Control drawing116-0132Inte-0132116-0132IECEx approvalIECEx BAS 10.0040X			
Statement of conformityBASEEFA 10 ATEX 0079X, observe statement of conformityGroup, category, type of protection, temperature classII 3G Ex nA II T4 [device in zone 2]Electrical isolationInput/Outputsafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VInput/power supplysafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VDirective conformityDirective onformityEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsFM approvalControl drawing116-0129UL approvalCSA approvalControl drawing116-0132International approvalsFCSA approvalControl drawing116-0132IECEx approvalIECEx BAS 10.0040X	•	Um	250 V (Attention! The rated voltage is lower.)
Group, category, type of protection, temperature classI i 3G Ex nA II T4 [device in zone 2]Electrical isolationInput/Outputsafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VInput/power supplysafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VDirective conformityDirective 94/9/ECEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsFM approvalControl drawing116-0129UL approvalControl drawing116-0173 (cULus)CSA approvalControl drawing116-0132IECEx approvalIECEx approvalIECEx BAS 10.0040X	•	III	· · · · · · · · · · · · · · · · · · ·
temperature classImpur/SupplementElectrical isolationElectrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VInput/Dutputsafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VInput/power supplysafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VDirective conformityEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010FM approvalInfe-0129Control drawing116-0129UL approvalInfe-0129Control drawing116-0173 (cULus)CSA approvalInfe-0132Control drawing116-0132IECEx approvalIECEx BAS 10.0040X	,	otection	
Electrical isolationInput/Outputsafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VInput/power supplysafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VDirective conformityDirective 94/9/ECEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsFM approvalControl drawing116-0129UL approval116-0173 (cULus)CSA approvalControl drawing116-0132International approvalsEXA approvalControl drawing116-0132IECEx approvalIECEx BAS 10.0040X			
Input/Outputsafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VInput/power supplysafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VDirective conformityDirective 94/9/ECEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsFM approval116-0129Ocntrol drawing116-0129UL approval116-0173 (cULus)CSA approval116-0132Control drawing116-0132IECEx approvalIECEx BAS 10.0040X			
Input/power supplysafe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 VDirective conformityDirective 94/9/ECEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsFM approvalControl drawing116-0129UL approvalControl drawing116-0173 (cULus)CSA approvalControl drawing116-0132IECEx approvalIECEx BAS 10.0040X			safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V
Directive conformityEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010FM approvalInfernational approvalsControl drawing116-0129UL approvalInfernational approvalControl drawing116-0173 (cULus)CSA approvalInfernational approvalControl drawing116-0132IECEx approvalIECEx BAS 10.0040X			
Directive 94/9/ECEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010International approvalsEN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010FM approvalInternational approvalsControl drawing116-0129UL approvalInternational approvalsControl drawing116-0173 (cULus)CSA approvalInternational approvalControl drawing116-0132IECEx approvalIECEx BAS 10.0040X			
International approvalsInternational approvalsFM approvalFM approvalControl drawing116-0129UL approval116-0173 (cULus)Control drawing116-0132Control drawing116-0132IECEx approvalIECEx BAS 10.0040X	•		EN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010
FM approvalInfe-0129Control drawing116-0129UL approval-Control drawing116-0173 (cULus)CSA approval-Control drawing116-0132IECEx approvalIECEx BAS 10.0040X			
Control drawing116-0129UL approval-Control drawing116-0173 (cULus)CSA approval-Control drawing116-0132IECEx approvalIECEx BAS 10.0040X			
UL approval I16-0173 (cULus) Control drawing 116-0132 (cULus) Control drawing 116-0132 IECEx approval IECEx BAS 10.0040X			116-0120
Control drawing 116-0173 (cULus) CSA approval			110-0123
CSA approval I16-0132 Control drawing 116-0132 IECEx approval IECEx BAS 10.0040X			
Control drawing 116-0132 IECEx approval IECEx BAS 10.0040X	•		110-0173 (CULUS)
IECEx approval IECEx BAS 10.0040X	•••		
	•		
Approved for Ex nA II T4			
	Approved for		Ex nA II T4

Refer to "General Notes Relating to Pepperl+Fuchs Product Information". Pepperl+Fuchs Group www.pepperl-fuchs.com USA: +1 330 486 0002 pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222 pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 pa-info@sg.pepperl-fuchs.com



General information

Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperlfuchs.com.

Accessories

Power feed module KFD2-EB2

The power feed module is used to supply the devices with 24 V DC via the Power Rail. The fuse-protected power feed module can supply up to 100 individual devices depending on the power consumption of the devices. A galvanically isolated mechanical contact uses the Power Rail to transmit collective error messages.

Power Rail UPR-03

The Power Rail UPR-03 is a complete unit consisting of the electrical inset and an aluminium profile rail 35 mm x 15 mm. To make electrical contact, the devices are simply engaged.

Profile Rail K-DUCT with Power Rail

The profile rail K-DUCT is an aluminum profile rail with Power Rail insert and two integral cable ducts for system and field cables. Due to this assembly no additional cable guides are necessary.

Power Rail and Profile Rail must not be fed via the device terminals of the individual devices!



