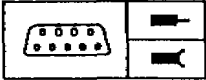




# ELECTRONIC THROTTLE CONTROL (EML 12-CYLINDER)



## Pin Assignments

### X6004

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
1	A	5 V (not short-circuit-proof)	PWG switch	approx. 5 V	None	
2	M	Ground (electronic ground)	Component ground PWG			
3		Not used				
4	E	DK angle reduction (DKR)	ASC control unit	Square-wave signal	Defect code is stored	◆ M ◆14 approx. 100 Hz
5	A	Full load signal	DME control unit 1...6. cylinder	approx. 0 V open	ON OFF	
6	A	Idle signal	DME control unit 1...6. cylinder	approx. 0 V open	ON OFF	
7	E	PWG position	PWG potentiometer	approx. 0,4 V to 4 V	Angle	
8	E	Road speed signal	EKM control unit	Square-wave signal	None	◆ M ◆14
9	A	5 V (not short-circuit-proof)	PWG potentiometer	approx. 5 V	None	
10	M	Ground (electronic ground)	Component ground DK - 7...12. cylinder			
11	A	5 V (not-short-circuit-proof)	DK potentiometer DK 7...12. cylinder	approx. 5 V	None	
12	A	5 V (not-short-circuit-proof)	DK potentiometer DK 1...6. cylinder	approx. 5 V	None	



## ELECTRONIC THROTTLE CONTROL (EML 12-CYLINDER)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
13	E	Diagnosis	Diagnostic socket RxD			
14	M	Ground (Output ground)	Output ground DK 1...6. cylinder			
15	A	EML warning lamp	Instrument cluster	approx. 0 V	ON	*) With ignition switched off
*)	E	Voltage supply for defect code memory		approx. 12 V	None	
16	A	Drive throttle (DK) actuator	DK actuator DK - 7...12. cylinder	Square-wave signal		Defect code is stored
17	A	Drive throttle (DK) actuator	DK actuator DK 1...6. cylinder	Square-wave signal		Defect code is stored
18	E	Voltage supply (+)	DME main relay 2 7...12. cylinder	On-board voltage	None	
19	M	Ground	Ground point			
20	A	Kick-down signal	EGS control unit	approx. 0 V approx. 12 V	ON OFF	
21		Not used				
22	E	DK angle increase (DKE)	ASC control unit	Square-wave signal		Defect code is stored ♦ M ♦ 14 approx. 100 Hz
23	A	DK angle signal (DKV)	ASC/EGS	Square-wave signal		Defect code is stored ♦ M ♦ 14 approx. 100 Hz
24		Not used				
25		Not used				
26	M	Ground (electronic ground)	Component ground DK 1...6. cylinder			
27	E	Throttle position	DK potentiometer DK 1...6. cylinder	approx. 4,6 V to 1 V	Angle	



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Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
28	E	Throttle position	DK potentiometer DK 7...12. cylinder	approx. 4,6 V to 1 V	Angle	
29		Not used				
30	M	Ground (output ground)	Output ground DK - 7...12. cylinder			
31	M	Ground (electronic ground)	Water temperature sensor			
32	A	Idle signal	DME control unit 7...12. cylinder	approx. 0 V open	ON OFF	
33	A	Full load signal	DME control unit 7...12. cylinder	approx. 0 V open	ON OFF	
34	A	Drive throttle (DK) actuator	DK actuator DK 7...12. cylinder	Square-wave signal	Defect code is stored	
35	A	Drive throttle (DK) actuator	DK actuator DK 1...6. cylinder	Square-wave signal	Defect code is stored	
36	E	Voltage supply (+)	DME main relay 2 7...12. cylinder	On-board voltage	None	
37	E	Voltage supply (+)	DME main relay 2 7...12. cylinder	On-board voltage	None	
38	E	Throttle 170 switch	DK switch DK 1...6. cylinder	approx. 5 V open	ON OFF	
39		Not used				
40	E	Throttle 170 switch	DK switch DK - 7...12. cylinder	approx. 5 V open	ON OFF	
41	E	A/C compressor ON	Lock sensor	On-board voltage open	ON OFF	



## ELECTRONIC THROTTLE CONTROL (EML 12-CYLINDER)

Pin	Type	Description/Function	Connection	Type of Signal	Tester Display	Measurement Notes
42	E	P and N identifier (EGS)	Gear selector lever switch	approx. 12 V open	ON OFF	
43	E/A	FGR identifier	Cruise control switch	approx. 0 V to 5 V	Detected position	
44	E	A/C status signal	A/C relay/DME	approx. 12 V open	ON OFF	
45	E/A	Engine-coolant temperature	TMot EML sensor	approx. 0 V to 5 V	°C	
46	E	PWG > 9° switch	PWG switch	approx. 5 V open	ON OFF	
47	E	Engine speed signal (TD)	DME control unit 1...6. cylinder	Square-wave signal	None	
48		Not used				
49	E	Injection signal (ti)	DME control unit 1...6. cylinder	Square-wave signal	Defect code is stored	
50	E	Injection signal (ti)	DME control unit 7...12. cylinder	Square-wave signal	Defect code is stored	
51		Not used				
52	E	S-program identifier (EGS)	EGS control unit	ca. 0 V open	ON OFF	
53	E	Brake pedal position	Brake light switch	approx. 12 V open	ON OFF	
54	E	Clutch pedal position	Clutch switch			
55	E/A	Diagnosis	Diagnostic socket TxD			

E = Input, A = Output, M = Ground