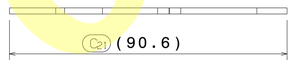
Allgemeintoleranzen nach General tolerances acc. to		MBN 11012-20
Symbol	Tolerance Tolerance -Art -Wert -type -value	Bedeutung / Meaning
	0	Bezugsstellen nach Datum Targets according to MBN 11012-1
	1 X Y Z	Flaechenformtoleranz fuer umgeformte Flaechen Surface tolerance for formed surfaces
	2 X Y Z	Linienformtoleranz fuer geschnittene Kanten Line tolerances for cut edges
	1 X Y Z	Positionstoleranz fuer Loecher Position tolerance for holes
	0.4 X Y Z	Positionstoleranz Bezugsloecher (Bezugselemente) fuer die nicht fixierte Raumrichtung Position tolerance for locating holes (reference elements) of the non-defined direction of space
	+0,2 - 0,1	Lochdurchmesser allg. bzw. Formkontur General hole diameter or shape
	±0.1	Durchmessertoleranz Bezugsloecher und Bezugsbohrungen Tolerance of diameter for locating holes and datum holes
	+2	Biegeradien Bending radii
	+0,3	Zulaessiger Stanzgrat Permissible burr height

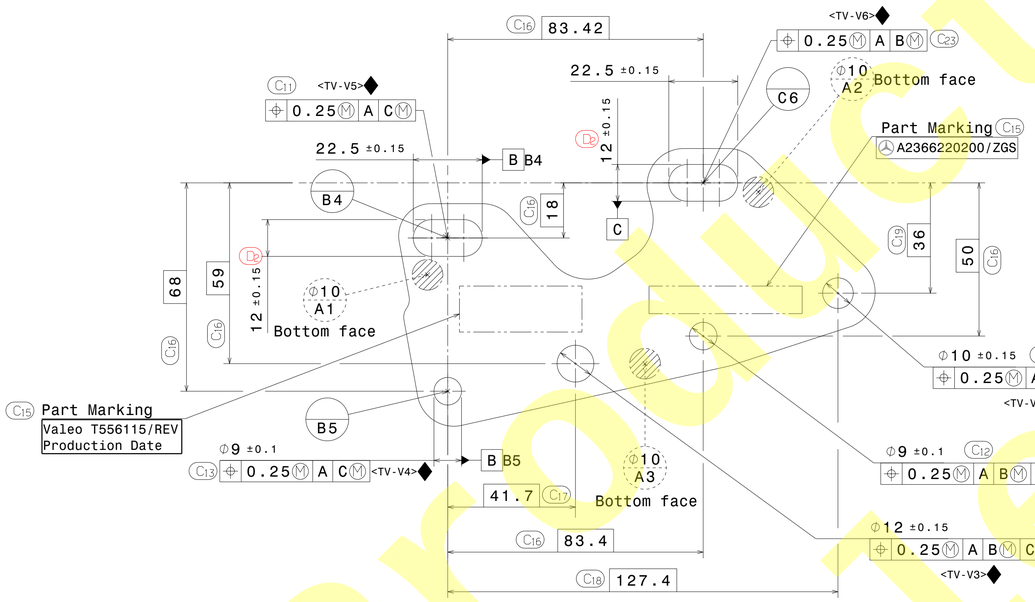
Reference points in vehicle axis system (C8)

Datum	X	Y	Z	Views	Sheet/Location	Notes
A1	-444.00	-382.00	446.00	Top view	SH1/M5	Ref on Surface / Face
A2	-417.00	-490.00	446.00	Top view	SH1/I6	Ref on Surface / Face
A3	-473.00	-453.00	446.00	Top view	SH1/K4	Ref on Surface / Face
B4	-431.99	-388.60	446.00	Top view	SH1/M5	Ref on slot center
B5	-482.00	-388.60	446.00	Top view	SH1/M4	Ref on hole center
C6	-413.99	-472.02	446.00	Top view	SH1/J6	Ref on slot center

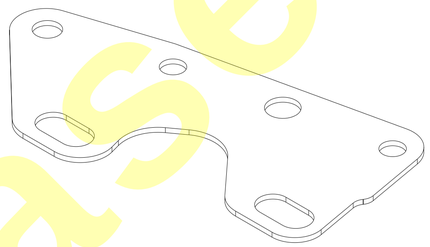
Front view
Scale: 1:1



Left view
Scale: 1:1



Top view
Scale: 1:1



Isometric view
Scale: 1:1

General Requirements:

1)Max. burr height and/or max. sharp edges 10% of wall thickness, Max 0.2mm.
2)Part marking position - See drawing reference :
According to customer MBN 10435 (logo, customer part number, ZGS)
According to Valeo requirement (logo, part number, daily production date, material, country of origin)
3)Form / shape : refer to CAD model provided in the defined revision level - CAD revision level is always master
4)Corrosion requirements: see coating definition in sVRF (C3)
5)Gaging: supplier must demonstrate capability for SPPC relevant characteristics using statistical analysis
6)Formability: forming/stamping simulation to be presented by supplier and to be approved by Valeo
7)<Note removed> (C4)
8)GD&T symbology: Daimler MBN 11011i
9)Weight tolerance: +- 5%
10)No change in manufacturing process or product design without Valeo approval
11)All tests of functional and material DBL by Daimler to be performed and documented by supplier
12)Forming limitations
Max.allowable thinning: 17%
Max.allowable thickening: 10%
13)<Note removed> (C4)
14)Testing of the thickness e-coating every batch. <N-F1>
15)RPA-yearly corrosion testing mandatory(cross-cut on each batch and scratch test). <N-F2> (C5)
16)No visible area: No scratches or failure impacting the surface treatment or mechanical properties
17)No material crack allowed.
18)Regulation table:

