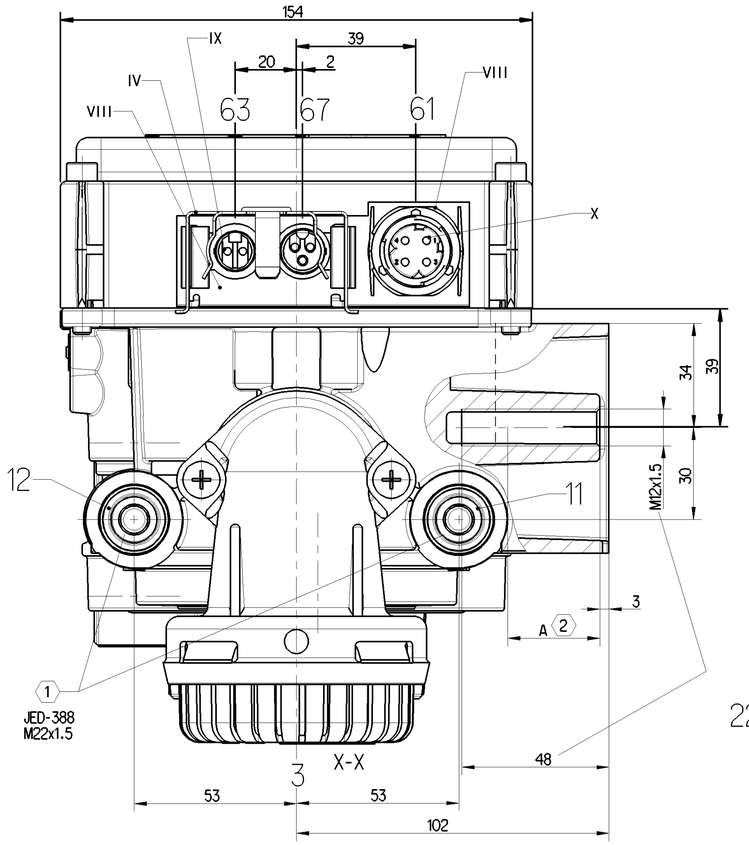
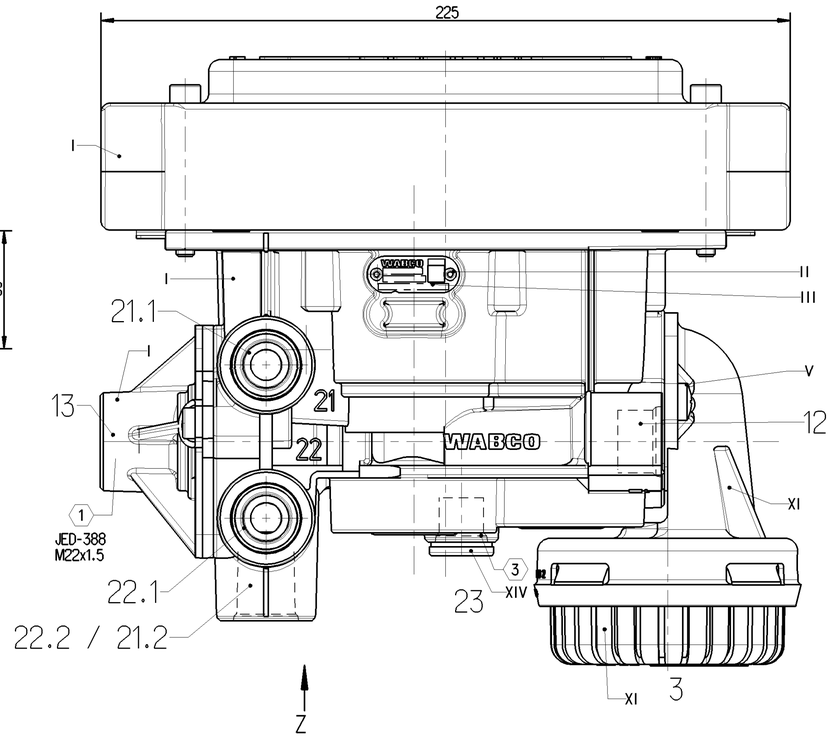
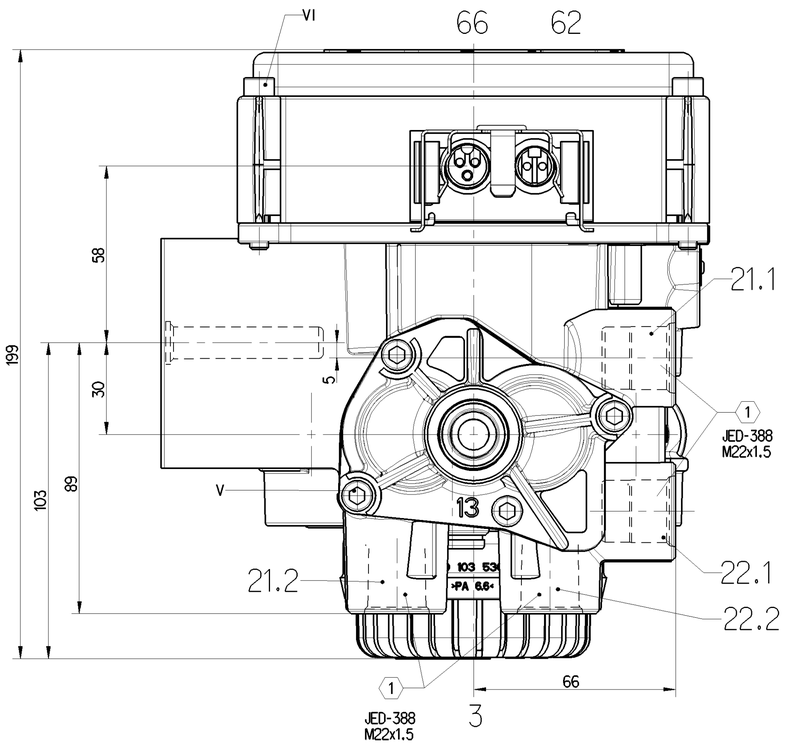
