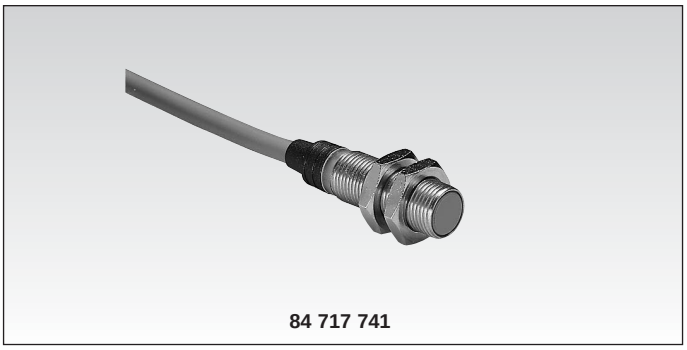
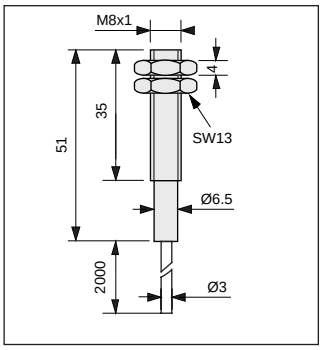
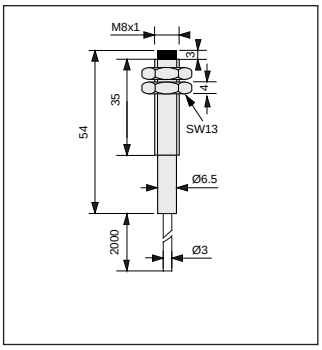
NAMUR Inductive Proximity Detectors (Acc. DIN 19234) M8 - M12



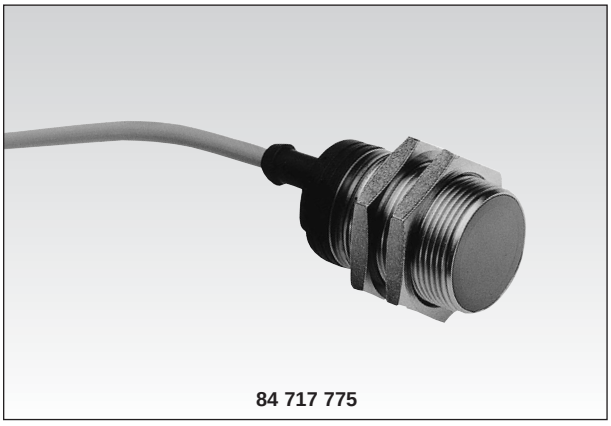
84 717 741



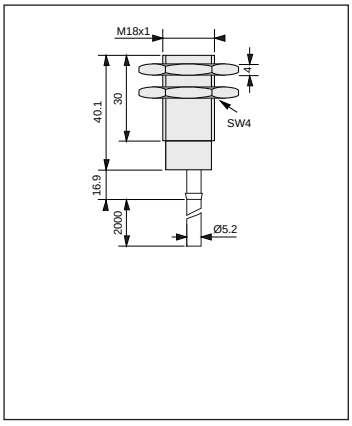


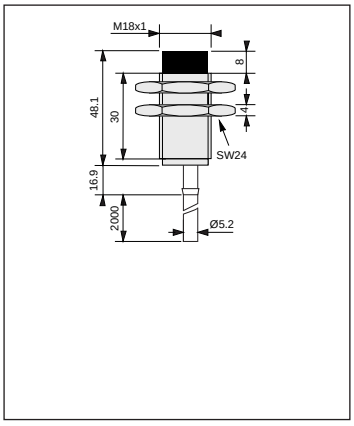
Form	M8 screened	M8 non-screened
Nominal sensing distance Sn (mm)	1	2
Housing	Stainless steel	Stainless steel
Tightening torque (Nm)		
Termination	2 m PVC cable	2 m PVC cable
Part numbers		
2-wire DC NAMUR types		
NC	**84 717 707**	**84 717 709**
Min/max. supply voltage	6 to 35 V ⎓	6 to 35 V ⎓
ON state current with V supply=8.2 V	< 1 mA	< 1 mA
OFF state current with V supply=8.2 V	> 2.2 mA	> 2.2 mA
Current at specified Sn with V supply=8.2 V	1.55 mA	1.55 mA
Max. current (Ia)	9.35 mA	9.35 mA
Switching frequency (F)	2 kHz	1.5 kHz
Conductor cross-section / External cable diameter	2 x 0.14 mm² / 3 mm	2 x 0.14 mm² / 3 mm
Accessories		
Mounting flanges, see page 3/102		
Connectors, see page 3/100 to 3/101		

