Selection and ordering	a data		Order No.		
			7MB2121- A A	Cannot be combined	
Gas connections for sample gas and reference gas					
Pipe with 6 mm outer diameter		0	0 — → A21		
Pipe with 1/4" outer diam	eter		1	1 — ▶ A20	
Measured component		Possible with measuring range identification			
CO	1 2 1 20 1	11 30	A		
CO highly selective (wit CO (TÜV; see table "TÜ"		12 30 age 1/53)	B X		
CO ₂		10 30	С		
CH ₄		13 30 15 30	D E		
C_2H_2 C_2H_4		15 30	F F		
C ₂ H ₆		14 30	Ğ		
C ₃ H ₆		14 30	Н		
C ₃ H ₈ C ₄ H ₆		13 30 15 30	J K		
C ₄ H ₁₀		14 30	î l		
C ₆ H ₁₄		14 30	M		
SO ₂ (TÜV; see table "TÜ page 1/53)	IV single component",	13 30	N		
NO (TÜV; see table "TÜ' page 1/53)	V single component",	14 20, 22	P		
NH ₃ (dry)		14 30	Q	Q	
H ₂ O N ₂ O		17 20, 22 13 30	R S	R I	
Smallest measuring range	Largest measuring range	Measuring range identification			
0 5 vpm	0 100 vpm	10	A		
0 10 vpm 0 20 vpm	0 200 vpm 0 400 vpm	11 12	B C		
0 50 vpm	0 1 000 vpm	13	D		
0 100 vpm	0 1 000 vpm	14	E		
0 300 vpm	0 3 000 vpm	15	F G		
0 500 vpm 0 1 000 vpm	0 5 000 vpm 0 10 000 vpm	16 17	H		
0 3 000 vpm	0 10 000 vpm	18	J		
0 3 000 vpm 0 5 000 vpm	0 30 000 vpm 0 15 000 vpm	19 20	K L		
0 5 000 vpm	0 50 000 vpm	21	M		
0 1 %	0 3 %	22	N		
0 1 % 0 3 %	0 10 % 0 10 %	23 24	P Q		
0 3 %	0 30 %	25	R		
0 5 %	0 15 %	26	S		
0 5 %	0 50 %	27	T		
0 10 % 0 10 %	0 30 % 0 100 %	28 29	U V		
0 30 %	0 100 %	30	W		
Internal gas paths	Sample chamber ¹⁾ (lining)	Reference chamber (flow-type)			
Hose made of FKM (Viton)	Aluminum Aluminum	Non-flow-type Flow-type	0	0 0 —→ A20, A21	
Pipe made of titanium	Tantalum Tantalum	Non-flow-type Flow-type	4 5	4 → A20, A21, Y02 5 → Y02	
Stainless steel pipe	Aluminum	Non-flow-type	6	6 —→ A20, A21	
(mat. no. 1.4571) With sample gas monito	Tantalum	Non-flow-type	8	8 → A20, A21	
Hose made of FKM	Aluminum	Non-flow-type	2	 2 2 A20, A21	
(Viton)	Aluminum	Flow-type	3	3	
Footnotes: see next page					

Footnotes: see next page

Selection and ordering data	Order No.
ULTRAMAT 6 gas analyzer Single-channel 19" rack unit for installation in cabinets	7MB2121- AA Cannot be combined
Add-on electronics Without AUTOCAL function • With 8 additional digital inputs/outputs • With serial interface for the automotive industry (AK) • With 8 digital inputs/outputs, PROFIBUS PA interface • With 8 digital inputs/outputs, PROFIBUS DP interface	0 1 3 6 7
Power supply 100 120 V AC, 47 63 Hz 200 240 V AC, 47 63 Hz	0 1
Operating software and documentation German English French Spanish Italian	0 1 2 3 4
Additional versions	Order code
Add "-Z" to Order No. and specify order code	
Flow-type reference cell with reduced flow, 6 mm	A20
Flow-type reference cell with reduced flow, 1/4"	A21
Telescopic rails (2 units)	A31
Set of Torx screwdrivers	A32
TAG labels (specific lettering based on customer information)	B03
Kalrez gaskets in sample gas path	B04
FM/CSA certificate – Class I Div 2	E20
Clean for O ₂ service (specially cleaned gas path)	Y02
Measuring range indication in plain text, if different from the standard setting	Y11
Special setting (only in conjunction with an application no., e.g. extended measuring range)	Y12
Extended special setting (only in conjunction with an application no., e.g. determination of cross-interferences)	Y13
TÜV version acc. to 13th and 17th BlmSchV	Y17
Retrofitting sets	Order No.
RS 485/Ethernet converter	A5E00852383
RS 485/RS 232 converter	C79451-Z1589-U1
RS 485 / USB converter	A5E00852382
AUTOCAL function with serial interface for the automotive industry (AK)	C79451-A3480-D512
AUTOCAL function with 8 digital inputs/outputs	C79451-A3480-D511
AUTOCAL function with 8 digital inputs/outputs and PROFIBUS PA	A5E00057307
AUTOCAL function with 8 digital inputs/outputs and PROFIBUS DP	A5E00057312