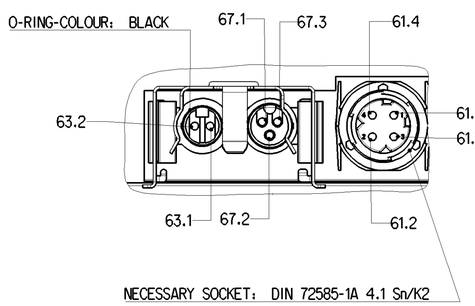
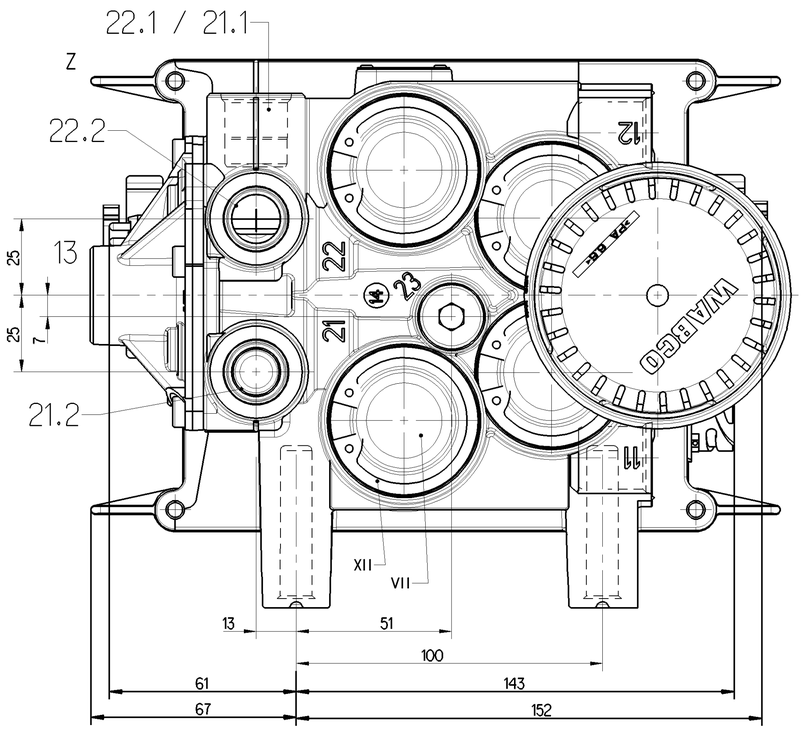