NAMUR Inductive Proximity Detectors (Acc. DIN 19234) M18 - M30



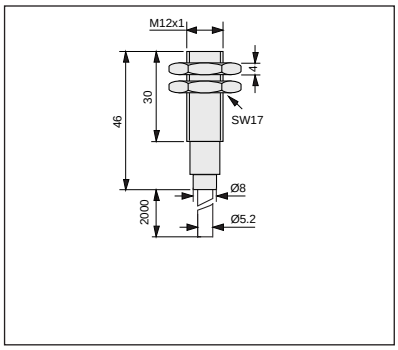
84 717 775





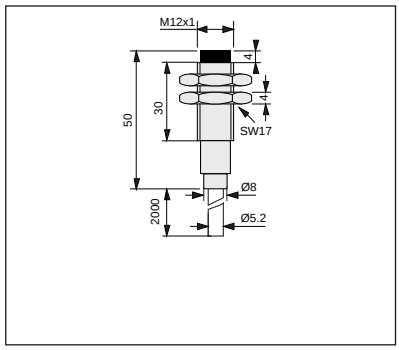
Form	M18 screened	M18 non-screened
Nominal sensing distance Sn (mm)	5	5
Housing	Stainless steel	Stainless steel
Tightening torque (Nm)		
Termination	2 m PVC cable *M12 plastic connector	2 m PVC cable *M12 plastic connector
Part numbers		
2-wire DC NAMUR types		
NC	**84 717 755 *84 717 767**	**84 717 757 *84 717 769**
Min/max. supply voltage	6 to 35 V ⎓	6 to 35 V ⎓
ON state current with V supply=8.2 V	< 1 mA	< 1 mA
OFF state current with V supply=8.2 V	> 2.2 mA	> 2.2 mA
Current at specified Sn with V supply=8.2 V	1.55 mA	1.55 mA
Max. current (Ia)	9.35 mA	9.35 mA
Switching frequency (F)	500 Hz	200 Hz
Conductor cross-section / External cable diameter	2 x 0.5 mm² / 5.2 mm	2 x 0.5 mm² / 5.2 mm
Accessories		
Mounting flanges, see page 3/102		
Connectors, see pages 3/100 to 3/101.		

Other information
Special adaptations are available depending on the type of request and quantity required. Eg. cable length, tube length, connector type, etc.



M12 screened
2
Stainless steel
2 m PVC cable *M12 plastic connector

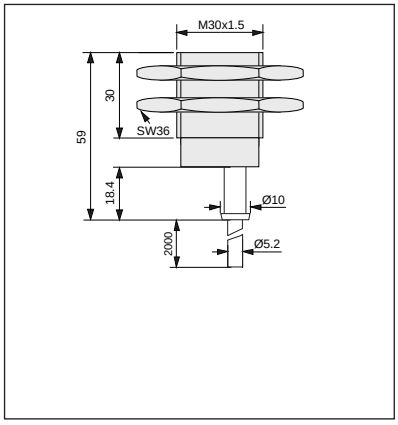
84 717 731	***84 717 743**
6 to 35 V ⎓	
< 1 mA	
> 2.2 mA	
1.55 mA	
9.35 mA	
800 Hz	
2 x 0.5 mm² / 5.2 mm	



M12 non-screened
4
Stainless steel
2 m PVC cable *M12 plastic connector

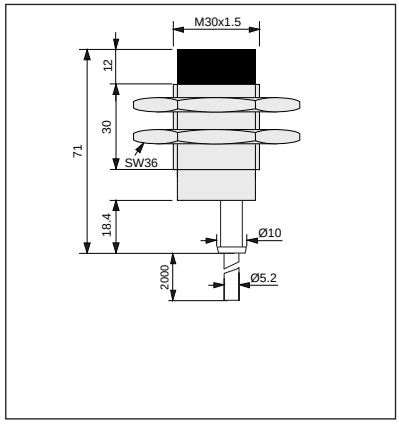
84 717 733	***84 717 745**
6 to 35 V ⎓	
< 1 mA	
> 2.2 mA	
1.55 mA	
9.35 mA	
800 Hz	
2 x 0.5 mm² / 5.2 mm	

1



M30 screened
10
Stainless steel
2 m PVC cable *M12 plastic connector

84 717 779	***84 717 791**
6 to 35 V ⎓	
< 1 mA	
> 2.2 mA	
1.55 mA	
9.35 mA	
300 Hz	
2 x 0.5 mm² / 5.2 mm	



M30 non-screened
15
Stainless steel
2 m PVC cable *M12 plastic connector

84 717 781	***84 717 793**
6 to 35 V ⎓	
< 1 mA	
> 2.2 mA	
1.55 mA	
9.35 mA	
100 Hz	
2 x 0.5 mm² / 5.2 mm	

