

AKAS® Safety Interface

AKFA



complete safety PLC for press brakes equipped with "Rexroth" hydraulics in connection with AKAS®_F and a safe speed measurement

complies with Performance Level PL e (ISO 13849-1)

complies with class 4 (EN 954-1 and IEC 61496, i.e. EN 61496)

extremely simple integration

low cable expenditure

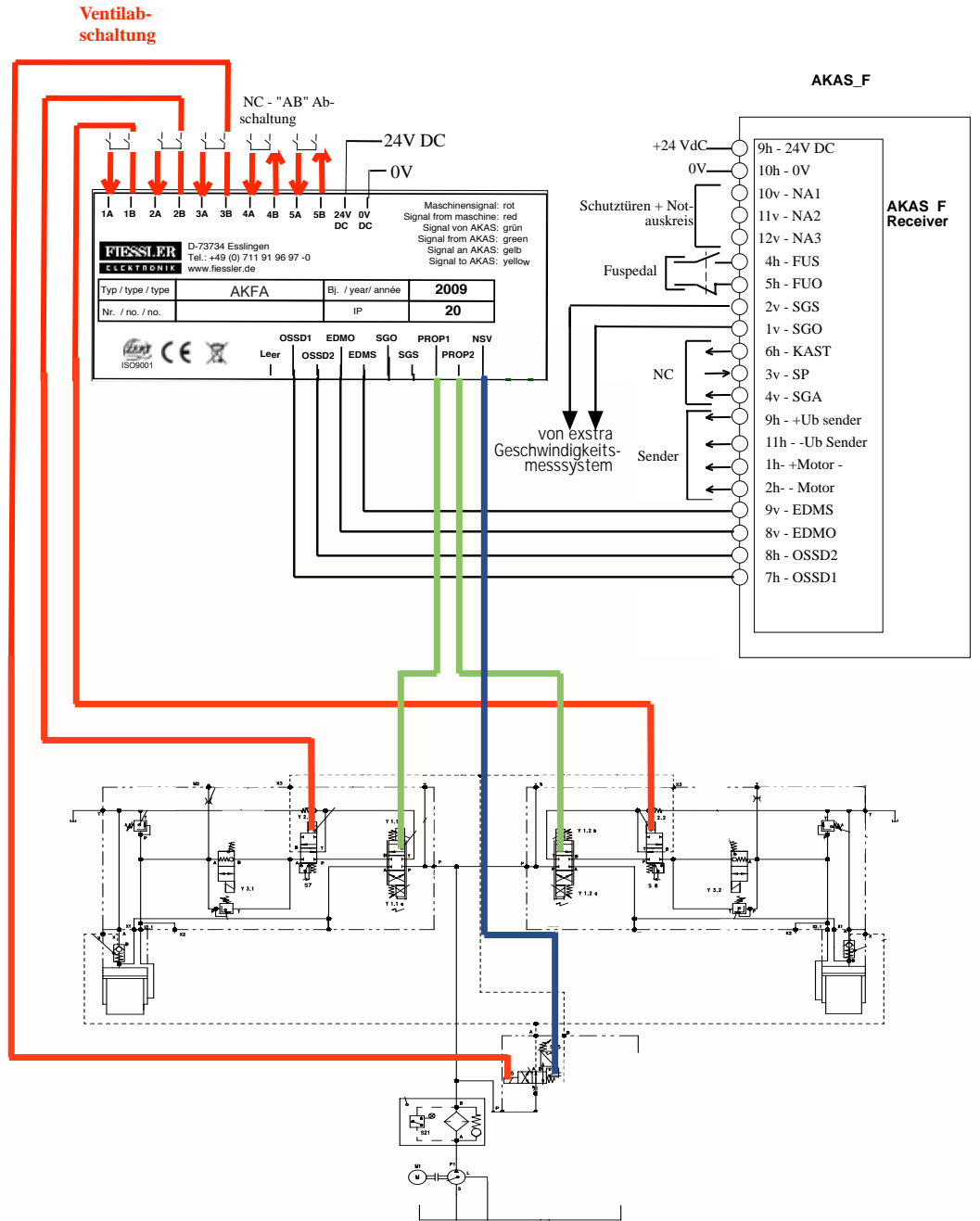
minimum space requirement

Typ 4
EN 61496



Application:																																															
	<p>AKAS®_F+AKFA = complete safety PLC and safeguarding of a press brake equipped with "Rexroth" hydraulics, complies with class 4 EN 954, i.e. PL e EN 13849.</p> <p>AKAS®_F : by using the interface AKFA, all press brake safety tasks are carried out in an extremely simple way, without the need of additional terminals or relays.</p>																																														
Function:																																															
	<p>AKFA enters and evaluates the valve position signals of the hydraulic contactors and transfers them integrated to the AKAS®_F.</p> <p>By means of that, AKAS®_F verifies the correct functionality of the contactors and gives the safe release signal to the AKFA, so that the AKFA releases the contactor controls via 5 safe potential free normally open contacts. The release of the contactors is stopped immediately as soon as:</p> <ul style="list-style-type: none"> -the protective field of the AKAS® is interrupted - the protective doors are openend, - the emergency ON/OFF is activated, - an switching error within the con 																																														
Technical data:																																															
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Protection category</td> <td style="text-align: right;">IP 20</td> </tr> <tr> <td colspan="2">Electric Data:</td> </tr> <tr> <td>Supply Voltage U_B DC</td> <td style="text-align: right;">24V</td> </tr> <tr> <td>Voltage tolerance</td> <td style="text-align: right;">19,2 ... 30V DC</td> </tr> <tr> <td>Residual ripple DC</td> <td style="text-align: right;">max. 10%</td> </tr> <tr> <td>Output contacts in accordance with EN 954-1</td> <td style="text-align: right;">safety contacts: 5</td> </tr> <tr> <td>Output breaking capacity at 240V AC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B</td> <td style="text-align: right;">I_{min}: 0,01A, I_{max}: 6A ohmisch</td> </tr> <tr> <td>Output breaking capacity at 160V AC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B</td> <td style="text-align: right;">I_{min}: 0,01A, I_{max}: 6A ohmisch</td> </tr> <tr> <td>Output breaking capacity at 24 V DC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B</td> <td style="text-align: right;">I_{min}: 0,01A, I_{max}: 6A</td> </tr> <tr> <td>Fuse for Supply voltage (external)</td> <td style="text-align: right;">T1,0A/250V</td> </tr> <tr> <td>Fuse for circuit breaker</td> <td style="text-align: right;">6A slow</td> </tr> <tr> <td colspan="2">Delays:</td> </tr> <tr> <td>Switch-on delay</td> <td style="text-align: right;">≤ 20 ms</td> </tr> <tr> <td>Fall-delay</td> <td style="text-align: right;">≤ 15 ms</td> </tr> <tr> <td colspan="2">General data:</td> </tr> <tr> <td>Contact material</td> <td style="text-align: right;">AgC2O, self-cleaning, force-guided</td> </tr> <tr> <td>Airgap creepage</td> <td style="text-align: right;">DIN VDE 0110-1</td> </tr> <tr> <td>Connection / wiring</td> <td style="text-align: right;">pluggable screw terminals min. 0,5sqmm, max. 2,5 sqmm. Single conductor / multiple conductor with end splices</td> </tr> <tr> <td>Dimensions (including connector)</td> <td style="text-align: right;">H: 115,5 mm W: 114 mm D: 58 mm</td> </tr> <tr> <td>Installation</td> <td style="text-align: right;">top hat rail mounting (DIN rail)</td> </tr> <tr> <td>Weight (including connector)</td> <td style="text-align: right;">310 g</td> </tr> <tr> <td>Ambient temperature</td> <td style="text-align: right;">0° C ... 