

FURTHER TECHNICAL DATA SEE PRODUCT SPECIFICATION;
WEITERE TECHNISCHE DATEN SIEHE PRODUKTSPEZIFIKATION;
POUR AUTRES DONNEES TECHNIQUES VOIR SPECIFICATION PRODUIT;
PER ULTERIORI DATI TECNICI VEDERE SPECIFICA DI PRODOTTO;

WORKING MEDIUM;
ARBEITSMEDIUM;
FLUIDE D'UTILISATION;
FLUIDO DI ESERCIZIO;

WORKING ENVIRONMENT;
UMGEBUNGSMEDIUM;
FLUIDE AMBIANTE;
FLUIDO AMBIENTE;

THERMAL RANGE OF APPLICATION UNDER NORMAL ENVIRONMENTAL CONDITIONS;
THERMISCHER ANWENDUNGSBEREICH UNTER NORMALEN UMGEBUNGSBEDINGUNGEN;
GAMME D'APPLICATION THERMIQUE DANS CONDITIONS D'ENVIRONNEMENT NORMALES;
CAMPO TERMICO D'APPLICAZIONE NELLE NORMALI CONDIZIONI AMBIENTALI;

SHORT-TIME RESISTANCE TO HEAT;
KURZZEITIGE WAERMEBESTAENDIGKEIT;
RESISTANCE THERMIQUE TEMPORAIRE;
RESISTENZA TERMICA PER BREVE PERIODO;

WORKING PRESSURE (SUPPLY);
BETRIEBSDRUCK (VORRAT);
PRESSION DE SERVICE (ALIMENTATION);
PRESSIONE DI ESERCIZIO (ALIMENTAZIONE);

MAX. PERMISSIBLE WORKING PRESSURE (SUPPLY);
MAX. ZULAESSIGER BETRIEBSDRUCK (VORRAT);
PRESSION DE SERVICE (ALIMENTATION) MAX. ADMISSIBLE;
PRESSIONE DI ESERCIZIO (ALIMENTAZIONE) MAX. AMMISSIBILE;

MIN. FLOW PASSAGE / NOMINAL DIAMETER;
MIN. DURCHFLOSSUEFFNUNG / NENNWEITE;
MIN. ORIFICE CALIBRE / DIAMETRE NOMINALE;
MIN. PASSAGIO LIBERO / DIAMETRO NOMINALE;

ELECTRONIC CONTROL UNIT;
ELEKTRONIK;
ELECTRONIQUE;
CENTRALINA ELETTRONICA;

MAX. SYSTEM;
MAX. SYSTEM;
MAX. SYSTEME;
MAX. SISTEMA;

VOLTAGE;
SPANNUNG;
TENSION;
TENSIONE;

TYPE OF PROTECTION ACC. TO;
SCHUTZART NACH;
MODE DE PROTECTION SUIVANT;
TIPO DI PROTEZIONE SECONDO;

INSTALLATION INSTRUCTION;
INSTALLATIONSHINWEIS;
INDICATION POUR L'INSTALLATION;
INDICAZIONE DI MONTAGGIO;

EEC APPROVAL MARK;
EG-GENEHMIGUNGSZEICHEN;
MARQUE D'HOMOLOGATION DE LA CEE;
MARCHIO D'OMOLOGAZIONE DEL EEC;

LAYING OF THE CABLES ACCORDING TO INSTALLATION INSTRUCTION;
VERLEGUNG DER ELEKTRISCHEN LEITUNGEN GEMAESS INSTALLATIONSVORSCHRIFT;
POSER LES CABLES SUIVANT L'INDICATION POUR L'INSTALLATION;
POSARE I CAVI SECONDO INDICAZIONE DI MONTAGGIO;

HANDLING, STORAGE, PACKAGING, PRESERVATION AND DELIVERY;
HANDHABUNG, LAGERUNG, VERPACKUNG, KONSERVIERUNG UND VERSAND;
MANUTENTION, STOCKAGE, CONDITIONNEMENT, PRESERVATION ET LIVRAISON;
MOVIMENTAZIONE, IMBALLAGGIO, CONSERVAZIONE E CONSEGNA;

SAFETY HINTS FOR ELECTROSTATIC PAINTING AND WELDING WORK;
SICHERHEITSHINWEISE FUER ELEKTROSTATISCHES LACKIEREN UND SCHWEISSARBEITEN;
CONSEILS DE SECURITE DE TRAVAUX DE PEINTURE ELECTROSTATIQUE ET DE SOUDURE;
SUGGERIMENTI DI SICUREZZA PER LAVORI DI SALDATURA O VERNICIATURA;