1

To order, specify:

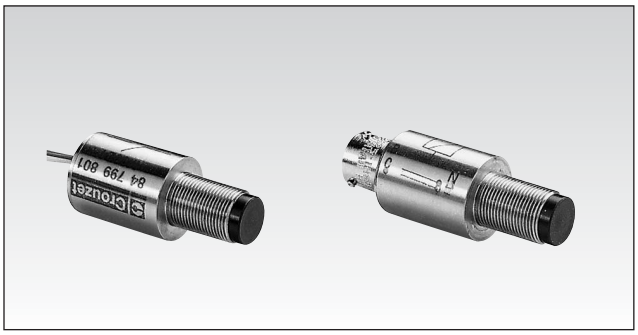
Standard products, non stocked

1 Part number

Example : Inductive proximity detector M8 84 717 707

Inductive Proximity Detectors for Severe Environments

- **Inductive detector for severe environments**
- **Operating range : - 55 °C to + 105 °C**
- **Conforms with standards :**
  - EUROCAE ED 14 C
  - MIL STD



Nominal sensing distance Sn (mm)		2.5 ±0.25	2.5 ±0.25
Material	Housing	Stainless steel	Stainless steel
	Face	Rilsan	Rilsan
Termination		1m wire	Connector

Part numbers

1

3-wire DC types

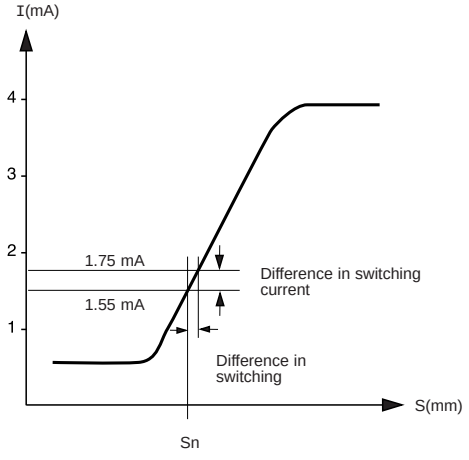
NPN	**NO**	**84 799 801**	**84 799 803**
	NC	**84 799 802**	**84 799 804**
Min/max. supply voltage		12 to 32 V ⎓	12 to 32 V ⎓
Switching current		1 to 250 mA resistive	1 to 250 mA resistive
Max. off-load current consumption		8 mA	8 mA
Residual voltage at 25 °C		2V 250 mA	2V 250 mA
Switching frequency		250 Hz	250 Hz
Termination		3 x 0.6 mm² wires	Type ASN E0053 N8133PN
Sealing (MIL - S - 8 805)		Dust	Immersion in water
Protection	against mis-connections of any type	yes	yes
	against accidental voltage surges of short duration	yes	yes
	against indirect lightning effects	yes	yes
	against radio-electrical interference	yes	yes

Inductive Proximity Detectors NAMUR (Acc. DIN 19234)

Operating principle

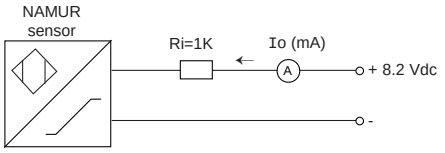
NAMUR sensors (DIN 19234) are 2-wire DC proximity detectors with no trip or output amplification stage. They are polarised and their internal impedance alters in proportion to the distance between the sensor face and the target. NAMUR sensors are designed for use with an external amplifier which converts the variations in impedance into digital signals.

Output characteristics

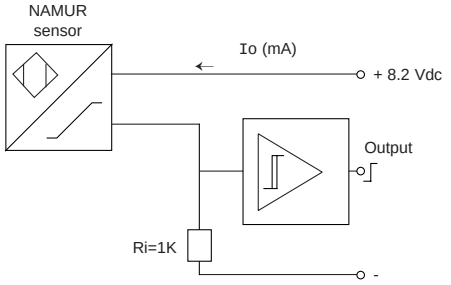


Wiring diagrams

Without external amplifier



With external amplifier



The nominal sensing range (Sn) specified corresponds to a current consumption of 1.55 mA with a supply voltage of 8.2 V to the circuit and Ri = 1 Kohm. The table below gives the level of current consumption at nominal sensing range (Sn) for other supply voltage and resistance values.

Supply voltage V (Vdc)	Resistance Ri (Kohm)	Current consumption I at Sn (mA)
5		
12	0.39	0.7
15	1.8	2.3
24	2.2	2.9
	3.9	3.8

To order, specify :

Standard products, non stocked

1 Part number

Example : Inductive proximity detector 84 799 801