









[Ex] light fitting (with stainless steel housing)
Product series nanoEx (LED)



 **700 Lm**
  **IP 66/68**
  **+60°C**
  **ATEX/ IECEx**

 **MADE IN SWITZERLAND**

- ___ The world's smallest [Ex] light fitting (with a housing of only Ø 34 x 140 mm)
- ___ The standard stainless steel solution for very small sight glasses
- ___ Universally applicable: Tilting hinge (for all sight glasses) or flange collar (for screwed sight glasses or metal-fused sight glasses, in sterile environments)
- ___ 100% developed and manufactured in Switzerland, according to our quality commitment
"Swiss excellence – Since 1936"

TECHNICAL DATA

Product application

Positioning	<ul style="list-style-type: none"> ___ Positioning on sight glasses according to DIN 28120, DIN 28121, DIN 11851 or similar with tilting hinge (included in the scope of delivery, with corresponding configuration) or direct positioning on metal-fused sight glasses or screwed sight glasses with flange collar (included in the scope of delivery, with corresponding configuration) ___ Due to the small size of the nanoEx, illumination and process observation (or remote monitoring with a camera system) can be carried out through the same sight glass from a nominal size of DN 50 (apart from setups with flange collars) ___ No restrictions with regard to the installation position ___ One-stop-shop, including technical support: We will be happy to support you in the selection of a suitable sight glass
Fixation	Configurable: Without (for metal-fused sight glasses) or with flange collar (for screwed sight glasses) or with tilting hinge (for DIN 28120/ DIN 28121/ DIN 11851)
Ambient temperature (T _a)	-20°C to +60°C (with automatic/ adaptive power control, see description below)
Pressure	The application is independent of internal vessel pressure or vacuum
Protection	Dust-tight and jet-proof to IP 66/68 (according to EN 60529)
Conformities	CE, ATEX (according to Directive 2014/34/EU), and IECEx

Explosion protection	
Conformity to standards	EN IEC 60079-0, EN IEC 60079-1, EN IEC 60079-28, and EN IEC 60079-31
Certificates: IECEx	SEV 23.0008
Certificates: ATEX	SEV 24 ATEX 0729
Explosion protection: Gas	Ⓔ II 2(1) G Ex db [op is Ga] IIC T4 Gb (or T5 on request)
Explosion protection: Dust	Ⓔ II 2(1) D Ex tb [op is Da] IIIC T130°C Db (or T100°C on request)
Temperature classes	<input type="checkbox"/> Standard: T4/ T130°C (at T _a +60°C) <input type="checkbox"/> On request: T5/ T100°C (at T _a +40°C)
Optical intrinsic safety (Ex op is)	<input type="checkbox"/> Maximum safety and versatile application options thanks to optical intrinsic safety (certified according to EN 60079-28) <input type="checkbox"/> Optical intrinsic safety ensures that even under fault conditions, the optical radiation does not have sufficient energy to ignite an explosive atmosphere <input type="checkbox"/> Accordingly, light fittings with inherently safe optical radiation may also illuminate highly potentially explosive atmospheres in Zone 0 <input type="checkbox"/> Please note that only MAX MÜLLER light fittings have optical intrinsic safety
Electrical data	
Operating mode	Continuous operation (i.e., without push-button/ without switch)
Supply voltage	24V DC (not suitable for AC)
Power	6 watts (= input)
Power supply cable	<input type="checkbox"/> Configurable: Without, with 5 meters, or with 10 meters <input type="checkbox"/> Other cable lengths available on request <input type="checkbox"/> The maximum wire cross section is 1.5 mm ² (two-pole cable)
Cable gland	Vertical cable gland
Lighting data	
Light source	<input type="checkbox"/> PowerLED© module (100% developed and manufactured in Switzerland) <input type="checkbox"/> Long lifespan (up to approximately 50,000 hours) and high operational reliability (vibration-resistant)
Luminous flux	700 lumens (= output, equivalent to a halogen luminous flux of ~50W)
Efficiency level	<input type="checkbox"/> The PowerLED© module has a high efficiency level of 117 lumen/watt <input type="checkbox"/> Please note that the watt number only reflects the power consumed (= input), not the luminous flux produced (= output, indicated in lumens) <input type="checkbox"/> Alternative products with higher watt numbers may have a lower output (in lumens) if they are less efficient <input type="checkbox"/> In these cases, less energy (= input) is converted into light (= output), but rather into heat
Energy efficiency class	E (light source)
Adaptive power control	<input type="checkbox"/> Automatic power control which reduces (or increases) the luminous flux depending on the ambient temperature <input type="checkbox"/> To protect the LEDs/ electronics at increased ambient temperatures (to avoid operating failures and repair costs) <input type="checkbox"/> Luminous flux in continuous operation: 100% up to an ambient temperature (T _a) of +50°C, then reduction to ~90% at +60°C

Color temperature	Configurable: 4,000 kelvins or 6,500 kelvins
Color rendering index	CRI > 80 R _a
Light output angle	~9°
Photobiological safety	RG1 = "Low risk" (according to IEC 62471)