480 102 089 0, DOC-CODE 035

480 102 089 0, DOC-CODE 035

AIR WITH TRACES OF WATER, SALT, DUST AND ENGINE OIL
LUFT MIT SPUREN VON WASSER, SALZ, STAUB UND MOTOROEL
AIR AVEC TRACES D'EAU, DE SEL, DE POUSSIERE ET D'HUILE MOTEUR
ARIA CONTRACCIE DI ACQUA, SALE, POLVERO ED OLIO MOTORE

-40 °C ... +65 °C SEE PRODUCT SPECIFICATION
SIEHE PRODUKTSPEZIFIKATION
VOIR SPECIFICATION DU PRODUIT
VEDERE SPECIFICA DI PRODOTTO

MAX. +110 °C FOR 1h WITHOUT FUNCTION
OHNE FUNKTION
SANS FONCTION
SENZA FUNZIONE

p₁ = 8.5 bar

p₁ MAX. = 9.5 bar

PORT:	1		PORT:		
ANSCHLUSS:	2.1 / 2.2	113MM ² / DN 12	ANSCHLUSS:	4	0.79MM ² / DN 1.0
ORIFICE:			ORIFICE:	5	
ORIFIZIO:	4.2		ORIFIZIO:		
PORT:			PORT:		
ANSCHLUSS:	2.3	28.3MM ² / DN 6	ANSCHLUSS:	1.1	50.2MM ² / DN 8
ORIFICE:			ORIFICE:	2.4	
ORIFIZIO:			ORIFIZIO:		

STANDARD

2S / 2M

TERMINAL;
ANSCHLUSS: X2 24V±6V
BORNE;
TERMINALE;

ISO 16750-F-Z-C-D-D IP6K9K COMPLETE DEVICE WITH MOUNTED PLUGS
KOMPLETTES GERAET MIT MONTIERTEN STECKERN
APPAREIL COMPLET AVEC LES FICHES MONTES
APPARECCHIO COMPLETO CON SPINE MONTATO

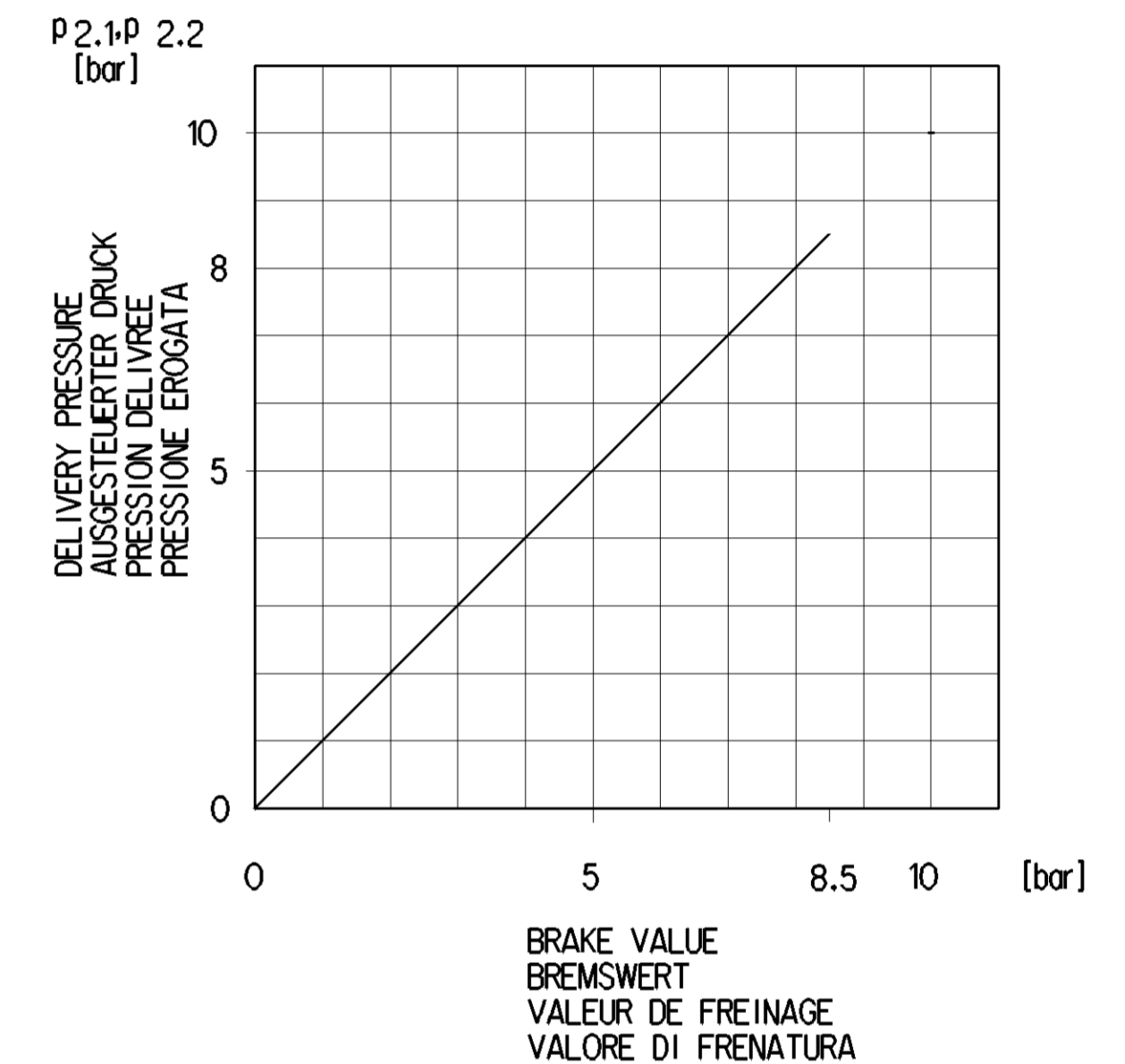
AFTER INITIAL INSTALLATION A COMMISSIONING WITH DIAGNOSTIC SOFTWARE IS REQUIRED
NACH DER ERSTINSTALLATION IST EINE INBETRIEBNAHME MIT DER DIAGNOSESOFTWARE ERFORDERLICH
APRES L'INSTALLATION INITIALE, LE MISE EN SERVICE AVEC LOGICIEL DE DIAGNOSTIC EST REQUIS
FACENDO SEGUITO A L'INSTALLAZIONE INIZIALE, L'IMMISSIONE IN SERVIZIO A MODULO SOFTWARE DIAGNOSI ESSERE NECESSARIO

