

Tufmon® MEV 281 Engine Protection System

Dr. E. Horn GmbH launches a new product commonly known as TUFMON®. This is a compact Engine protection system for trunk-piston engines based on the direct measurement of:



engine fuel rack position
engine crankcase pressure
engine speed
oil mist concentration

The data are combined and evaluated by a programme which was developed in close cooperation with engine manufacturers on their test beds under realistic conditions.

Due to the integration of the crankcase pressure and oil mist concentration measuring sensors in the natural flow of the crankcase atmosphere nearly laminar flow conditions and acceptable reaction times. No influence by the compressor effect of the lower piston sides. No extra piping required, easy installation.

CAN connection for Can Open according to ISO 11898 available
Profibus DP - slave upon request
type approval certificates by GL, RINA, ABS, DNV BV and LR

Technical Data

Standard Data:

Power Supply:	24 V DC \pm 25 %
Power Consumption	25 W
Operating Temperature	0 °C + 70 °C
Storage Temperature	-10 °C ... + 80 °C
Enclosure acc. DIN 40050:	analyzer IP 54, speed - fuel rack - and optical sensors IP 67 supply box and connectors IP 64
Connection cross section:	connectors up to max. 1mm ²
Housing material:	tube element steel, analyzer and supply box aluminum, sensors stainless steel
Weight:	(approx. kg) analyzer 1,3, supply box 0.9, speed sensor 0.5, fuel rack sensor 0.6, tube element depending on size between 13 to 25
EMC - standard:	generics no. 50 081-1 and 50 082-2 safety rules acc. DIN 61010 rules for
Display:	
Type	7 segment LED
Height of digits	14 mm
Colour:	red
Number of digits	5 digits
Speed Sensor:	
Speed sensor inputs:	1 (magnetic inductive)
Input frequency range:	0 ... 10 KHz
Outputs:	
Analogue output:	current 4 .. 20 mA burden \leq 500 Ω
Resolution:	PWM/Current conversion with 10000 steps
Linearity:	\leq \pm 0.25 % of final value
Reaction time:	approx. 300 ms
Design:	galvanic isolated
Relay outputs type:	NO/NC free programmable
Max. breaking capacity	60 W, 125 VA
Max. turn-on voltage	220 V DC, 250 V AC
Max. switch current:	2 A DC/AC
Max. operating current:	3 A DC/AC
Min. switch cycles:	10 ⁶

Anzeige:

Art: 7-Segment, LED
 Ziffernhöhe: 14 mm
 Farbe: rot
 Digit-Anzahl: 5 Stellen

Drehzahlaufnehmer:

Drehzahlsensoreingänge: 1 (magnetisch-induktiv)
 Eingangsfrequenzbereich: 0...10 kHz

Ausgänge:

Analoger Ausgang: Strom 4...20 mA, Bürde $\leq 500 \Omega$
 Auflösung: PWM/Stromumwandlung in 10000 Schritten
 Linearität: $\leq \pm 0,25 \%$ des Endwertes
 Reaktionszeit: ca. 300 ms
 Ausführung: galvanisch getrennt
 Relais-Ausgänge Typ: Schließer- oder Öffnerfunktion frei programmierbar
 Max. Schaltleistung: 60 W, 125 VA
 Max. Schaltspannung: 220 V DC, 250 V AC
 Max. Schaltstrom: 2 A DC/AC
 Max. Betriebsstrom: 3 A DC/AC
 Min. Schaltzyklen: 10^6
 Kontaktmaterial: goldbeschichtete Silberkontakte

Display:

Type: 7-segment, LED
 Height of digits: 14 mm
 Colour: red
 Number of digits: 5 digits