60°C</td> </tr> <tr> <td>Switching cycle life time</td> <td style="text-align: right;">$>50 \times 10^6$ switching cycles</td> </tr> </table>	Protection category	IP 20	Electric Data:		Supply Voltage U_B DC	24V	Voltage tolerance	19,2 ... 30V DC	Residual ripple DC	max. 10%	Output contacts in accordance with EN 954-1	safety contacts: 5	Output breaking capacity at 240V AC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B	I_{min} : 0,01A, I_{max} : 6A ohmisch	Output breaking capacity at 160V AC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B	I_{min} : 0,01A, I_{max} : 6A ohmisch	Output breaking capacity at 24 V DC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B	I_{min} : 0,01A, I_{max} : 6A	Fuse for Supply voltage (external)	T1,0A/250V	Fuse for circuit breaker	6A slow	Delays:		Switch-on delay	≤ 20 ms	Fall-delay	≤ 15 ms	General data:		Contact material	AgC2O, self-cleaning, force-guided	Airgap creepage	DIN VDE 0110-1	Connection / wiring	pluggable screw terminals min. 0,5sqmm, max. 2,5 sqmm. Single conductor / multiple conductor with end splices	Dimensions (including connector)	H: 115,5 mm W: 114 mm D: 58 mm	Installation	top hat rail mounting (DIN rail)	Weight (including connector)	310 g	Ambient temperature	0° C ... 60°C	Switching cycle life time	$>50 \times 10^6$ switching cycles
Protection category	IP 20																																														
Electric Data:																																															
Supply Voltage U_B DC	24V																																														
Voltage tolerance	19,2 ... 30V DC																																														
Residual ripple DC	max. 10%																																														
Output contacts in accordance with EN 954-1	safety contacts: 5																																														
Output breaking capacity at 240V AC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B	I_{min} : 0,01A, I_{max} : 6A ohmisch																																														
Output breaking capacity at 160V AC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B	I_{min} : 0,01A, I_{max} : 6A ohmisch																																														
Output breaking capacity at 24 V DC 1A-1B, 2A-2B, 3A-3B, 4A-4B, 5A-5B	I_{min} : 0,01A, I_{max} : 6A																																														
Fuse for Supply voltage (external)	T1,0A/250V																																														
Fuse for circuit breaker	6A slow																																														
Delays:																																															
Switch-on delay	≤ 20 ms																																														
Fall-delay	≤ 15 ms																																														
General data:																																															
Contact material	AgC2O, self-cleaning, force-guided																																														
Airgap creepage	DIN VDE 0110-1																																														
Connection / wiring	pluggable screw terminals min. 0,5sqmm, max. 2,5 sqmm. Single conductor / multiple conductor with end splices																																														
Dimensions (including connector)	H: 115,5 mm W: 114 mm D: 58 mm																																														
Installation	top hat rail mounting (DIN rail)																																														
Weight (including connector)	310 g																																														
Ambient temperature	0° C ... 60°C																																														
Switching cycle life time	$>50 \times 10^6$ switching cycles																																														