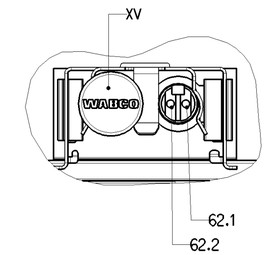


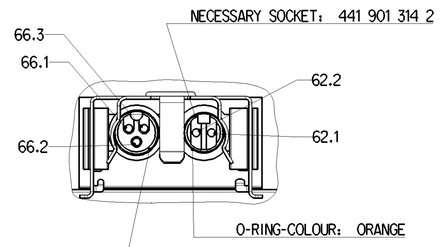




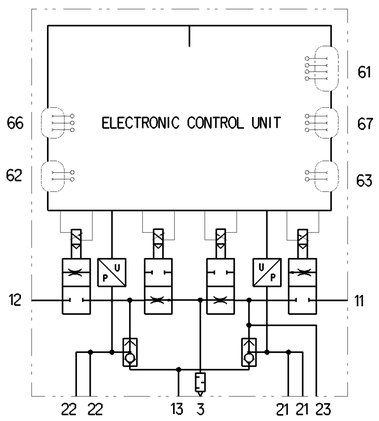
NECESSARY SOCKET: DIN 72585-1A 4.1 Sn/K2







NECESSARY SOCKET: 441 901 316 2



Ⓑ 4 SEE SHEET : 2/2 NUMBER 9.
I-XVI SEE SHEET : 2/2

Ⓑ LABELING INFORMATION TABLE (SEE ALSO DOC.922)

PRODUCTION SITE	LABEL ID NUMBER	LABEL LAYOUT
048	899 050 145 4	PRODUCTION DATE WABCO ID NUMBER

General Specification: JED-334-1 , Size ISO 14405 LP						
Further Technical Data: 480 103 000 R						
Doc. Code: 035			Sheet: 1 To 22			
General Tolerances JED-261						
		Range of Nominal Dimensions (± mm)				
Class 1)		≤ 50	> 50 ≤ 180	> 180 ≤ 400	> 400	∢
Fine		0.5	1.0	1.5	2.0	
Medium	X	1.0	2.0	3.0	4.0	±3°
Coarse		2.0	3.5	5.0	6.5	
Tapped Holes acc. ISO 4039 / JED-388						
1) Tolerance Class Applied Crossmarked						

Copyright WABCO®

Date	Signature
Drawn 2019-11-20	John
Checked 2019-11-20	Slobodzian
Expert Fidzianski	

WABCO

EBS-AXLE MODULATOR

Mass	Scale	Material No.	Date of first issue: 2014-08-06
7.0 KG	1:1	480 103 015 R	Doc.-Code 005 · Language EN · Sheet Ⓑ 1/2
Size A 1	CAD System CREO	ECN-No. 502774 · Revision 3x B · Techn. Resp. 6840_RM	Replacement for -

100mm

Non è permesso consegnare o fare o cignodare questo documento, né utilizzare e comunicare a terzi(o comunque non a fini aziendali) il contenuto salvo autorizzazione scritta. Ogni violazione obbligherà al risarcimento danni. E' tutto riservato ai fini i diritti derivanti da brevetti o modelli.

Copying of this document and giving it to others and the use or communication of the contents thereof, are forbidden without express authority. Offenders are liable to the payment of damages. All rights are reserved in the event of the grant of patent or registration of a utility model or design. This document is the subject of copyright.

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht ausdrücklich zugestanden. Zuwiderhandlungen verpflichten zu Schadenersatz. Alle Rechte für den Fall der Patenterteilung oder Eintragung eines Gebrauchsmusters vorbehalten.

