



Dräger Polytron 8200/8310

Instructions for use



WARNING

Strictly follow the Instructions for Use.
The user must fully understand and strictly observe the instructions. Use the product only for the purposes specified in the Intended use section of this document.



12 Technical data



CAUTION

Specifications and restrictions in the Instructions for Use and/or data sheets for the sensors used must be observed. For SIL applications the Dräger Polytron 8X00 Safety Manual must be observed.

The measuring range and performance characteristics are dependent on the sensor installed, see the Instructions for Use and/or data sheets for the sensors used.

Signal transmission to the central controller

Analog

Output current	4 mA to 20 mA
Drift below zero-point	3.8 mA to 4 mA
Measuring range exceeded	20 mA to 20.5 mA
Device malfunction	≤1.2 mA
Fault on analog output	>21 mA
Maintenance signal	3.4 mA constant signal or 1 Hz modulation between 3 and 5 mA (selectable)

Supply voltage

Operating voltage	3-wire shielded cable, 10 to 30 V DC
Inrush current	2.5 A for 0.8 ms at 24 V DC, 10 Ω conductor resistance
Operating current (max.)	
with DrägerSensor Ex DD	105 mA at 24 V DC, no relay, sensor not remote 145 mA at 24 V DC, with relay, remote sensor
with DrägerSensor Ex LC	130 mA at 24 V DC, no relay, sensor not remote 165 mA at 24 V DC, with relay, remote sensor
with DrägerSensor IR	145 mA at 24 V DC, no relay, sensor not remote 185 mA at 24 V DC, with relay, remote sensor
Relay design (optional)	SPDT, 5 A at 230 V AC, 5 A at 30 V DC, resistive load For safety-related applications (SIL2), the maximum contact rating is reduced (see also the Dräger Polytron 8X00 Safety Manual).

Housing

NEMA 4X

Protection Class

IP 65/66/67

Dimensions (LxWxD)

Without e-Box (DrägerSensor LC, DD)	approx. 180 x 150 x 130 mm (7" x 5.8" x 5.1")
With e-Box (DrägerSensor LC, DD)	approx. 185 x 180 x 190 mm (7.3" x 7.1" x 7.4")
Without e-Box (DrägerSensor IR)	approx. 295 x 150 x 130 mm (11.6" x 5.8" x 5.1")
With e-Box (DrägerSensor IR)	approx. 300 x 180 x 190 mm (11.9" x 7.1" x 7.4")

Weight

Without e-Box, aluminum	approx. 2.2 kg (4.9 lbs.)
Without e-Box, stainless steel 316	approx. 4.0 kg (8.8 lbs.)
With e-Box, aluminum	approx. 3.5 kg (7.7 lbs.)
With e-Box, stainless steel 316	approx. 5.4 kg (11.9 lbs.)

Display

Resolution 128 x 64, back-lit

13 Order list

13.1 Dräger Polytron 8200/83X0

Name and description	Order Number
Dräger Polytron 8200 DD d A 4-20/HART	45 44 439
Dräger Polytron 8200 DD d A 4-20/HART Relay	45 44 440
Dräger Polytron 8200 DD d S 4-20/HART	45 44 448
Dräger Polytron 8200 DD d S 4-20/HART Relay	45 44 449
Dräger Polytron 8200 DD e A 4-20/HART	45 44 457
Dräger Polytron 8200 DD e A 4-20/HART Relay	45 44 458
Dräger Polytron 8200 DD e S 4-20/HART	45 44 466
Dräger Polytron 8200 DD e S 4-20/HART Relay	45 44 467
Dräger Polytron 8200 Remote DD e A 4-20/HART	45 44 511
Dräger Polytron 8200 Remote DD e A 4-20/HART Relay	45 44 512
Dräger Polytron 8200 Remote DD e S 4-20/HART	45 44 520
Dräger Polytron 8200 Remote DD e S 4-20/HART Relay	45 44 521
Dräger Polytron 8200 LC d A 4-20/HART	45 44 475
Dräger Polytron 8200 LC d A 4-20/HART Relay	45 44 476
Dräger Polytron 8200 LC d S 4-20/HART	45 44 484
Dräger Polytron 8200 LC d S 4-20/HART Relay	45 44 485
Dräger Polytron 8200 LC e A 4-20/HART	45 44 493
Dräger Polytron 8200 LC e A 4-20/HART Relay	45 44 494
Dräger Polytron 8200 LC e S 4-20/HART	45 44 502
Dräger Polytron 8200 LC e S 4-20/HART Relay	45 44 503
Dräger Polytron 8200 Remote e A 4-20/HART	45 44 529
Dräger Polytron 8200 Remote LC e A 4-20/HART Relay	45 44 530
Dräger Polytron 8200 Remote LC e S 4-20/HART	45 44 538
Dräger Polytron 8200 Remote LC e S 4-20/HART Relay	45 44 539
Dräger Polytron 8310 d A 4-20/HART	45 44 807
Dräger Polytron 8310 d A 4-20/HART Relay	45 44 808
Dräger Polytron 8310 d S 4-20/HART	45 44 816
Dräger Polytron 8310 d S 4-20/HART Relay	45 44 817
Dräger Polytron 8310 e A 4-20/HART	45 44 825
Dräger Polytron 8310 e A 4-20/HART Relay	45 44 826
Dräger Polytron 8310 e S 4-20/HART	45 44 834
Dräger Polytron 8310 e S 4-20/HART Relay	45 44 835
Dräger Polytron 8310 Remote e A 4-20/HART	45 44 843

Name and description	Order Number
Dräger Polytron 8310 Remote e A 4-20/HART Relay	45 44 844
Dräger Polytron 8310 Remote e S 4-20/HART	45 44 852
Dräger Polytron 8310 Remote e S 4-20/HART Relay	45 44 853
e-Box standard version (power only)	68 12 420
e-Box power / relay / remote version (with 2 cable glands)	68 12 275

13.2 Sensors for remote versions



NOTICE

The sensors are not included with the remote versions.

Name and description	Order Number
For Polytron 8200 DD remote e	
Sensing head, Polytron SE Ex PR M1 DD	68 12 711
Sensing head, Polytron SE Ex PR M2 DD	68 12 710
Sensing head, Polytron SE Ex PR M3 DD	68 12 718
Sensing head, Polytron SE Ex HT M DD	68 12 720
For Polytron 8200 LC remote e	
Sensing head, Polytron SE Ex LC M1 DD	68 12 722
Sensing head, Polytron SE Ex LC M2 DD	68 12 721
Sensing head, Polytron SE Ex LC M3 DD	68 12 719
For Polytron 8310 remote e	
Sensing head, DrägerSensor IR, complete set e	68 11 165
Sensing head, DrägerSensor IR, complete set e2	68 11 265

13.3 Replacement sensors (except for remote versions)

Name and description	Order Number
DrägerSensor Ex DD NPT	68 12 380
DrägerSensor Ex LC NPT	68 10 675
DrägerSensor IR NPT	68 11 901