APPROVAL NUMBER 03 4868 ACCORDING TO DIRECTIVE 72/245/EEC LAST UPDATE BY DIRECTIVE 2006/28/EG, AND ECE REGULATION NO. 10
GENEHMIGUNGSNUMMER 03 4868 NACH RICHTLINIE 72/245/EWG ZULETZT GEANDERT DURCH RICHTLINIE 2006/28/EG, UND ECE RICHTLINIE NR. 10
NUMERO D'HOMOLOGATION 03 4868 SELON DIRECTIVE 72/245/EWG DERNIER MODIFICATION SELON DIRECTIVE 2006/28/EG, ET REGLEMENT ECE NO.10
NUMERO D'OMOLOGAZIONE 03 4868 A SECONDO DI DIRETTIVA 72/245/EWG MODIFICAZIONE ULTIMA PER DIRETTIVA 2006/28/EG, E REGOLAMENTO ECE NO. 10

449 000 000 0, DOC-CODE 611

480 102 089 0, DOC-CODE 035

480 102 089 0, DOC-CODE 035

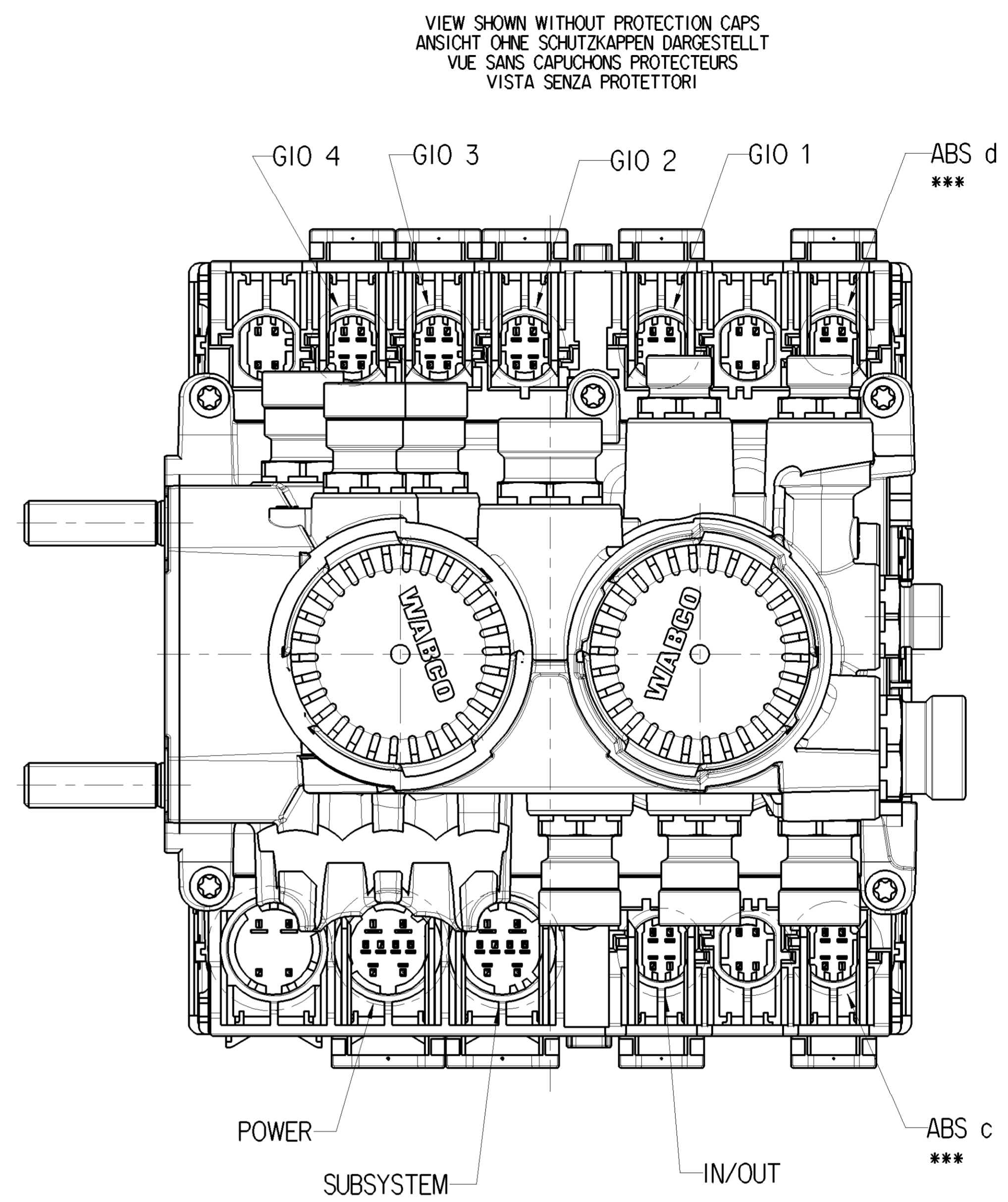


General Specification: ISO 8015, JED-334-1, Size ISO 14405 LP		Copyright WABCO®	
Further Technical Data:		Date	Signature
Doc. Code	Sheet To	2022-07-12	Hemsdorf
General Tolerances JED-261		2022-07-14 Stephan	
Range of nominal dimensions in mm			
Class	1) ≤ 50	> 50 > 180	> 180 > 400
Fine	±0.5	±1 ±1.5 ±2	±3
Medium	±1	±2 ±3 ±4	±5
Coarse	±2	±3.5 ±5 ±6.5	±8
Tapped Holes acc. JED-152			
1) Tolerance Class Applied Crossmarked			