SOFTWARE STATUS	PORT														APPLICATION	REMARKS
	11	12	13	21.1	21.2	22.1	22.2	23	61	62	63	66	67	68		
446 140 553 4 & 440 140 554 4	X	X	X	X	/●	X	/●	/●	X	X	X	/●	/●	/●	2-Axis vehicle	ACTROS MPII (EBS/ESP-Pocket 2000), 500 KBa, Simple redundancy

(B)

(5)

● CLOSED

(5) EVOBUS: Redundancy feedback port 23 open

(B)

1.1	WORKING MEDIUM	AIR	(WATER, OIL AND ALCOHOL CONTAINING)
1.2	AMBIENT ENVIROMENT	AIR	(CONTAINING WATER, SALT, DUST AND OIL)
2.1	THERMAL RANGE OF APPLICATION	-40° ... +80°C	SEE PRODUCT SPECIFICATION
2.2	SHORT TERM RESISTANCE TO HEAT	MAX. 110°C AT 1h	WITHOUT FUNCTION
3.1	WORKING PRESSURE (SUPPLY)	p_e = 10 bar	
3.2	MAX. PERMISSIBLE WORKING PRESSURE (SUPPLY)	p_e = 13 bar	
4	MIN. FLOW PASSAGE	/NOMINAL DIAMETER	PORT 11-21, 23/12-22: 50.3 mm²/NW 8 PORT 21, 22, 23-3: 78.5 mm²/NW 10 PORT 13-21, 22: 78.5 mm²/NW 10
5	VOLTAGE TERMINAL 61.1 / 61.2	24 +8/-9.5 V	
6	MAX. CURRENT TERMINAL 61.1 / 61.2	5 A / 10. bar	DIRECT CURRENT
7	DATA TRANSFER	CAN	ACCORDING TO ISO 11898
8	TYPE OF PROTECTION	IP 66, IP 69K	COMPLETE DEVICE WITH MOUNTED COUPLING
9	INSTALLATION LIMITATIONS MAX. DEVIATION OF THE DEVICE FROM THE VERTICAL	45°	SEE SHEET 1/2 (4)

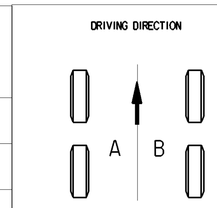
MATERIAL AND SURFACE PROTECTION			
I	Al JED-029M1 / C JED-259	X	JED-570.845
II	Al 99.0 ISO/R 828	XI	PA 6.6 JED-354.1
III	Al JED-077M1 / JED-007.1	XII	Fe JED-048M1 / JED-371
IV	Fe JED-050MO	XIII	CuZn40Pb2-F48 / CuZn39Pb3-F48
V	Fe JED-051M4 / Zn/C JED-256-1	XIV	Fe JED-020.1 / Zn/C JED-256-1
VI	Fe JED-051M4 / JED-378.1	XV	JED-308
VII	Al JED-019M1 / JED-259	XVI	JED-015M1 / JED-256
VIII	PA 6.6 JED-753.1		
IX	JED-570.865		