¹⁾ Only for cell length 20 to 180 mm

Selection and ordering data		Order No.	
ULTRAMAT 6 gas analyzer Two-channel 19" rack unit for installation in of for measuring 2 IR components	abinets	7MB2123-	Cannot be combined
Gas connections for sample gas and refere Pipe with 6 mm outer diameter Pipe with 1/4" outer diameter	ice gas	0 1	0 ——— A21, A41 1 ——— A20, A40
Channel 1 Measured component CO CO highly selective (with optical filter) CO (TÜV; see table "TÜV single component" CO ₂ CH ₄ C ₂ H ₂ C ₂ H ₄ C ₂ H ₆	Possible with measuring range identification 11 30 12 30 page 1/53) 10 30 13 30 15 30 15 30 14 30	A B X C D E F G	
C_3H_6 C_3H_8 C_4H_6 C_4H_{10} C_6H_{14} SO_2 (TÜV; see table "TÜV single component" page 1/53) NO (TÜV; see table "TÜV single component" page 1/53)	14 30 13 30 15 30 14 30 14 30	H J K L M N	
NH ₃ (dry) H ₂ O N ₂ O Smallest measuring range Largest measuring	14 30 17 20, 22 13 30 Measuring range	Q R S	Q R
range 0 5 vpm 0 100 vpm 0 10 vpm 0 200 vpm 0 20 vpm 0 400 vpm 0 50 vpm 0 1 000 vpm 0 100 vpm 0 1 000 vpm 0 300 vpm 0 3 000 vpm 0 500 vpm 0 5 000 vpm 0 3 000 vpm 0 10 000 vpm 0 3 000 vpm 0 15 000 vpm 0 5 000 vpm 0 15 000 vpm 0 5 000 vpm 0 15 000 vpm 0 1 % 0 10 % 0 3 % 0 10 % 0 3 % 0 10 % 0 5 % 0 15 % 0 10 % 0 30 % 0 10 % 0 30 % 0 10 % 0 30 % 0 10 % 0 100 % 0 30 % 0 100 % 0 30 % 0 100 % 0 30 % 0 100 % 0 30 % 0 100 % 0 30 % 0 100 % 0 30 % 0 100 % 0 30 % <td> Identification</td> <td>A B C D E F G H J K L M N P Q R S T U V W</td> <td></td>	Identification	A B C D E F G H J K L M N P Q R S T U V W	
Hose made of FKM Aluminum (Viton) Aluminum Pipe made of titanium Tantalum Tantalum	Non-flow-type Flow-type Non-flow-type Flow-type	0 1 4 5	0 0 → A20, A21, A40, A41 1 4 → A20, A21, A40, A41, Y02 5 → Y02
Stainless steel pipe Aluminum (mat. no. 1.4571) Tantalum	Non-flow-type Non-flow-type	6 8	6 — ➤ A20, A21, A40, A41 8 — ➤ A20, A21, A40, A41
With sample gas monitoring Hose made of FKM Aluminum (Viton) Aluminum 1) Only for cell length 20 to 180 mm	Non-flow-type Flow-type	2 3	2 2 — A20, A21, A40, A41 3