Mass		Scale	
5.100 kg		1:1	
Size		CAD System	
A 1 CREO		Material No.	
Date of first issue: 2009-07-09		Doc. Code Language Sheet	
510880 0/1X H 6870		480 102 032 0 005 ML 2/4	
EBS Trailer Modulator 24V		EBS-Anhoengermodulator 24V	
EBS de la Remorque Modulateur 24V		EBS del Rimorchio Modulatore 24V	

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D
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F

CONNECTOR STECKER CONNECTEUR CONNETTORE	PIN KONTAKT LANGUETTE SPINA PIATTA	STANDARD		
		PROTECTION CAP SCHUTZKAPPE CAPUCHON PROTECTEUR PROTETTORE		
X1 MODULATOR 	1	UNUSED NICHT BENUTZT NON UTILISEE NON USATI		
	2			
	3			
	4			
	5			
	6			
	7			
	8			
X2 POWER 	1	KL 30	X	
	2	KL 15		
	3	GND (KL 15)		
	4	GND		
	5	WALA		
	6	CAN_H		
	7	CAN_L		
X3 SUBSYSTEM 	1	SA (KL 30)	X	
	2	CAN2_H		
	3	CAN2_L		
	4	GND		
	5	SA 4-2		
	6			
	7			
	8	IG (H2)		
X4 IN/OUT 	1	24N/TCE/BAT	X	
	2	24N-GND		
	3	CAN2_H		
	4	CAN2_L		
X5 ABS e/GIO 7 	1	UNUSED NICHT BENUTZT NON UTILISEE NON USATI		
	2			
	3			
	4			
X6 ABS c 	1	X		
	2			
	3			IG (H2)
	4			IGM (H2)