(B8) R Marking	Regulation Theme	Standard number (Including Revision) for Global Product	Regulation number (Including Revision)
<N-R3>	- Material Restrictions	- Valeo BRDS (Latest Revision) - TDOC_100363499 Rev B (Regulation standard) - Customer document DBL8585	1907/2006/EC 2000/53/EC GBT 30512 : 2014

SPPC Sum up

Internal	6	◆ (C22)
Internal Followed	0	◇
Customer	0	◆
Customer Followed	0	◇
Safety and/or Regulation	1	SR
Other	0	

◆	SIGNIFICANT CHARACTERISTICS Cpk ≥ 1.66	6	(C22)
◇	FUNCTIONAL CHARACTERISTICS Cpk ≥ 1.33	0	
<F>	FUNCTIONAL CHARACTERISTICS WITHOUT CAPABILITY REQUIREMENT	2	

Drawing assumes ISO-14405 E (envelope Principle) , unless otherwise specified.

REV	ECO NUMBER	RESPONSIBLE	DATE	DESCRIPTION OF CHANGE
D	TCO_100895715_02	V.SRIRAM/ P.KUNZELMANN	2023-01-12	1)Drawing updated for latest 3D(R02V06). 2)Dim. 12 ±0.15 was Dim. 10 ±0.15. (SH1/K5,M5) 3)Mass 119.25g was 120.36g
C	TCO_100747001_01	G.VEERASAMY / P.KUNZELMANN	2022/02/18	1)Drawing updated for After blank release. (3D:R02V05) 2)Views orientation changed as per FEM orientation. 3)General note 4 updated, "Corrosion requirements: see coating definition in sVRF" was "see coating definition in sVRF to respect Daimler FUVO AO03006616 99". (SH1/M2) 4)General note 7 & 13 removed. (SH1/O2) 5)General note 15 updated, "RPA-yearly" was "RPA-monthly" & "Cross-cut on each batch" was "Cross-cut". (SH1/L1) 6)Mass updated 120.36g was 121.77g. (SH1/A1) 7)Support datum A7 removed. 8)Datums A1,A2,A3,B4,B5 and C6 coordinates updated. (SH1/M8) 9)Profile tolerance 0.4 was 0.2. (SH1/H7) 10)PROF.|0.2|A removed from Front view. 11)POS.|0.25Ⓜ|A|CⓂ was POS.|1.0|A|B|C. (SH1/M6) 12)POS.|0.25Ⓜ|A|BⓂ|CⓂ was POS.|0.4|C.(SH1/I4) 13)POS.|0.25Ⓜ|A|CⓂ added. (SH1/M4) 14)POS.|0.25Ⓜ|A|BⓂ|CⓂ was POS.|1.0|A|B|C. (SH1/H4) 15)Part marking added. (SH1/O4,H5) 16)Basic dimensions 83.4, 83.42, 68, 59, 50 and 18 added. (SH1/K4,K6,N5,M5,I5,K5) 17)Dim. 41.7 was 42.66. (SH1/K4) 18)Dim. 127.4 was 131.28. (SH1/K3) 19)Dim. 36 was 4.4. (SH1/I5) 20)Dim. (155.5) was (153.4). (SH1/K7) 21)Dim. (90.6) was (73.3) (SH1/G7) 22)SPPC count updated. (SH1/G2) 23)POS.|0.25Ⓜ|A|BⓂ was POS.|1.0|A|B|C.(SH1/O6)
B	TCO_100670999_01	K.GANESH / P.KUNZELMANN	2021/12/14	1)Drawing updated for Blank release.(3D:R02V04) 2)Dimension updated Ø10±0.15mm was Ø8±0.15mm. (SH1/M5) 3)Regulation table updated. (SH1/P1) 4)Mass updated 121.77g was 125g. (SH1/A1)
A	TCO_100620310_01	B.MUTHUSAMY / C.D.NGUYEN	2021/04/26	Initial drawing for W-Release.(3D:R02V03)

All units shown are in millimeters (mm), unless otherwise indicated.
All surface finish is in micrometers (µm), unless otherwise indicated.
Template update: 2020-09-14

Reason:
Interchangeability
Checked
Tech. Checked
Customer: MERCEDES-BENZ
Part A2366220200
Drawing
REV ZGS 004

Former Part N° | Rev | Prototype Drw | Rough Part N° | Dev Code | Project Code BR236

MATERIAL MBN 11251-CR290Y490T-DP-GI50/50-U

TREATMENT COATING BLACK E-COATING + DBL 7381.22

TITLE & DESCRIPTION
Front End Module
Bracket (REINFBEAM)

APPROVED BY P.KUNZELMANN
APPROVED DATE 2023/03/22
ESTIMATED MASS 119.25g
CREATED BY Balraj M
CREATION DATE 2021-04-26

Valeo
Thermal Front End
Germany
Valeostrasse 1, 74321 Bietigheim-Bissingen

DRAWING NUMBER	DRAWING REV.
DRW_T556115_001	D
PART NUMBER T556115	

SCALE 1 : 1
First Angle Std
SIZE A1
SHEET 1 / 1

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Production Released