DATA SHEET INDUCTIVE SENSOR V1.0

Q18 PLASTIC RECTANGULAR SERIES

ARTICLE PROPERTIES

SENSOR TYPE	Inductive sensor
SIZE	18 x 18 x 35 mm
RATED OPERATING DISTANCE	*see table*
NUMBER OF CONDUCTORS	2-wire / 3-wire *(see table)*

CONNECTION TYPES (*see table*)

- cable — PVC, 0.34 mm², 2 m**

** other cable lengths are available on request

MECHANICAL DATA

MOUNTING (mounting nuts included in delivery)	flush/non-flush (*see table*)
HOUSING	rectangular
MATERIAL HOUSING	PBT
MATERIAL SENSING SURFACE	PBT
TIGHTENING TORQUE LOCKING	1 Nm
STANDARD TEST	FE360
ATTENUATION COEFFICIENT	St37 = 1, V2A = 0.7, Al = 0.3

ELECTRICAL DATA

OPERATING VOLTAGE	DC: 10 ... 30 V DC AC: 20 ... 250 V AC AC/DC: 20 ... 250 V AC/DC
RATED OPERATING CURRENT	2-wire DC: ≤ 100 mA 2-wire AC: ≤ 200 mA 3-wire: ≤ 200 mA
SWITCHING FREQUENCY	*see table*
SWITCHING OUTPUT	*see table*
FUNCTION INDICATOR	yellow LED
HYSTERESIS	3 ... 15 %
TEMPERATURE DRIFT	±10 %
SHORT-CIRCUIT PROTECTION	yes
OVERLOAD RESISTANCE	yes
REVERSE POLARITY PROTECTION	yes

ENVIRONMENTAL CONDITIONS

PROTECTION CLASS	IP67
AMBIENT TEMPERATURE	-25 ... 70 °C
VIBRATION RESISTANCE (EN 60068-2-27)	55 Hz, 1 mm
SHOCK RESISTANCE (EN 60068-2-6)	30*g*/11 ms

STANDARDS AND DIRECTIVES

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR	DIN EN IEC 60947-5-2:2021-04

APPROVALS

CE

Q18 PLASTIC RECTANGULAR SERIES

DC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-Q18-OD6L	flush	5 mm	DC NO (WD1)	200 Hz	*see Fig. 1*
Fi5-Q18-CD6L	flush	5 mm	DC NC (WD2)	200 Hz	*see Fig. 1*
Ni8-Q18-OD6L	non-flush	8 mm	DC NO (WD1)	200 Hz	*see Fig. 1*
Ni8-Q18-CD6L	non-flush	8 mm	DC NC (WD2)	200 Hz	*see Fig. 1*

AC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-Q18-OSA3L	flush	5 mm	AC NO (WD3)	300 Hz	*see Fig. 1*
Fi5-Q18-CSA3L	flush	5 mm	AC NC (WD4)	300 Hz	*see Fig. 1*
Ni8-Q18-OSA3L	non-flush	8 mm	AC NO (WD3)	300 Hz	*see Fig. 1*
Ni8-Q18-CSA3L	non-flush	8 mm	AC NC (WD4)	300 Hz	*see Fig. 1*

AC/DC 2-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-Q18-OA41L	flush	5 mm	AC/DC NO (WD5)	300 Hz	*see Fig. 1*
Fi5-Q18-CA41L	flush	5 mm	AC/DC NC (WD6)	300 Hz	*see Fig. 1*
Ni8-Q18-OA41L	non-flush	8 mm	AC/DC NO (WD5)	300 Hz	*see Fig. 1*
Ni8-Q18-CA41L	non-flush	8 mm	AC/DC NC (WD6)	300 Hz	*see Fig. 1*