CONNECTOR STECKER CONNECTEUR CONNETTORE	PIN KONTAKT LANGUETTE SPINA PIATTA	STANDARD		
		PROTECTION CAP SCHUTZKAPPE CAPUCHON PROTECTEUR PROTETTORE		
X13 GIO 5 	1	UNUSED NICHT BENUTZT NON UTILISEE NON USATI		
	2			
	3			
	4			
X12 GIO 4 	1	SA 3-1	X	
	2	GND		
	3	ECAS		
	4			
X11 GIO 3 	1	SA 1-2	X	
	2	GND		
	3	IN 2		
	4			
X10 GIO 2 	1	SA 3-2	X	
	2	GND		
	3			
	4			
X9 GIO 1 	1	SA 1-1	X	
	2	GND		
	3	IN 1		
	4			
X8 ABS f/GIO 6 	1	UNUSED NICHT BENUTZT NON UTILISEE NON USATI		
	2			
	3			
	4			
X7 ABS d 	1	X		
	2			
	3			IG (H1)
	4			IGM (H1)

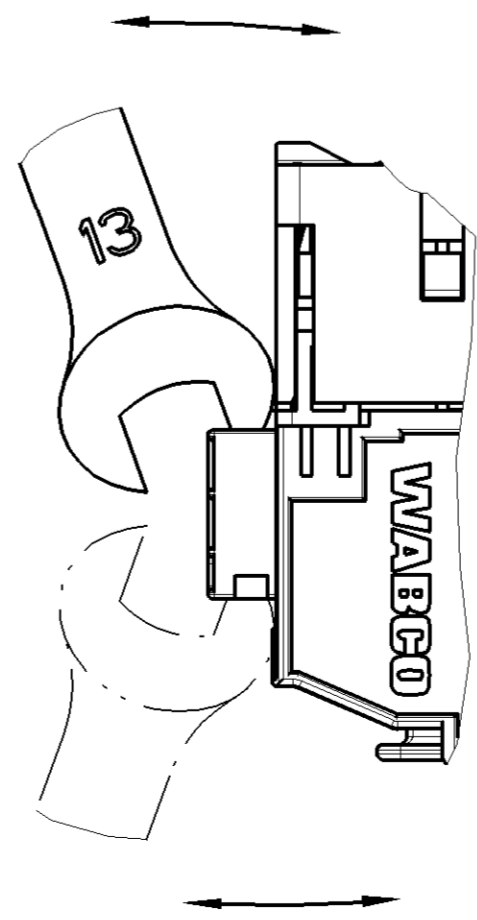


UNUSED TERMINALS: PROTECTION CAPS
NICHT BENUTZTE ANSCHLUESSE: SCHUTZKAPPEN
BORNES NON UTILISEES: CAPUCHONS PROTECTEURS
TERMINALI NON USATI: PROTETTORI

CONNECTORS OR PROTECTION CAPS COMPLETEY PUSHED IN BEFOR CLOSING THE SLIDERS
STECKER ODER SCHUTZKAPPEN KOMPLETT EINSTECKEN UND HALTEN, BEVOR DIE SCHIEBER EINGESCHOBEN WERDEN
CONNECTEURS OU CAPUCHONS PROTECTEURS INSEREES COMPLETES AVANT DE FERMER LES COULISSES
CONNETTORE O PROTETTORI PER INSERIRE COMPLETAMENTE PRIMA CHIUDERE DI CURSORE

8-POLE CONNECTORS TO BE SECURED WITH CABLE TIES (SEE SHEET 1)
8-POLIGE STECKER MIT KABELBINDER SICHERN (SIEHE BLATT 1)
LES CONNECTEURS A 8 CONTACTS DOIVENT ETRE FIXES AVEC ELEMENTS DE FIXAGE (VOIR FEUILLE 1)
I CONNETTORI A 8 CONTATTI DEVONO ESSERE FISSATI CON ELEMENTI DI FISSAGGIO (VEDERE FOGLIO 1)

ON EACH SIDE OF THE TRAILER, THE BRAKE CYLINDERS AND SENSORS SHALL BE CONNECTED EXCLUSIVELY TO THAT MODULATOR SIDE WHICH POINTS TOWARD THE SAME SIDE OF THE TRAILER
*** BREMSZYLINDER UND SENSOREN DER JEWEILIGEN ANHAEGERSEITE SIND AUSSCHLIESSLICH MIT DER ZUGEWANDTEN MODULATORSEITE ZU VERBINDEN
SUR CHAQUE COTE DU REMORQUE, LES CYLINDRES DE FREIN ET LES CAPTEURS DOIVENT ETRE RELIES AVEC LE MEME COTE DU MODULATEUR SEULEMENT
SU CIASCUN LATO DEL RIMORCHIO, I CILINDRI DI FRENO ED I SENSORI DEVONO ESSERE COLLEGATI ALLO STESSO LATO DEL MODULATORE