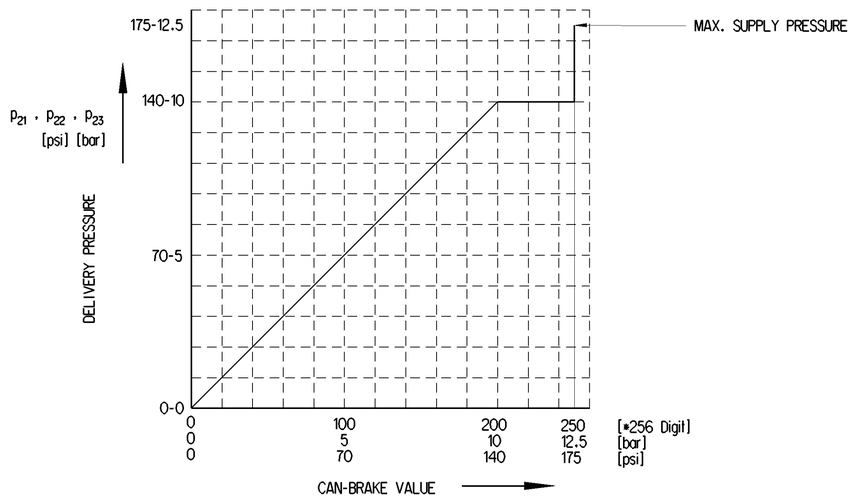
SEE SHEET: 1/2

	(1)	(2)	(3)
TORQUE	max. 53 Nm	max. 86 Nm	max. 34 Nm
LENGTH OF ENGAGEMENT	max. 12 mm	A=min. 24 mm	max. 12 mm

PORT		
SIDE A	SIDE B	FUNCTION
11	12	SUPPLY
13		BACK UP PORT
21.1 21.2	22.1 22.2	DELIVERY (AFTER DOUBLE CHECK VALVE)
23		DELIVERY (DIRECT)
3		EXHAUST
61 61.1 61.2 61.3 61.4		CAN AND SUPPLY U_B+ GROUND CAN HIGH CAN LOW
63 63.1 63.2	62 62.1 62.2	 SENSOR HIGH SENSOR LOW
67 67.1 67.2 67.3	66 66.1 66.2 66.3	LINING WEAR SENSOR SUPPLY OUTLET GROUND SIGNAL

DRIVING DIRECTION





General Specification: JED-334-1 , Size ISO 14405 LP							
Further Technical Data: 480 103 000 R							
Doc. Code: 035				Sheet: 1 To 22			
General Tolerances JED-261							
Class 1)		Range of Nominal Dimensions (± mm) ≤ 50	> 50 ≤ 180	> 180 ≤ 400	> 400	∢	
Fine		0.5	1.0	1.5	2.0	±3°	
Medium	X	1.0	2.0	3.0	4.0		
Coarse		2.0	3.5	5.0	6.5		
Tapped Holes acc. ISO 4039 / JED-388							
1) Tolerance Class Applied Crossmarked							

Copyright WABCO®

Date	Signature
Drawn	
2019-11-20	John
Checked	
2019-11-20	Slobodzian
Expert	
Fidzianski	

WABCO

EBS-AXLE MODULATOR

Mass	Scale	Material No.	Date of first issue: 2014-08-06	
7.0 KG	1:1	480 103 015 R	Doc.Code: 005	Language: EN(B) Sheet: 2/2
Size: A 1	CAD System: CREO	ECN-No.: 502774	Revision: 3x B	Techn. Resp.: 6840_RM
				Replacement for: -

100mm

Tutti i diritti di proprietà industriale riservati, in particolare di sfruttamento e di comunicazione a terzi. Non è permesso consegnare a terzi o riprodurre questo documento, né utilizzare il contenuto o renderlo comunque noto a terzi senza nostra espressa autorizzazione scritta. In caso di violazione siamo autorizzati a richiedere il risarcimento dei danni. È fatta riserva di tutti i diritti derivanti da brevetti o modelli.

Toute Communication ou reproduction de ce document, toute exploitation ou communication de son contenu sont interdites, sauf autorisation expresse. Tous droits de propriété industrielle réservés, notamment en matière de brevets et de modèles.

Weitergabe sowie Vervielfältigung dieser Unterlage, Verwertung und Mitteilung ihres Inhalts nicht gestattet, soweit nicht ausdrücklich zugestanden. Zuwiderhandlungen verpflichten zu Schadenersatz. Alle Rechte für den Fall der Patenterteilung oder Gebrauchsmuster-Eintragung vorbehalten.

Non è permesso consegnare a terzi o riprodurre questo documento, né utilizzare il contenuto o renderlo comunque noto a terzi senza nostra espressa autorizzazione scritta. In caso di violazione siamo autorizzati a richiedere il risarcimento dei danni. È fatta riserva di tutti i diritti derivanti da brevetti o modelli.

Copying of this document and giving it to others and the use or communication of the contents thereof, are forbidden without express authority. Offenders are liable to the payment of damages. All rights are reserved in the event of the grant of a patent or the registration of a utility model or design. This document is the subject of copyright.