¹⁾ Only for cell length 20 to 180 mm

Selection and ordering data		Order No.		
ULTRAMAT 6 gas analy: Two-channel 19" rack uni for measuring 2 IR compo	t for installation in cabir	nets	7MB2123-	Cannot be combined
Add-on electronics				
Without			0	
AUTOCAL function				
With 8 additional digital			1	
With 8 additional digital With 9 additional digital			2	
With 8 additional digital With serial interface for		r channel 1 and channel 2	3 5	5 > E20
		r channel 1 and channel 2	6	3 2 220
and PROFIBUS PA inter	rface			
 With 8 additional digital and PROFIBUS DP inte 		r channel 1 and channel 2	7	
Power supply				
100 120 V AC, 48 63 200 240 V AC, 48 63			0	
) NZ	D 31 31 3	_	
Channel 2 Measured component		Possible with measuring range identification		
CO		11 30	A	
CO highly selective (with		12 30	В	
CO (TÜV; see table "TÜV	single component", pag		х	
CO ₂		10 30	C	
CH ₄		13 30 15 30	D E	
C_2H_2 C_2H_4		15 30	F	
C ₂ H ₆		14 30	G	
C ₃ H ₆		14 30	н	
C ₃ H ₈		13 30	J	
C_4H_6		15 30 14 30	K L	
C ₄ H ₁₀ C ₆ H ₁₄		14 30	M	
SO ₂ (TÜV; see table "TÜV page 1/53)	single component",	13 30	N	
NO (TÜV; see table "TÜV	single component",	14 20, 22	P	
page 1/53)		14 30	Q	Q Q
NH ₃ (dry) H ₂ O		17 20, 22	R	B
N ₂ O		13 30	s	
Smallest measuring range	e Largest measuring	Measuring range	-	
	range	identification		
0 5 vpm	0 100 vpm	10	A	
0 10 vpm	0 200 vpm	11	B C	
0 20 vpm 0 50 vpm	0 400 vpm 0 1 000 vpm	12 13	D	
0 100 vpm	0 1 000 vpm	14	E	
0 300 vpm	0 3 000 vpm	15	F	
0 500 vpm	0 5 000 vpm	16	G	
0 1 000 vpm	0 10 000 vpm	17	H	
0 3 000 vpm 0 3 000 vpm	0 10 000 vpm 0 30 000 vpm	18 19	J K	
0 5 000 vpm	0 15 000 vpm	20	Ë	
0 5 000 vpm	0 50 000 vpm	21	M	
0 1 %	0 3 %	22	N	
0 1 %	0 10 %	23	P	
0 3 %	0 10 %	24	Q	
0 3 %	0 30 %	25	R S	
0 5 % 0 5 %	0 15 % 0 50 %	26 27	5 T	
0 10 %	0 30 %	28	Ü	
0 10 %	0 100 %	29	V	
0 30 %	0 100 %	30	W	
Operating software and o	documentation			
German			0	
English			1	
French Spanish			2 3	
Italian			4	

Selection and ordering data Additional versions Order code Cannot be combined Add "-Z" to Order No. and specify order codes. Flow-type reference cell with reduced flow, 6 mm (channel 1) A20 Flow-type reference cell with reduced flow, 1/4" (channel 1) A21 Flow-type reference cell with reduced flow, 6 mm (channel 2) A40 Flow-type reference cell with reduced flow, 1/4" (channel 2) A41 Connection pipe (can only be combined with the appropriate gas connection diameter and internal gas path materials) A22 • Made of titanium, 6 mm, complete with screwed gland, for sample gas side • Made of titanium, 6 mm, complete with screwed gland, for reference gas side A23 A24 • Made of titanium, 1/4", complete with screwed gland, for sample gas side • Made of titanium, 1/4", complete with screwed gland, for reference gas side A25 Made of stainless steel (mat. no. 1.4571), 6 mm, complete with screwed gland, for sample gas side A27 A28 • Made of stainless steel (mat. no. 1.4571), 6 mm, complete with screwed gland, for reference gas side • Made of stainless steel (mat. no. 1.4571), 1/4", complete with screwed gland, for sample gas side A29 • Made of stainless steel (mat. no. 1.4571), 1/4", complete with screwed gland, for reference gas side A30 A31 Telescopic rails (2 units) Set of Torx screwdrivers A32 TAG labels (specific lettering based on customer information) **B03** Kalrez gaskets in sample gas path (channel 1) **B**04 Kalrez gaskets in sample gas path (channel 2) B05 E20 FM/CSA certificate - Class I Div 2 Clean for O₂ service (specially cleaned gas path; channels 1 + 2) Y02 Measuring range indication in plain text, if different from the standard setting Y11 Y12 Special setting (only in conjunction with an application no., e.g. extended measuring range) Extended special setting (only in conjunction with an application no., e.g. determination of Y13 cross-interferences) TÜV version acc. to 13th and 17th BlmSchV (1st channel) Y17 TÜV version acc. to 13th and 17th BlmSchV (2nd channel) Y18

Order No.