MOUNTING OF CONNECTORS AND PROTECTION CAPS:
UNLOCK OF THE SLIDERS ONLY BY USE OF AN OPEN END SPANNER 13mm

MONTAGE DER STECKER UND SCHUTZKAPPEN:
ENTRASTEN DER SCHIEBER NUR MIT 13mm MAULSCHLUESSEL

MONTAGE DES CONNECTEURS ET CAPUCHONS PROTECTEURS:
RELACHER LES COULISSES SEULEMENT PAR UN CLE MIXTE 13mm

MONTAGGIO DI CONNETTORE E PROTETTORI:
SGANCIARE SOLAMENTE CON CHIAVE FISSA 13mm

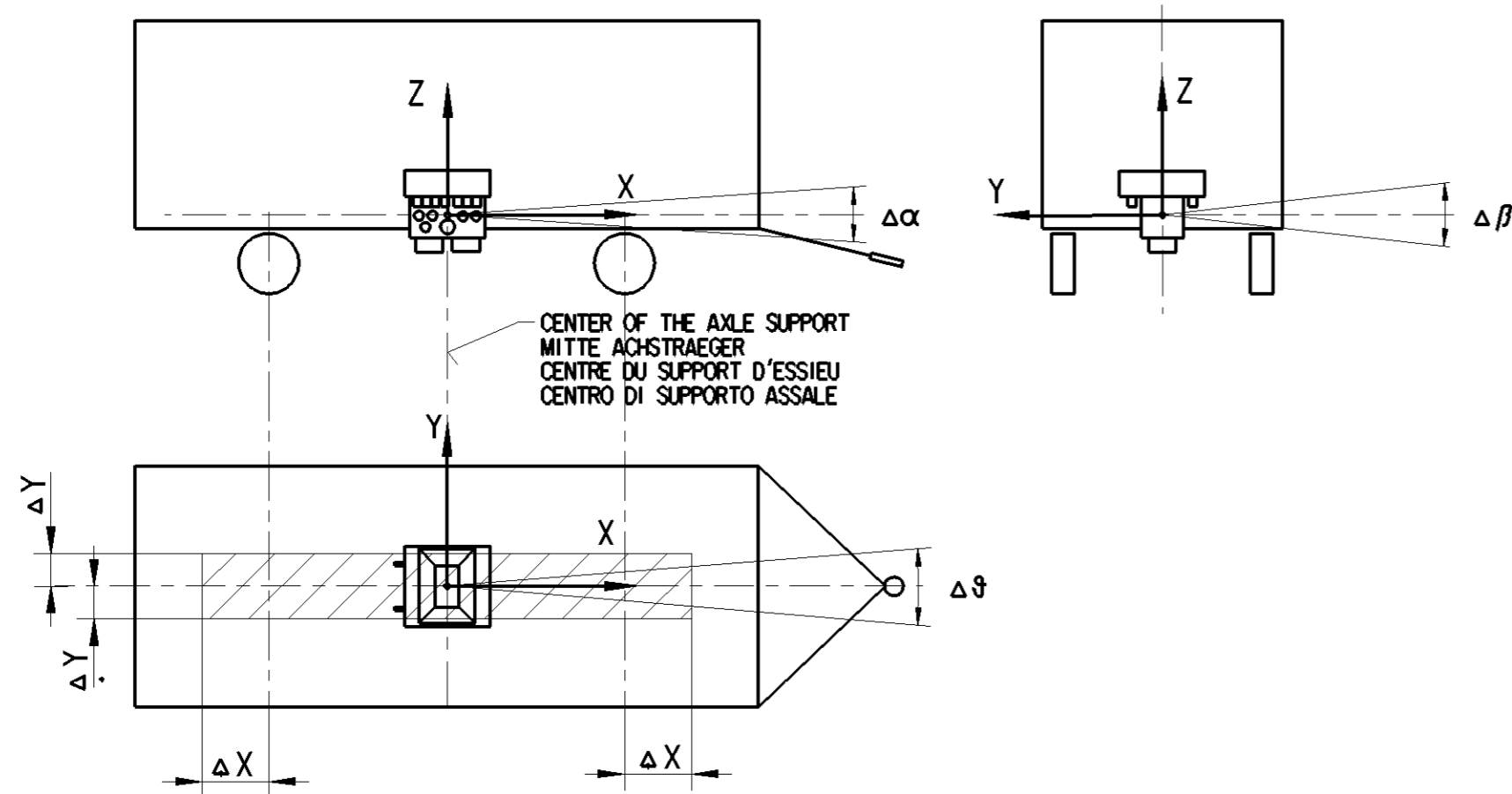
General Specification: ISO 8015, IED-334-1, Size ISO 14405 LP		Copyright WABCO®	
Further Technical Data:		Date: 2022-07-12	Signature: Hemsdorf
Doc. Code:	Sheet: To	Drawn: Hemsdorf	Checked: Stephan
General Tolerances JED-261		Range of nominal dimensions in mm	
Class	1) ≤ 50	50 > 180	> 180 > 400
Fine	±0.5	±1 ±1.5	±2
Medium	±1	±2 ±3	±4
Coarse	±2	±3.5 ±5	±6.5
Tapped Holes acc. JED-152		1) Tolerance Class Applied Crossmarked	
Material No.	480 102 032 0	Date of first issue:	2009-07-09
Doc. Code	Language	Revision	Techn. Resp.
510880	0/1X H	6870	480 102 089 0
Mass	Scale	1:1	2:1
5.100 kg	1:1	2:1	
Size	CAD System	A 1 CREO	
Material No.		480 102 032 0	
Doc. Code		Language	
510880		0/1X H	
Revision		Techn. Resp.	
6870		480 102 089 0	