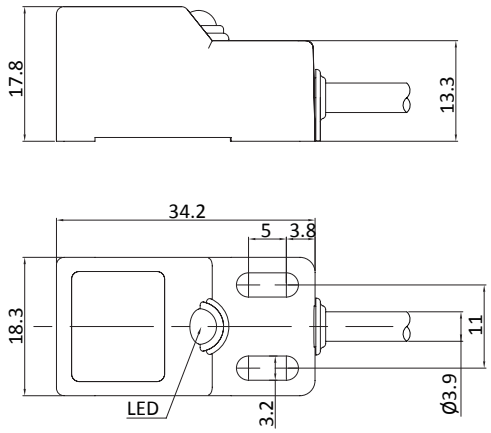
DC 3-WIRE OUTPUT CABLE

Article number	Mounting	Rated operating distance Sn	Switching output (wiring diagram)	Switching frequency	Dimensions
Fi5-Q18-OP6L	flush	5 mm	PNP NO (WD7)	1000 Hz	*see Fig. 1*
Fi5-Q18-ON6L	flush	5 mm	NPN NO (WD8)	1000 Hz	*see Fig. 1*
Fi5-Q18-CP6L	flush	5 mm	PNP NC (WD9)	1000 Hz	*see Fig. 1*
Fi5-Q18-CN6L	flush	5 mm	NPN NC (WD10)	1000 Hz	*see Fig. 1*
Ni8-Q18-OP6L	non-flush	8 mm	PNP NO (WD7)	1000 Hz	*see Fig. 1*
Ni8-Q18-ON6L	non-flush	8 mm	NPN NO (WD8)	1000 Hz	*see Fig. 1*
Ni8-Q18-CP6L	non-flush	8 mm	PNP NC (WD9)	1000 Hz	*see Fig. 1*
Ni8-Q18-CN6L	non-flush	8 mm	NPN NC (WD10)	1000 Hz	*see Fig. 1*

Q18 PLASTIC RECTANGULAR SERIES

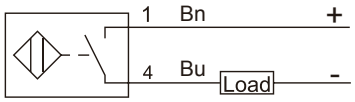
DIMENSIONS

Fig. 1 Inductive sensor with cable (flush/non-flush)

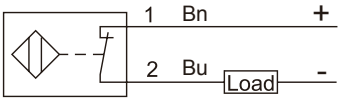


WIRING DIAGRAMS (Note: 1 / 2 / 3 / 4 connector and terminals pin number Bn / Bu / Wh / Bk cable color)

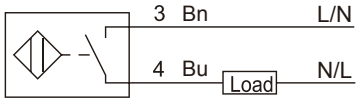
WD1 DC 2-wire NO



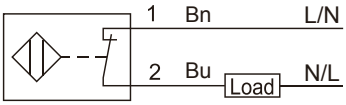
WD2 DC 2-wire NC



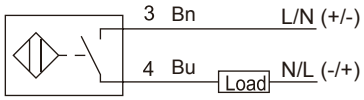
WD3 AC 2-wire NO



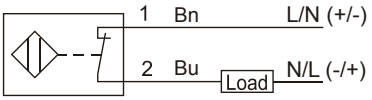
WD4 AC 2-wire NC



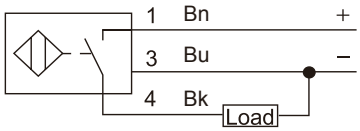
WD5 AC / DC 2-wire NO



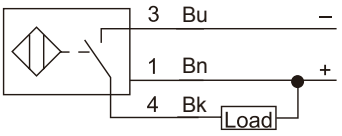
WD6 AC / DC 2-wire NC



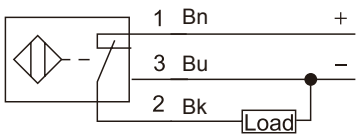
WD7 DC 3-wire PNP NO



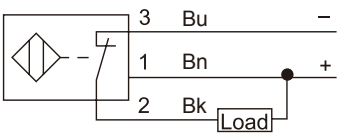
WD8 DC 3-wire NPN NO



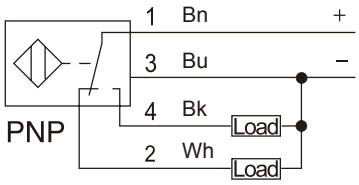
WD9 DC 3-wire PNP NC



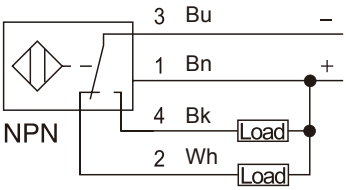
WD10 DC 3-wire NPN NC



WD11 DC 4-wire PNP NO + NC

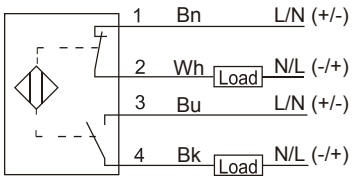


WD12 DC 4-wire NPN NO + NC

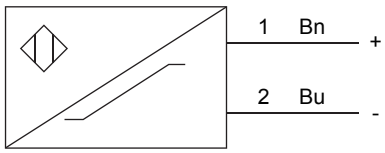


WIRING DIAGRAMS (Note: 1 / 2 / 3 / 4 connector and terminals pin number Bn / Bu / Wh / Bk cable color)

WD13 AC/DC 4-wire NO+NC



WD14 NAMUR 2-wire NC



WD15 DC 4-wire 0-10V+0-20mA