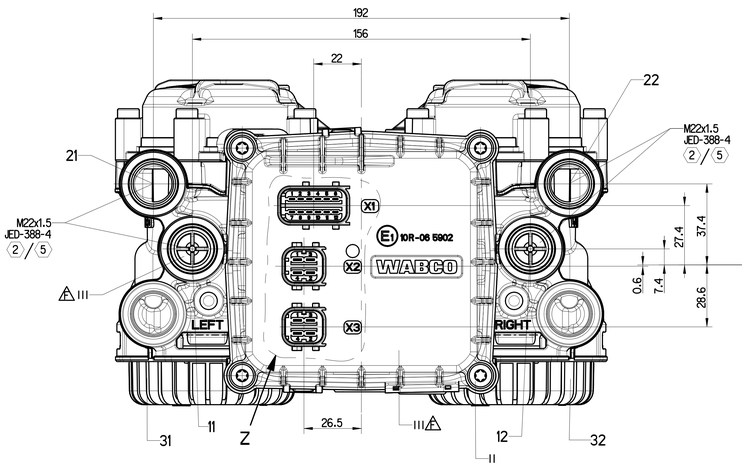
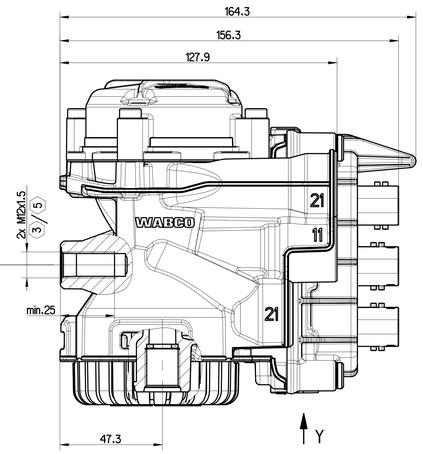
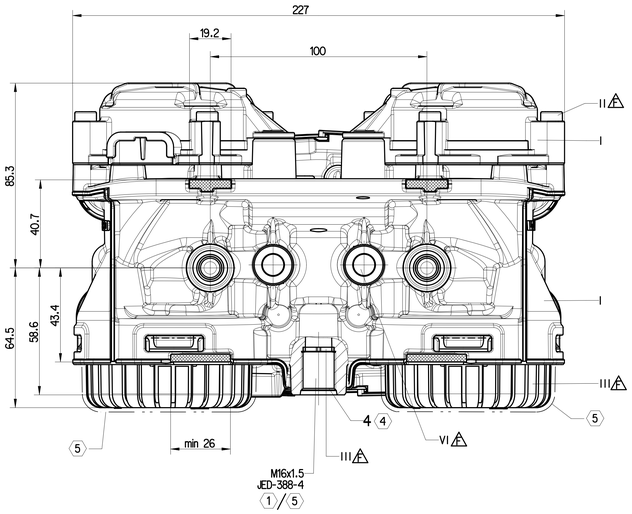
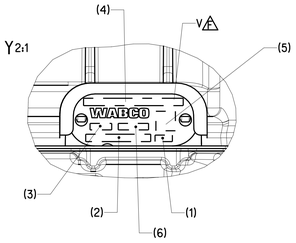








(1) MANUFACTURING PLANT
PRODUKTIONSSTAETTE JED-225

(2) WABCO-DEVICE NUMBER
WABCO-GERAETE NUMMER

(3) WEEK / YEAR OF MANUFACTURE
FERTIGUNGSWOCHE / -JAHR

(4) CUSTOMER NO.
KUNDEN-NR. kZ

(5) DATA MATRIX CODE

(6) SERIAL NUMBER
SERIENNUMMER

CONNECTOR ACCORDING TO INTERFACE DRAWING: 858 000 869 4
STECKER GEMAESS SCHNITTSTELLENZEICHNUNG: DOC-Code 007, Rev. "B" (5)

TYCO-INTERFACE DRAWING: C-114-18807-1
TYCO-AUSFUEHRUNGSVORSCHRIFT: Rev. "C"

CODING:
KODIERUNG: A

CONNECTOR ACCORDING TO INTERFACE DRAWING: 858 000 852 4
STECKER GEMAESS SCHNITTSTELLENZEICHNUNG: DOC-Code 007, Rev. "D" (5)