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INSTALLATION RESTRICTIONS FOR RSS (ROLL STABILITY SUPPORT)
 EINBAUBESCHRAENKUNGEN FUER RSS
 RESTRICTIONS D'INSTALLATION POUR RSS
 LIMITAZIONI DI MONTAGGIO PER RSS

INSTALLATION LIMITATIONS FOR DRAWBAR TRAILER:
 EINBAUBESCHRAENKUNGEN FUER DEICHSELANHAENGER:
 RESTRICTIONS D'INSTALLATION POUR REMORQUE A TIMON:
 LIMITAZIONE DI MONTAGGIO DEL RIMORCHIO A TIMONE:

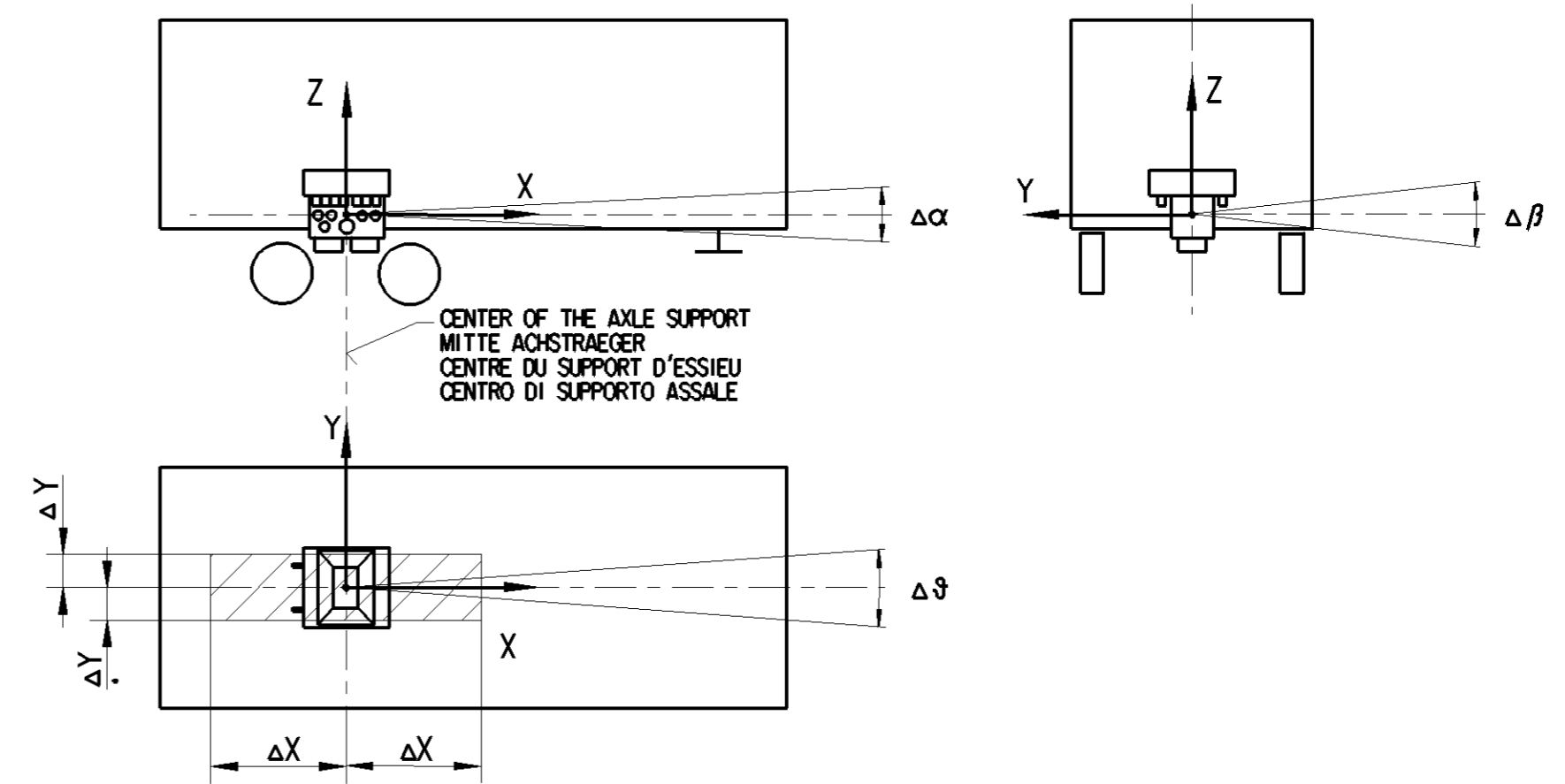


	ΔX [mm]	ΔY [mm]	$\Delta\alpha$	$\Delta\beta$	$\Delta\phi$
RSS NOT ACTIVATED RSS NICHT AKTIVIERT RSS NON ACTIVE RSS NON ATTIVATO	-	-	$\pm 15^\circ$	$\pm 15^\circ$	$\pm 15^\circ$ ****
RSS ACTIVATED RSS AKTIVIERT RSS ACTIVE RSS ATTIVATO	600	500	$\pm 15^\circ$	$\pm 3^\circ$	$\pm 3^\circ$ ****

**** PERMISSIBLE INSTALLATION POSITION FOR DRAWBAR TRAILER:
 ZULAESSIGE EINBAULAGE FUER DEICHSELANHAENGER:
 POSITION D'INSTALLATION ADMISE POUR REMORQUE A TIMON:
 POSIZIONE DI MONTAGGIO AMMESSA DEL RIMORCHIO A TIMONE:

$\pm 180^\circ$

INSTALLATION LIMITATIONS FOR SEMITRAILER:
 EINBAUBESCHRAENKUNGEN FUER SATTELANHAENGER:
 RESTRICTIONS D'INSTALLATION POUR SEMI-REMORQUE:
 LIMITAZIONE DI MONTAGGIO DEL SEMIRIMORCHIO:



	ΔX [mm]	ΔY [mm]	$\Delta\alpha$	$\Delta\beta$	$\Delta\phi$