A5E00852383

A5E00852382

A5E00057307

A5E00057312

C79451-Z1589-U1

C79451-A3480-D33

C79451-A3480-D511

Retrofitting sets

RS 485/Ethernet converter

RS 485/RS 232 converter

AUTOCAL function with serial interface for the automotive industry (AK)

AUTOCAL function with 8 digital inputs/outputs for channel 1 or channel 2

AUTOCAL function with 8 digital inputs/outputs and PROFIBUS PA for channel 1 or channel 2

AUTOCAL function with 8 digital inputs/outputs and PROFIBUS DP for channel 1 or channel 2

RS 485 / USB converter

	Order No.
ULTRAMAT 6 gas analyzer Single-channel or dual-channel 19" rack unit for installation in cabin for measuring 2 or 3 IR components	7MB2124- Cannot be combined nets
Gas connections for sample gas and reference gas Pipe with 6 mm outer diameter Pipe with ¼" outer diameter	0
Measured component Smallest measuring Largest measuring range	range
CO 0 100 vpm 0 1 000 vpm NO 0 100 vpm 0 1 000 vpm	A A
CO 0 300 vpm 0 3 000 vpm NO 0 300 vpm 0 3 000 vpm	АВ
CO 0 1 000 vpm 0 10 000 vpm NO 0 1 000 vpm 0 10 000 vpm	A C
For CO/NO (TÜV; table "TÜV, 2 components in series", page 1/76)	
CO ₂ 0 100 vpm 0 1 000 vpm CO 0 100 vpm 0 1 000 vpm	B A
CO ₂ 0 300 vpm 0 3 000 vpm CO 0 300 vpm 0 3 000 vpm	ВВ
CO ₂ 0 1 000 vpm 0 10 000 vpm CO 0 1 000 vpm 0 10 000 vpm	ВС
CO ₂ 0 3 000 vpm 0 30 000 vpm CO 0 3 000 vpm 0 30 000 vpm	B D
CO ₂ 0 1 % 0 10 % CO 0 1 % 0 10 %	B E
CO ₂ 0 3 % 0 30 % CO 0 3 % 0 30 %	B F
CO ₂ 0 10 % 0 100 % CO 0 100 %	B G
CO ₂ 0 10 % 0 100 % CH ₄ 0 10 % 0 100 %	C G
CO ₂ 0 300 vpm 0 3 000 vpm NO 0 300 vpm 0 3 000 vpm	D B
Internal gas paths Sample chamber 1) Reference chamber (flow type)	o <u>r</u>
(lining) (flow-type) Hose made of FKM Aluminum Non-flow-type (Viton) Aluminum Flow-type	0 0 0 —→ A20, A21, A40, A41 1 1
Pipe made of titanium Tantalum Non-flow-type Tantalum Flow-type	4
Stainless steel pipe Aluminum Non-flow-type (mat. no. 1.4571) Tantalum Non-flow-type	6
With sample gas monitoring	
Hose made of FKM Aluminum Non-flow-type (Viton) Aluminum Flow-type	2 2 2 → A20, A21, A40, A41 3
Add-on electronics Without	0
AUTOCAL function	
 With 8 additional digital inputs/outputs each for channel 1 With 8 additional digital inputs/outputs each for channel 1 and ch 	nannel 2 2 2
With serial interface for the automotive industry (AK), channel 1 With serial interface for the automotive industry (AK),	3 → E20 4 4 → E20
channel 1 and channel 2 • With 8 additional digital inputs/outputs for channel 1	5
 and PROFIBUS PA interface With 8 additional digital inputs/outputs each for channel 1 and chand PROFIBUS PA interface 	nannel 2 6 6
 With 8 additional digital inputs/outputs for channel 1 and PROFIBUS DP interface 	7
With 8 additional digital inputs/outputs each for channel 1 and chand PROFIBUS DP interface 1) Only for cell length 20 to 180 mm.	nannel 2 8 8 1