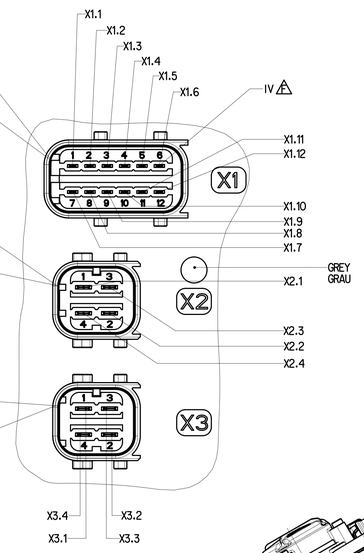
TYCO-INTERFACE DRAWING: C-114-18739-1
TYCO-AUSFUEHRUNGSVORSCHRIFT: Rev. "D"

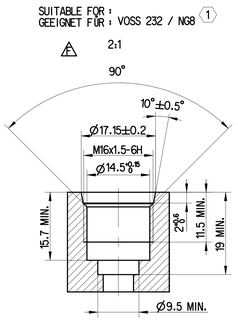
CODING:
KODIERUNG: B

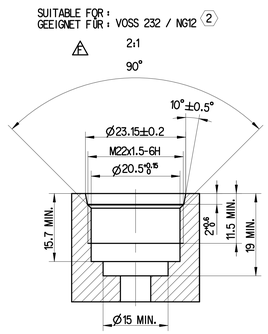
CONNECTOR ACCORDING TO INTERFACE DRAWING: 858 000 852 4
STECKER GEMAESS SCHNITTSTELLENZEICHNUNG: DOC-Code 007, Rev. "D" (5)

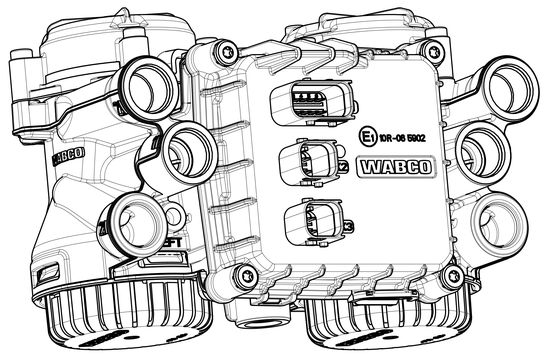
TYCO-INTERFACE DRAWING: C-114-18739-1
TYCO-AUSFUEHRUNGSVORSCHRIFT: Rev. "D"

CODING:
KODIERUNG: A







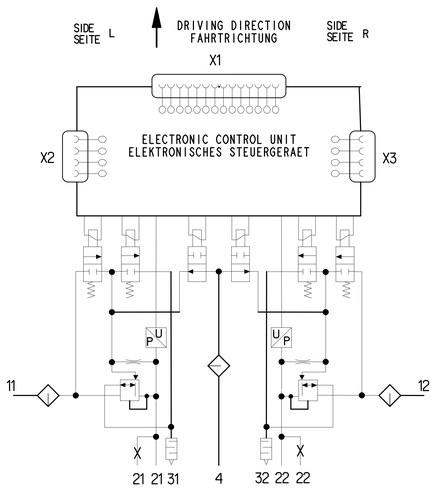


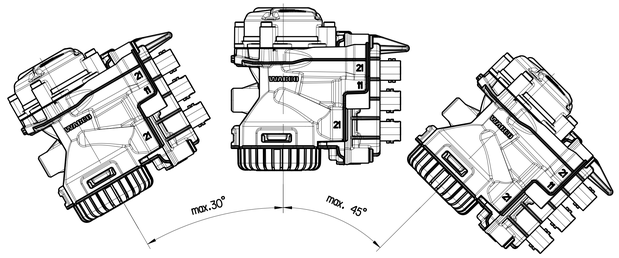
(4) ATTENTION: PORT 4 (BACK-UP PORT) SHALL NOT BE CLOSED WITH FILLER PLUG
ACHTUNG: ANSCHLUSS 4 (REDUNDANZ) DARF NICHT MIT BLINDSTOPFEN VERSCHLOSSEN WERDEN