RSS NOT ACTIVATED RSS NICHT AKTIVIERT RSS NON ACTIVE RSS NON ATTIVATO	-	-	$\pm 15^\circ$	$\pm 15^\circ$	$\pm 15^\circ$ *****
RSS ACTIVATED RSS AKTIVIERT RSS ACTIVE RSS ATTIVATO	2000	500	$\pm 15^\circ$	$\pm 3^\circ$	$\pm 3^\circ$ *****

***** PERMISSIBLE INSTALLATION POSITION FOR SEMITRAILER:
 ZULAESSIGE EINBAULAGE FUER SATTELANHAENGER:
 POSITION D'INSTALLATION ADMISE POUR SEMI-REMORQUE:
 POSIZIONE DI MONTAGGIO AMMESSA DEL SEMIRIMORCHIO:

$\pm 180^\circ$

General Specification: ISO 8015, JED-334-1, Size ISO 14405 LP		Copyright WABCO®		WABCO	
Further Technical Data:		Date	Signature	EBS Trailer Modulator 24V	
Doc. Code:	Sheet:	2022-07-12	Hermisdorf	EBS-Anhaengermodulator 24V	
General Tolerances JED-261		Checked	Stephan	EBS de la Remorque Modulateur 24V	
Range of nominal dimensions in mm		Dimensions in mm		EBS del Rimorchio Modulatore 24V	
Class 1)	≤ 50	$> 50 \leq 180$	$> 180 \leq 400$	> 400	
Fine	± 0.5	± 1	± 1.5	± 2	$\pm 3^\circ$
Medium	± 1	± 2	± 3	± 4	
Coarse	± 2	± 3.5	± 5	± 6.5	
Tapped Holes acc. JED-152		Mass	Scale	Material No.	Date of first issue: 2009-07-09
1) Tolerance Class Applied Crossmarked		5.100 kg	1:1	480 102 032 0	Doc.Code Language Sheet
		A 2	CREO	ECN-No. 510880	Revision 0/1X H
				Techn. Resp. 6870	Replacement for 480 102 089 0

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