

# Malux



## Explosion-Protected Light Fitting for Zones 2 and 22 Series nD161/162...



### Applications:

Hazardous locations of zones 2 (gas) and 22 (dust) as standard illumination or as emergency illumination in combination with light power supply units (see separate pages of our catalogue).

### Design:

**Housing:** Glass fibre reinforced polyester resin; EPDM gasket.

**Cover:** Injected clear polycarbonate (PC) with internal prisms.

**Closure:** Stainless steel clips (KE), one of them as safety clip (KES), to be opened with screwdriver only. Stainless steel hinges (SC) on the opposite side.

**Reflector:** Suspensible, glass fibre rein-

forced polyester, carrying the electrical components which are protected against accidental contact.

**Connection:** 2 poles up to 2,5 mm<sup>2</sup>.

**Cable entries:** 2 entries M20

(2 glands - one of them is plugged)

**Through wiring system** up to 5 x 2,5 mm<sup>2</sup> at additional charge.

**Standard:** Horizontal, facing downwards or forwards

**Mechanical installation:**

There are closed knock-outs in the housing for direct ceiling mounting. Sealing gaskets can be found inside the luminaire. (Mounting accessories please see spare parts/accessories).

### Shock tested:

1 x 18/36W	RK 4,0/40B
1 x 58W	RK 1,6/16A
162 2..	RK 2,5/25A

shock and earth-quake tested (by TÜV)

**DB** standardized by Deutsche Bahn AG

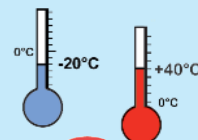
### Schuch Quality - your advantage:

- a high-quality chemically resistant light fitting of a sturdy design, best suitable for a long-time application in industrial areas

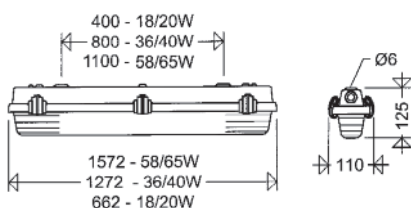
  - housing made from glass fibre reinforced polyester resin of a high impact resistance, wall thickness: 2 mm
  - injection moulded diffuser from highly shock resistant polycarbonate, resistance impact: 16 Nm
  - captive clips made from stainless steel
  - shock and earth-quake tested (by TÜV)
  - wide range of Permissible ambient temperature from -20°C to +40°C (50°C on request)
- "end-of-life switching-off system" i.e. at the end of its life a fluorescent tube is safely switched off
- best suitable for installation and maintenance purpose ensuring simultaneously a high safety of continuous operation

  - the diffuser is hinged on one side and can be suspended, the reflector can be suspended for quick mains connection and lamp inserting/replacement
  - quick and cost saving wiring in a continuous row installation thanks to a looping facility on one small end of the housing (special version)
- high flexibility and wide range of application thanks to a great variety of equipment

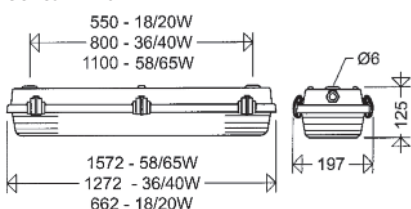
  - ATEX certification for gas and dust hazardous areas (ZONES 2 and 22)
  - with electronic ballast or low loss conventional ballast
  - for T16, T26 and T38 lamps
  - for outdoor application at high ambient temperatures, for high installation, as emergency illumination etc.
- excellent light distribution and glare limitation thanks to the diffuser with its light technically optimized internal prisms



### Series nD 161...



### Series nD 162...



### Looping the cable on one side:

Upon request the light fittings for 2 tubes can be supplied with 2 cable entries at one small end of the housing for looping the mains cable.



EC-Type Examination Certificate:

TÜV 00 ATEX 1541

Other approvals:

GOST-R/ROSTECH-NADZOR (Russia)

Ignition protection: nA / nA nC

Rated voltage: 230 V, 50Hz (VVG)

220 - 240 V AC/DC - 0 or 50/60Hz (EVG)

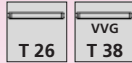
Marking:

II 3 G Ex nA nC IIC T3/T4 (Zone 2)

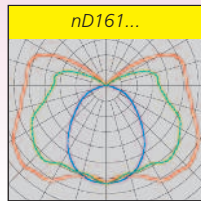
II 3 D Ex tD A22 IP65 T80-100°C (Zone 22)

Permissible ambient temperature:

-20°C bis +40°C (50°C upon request).

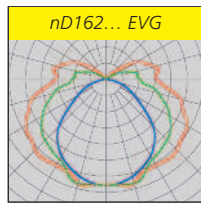


Type	Article no.	Temp. cl./ Tmax °C	Lamps W	Weight ca. kg <sup>2)</sup>
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**with low loss conventional ballast (VVG)**

nD161 118	16105 0001 <sup>1)</sup>	T3/100	1 x T38/20 / T26/18	2,3
nD161 136	16105 0005 <sup>1)</sup>	T3/100	1 x T38/40 / T26/36	3,4
nD161 158	16105 0009 <sup>1)</sup>	T3/100	1 x T38/65 / T26/58	4,3
nD162 218	16205 0001 <sup>1)</sup>	T3/100	2 x T38/20 / T26/18	3,7
nD162 236	16205 0005 <sup>1)</sup>	T3/100	2 x T38/40 / T26/36	5,5
nD162 258	16205 0009 <sup>1)</sup>	T3/100	2 x T38/65 / T26/58	7,4



