

# Technical specifications: ZD22 / ZD22 D



<b>Measuring principle</b>	Zirconium dioxide (ZD)	
<b>Measuring gas supply</b>	Diffusion	
<b>Measuring range and measuring gas</b>	sensor dependent	
<b>Update time</b>	1s	
<b>Readiness delay</b>	5s plus 120-180s sensor run-in phase (heating-up)	
<b>Power supply</b>	Operating voltage:	24V DC (12-30V DC allowable)
	Power consumption	<u>RS485 and 0,2-1mA version</u> <u>4-20mA version</u>
	without display *1:	typ. 110/145/175mA @24V/18V/15V                      max. 132/167/197mA @24V/18V/15V
	with display *1:	typ. 115/155/185mA @24V/18V/15V                      max. 137/177/207mA @24V/18V/15V
	with display + horn *1:	max. 120/165/200mA @24V/18V/15V                      max. 142/187/222mA @24V/18V/15V
	without display *2:	typ. 120/155/190mA @24V/18V/15V                      max. 142/177/212mA @24V/18V/15V
	with display *2:	typ. 125/165/200mA @24V/18V/15V                      max. 147/187/222mA @24V/18V/15V
	with display + horn *2:	max. 130/170/210mA @24V/18V/15V                      max. 152/192/232mA @24V/18V/15V
	Fuses:	250mA (not changeable)
<b>Climatic conditions</b>	Short-term storage temperature:	-25...+60°C (sensor dependent)
	Recommended storage temperature:	0...+30°C (sensor dependent)
	Operating temperature:	-20...+50°C (sensor dependent)
	Humidity:	5...95% r.h. (sensor dependent)
	Air pressure:	80...120kPa (sensor dependent)
<b>Display &amp; controls</b>	Status-LEDs:	green for operation and yellow for fault or service
	Display:	2,2" graphic display
	Buttons:	3 function buttons (display version only)
	AutoCal button:	for ZERO and SPAN adjustment (inboard)
	Potentiometer:	for ZERO and SPAN adjustment (inboard)
<b>Service connector</b>	Design:	3,5 mm stereo jack socket (internal)
	Analogue output:	0,2-1,0V corresponding to 0-100% MR for sensor calibration
	Digital input:	for configuration and firmware update
<b>Signal output</b>	analogue:	4-20mA (max. load: 400 Ω/650 Ω/150 Ω @24 V/18 V/12 V supply) 0,2-1mA (max. load: 14K/9K3/4K5 @ 24 V/18 V/12 V supply)
	or digital:	RS-485; Half duplex; 9600/19200/38400 Baud; Modbus protocol, Slide switch for 120 Ω terminating resistor
<b>Connection Cable</b>	Cable glands:	1 or 2 glands M16x1,5 (for cable diameter 4,5-10 mm)
	Connection terminals:	4 double terminals (0,08 mm <sup>2</sup> to 2,5 mm <sup>2</sup> conductor cross-section)
	Cable (analogue):	3-core e.g. LiYY 3x0,75...1,5 mm <sup>2</sup> or LiYCY
	Cable (digital):	4-core e.g. LiYY 4x0,75...1,5 mm <sup>2</sup> or cable Y(St)Y 2x2x0,8 *3
<b>Housing</b>	Protection class:	IP54
	Material:	Plastic
	Dimensions:	96 x 140 x 49 mm (W x H x D) with sensor
	Weight:	175g bzw. 220g (display version)
<b>Approvals / Tests</b>	Electromagnetic compatibility:	DIN EN 50270:2006                      Interference emission: Type class I Interference immunity: Type class II

to \*1: For low-power sensors MK442 and MK413

to \*2: For high-power sensors MK435, MK410 and MK395

to \*3: Bus line cable Y(St)Y 2x2x0,8 is only suitable for supplying several bus transmitters with power using the same cable via short cabling distances. The possible distance depends on the quantity and local distribution of the transmitters on the bus cable.