Wiring diagram:



Funktion	PROP1	PROP2	EG1	EG2	NSV
Stop	●	●			●
Eilgang					
Pressen					
Rückzug					

GESCHÄFTSLEITUNG

**Konformitäts-
erklärung**

(gemäß Anhang II 1 A 2006/42/EG)

Wir
Fiessler Elektronik
Kastellstr. 9
D-73734 Esslingen,

erklären in alleiniger Verantwortung, daß das Produkt **Abkantpresseninterface AKFH, AKFR, AKFA in Verbindung mit den AKAS LC II F, AKAS LC F, AKAS II F, AKAS 3 F, berührungslös wirkende Schutzeinrichtung Typ 4 nach EN 61496-1 zur Absicherung des Gefahrenbereiches von Abkantpressen nach EN 12622**

auf die sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten übereinstimmen:
EN 61496-1:2008, IEC 61496-2:2006, EN 12622 (Final Draft 2009), EN ISO 13849-1:2008, EN62061_2005

Gemäß den Bestimmungen der Richtlinie **2006/42/EG 2004/108/EG**

Die Schutzziele der Niederspannungsrichtlinie (2006/95/EG) wurden gemäß Anhang I, Nr. 1.5.1 der Maschinenrichtlinie eingehalten.

Die Geräte entsprechen der Laserklasse 1

Folgende benannte Stelle hat eine positive Erklärung ausgestellt.

Kennnummer der benannten Stelle 0044
Prüfbescheinigung N° 44 205 10 38 18 52
Name und Anschrift:
TÜV NORD CERT GmbH
Langenmarkstrasse 2045141 - D Essen

Esslingen, den / the / le 01.04.2010

**Declaration of
conformity**

(according appendix II 1 A 2006/42/EG)

We
Fiessler Elektronik
Kastellstr. 9
D-73734 Esslingen,

declare under our sole responsibility that the product **pressbrake interface AKFH, AKFR, AKFA in conjunction with AKAS LC II F, AKAS LC F, AKAS II F, AKAS 3 F, electro-sensitive protective equipment type 4 according to EN 61496-1 for protecting the dangerous area of pressbrakes according to EN 12622**

to which this declaration relates is in conformity with the following standards or other normative documents:
EN 61496-1:2008, IEC 61496-2:2006, EN 12622 (Final Draft 2009), EN ISO 13849-1:2008, EN62061_2005

following the provisions of Directive **2006/42/EG 2004/108/EG**

The protection goals of the Low Voltage Directive (2006/95/EC) have been complied with in accordance of Annex I No.1.5.1 of the Machinery Directive.

The products are conform with the laser class 1

Folgende benannte Stelle hat eine positive Erklärung ausgestellt.



Götz Fiessler / Geschäftsführer / Dokumentationsbevollmächtigter
/ managing director / authorized for documentation / gérant / mandataire de la documentation

**Modèle recommandé
de déclaration de con-
formité**

(conforme appendice II 1 A 2006/42/EG)

Nous
Fiessler Elektronik
Kastellstr. 9
D-73734 Esslingen,

déclaration sous notre seule responsabilité que le produit **interface de la presse plieuse AKFH, AKFR, AKFA, combinée avec AKAS LC II F, AKAS LC F, AKAS II F, AKAS 3 F Dispositif de protection électrosensible type 4 suivant EN 61496-1 pour la protection des zones dangereuse des presses plieuses suivant EN 12622**

auquel se réfère cette déclaration est conforme aux normes ou autres documents normatifs:
EN 61496-1:2008, IEC 61496-2:2006, EN 12622 (Final Draft 2009), EN ISO 13849-1:2008, EN62061_2005

conformément aux dispositions de Directive **2006/42/EG 2004/108/EG**

Les objectifs de protection de la directive "basse tension" (2006/95/CE) ont été respectées conformément à l'annexe I n° 1.5.1 de la directive Machines.

Les produits sont conforme avec la classe laser 1