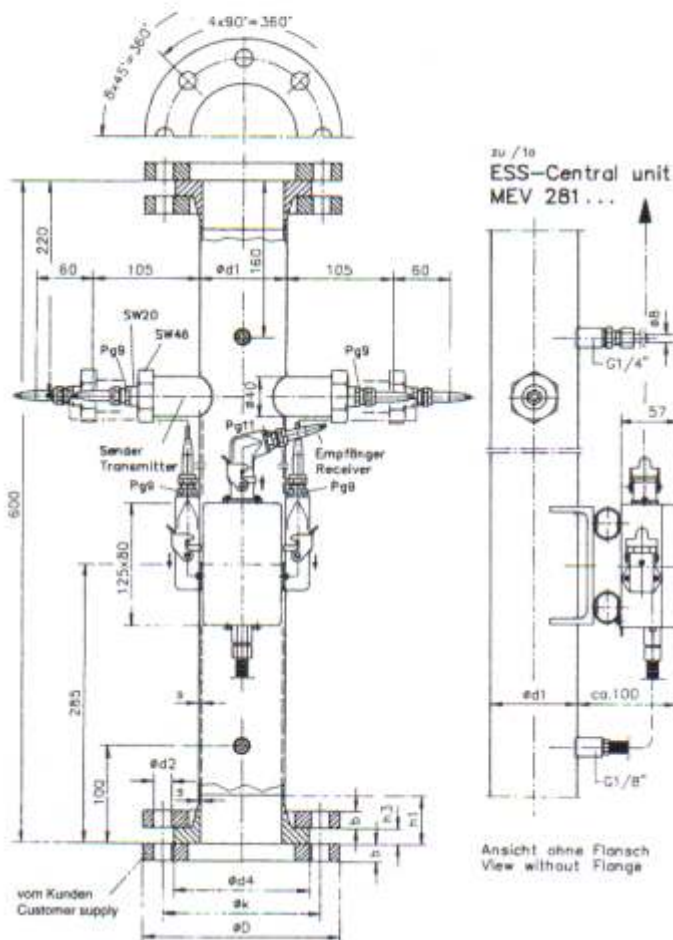
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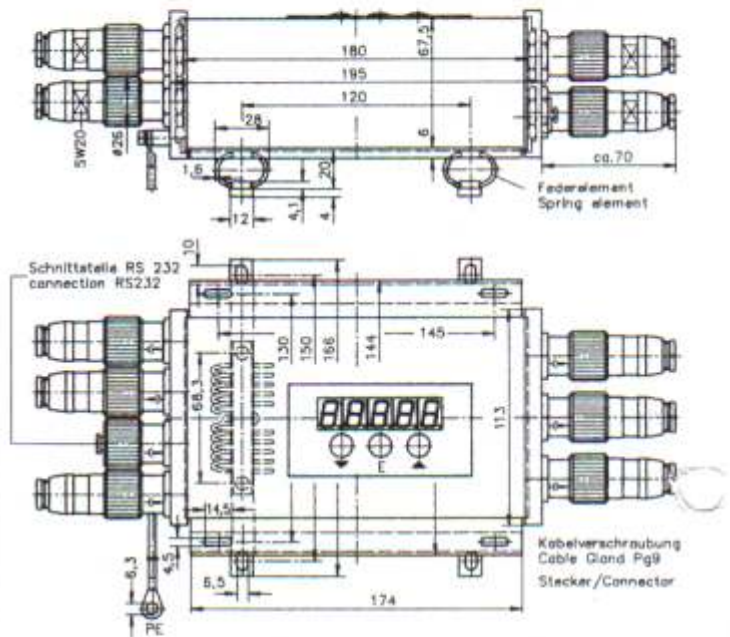
Outputs:

Analogue output: current 4...20 mA burden $\leq 500 \Omega$
 Resolution: PWM/Current conversion with 10000 steps
 Linearity: $\leq \pm 0,25 \%$ of final value
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 Design: galvanic isolated
 Relay outputs type: NO/NC free programmable
 Max. breaking capacity: 60 W, 125 VA
 Max. turn-on voltage: 220 V DC, 250 V AC
 Max. switch current: 2 A DC/AC
 Max. operating current: 3 A DC/AC
 Min. switch cycles: 10^6
 Contact material: goldplated silver contacts

Maße:
TGL0072.



Dimensions:
MEV 281...



TGL00726	200	219,1	5,9	340	20	295			268	55	20	
TGL00725	150	168,3	4,5	285	18	240		M20	23	212	50	18
TGL00724	125	139,7	4,0	250	18	210				188	50	18
TGL00723	100	114,3	3,6	220	18	180	B			158	50	16
TGL00722	80	88,9	3,2	200	18	160				136	50	16
TGL00721	85	76,1	2,9	185	16	145	4	M16	16	122	45	14
	NW	#d1	s	#D	b	#k	An-zahl	Ge-winde	#d2	#d4	h1	h3
Typ	Rohr	Tube	Flansch	Flange	Schrauben	Screws	Bund	Ring				