Housing data/ customs data

Dimensions	34 x 140 millimeters (diameter x length, without cable gland)
Materials	___ Housing: 1.4301/ 304 ___ Glass plate: Borosilicate (DIN 7080)
Housing surface	Ra < 0.8 µm
Marking	Laser marking (standard)
Net weight	0.7 kilogram (in the standard configuration)
Country of origin	Switzerland (100% developed and manufactured in Switzerland)
Customs tariff numbers	___ CH: 9405.4200 (https://xtares.admin.ch/tares) ___ EU: 9405.4239 (https://www.zolltarifnummern.de) ___ USA: 9405.42.0000 (https://www.census.gov)

PRODUCT CONFIGURATION

___ This light fitting is a configurable product

___ The configuration is clearly defined by the order code

___ The order code consists of (a) the item (in **bold**) and (b) the configuration (consisting of four characteristics):

(a) Item

(b) Configuration

nanoEx 700 24V DC X_X_X_X

(4) Power supply cable	#	Without
	05mK	5 meters
	10mK	10 meters
		Other cable lengths available on request
(3) Color temperature	4.0K	4,000 kelvins
	6.5K	6,500 kelvins
(2) Cable gland	K1	Vertical cable gland
(1) Fixation	SCH	Tilting hinge for DIN 28120/ DIN 28121 (with M4)
	SCH2	Tilting hinge for DIN 28120/ DIN 28121 (with M6)
	SCH1	Tilting hinge for DIN 11851 (with M4)
	R	Without (housing designed for flange collars/ MVS)
	R50	With flange collar for SSA DN 50
	R65	With flange collar for SSA DN 65
	#	Without (standard housing designed for fixations)

___ In the table above, the standard configuration is stated at the top of each characteristic (in **bold**)

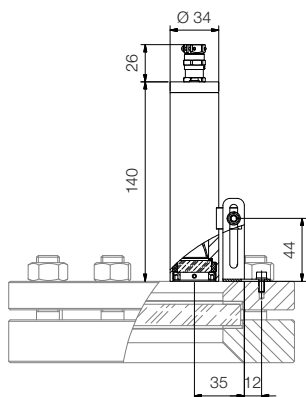
___ Example: Order code for the standard configuration: nanoEx 700 24V DC SCH_K1_4.0K_#

___ We will be happy to add your item number to our system, so that it will be shown on all documents/ labels

SETUP/ DIMENSIONS (INDICATED IN MILIMETERS)

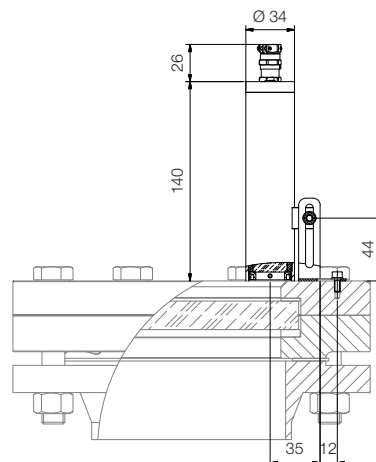
On circular sight glasses to DIN 28120

Product series of sight glass: 28120
Fixation of light fitting: "SCH" or "SCH2"



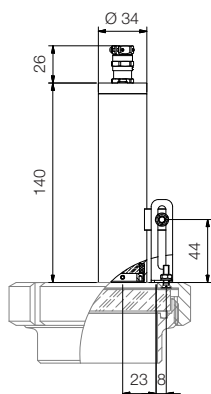
On circular sight glasses to DIN 28121

Product series of sight glass: 28121
Fixation of light fitting: "SCH" or "SCH2"



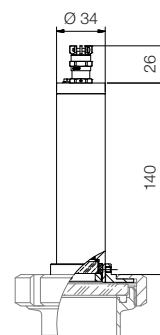
On screwed sight glasses

Product series of sight glass: SSA
Fixation of light fitting: "SCH1"



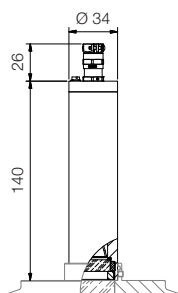
On screwed sight glasses

Product series of sight glass: SSA
Fixation of light fitting: "R50" or "R65"

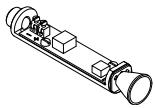



On metal-fused sight glasses

Product series of sight glass: MVS
Fixation of light fitting: "R"



ADD-ONS AND SPARE PARTS

		Item number	Country of origin	Weight (in kilograms)
LED modules				
	PowerLED© module, 700 Lm, 24V DC, 4,000 K	A104785	CH	0.030
	PowerLED© module, 700 Lm, 24V DC, 6,500 K	A104961	CH	0.030
Flange collars				
	Flange collar for screwed sight glass, DN 50	A105198	CH	0.118
	Flange collar for screwed sight glass, DN 65	A105199	CH	0.147