¹⁾ Only for cell length 20 to 180 mm

Selection and ordering data		Order No.		
ULTRAMAT 6 gas analyzer Single-channel or dual-channel 19" rack unit for installation in cabinets for measuring 2 or 3 IR components		7MB2124-	Cannot be combined	
Power supply 100 120 V AC, 47 63 Hz 200 240 V AC, 47 63 Hz		0		
		Possible with measuring range identification	w	W
CO		11 30	A	
CO highly selective		12 30	В	
* '	TÜV single component", p	9	X	
CO ₂		10 30	C	
CH ₄		13 30	D	
C_2H_2		15 30	E	
C_2H_4		15 30	F G	
C_2H_6		14 30 14 30	H	
C ₃ H ₆		13 30	J	
C ₃ H ₈		15 30	K	
C ₄ H ₆ C ₄ H ₁₀		14 30	L	
C ₆ H ₁₄		14 30	M	
SO ₂ (TÜV; see table page 1/53)	"TÜV single component",	13 30	N	
page 1/53)	TÜV single component",	14 20, 22	P	
NH ₃ (dry)		14 30	Q	Q
H ₂ O		17 20, 22	R	R
N ₂ O		13 30	S	
Smallest measuring	Largest measuring	Measuring range		
range	range	identification	, and the second	V 440 444 B05
Without channel 2			X	X —→ A40, A41, B05
0 5 vpm	0 100 vpm	10	A	
0 10 vpm	0 200 vpm	11	В	
0 20 vpm	0 400 vpm	12	C	
0 50 vpm	0 1 000 vpm	13	D	
0 100 vpm	0 1 000 vpm	14	E	
0 300 vpm 0 500 vpm	0 3 000 vpm	15	F	
	0 5 000 vpm	16 17	G	
0 1 000 vpm 0 3 000 vpm	0 10 000 vpm 0 10 000 vpm	18	H	
0 3 000 vpm	0 30 000 vpm	19	K	
0 5 000 vpm	0 15 000 vpm	20	Î.	
0 5 000 vpm	0 50 000 vpm	21	M	
0 1 %	0 3 %	22	N	
0 1 %	0 3 %	23	n P	
0 3 %	0 10 %	24	Q	
0 3 %	0 30 %	25	R	
0 5 %	0 15 %	26	S	
0 5 %	0 50 %	27	T	
0 10 %	0 30 %	28	Ü	
0 10 %	0 100 %	29	v	
0 30 %	0 100 %	30	w	
Operating software a				
German			0	
English			1	
French			2	
Spanish			3	
Italian			4	

Selection and ordering data		
Additional versions	Order code	Cannot be combined
Add "-Z" to Order No. and specify order codes.		
Flow-type reference cell with reduced flow, 6 mm (channel 1)	A20	
Flow-type reference cell with reduced flow, 1/4" (channel 1)	A21	
Flow-type reference cell with reduced flow, 6 mm (channel 2)	A40	
Flow-type reference cell with reduced flow, 1/4" (channel 2)	A41	
Connection pipe (can only be combined with the appropriate gas connection diameter and internal gas path materials)		
• Made of titanium, 6 mm, complete with screwed gland, for sample gas side	A22	
• Made of titanium, 6 mm, complete with screwed gland, for reference gas side	A23	
• Made of titanium, 1/4", complete with screwed gland, for sample gas side	A24	
• Made of titanium, 1/4", complete with screwed gland, for reference gas side	A25	
• Made of stainless steel (mat. no. 1.4571), 6 mm, complete with screwed gland, for sample gas side	A27	
• Made of stainless steel (mat. no. 1.4571), 6 mm, complete with screwed gland, for reference gas side	A28	
• Made of stainless steel (mat. no. 1.4571), 1/4", complete with screwed gland, for sample gas side	A29	
• Made of stainless steel (mat. no. 1.4571), 1/4", complete with screwed gland, for reference gas side	A30	
Telescopic rails (2 units)	A31	
Set of Torx screwdrivers	A32	
TAG labels (specific lettering based on customer information)	B03	
Kalrez gaskets in sample gas path (channel 1)	B04	
Kalrez gaskets in sample gas path (channel 2)	B05	
FM/CSA certificate – Class I Div 2	E20	
Clean for O_2 service (specially cleaned gas path; channels 1 + 2)	Y02	
Measuring range indication in plain text, if different from the standard setting	Y11	
Special setting (only in conjunction with an application no., e.g. extended measuring range)	Y12	
Extended special setting (only in conjunction with an application no., e.g. determination of cross-interferences)	Y13	
TÜV version acc. to 13th and 17th BlmSchV (channel 1)	Y17	
TÜV version acc. to 13th and 17th BlmSchV (channel 2)	Y18	
Retrofitting sets	Order No.	
RS 485/Ethernet converter	A5E00852383	
RS 485/RS 232 converter	C79451-Z1589-U1	
RS 485 / USB converter	A5E00852382	
AUTOCAL function with serial interface for the automotive industry (AK)	C79451-A3480-D33	
AUTOCAL function with 8 digital inputs/outputs for channel 1 or channel 2	C79451-A3480-D511	
AUTOCAL function with 8 digital inputs/outputs and PROFIBUS PA for channel 1 or channel 2	A5E00057307	

A5E00057312

AUTOCAL function with 8 digital inputs/outputs and PROFIBUS DP for channel 1 or channel 2