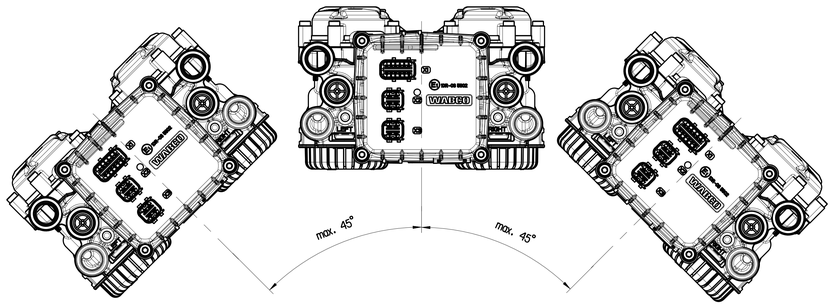
(5) COVER WHEN PAINTING ON THE VEHICLE
BEI LACKIERUNG IM FAHRZEUG ABDECKEN

DEVICE DESIGNED FOR INSTALLATION ON THE VEHICLE FRAME
GERÄT IST FÜR DEN RAHMENANBAU VORGESEHEN

BEARING SURFACE
AUFLAGEFLAECHE







PERMISSIBLE INSTALLATION POSITION
ZULAESSIGE EINBAULAGE

	MATERIAL MATERIAL	SURFACE PROTECTION OBERFLAECHENSCHUTZ
I	ALUMINUM	CHROMATED
II	STEEL	ZINC ALLOY
III	PLASTIC	-
IV	CuNiSi	Sn (1,5um - 3um)
V	ALUMINUM	ANODIC OXIDATION
VI	STAINLESS STEEL	-

	(1)	(2)	(3)	M12 x 1,5
TORQUE ACCORDING TO JED-366 ANZUGSMOMENT ENTSPRECHEND JED-366	M16 x 1,5	M22 x 1,5	TORQUE ANZUGSMOMENT	max. 110 Nm
FOR THREAD PERMISSIBLE FUER GEWINDE ZULAESSIG	max. 34 Nm	max. 53 Nm	LENGTH OF ENGAGEMENT EINSCHRAUBLAENGE	>17 mm

General Specification: ISO 8015, JED-334-1, Size ISO 14405 LP
Further Technical Data: 480 106 000 0
Doc. Code: 035 Sheet: From To
General Tolerances JED-261
Range of nominal dimensions in mm

Class		≤ 50	> 50 ≤ 180	> 180 ≤ 400	> 400
Fine		±0.5	±1	±1.5	±2
Medium	X	±1	±2	±3	±4
Coarse		±2	±3.5	±5	±6.5

Tapped Holes acc. JED-388-4
Tolerance Class Applied: Crossmarked

Dimensions in mm

Mass	Scale	Material No.	Date of first issue
3.232 kg	1:1 (2:1)	480 106 050 0	2011-05-30
Size	CAD System		Doc-Code: 053 Language: EN Sheet: 1/2
A 0	CREO		Doc-No. 512940 Index 12/10x F Index Page 6840 Page 884 011 840 0

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Date: 2024-02-22 Drawn: Sieminski
Checked: 2024-02-23 Wysocki

ZF

EBS AXLE MODULATOR
EBS-ACHSMODULATOR

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DEVICE NUMBER GERAETE NUMMER (2)	CUSTOMER NO. KUNDEN-NR. kZ (4)	ZGS REVISION (4)	SOFTWARE STATUS SOFTWARESTAND	WEEK / YEAR OF MANUFACTURE FERTIGUNGSWOCHE / -JAHR (3)	CONNECTION ANSCHLUSS 11	12	4	21	21	22	22	X1	X2	X3	APPLICATION ANWENDUNGSBEREICH	REMARKS BEMERKUNGEN
~~480 106 051 0~~	~~A 000 429 65 24~~	~~see CCT (DOC 091)~~	~~see CCT (DOC 091)~~	~~-~~	~~X~~	~~X~~	~~X~~	~~X~~	~~-~~	~~X~~	~~-~~	~~X~~	~~X~~	~~X~~		
~~480 106 052 0~~	~~A 000 429 70 24~~	~~see CCT (DOC 091)~~	~~see CCT (DOC 091)~~	~~-~~	~~X~~	~~X~~	~~X~~	~~X~~	~~-~~	~~X~~	~~-~~	~~X~~	~~X~~	~~X~~		
480 106 053 0	A 000 429 72 24	see CCT (DOC 091)	see CCT (DOC 091)	-	X	X	X	X	-	X	-	X	X	X		

WORKING MEDIUM : COMPRESSED AIR (WATER AND OIL CONTAINING; SEE PRODUCT SPECIFICATION)
ARBEITSMEDIUM : DRUCKLUFT (WASSER- UND OELHALTIG, SIEHE PRODUKTSPEZIFIKATION)

INSTALLED : CHASSIS
MONTIERT : CHASSIS

THERMAL RANGE OF APPLICATION : FOR FURTHER INFORMATIONS SEE TECHNICAL SPECIFICATION
THERMISCHER ANWENDUNGSBEREICH : -40° ... +80°C WEITERE INFORMATIONEN SIEHE TECHNISCHE SPEZIFIKATION

