DURAG GROUP

D-LX 201
Compact flame monitor

Optical flame monitoring in complex multi-burner plants

- Wide dynamic range of five orders of magnitude
- Fully certified to EN 61508 1–7 up to SIL 3
- Real-time analysis of flame stability

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Features

- **Very large temperature range**
  Deployable without change, certified and without need of accessories for isolation, heating or cooling
- **Wide dynamic range**
  Automatic gain adjustment to brightness of flame
- **Consistently two-channel**
  Highest security with simultaneous high availability
- **Ideal support for Functional Safety**
  Safety chains in high demand mode or low demand mode up to SIL 3
- **Extensive certifications**
- **Local display**
  Operational status, settings and flame intensity visible at a single glance, for entire temperature range and all variants
- **Real-time information flame stability**
  Optional continuous qualification of flame stability during operation

Benefits

- **Safe process control**
  Even with strong and fast load changes of firing system the process can be safely managed with flame stability analysis, timely reactions are possible
- **Increased load and fuel flexibility**
  Excellent selective monitoring and stability information allows operation of plant in less stable regimes
- **Protection against unscheduled burner shutdown**
  Burner-specific information on stability allows decisions on preventive maintenance of burners
- **Meeting special requirements**
  Flexible default pre-settings for different combustion situations and fuels
- **Same technology for the most variable application conditions**
  Same product family can be used for most different geographical regions and based on varying systems of standards

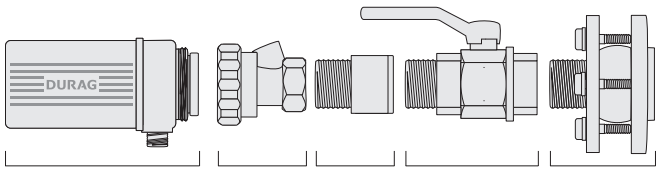
Technical data

Spectral sensitivity	UAF: 280 … 410 nm UA: 190 … 520 nm IG: 780 … 1800 nm
Operating mode	Intermittent and continous operation
Functional Safety	Self-monitoring and fail-safe, supports safety chains up to SIL 3 (high demand mode/low demand mode)
Switching thresholds	Flame intensity and flicker frequency
Local display	LEDs, always visible at a single glance for all versions; display flame intensity via flash frequency
Flame failure detection time (FFDT)	1, 2, 3, 5 s (separately adjustable for each Range)
Flame ON/OFF contact	Normally open: active when flame ON
Ready-for-operation contact	Normally open: active when no error
Switching capacity	Relay contacts: Max. 24 V⎓, 0.5 A
Analogue output	0/4 … 20 mA (configurable), output signal selectable Load max. 750 Ohm
Opening angle	6°
Real-time information	Flame stability analysis (optional)

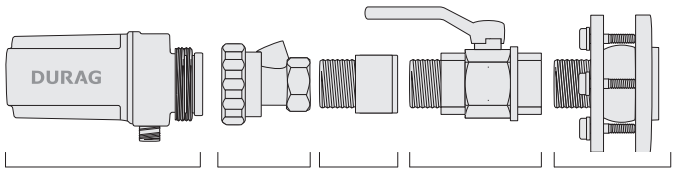
Electrical data	24 V⎓, 5 W, PELV
Ambient conditions	–40 … +85 °C
Degree of protection	IP66/IP68, NEMA 4X IP65, NEMA 4X (/MP3) IP66, NEMA 4X (Ex versions)
Connections	Sight tube G 1¼" or NPT 1¼", F Purge air G ½" or NPT ½", F
Dimensions	Housing P2 80 x 80 x 250 mm Housing M5 100 x 100 x 260 mm Housing M4 Ø 120 mm, length approx. 310 mm
Weight	Housing (without cable) P2 approx. 0.9 kg M5 approx. 1.2 kg M4 approx. 2.8 kg

