

# Contact-Optima-Profile

## 3100.4026N

### Functional description of the system

The evaluation electronics monitor the safety strip, which is equipped with a terminating resistor and operates using the closed circuit principle. An amount of current defined by the resistance (8.2 k $\Omega$ ) flows through the safety strip. When mechanical pressure causes the resistance in the safety strip to drop below 5.5 k $\Omega$ , this is recognised as an actuation (evaluation electronics: LED RED). When contact resistance or a broken cable raises the resistance in the safety strip above 11.5 k $\Omega$ , this condition is recognised as a broken cable and/or fault (evaluation electronics: LED YELLOW). In both cases, the system stops (evaluation electronics: safety relays K1 and K2 open).



Principle of the crimp connection of the Optima-Plus connectors

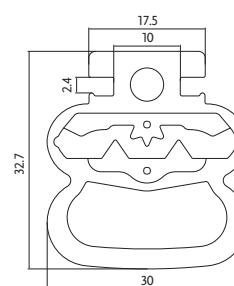
Contact-Optima-Profile	
Article no.	3100.4026N
Material	NBR
Weight	0.600 kg/m
Shore hardness	Conductive mixture: 67 +/-5 Shore A Non-conductive mixture: 54 +/-5 Shore A
Interconnection	Series connection electr. max. 10 switching strips
Min. and max. length of the switching strip	0.1 m to 100 m
Storage temperature	-10°C to +15°C respectively +25°C (DIN 7716)
Delivery length	20 m
Response time of the evaluation electronics	< 12 ms

Certified characteristic data	
Actuation force	90 N at 200 mm/s
Actuation angle ( $\alpha$ )	+/-45°
Ineffective border area	0 mm
Finger safety	no
Max. operating speed	200 mm/s
Climatic conditions	-5°C to +50°C
Level of protection	IP66, IP67 and IP69K (based on DIN 40050-9)
Number of switching cycles	> 10,000 switching cycles

Deformation travels	
Test temperature	20°C
Speed	200 mm/s
Actuation force	90 N
Pre-travel at max. operating speed	10.3 mm
Working Travel 600N	16.1 mm
Compensation travel at 250 N	5.3 mm*
Compensation travel at 400 N	6.7 mm*

\* 1.6 mm reduction because of recovery

Profile cross-section  
Contact-Optima 3100.4026N



For dimensions without tolerance particulars, tolerance-free dimensions as per DIN ISO 3302-1 E2 shall apply.

You can choose any of several different variants for compatible evaluation signals (Category 1/PL c and Category 3/PL e, SIL3).