SHORT TERM RESISTANCE TO HEAT (UNPRESSURIZED, CURRENTLESS, WITHOUT FUNCTION) : MAX. 1h AT 110°C OR MAX. 2h AT 95°C
KURZZEITIGE WAERMEBESTAENDIGKEIT (DRUCKOS, STROMLOS, OHNE FUNKTION) : MAX. 1h AT 110°C ODER MAX. 2h BEI 95°C

WORKING PRESSURE (SUPPLY) :
BETRIEBSDRUCK (VORRAT) : p_e = min. 10 bar max. 13 bar

MAX. PERMISSIBLE WORKING PRESSURE (SUPPLY) : TEMPORARY WITHOUT FUNCTION
MAX. ZULAESSIGER BETRIEBSDRUCK (VORRAT) : p_e = 15 bar KURZZEITIG OHNE FUNKTION

VOLTAGE TERMINAL :
SPANNUNG ANSCHLUSS X2.1 / X2.2 : $24^{+8}_{-9,5}$ V

MAX. CURRENT TERMINAL : DIRECT CURRENT
MAX. STROM ANSCHLUSS X2.1 / X2.2 : 7 A / 10 bar (p_{21}, p_{22}) GLEICHSTROM

DATA TRANSFER : ACCORDING TO
DATENUEBERTRAGUNG (X2 / X3) : CAN NACH ISO 11898

TYPE OF PROTECTION : COMPLETE DEVICE WITH MOUNTED COUPLING :
SCHUTZART : KOMPLETTES GERAET MIT MONTIERTER KUPPLUNG : IP 6K6K , IP 6K9K

: ELECTRIC TERMINALS WITHOUT MOUNTED COUPLING :
: ELEKTRISCHE ANSCHLUESSE OHNE MONTIERTER KUPPLUNG : IP 6K7

PROTECTION CLASS ACC. TO
SCHUTZKLASSE NACH DIN VDE 0580

TENSION FREE MOUNTING OF THE LINES
SPANNUNGSFREIE MONTAGE DER LEITUNGEN

HANDLING, STORAGE, PACKAGING, PRESERVATION AND DELIVERY
HANDHABUNG, LAGERUNG, VERPACKUNG, KONSERVIERUNG UND VERSAND 480 106 000 0 (DOC 026)

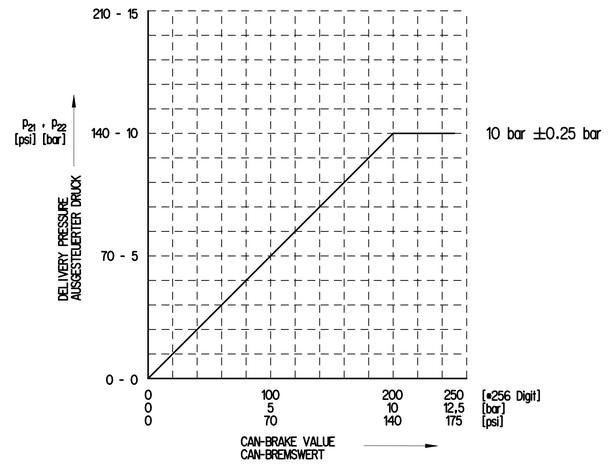
MAX. LEAKAGE: DURING PRESSURE MAINTENANCE OR WHILE NOT OPERATED, NEW DEVICE : > -20°...+80°C : 10 cm³/min. (DIN1343)
MAX. LECKAGE: DRUCKHALTEND ODER UNBETÄTIGT, NEUGERÄT : -40°...-20°C : 1500 cm³/min.

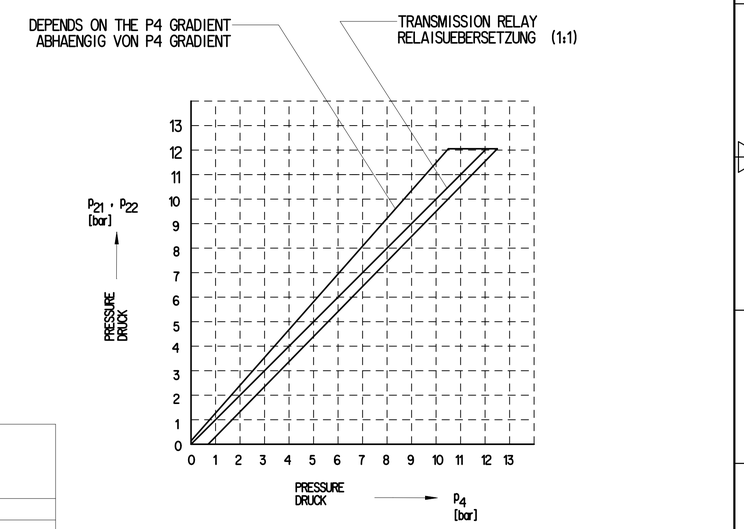
SOUND LEVEL IN A DISTANCE OF 7M :
SCHALLPEGEL IM ABSTAND VON 7M : <69 dBA ACCORDING TO
NACH ISO 3744