**with electronic ballast (EVG)**

nD161 118 EVG	16105 0013	T4/80	1 x T26/18W	1,9
nD161 136 EVG	16105 0014	T4/80	1 x T26/36W	2,8
nD161 158 EVG	16105 0015	T4/80	1 x T26/58W	3,3
nD162 218 EVG	16205 0013	T4/80	2 x T26/18W	2,8
nD162 236 EVG	16205 0014	T4/80	2 x T26/36W	4,3
nD162 258 EVG	16205 0015	T4/80	2 x T26/58W	5,5

1) Uncomp., article nos. for comp. see price list

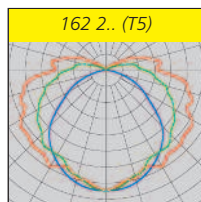
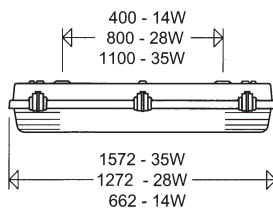
2) Weights without packing material

**NEW**

## nD161/162... (T5)



Type	Article no.	Temp. cl./ Tmax °C	Lamps W	Weight ca. kg
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nD161 114	16105 0101	T3/100	1 x T16/14W	1,9
nD161 128	16105 0102	T3/100	1 x T16/28W	2,8
nD161 135	16105 0103	T3/100	1 x T16/35W	3,3
nD162 214	16205 0104	T3/100	2 x T16/14W	2,8
nD162 228	16205 0105	T3/100	2 x T16/28W	4,3
nD162 235	16205 0106	T3/100	2 x T16/35W	5,5

**Note:**

Suitable lamps:

- FM for high light output (14, 28, and 35W)
- Equivalent long-life lamps with a service life up to 60.000 hours (manufacturers data)



## Further Series / Equipment

- with symmetrical or asymmetrical mirror-type reflectors (for electronic ballast-types only)
- wide housing with 1 lamp (Series nD162 1..)
- with through wiring up to 5 x 2,5 mm<sup>2</sup> PVC (always with earth conductor)
- with terminals up to 6mm<sup>2</sup>
- with alternative cable glands
- with monitoring module
- 2 entries at one end of the housing for looping the mains cable

- vertical mounting with lamp holder supports (not for Ø 38mm lamps)
- for outdoor application
- alternative voltages **VVG**: 220V, 60Hz or 240V, 50Hz
- for higher ambient temperatures to + 55°C
- emergency versions (Series nD 161/162.../..)





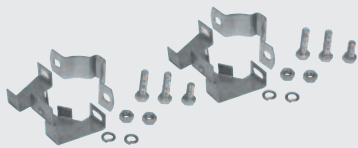
Photo: BASF

## Mounting material

### Pipe clamps 183 RO... P



### Pipe clamps 183 RO... A P



### Ceiling brackets 183 DS



Continuous row installation and through wiring system are available.

Rotary-type mirror systems and wire guards are available. Please consult us.

## Accessories / Spare Parts

Type	Article no.	Type	Article no.
<b>Spare covers for nD161/162...</b>			
161 018 PC	16111 9003	162 018 PC	16211 9003
161 036 PC	16111 9004	162 036 PC	16211 9004
161 058 PC	16111 9005	162 058 PC	16211 9005
<b>Type</b>	<b>Article no..</b>		
161 018 PC SC	16111 9012	162 018 PC SC	16211 9014
161 036 PC SC	16111 9013	162 036 PC SC	16211 9015
161 058 PC SC	16111 9014	162 058 PC SC	16211 9016
<b>Latches</b>			
KK	90053 9000	plastic	
KE	90055 9000	stainless steel	
KES	90055 9001	security clip stainless steel	
<b>Cable entries</b>			
2531	90120 9000	Ex-plastic cable gland, M20 x 1,5	
2533	90122 9000	Ex-plastic cable gland with plug, M20 x 1,5	
<b>Lamp holders</b>			
190/1	90056 9001	lamp holder (as until 2004)	
161/1 T130	90056 9004	lamp holder (as from 2004)	
161 T5 Ex	90056 9010	lamp holder T5	
183/1	90057 9000	starter holder	
<b>For pipe clamp mounting system</b>			
<b>Attention:</b> When using pipe clamps for any bracket mounting please consider mounting distances.			
183 RO 112 P	90091 0002	1/2", stainless steel clip (1 pair)	
183 RO 2 P	90092 0002	2", stainless steel clip (1 pair)	
183 RO 112H P	90226 0002	1 1/2", stainless steel with retaining clip (1 pair)	
183 RO 2H P	90227 0002	2", stainless steel with retaining clip (1 pair)	
183 RO 112A P	90093 0002	1 1/2", stainless steel, with support (1 pair)	
183 RO 2A P	90094 0002	2", stainless steel, with support (1 pair)	
<b>For rope suspension</b>			
183 R	90051 0001	eye bolt M5, stainless steel	
K16 V	90048 0001	chain 1 m long	
<b>Accessories for ceiling mounting</b>			
183 DS	90095 0001	stainless steel bracket, with screw M5	
183 S	90049 0002	hook for chain suspension	

**NEW**