Explosion protection	**D-LX 201/721 ../M4/84Ex** II 2G Ex db IIC T6 or T5 Gb II 2D Ex tb IIIC T85 °C or T100 °C Db
	D-LX 201/721 ../M4/85Ex Cl. I, Div. 1, Gr. A, B, C, D T6/T5 Cl. II, Div. 1, Gr. E, F, G T6/T5; Cl. III
	D-LX 201/721 ../M5/86Ex Cl. I, Div. 2, Gr. A, B, C, D T6/T4 Cl. II, Div. 2, Gr. E, F, G T6/T4; Cl. III
	D-LX 201/721 ../M5/87Ex II 3G Ex nA nC IIC T6 or T4 Gc II 3D Ex tc IIIC T85 °C or T135 °C Dc

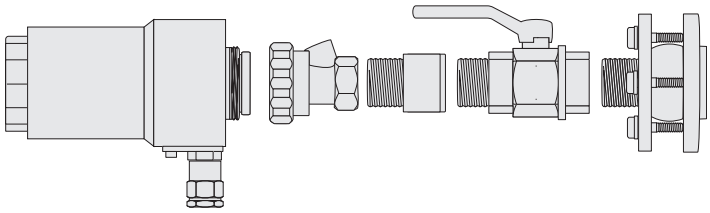
D-LX 201 COMPACT FLAME MONITOR FOR DIRECT VIEW | CONFIGURATION OF ACCESSORIES FOR MOUNTING



D-LX 201 (housing P2) | Purge air flange | Heat/ potential insulator D-ZS 117 (optional) | Ball valve D-ZS 133 (optional) | Swivel mount D-ZS 033 (optional)

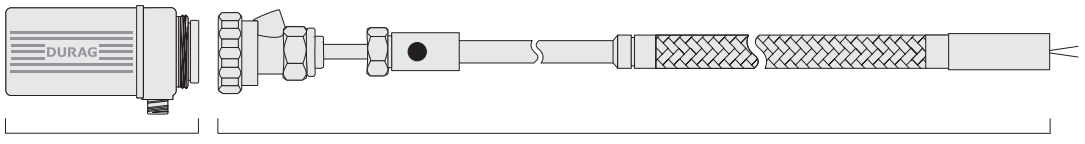


D-LX 201 (housing M5) | Purge air flange | Heat/ potential insulator D-ZS 117 (optional) | Ball valve D-ZS 133 (optional) | Swivel mount D-ZS 033 (optional)

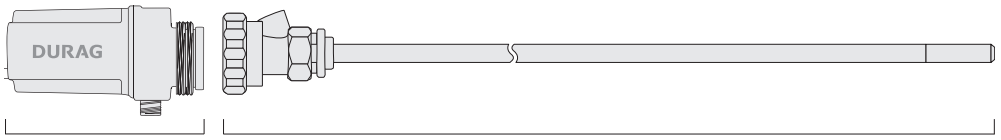


D-LX 201 (housing M4) | Purge air flange | Heat/ potential insulator D-ZS 117 (optional) | Ball valve D-ZS 133 (optional) | Swivel mount D-ZS 033 (optional)

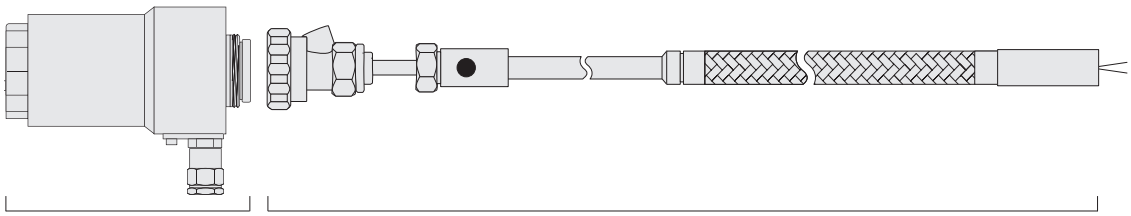
D-LX 721 COMPACT FLAME MONITOR | USE WITH FIBRE OPTIC SYSTEM



D-LX 721 (housing P2) | Fibre optic system, example shows D-LL 703



D-LX 721 (housing M5) | Fibre optic system, example shows D-LL 704



D-LX 721 (housing M4) | Fibre optic system, example shows D-LL 703

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