PERMISSIBLE LEAKAGE: SEE PRODUCT SPECIFICATION
ZULAESSIGE LECKAGE: SIEHE PRODUKT SPEZIFIKATION

INSPECTION MARK
PRUEFZEICHEN EMV: E1 10R-06 5902

NOMINAL DIAMETER 11 -> 21 : ≧ Ø10mm
NENNWEITE 12 -> 22: ≧ Ø10mm
21 ; 22 -> 31/32 : ≧Ø9mm





PORT PORT	ANSCHLUSS ATTACCO	
SIDE L SEITE L	SIDE R SEITE R	FUNCTION FUNKTION
11	12	SUPPLY, ENERGIEZUFLUSS VOM VORRAT
4		BACK UP PORT, REDUNDANZANSCHLUSS
21	22	DELIVERY (DIRECT), ENERGIEABFLUSS (DIREKT)
31	32	EXHAUST, ANSCHLUSS ATMOSPHAERE
X1		WHEEL SPEED SENSOR, ADDITIONAL AXLE SELECTION, LINING WEAR SENSOR RADDREHZAHLSENSOR, ZUSATZACHSSELEKTIERUNG, BELAGVERSCHLEISSSENSOR
X1.1		SENSOR HIGH L, SENSOR HIGH L
X1.2		SENSOR LOW L, SENSOR LOW L
X1.3		ADDITIONAL AXLE IN, ZUSATZACHSE EINGANG;
X1.4		LINING WEAR SENSOR SUPPLY L, BELAGVERSCHLEISSSENSOR VERSORGUNG L
X1.5		LINING WEAR SENSOR SUPPLY R, BELAGVERSCHLEISSSENSOR VERSORGUNG R
X1.6		LINING WEAR SENSOR GROUND R, BELAGVERSCHLEISSSENSOR MASSE R
X1.7		SENSOR HIGH R, SENSOR HIGH R
X1.8		SENSOR LOW R, SENSOR LOW R
X1.9		ADDITIONAL AXLE OUT, ZUSATZACHSE AUSGANG;
X1.10		LINING WEAR SENSOR SIGNAL L, BELAGVERSCHLEISSSENSOR SIGNAL L
X1.11		LINING WEAR SENSOR GROUND L, BELAGVERSCHLEISSSENSOR MASSE L
X1.12		LINING WEAR SENSOR SIGNAL R, BELAGVERSCHLEISSSENSOR SIGNAL R
X2		CAN SUPPLY, CAN VERSORGUNG
X2.1		GROUND, MASSE
X2.2		Ub
X2.3		CAN HIGH 1, CAN HIGH 1
X2.4		CAN LOW 1, CAN LOW 1
X3		CAN
X3.1		CAN GROUND OUT
X3.2		CAN GROUND IN
X3.3		CAN HIGH 2, CAN HIGH 2
X3.4		CAN LOW 2, CAN LOW 2

General Specification: ISO 8015, JED-334-1, Size ISO 14405 LP
Further Technical Data: **480 106 000 0**
Doc. Code: **035** Sheet: To
General Tolerances JED-261

Class 1)	Range of nominal dimensions in mm ≤ 50	> 50 ≤ 180	> 180 ≤ 400	> 400	∢
Fine	±0.5	±1	±1.5	±2	±3°
Medium X	±1	±2	±3	±4	
Coarse	±2	±3.5	±5	±6.5	

Tapped Holes acc. JED-388-4
1) Tolerance Class Applied Crossmarked

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Date	Signature
Drawn 2024-02-22	Sieminski
Checked 2024-02-23	Wysocki

Dimensions in mm

EBS AXLE MODULATOR
EBS-ACHSMODULATOR

Mass	Scale	Material No.	Date of first issue: 2011-05-30		
3.232 kg	1:1	480 106 050 0	Doc.Code	Language	Sheet
			053	EN	2/2
Size	CAD System				
A 1	CREO				

ECN-No.	Revision	Techn. Resp.	Replacement for
512840	1/13x F	6840	884 011 840 0

100mm

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